

Mobile Traffic Safety

Main catalogue 2021/22



Full **sun power** ahead with
the horizont **Solar family**

> more on page 125 and following

PolVis with remote control

> more on page 142 and following



FlashMax "Police Design"

> more on page 96 and following



PickUp VWT-LED

> more on page 156 and following



Event-Trailer **Lift & Rotate**



horizont - LED trailer Lift & Rotate

The LED board Lift & Rotate is the new mobile digital signage solution from horizont. The trailer construction can be towed by any car and is operated via a normal 230 V power connection. With the new Event Trailer it is possible to use the LED display in portrait as well as in landscape mode, because the board can be rotated by 90° with only a few flicks of the wrist.

More on page 154 and following

www.digital-signage.horizont.com



www.horizont.com/ytEventafelLiftRotate

FlashMax - Three areas of application **Portable. Easy to handle. Efficient.**

horizont - efficient traffic safety solutions

The minimized version of our collapsible delineator with integrated self-synchronizing running light system can be installed quickly and ensures safe traffic guidance at operational sites.

New:

Convenient battery level indicator on the back of the LED light!

More on page 96 and following



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








Our **service** for you!
The catalogue at a glance

Fold this page out when you browse through the catalogue and use the Quickfinder to find exactly what you are looking for!

A detailed table of contents can be found on page 3.

Our **service** for you!
Legend on used icons

Fold this page out when you browse through the catalogue and always find the correct product features!

BAST ✓	approved by German BAST (Federal Highway Research Institute)	TL ✓ xxxxxxxxxx	approved according to the German Technical Terms of delivery stated		horizont telematik system available on request, see page 131
ZTV-SA ✓	confirming to the German Technical Regulations and Guide lines for works road traffic works	K ✓ Kennung	approved according to the classification stated		interchangeable adapter
StVO ✓	confirming to German Road Traffic Regulations	WL ✓ TL-Warn- leuchten	Approved according to the Ger- man class of warning lights stated		twist-and-lock adapter
StVZO ✓	confirming to German Road Traffic Licensing Regulations	L ✓ EN 12352	approved according to the Europe- an Standards for warning lights stated		reversible system
RSA 95 ✓	confirming to German Guidelines for securing work sites on roads	DIN ✓ xxxxxxxxxx	confirms to the DIN-Norm stated		running light system
RiLSA ✓	confirming to German Guidelines for Traffic lights	DIN EN ✓ xxxxxxxxxx	confirms to the European DIN-Norm stated		controlled via GPS signal
TÜV ✓	approved by German TÜV (Technical Inspection Association)	VDE ✓ xxxxxxxxxx	confirming to the regulations of the Association of Electrical Engineering, Electronics and Information Technology e.V. (VDE) stated		controlled via radio signal
KBA EMV ✓	approved electromagnetic compatibi- lity according to the requirements of the German Federal Motor Transport Authority	NCHRP XXX ✓	confirming to the regulations of the National Cooperative Highway Research Programme stated		controlled via quartz timer
ECE ✓ xxxxxxxxxx	Identification of components on vehicles which are requiring approval corresponding to the respective norm stated	XXX ✓ Gewichts- klasse	confirming to the German weight classifications of traffic cones		magnetic base
					ready for forklift transport

The complete **All-Around-Carefree-Package** by horizont - **Made in Germany**



Design & Development

Our design team develops outstanding products on basis of innovative ideas in 2D or 3D views. By means of colour adjustments, individual elements can be highlighted and finally a tool is created from the virtual view by our 3D printer. This is how the prototypes are created at horizont.

🔗 www.horizont.com/konstruktion



Mould making

The making of injection mould tools is all from one source: from the construction to programming and finally the production of the tool. Our injection mould tools are manufactured on CNC controlled machines by our experienced employees.

🔗 www.horizont.com/formenbau



Injection moulding

Besides of an automatic material supply system the plastic injection moulding production also convinces with a state of the art handling system. The various injection moulding machines can produce 700 forms of different shapes and over 1200 articles can be manufactured.

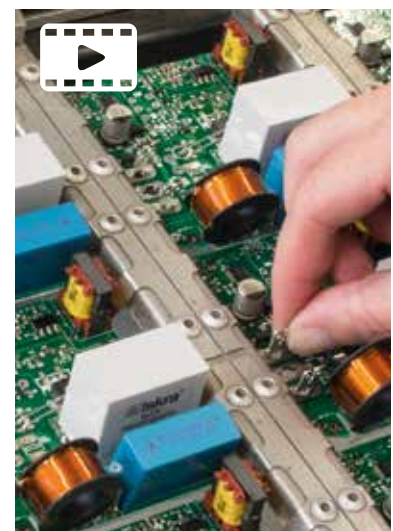
🔗 www.horizont.com/spritzguss



Customisation

Whether it requires tampon printing for curved surfaces, screen printing for plastic parts which are exposed to constant high loads, or digital printing with high flexibility in the choice of your designs - horizont provides the perfect printing process for each requirement.

🔗 www.horizont.com/bedruckung



Manual circuit board assembly

At the manual THT assembly stations (Through-Hole-Technology) complex modules for high voltage ranges (up to 12.000 V) are manufactured by hand.

🔗 www.horizont.com/lp



Fully automatic printed circuit board assembly (SMT)

SMT (Surface-Mounted-Technology) is an assembly technology for the electronic assembly of electronic components (printed circuit board assembly), enabling you to economically produce large quantities of the components. The assembly of the printed circuit boards is executed by means of a previously created program, the positioning of the components takes place via coordinates.

🔗 www.horizont.com/lp

Visit our Youtube channel and discover further interesting videos from our production - of course Made in Germany

🔗 www.horizont.com/youtubeTS

The following conditions of sale, delivery and payment shall be effective immediately. All previous conditions of sale, delivery and payment shall hereby cease to be in force.

horizont group gmbh – Korbach, 01. January 2011

1. General terms and conditions

- 1.1. Only the following terms and conditions shall be legally valid and deemed as an integral part of our offers to enter into a contract as well as our sales contracts. Any terms and conditions stipulated by the customer will not be recognized by our company, even if we do not expressly object to such terms and conditions, unless the validity of the said terms and conditions was expressly approved by our company in writing. Only the terms and conditions stipulated by our company shall be legally valid, even if the delivery of goods to our buyer is carried out by our company without reservation and upon full knowledge of any conflicting conditions or conditions which may deviate from our terms and conditions.
- 1.2. Our terms and conditions shall also apply to all future business transactions concluded with the buyer, even if we do not expressly refer to the same terms and conditions again.
- 1.3. With the exception of the managing directors, iProkuristen (holders of a general commercial power of attorney) and general agents (holders of a general commercial authority), the employees of our company are not authorized to enter into any agreement which may deviate from these terms and conditions or from our specification of services.

2. Offers and conclusion of a contract

- 2.1. Any offers made by our company are always non-binding and without engagement. The formation of a contract will only take place, if our company confirms the order of the buyer or carries out the delivery of goods.
- 2.2. All agreements which have been entered into verbally or by telephone must be confirmed in writing by our company in order to be valid. The same shall apply to supplements, alterations or collateral agreements.
- 2.3. Drawings, illustrations, weights and measures or other specifications are only binding, if this is expressly agreed upon in writing.

3. Prices and terms of payment

- 3.1. Unless otherwise provided for in the agreement, our prices shall be effective, without insurance ex warehouse or ex works, exclusive of packaging and with the addition of the respective statutory value-added tax.
- 3.2. Any data contained in brochures, advertisements, price lists and catalogues shall serve only as an approximate criterion, unless these are expressly stipulated as binding.
- 3.3. We shall make every effort to maintain the prices stipulated by our company. In the event of unforeseeable, exceptional circumstances, such as price increases by the manufacturer and currency fluctuations, we shall reserve the right to pass on the price increase to the buyer. If the price increase exceeds the specified purchase price by more than 10 %, the buyer shall have the right to withdraw from the sales contract.
- 3.4. The net invoice amount less 2 % cash discount is due for payment, if our invoice is paid within 10 days after the date of invoice. The full net invoice amount is due for payment, if the invoice is paid within 30 days after the invoice date.
- 3.5. We shall have the right to demand that the delivery is to be concurrent with the payment, without stating the reasons pertaining thereto. If our company recognizes after the conclusion of the contract that our right to counterperformance is jeopardized through the lack of financial capacity of the buyer, then we shall have the right to demand cash in advance or the provision of collateral or security. The same shall apply if the buyer is in default of acceptance or has already violated the stipulated terms of payment.
- 3.6. We expressly reserve the right to reject checks or bills of exchange. The acceptance shall always be effected on account of performance. Discounting and bill charges shall be paid by the buyer and are immediately due for payment.
- 3.7. If the buyer is in default of payment, we shall have the right to demand interest on arrears amounting to 7 % above the current base interest rate in accordance with section 1 of the DÜG. The buyer shall have the right to furnish proof that our company has not suffered any damage or that the extent of the damage sustained is much less compared to the damage claimed as a result of the default. The company reserves the right to assert a claim for higher damages.
- 3.8. An additional EURO 5.00 will be charged for every dunning notice issued after the due date of the debt. In the event of default, any agreement pertaining to respite or extension of payment as well as any period allowed for payment shall become null and void.

4. Delivery

- 4.1. The delivery of goods shall be effected through a forwarding agency. We will designate the transport company or the forwarding agent.
- 4.2. We shall make every effort to deliver the goods within the shortest possible period of time and to comply with the delivery periods or delivery dates. The dates and periods, which we have specified to the merchants, are not binding, unless otherwise expressly agreed upon in writing.
- 4.3. We shall have the right to effect partial delivery and part performance at any time provided that such partial delivery or part performance is carried out within a reasonable scale.
- 4.4. If the buyers are not merchants, then these buyers can withdraw from the contract or claim damages after a grace period of six weeks which is to be specified and which shall commence as soon as we have received the appointment of the grace period. However, the latter claim for damages is only permissible, if intention or gross negligence was committed by our company or by the persons employed by our company in performing an obligation. The extended liability pursuant to section 287 of the BGB ("Bürgerliches Gesetzbuch" or Civil Code) shall be excluded.
- 4.5. Furthermore, the following provisions shall apply to business transactions with merchants:
- 4.6. The delivery shall be carried out subject to the correct and prompt delivery of goods to us as well as the successful arrival of the goods. We are not liable for any delays in delivery and performance resulting from force majeure or similar circumstances which arise after the conclusion of the contract and which are beyond our control such as industrial disputes, official directives, irrespective of whether these delays occur at our suppliers or their subcontractors. In these cases, the delivery period is extended by the duration of the hindrance plus the length of time corresponding to a reasonable setting-up period; the maximum extension however, shall be three months. In this respect, both parties shall have the right to withdraw from the contract after the expiration of this time limit. The same shall apply if the delay causes substantial disadvantages to any of the contracting parties.
- 4.7. In all cases of delayed delivery, any claim for damages asserted by the buyer owing to the delay in delivery as well as any claim for damages in lieu of performance shall be excluded, even after the expiration of the time limit which was stipulated to us for the delivery of goods. This shall not apply, if mandatory liability accrues in the event of intention and gross negligence or as a result of health or bodily injuries or death. The buyer shall have the right to withdraw from the contract within the framework of the statutory provisions, only if our company is liable for the delay in delivery. A change in the burden of proof to the disadvantage of the buyer shall have no connection with the preceding provisions.

5. Passage of risk

- 5.1. The goods will be delivered via mail, train, forwarder or company lorry. The mode of transport will be selected by our company.

- 5.2. The goods will be transported for the account and at the risk of the buyer. This shall also apply to any possible sales returns. The risk is transferred to the buyer as soon as the goods are handed over to the transport company designated to carry the goods or to the forwarding agent. This shall also apply, if partial deliveries are carried out or if our company has assumed the performance of other obligations such as transportation charges, carriage and installation. If the forwarding of goods is carried out at a delivery date which is subsequent to the earliest possible delivery date, either at the request of the buyer or due to other reasons which are within the sphere of responsibility of the buyer, then the risk shall be transferred to the buyer upon notification of the readiness to deliver.

- 5.3. Upon request and at the expense of the buyer, we will insure the consignment of goods against theft, breakage, transport damage, damage caused by fire and water as well as other risks.

6. Reservation of ownership

- 6.1. We shall reserve the proprietary rights to the object sold until the payment of all existing and accruing receivables arising from the business relations. We will release a portion of the corresponding security interests at the request of the buyer, if the value of all security interests, to which we are entitled, exceeds the amount of all secured claims by more than 20%.
- 6.2. The buyer shall have the right to process and sell the goods subject to reservation (reserved goods) in the course of regular business activity, provided that the buyer is not in default or a petition for the opening of bankruptcy proceedings against his assets has not been filed. Any pledge or chattel mortgage as well as assignment of receivables shall be permissible, only if our written consent was previously issued in this regard.
- 6.3. If the delivered goods are processed by the buyer, the reservation of ownership with respect to the goods subject to reservation shall not expire. The processing or reconstruction shall be carried out for us as manufacturer, without any subsequent obligations being incurred by the company. If the goods owned by the buyer or by a third party are processed, we shall acquire joint ownership of the object which results from such processing; the joint ownership acquired shall correspond to the ratio of the value of goods delivered by our company (invoice value including value-added tax) to the other processed goods at the time of processing. If there is a union or mixture of the reserved goods with a principal thing owned by the buyer, then it shall already be stipulated in this agreement that the buyer shall transfer the joint ownership of the uniform goods to us on a pro rata basis. The buyer is under obligation to preserve our joint ownership for us without any remuneration. The pertinent provisions shall apply, if there is any mixture or union of the reserved goods with other goods.
- 6.4. In the event of resale, the buyer's receivables arising from the resale as well as all ancillary rights pertaining thereto shall be assigned to us by the buyer in order to provide security for our claims. If our company is only a joint owner of the goods sold, the assignment shall be restricted to the share of the receivables which corresponds to our joint-ownership share. The buyer shall have the right, until revoked, to collect, for his own account and in his own name, the receivables from the resale which were assigned to us. We shall have the right to revoke the authorization to collect, if the buyer fails to fulfill his contractual obligations, especially in the event of any delayed performance. At our request, the buyer is under obligation to disclose the debtors of the assigned receivables and to hand over all the necessary information and documents to us as well as to notify the debtors of the assignment. We shall have the right to disclose the assignment to the debtors at any time.
- 6.5. With regard to the safekeeping of the goods which are owned (jointly owned) by our company, the buyer is obliged to exercise care and to carry this out at his own expense, to insure the said goods against the risk of fire and theft and to provide evidence as to the conclusion of an insurance contract, if requested.
- 6.6. As soon as the facts are known to the buyer, the buyer is obliged to immediately inform us of any third-party access to the goods subject to reservation and to provide us with all the information and documents which are needed for an intervention. The buyer shall be liable for all the costs which have accrued for the revocation of the access (particularly through the institution of a third-party action against execution), if these costs cannot be recovered from the petitioning creditor.
- 6.7. If the behavior of the buyer is contrary to the terms of the agreement, especially in the event of a default in payment, our company shall have the right to withdraw from the contract and to take back the goods sold. The buyer is under obligation to return the goods and to defray the costs relating to the taking back of the goods. After the issuance of a warning, we shall have the right to realize or sell the reserved goods which were taken back. The realization proceeds minus the appropriate realization costs will be charged to the liabilities of the buyer.

7. Damages

- 7.1. Any claim for damages and reimbursement of expenses (hereinafter: claims for damages) by the buyer, particularly as a result of the violation of duties arising from an obligatory relation and from a tortious act, shall be excluded, irrespective of the legal reason.
- 7.2. This shall not apply, if mandatory liability accrues, e.g. in cases of intention and gross negligence, as a result of health or bodily injuries or death, as a result of any breach of major contractual duties and in accordance with the law on product liability. However, the claim for damages owing to the breach of major contractual duties shall be limited to the standard contractual, foreseeable damages, unless an intentional or grossly negligent act has been committed, or mandatory liability exists due to health or bodily injuries or death. A change in the burden of proof to the disadvantage of the buyer shall have no connection with the preceding provisions.
- 7.3. If the buyer is entitled to damage claims according to the aforementioned Article 8, then it is stipulated in Article 7.7 that these claims shall become statute-barred upon the expiration of the limitation period which applies to claims based on redhibitory defects. The statutory period of limitation shall apply to damage claims which are in accordance with the law on product liability.

8. Concluding provisions

- 8.1. The law of the Federal Republic of Germany shall apply. The applicability of the uniform UN-law on the international sale of goods (CISG) shall be excluded.
- 8.2. The place of performance for all obligations arising from this contract shall be Korbach.
- 8.3. With respect to business transactions with merchants, legal persons under public law or special assets of the Federal Government, Korbach shall be the place of jurisdiction. This place of jurisdiction shall be the exclusive place of jurisdiction for all legal proceedings instituted against our company. We hereby reserve the right to also sue the customer at a legally justified place of jurisdiction.
- 8.4. Alterations of the contract, supplements and collateral agreements must be made in writing in order to be valid.
- 8.5. If compliance with the written form is required under these terms, transmission per telex or e-mail shall also be sufficient.
- 8.6. Should any of the provisions of these general terms and conditions cease to be effective, or if there is a gap in the provisions of the contract, the validity of the other provisions shall remain unaffected. The invalid or incomplete provision shall be replaced by a provision which comes closest to the commercial essence and purpose of the desired provision.

Municipal Court, Korbach
HRB 100

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Chronicle & more

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Since 1945 we are always at your side

Always one step ahead with developments
by **horizont**



1950 – First electric fencer, battery powered

horizont develops the first battery-operated electric fencer, working location independent



...while the last food stamps are losing their validity in Western Germany.



1968 – Road hazard warning lamps

horizont products are used in road traffic and contribute to safe human life



...while the general VAT is introduced in Germany.



1979 – Solarmatic

horizont develops the first environmentally conscious, solar-powered electric fencer



... while the first World Climate Conference ever takes place in Geneva.

Foundation 1945

Every pilot knows it: the artificial horizon in the airplane cockpit. One member of the team, who developed the artificial horizon which is nowadays a technical standard, was the electrical engineer Dr. Heinz Müller. Founding his own company later in 1945, he named it in memory of this invention: horizont.

Made in Germany

For more than 70 years now, the brand horizont stands for "Made in Germany", since the foundation of the medium sized company in 1945. Our innovative products are developed according to the latest technical standards in Germany. All production steps for the manufacturing of electronic components and for almost all products made of plastics are carried out in our production facilities in Germany.

horizont today

Today the horizont group consists of a network of companies, each one a specialist in its own business segment. Currently there are more than 500 employees within the horizont group. Central distribution and logistics are carried out in Korbach, in the heart of Germany. A positive expansion in the field of traffic safety was the integration of the Klemmfix GmbH in the year 2000.

Their product line of passive traffic control perfectly complemented the well-known product range of the "horizont Signaltechnik". The integration of Müller Verkehrstechnik GmbH, a sign manufacturer, in 2017 completed the range.

Traffic Safety - your partner

Due to the continuing program of product development and resultant superior product quality, horizont Traffic Safety, one of the leading manufacturers in the field of traffic safety with an extensive range of products for traffic safety has established as a one-stop shop for our customers in industry, wholesale trade, local authorities and emergency services. Our products are especially suitable for safeguarding road workers and emergency services personnel against moving traffic while working in risk zones.

Certified quality

horizont has been certified according to DIN EN ISO 9001 since 1996. The certification is based on comprehensive product quality measures as well as permanent training of our employees with the goal to constantly improve our relationships with our customers. We are committed to providing you with the best possible service.



1945
Foundation



> 550
Employees worldwide



~ 30
Trainees



7
Locations in Europe



> 50
Patents &
Utility model



> 40.000 qm
Production- &
Storage area



1984 – LED

horizont develops products ready for series production in economical and future-oriented LED technology



... while the first email reaches
a German email account.

2013 – HOT - horizont telematik system

horizont develops a system for GPS tracking, remote monitoring and controlling of advanced warning trailers, for nationwide use (DORA and ArBIS)



... while "Rettungsroutine"
(Rescue Routine) is voted as
word of the year in Germany.

2017 – PickUp VMS trailer

horizont develops a trailer combination, which allows transportation and putting into operation of up to three horizont trailers by just one employee within the shortest time



... while the Berlin Airport is still
waiting for its grand opening.

More than **50 years** traffic safety at horizont



1968

Start of the production of road hazard lamps at the horizont gerätewerk gmbh

1975

Development of the Optima warning lamp - still in our current product range



1977

Foundation of horizont Signaltechnik Vertriebsgesellschaft mbH through merger of the traffic safety division of horizont gerätewerk GmbH and the König-Electronic, Reichelsheim (Hesse) under Managing Director Gerhard Rink

1986

Development of our first portable traffic light system SQ 1



1992

Introduction of the new flash lamp generation EuroBlitz and TeleBlitz

1999

Dipl.-Ing. Dirk Trompeter takes over the Management of horizont Signaltechnik GmbH



2001

Integration of Klemmfix GmbH, Backnang (Baden-Württemberg), for the product line passive traffic safety. Development of our delineator lamp TopLED, proven until today

2003

horizont Signaltechnik and Klemmfix merge to horizont klemmfix GmbH

2006

horizont klemmfix GmbH becomes a division of the horizont group gmbh



2007

Start of the production of safety delineators (plastic-blow-moulding-technology)

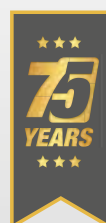


2016

horizont klemmfix becomes Traffic Safety

2017

Integration of Müller Verkehrstechnik GmbH, Rastede (Lower Saxony) for the product line traffic signs and signage



2020

horizont group gmbh celebrates 75th anniversary of its successful history. On this occasion the traffic safety division publishes a website in a new design. We are pleased to welcome you at:
www.klemmfix.horizont.com

Become a member of the horizont community!

Immerse yourself in the world of horizont and become a fan on Facebook, Instagram and YouTube!

There you will find out everything about our company, receive useful hints on our products and get to know our team. In addition we inform you regularly about news and events and you have the chance to participate in lotteries.

How-to Videos

Our how-to videos on assembly and use of our products show you step by step what needs to be considered.

Trade fairs

horizont will be present at numerous trade fairs in the coming years. On our website and on Facebook you will find the latest trade fairs.

Events

There's always something going on at horizont. Receive deep and often also amusing glimpses into what's happening at horizont.

Social projects

As a company with a long tradition, horizont is aware of its social responsibility and is involved in numerous social projects in the region. Horizont also supports charity campaigns across national borders, e.g. volunteer fire brigades, refugee aid or other charities.

Customer testimonials

Our customers report directly about the application and use of our products and give you valuable hints on product operation.

Novelties

Discover our latest product innovations, tips on how to use them and trends in mobile traffic guidance technology.



YouTube
@HorizontTrafficSafety



facebook
@HorizontTrafficSafety



Instagram
@horizontgroupgmbh

Our horizont service Comprehensive service for you



Individual consulting for major projects

In order to meet the individual requirements of large-scale projects, our trained staff looks forward to personally advising you. Together, we will find the best and, most important, the safest solution.



Individual configuration of warning trailers

Depending on the operation site, Mobile warning trailers have to meet various requirements.

We therefore offer the possibility to configure and customize your trailer individually according to your needs – for more safety!



Advanced training

We offer trainings for specialist companies and local authorities all over Germany in order to pass on expert knowledge of the extensive German guidelines (RSA) on the subject of construction site safety.

Once the participants have acquired their certificate on successful participation, they are entitled to secure constructions sites according to the applicable law. By passing on the necessary knowledge for traffic safety we contribute to higher safety for road users as well as for the workers on the construction site.



Support in issuing quote for projects

Our experienced sales employees support our customers in their tender preparation - even for complex projects. We always find a solution!



Our horizont support team. **Save. Quick. Efficient.**


We'll drive miles for you!

Our service team is on the road for you: „No way is too far for the safety on our roads. We support you on site and offer an excellent service for our products“ says Michael Bukowski, Customer Service & Support Traffic Safety. Michael is supported by his colleague Stefan Wilke – both highly motivated to help and support our customers on site.



Always the right contact!

Peter Unzicker is proud of his team: „We have many years of experience and can quickly answer any questions you may have about our products and help you competently - also by phone. So just call us!“

 **+49 (0) 56 31 / 565 - 250**





MAJA MEIER

Sales Germany

Since when? November 2014

What? Order processing and customer care in office (Brandenburg, Berlin, Bremen, Hamburg, Mecklenburg-Vorpommern, Sachsen, Sachsen-Anhalt, Schleswig-Holstein, Thüringen)

About? In her leisure time Maja loves to motorcycle in the summer, while in the winter she is a passionate skier. Independent of the seasons she enjoys going for long walks with her dog.

01

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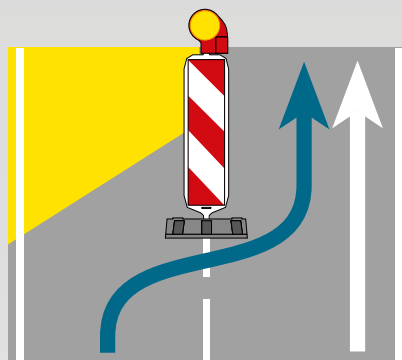
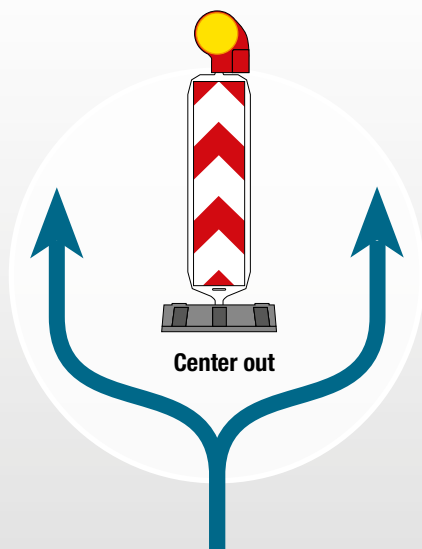
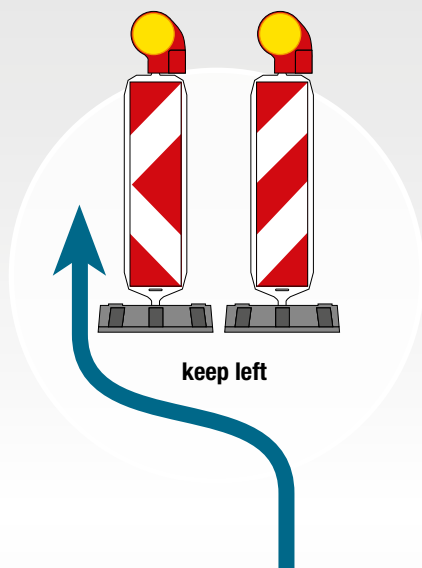
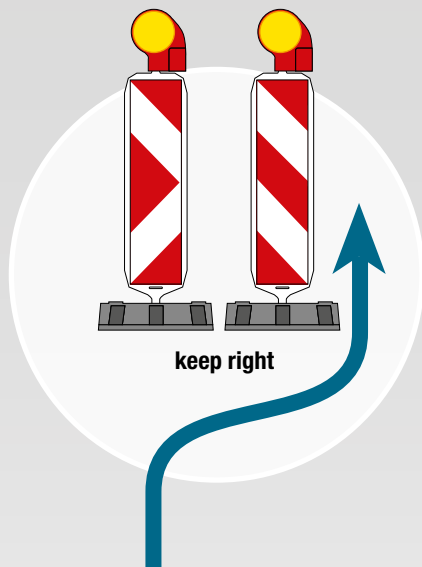
Storage & transport facilities 40-41

for Delineators and bases 40

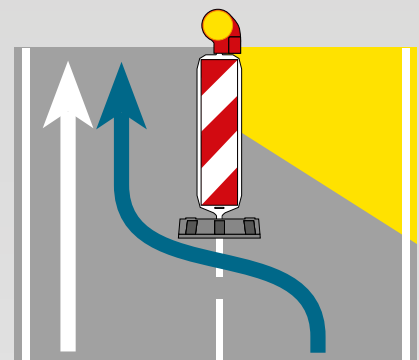
for Collapsible delineators 41

Accessories & spare parts 42-43

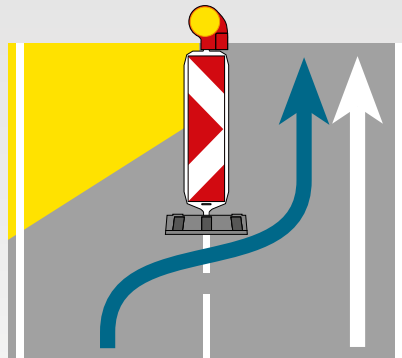
It all depends on the “right direction”



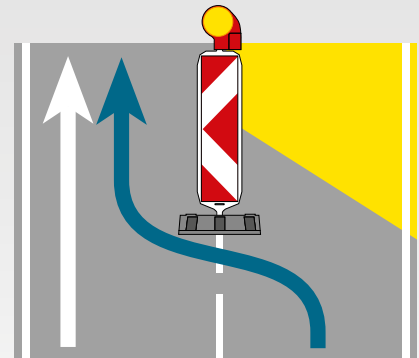
uni-directional, keep right



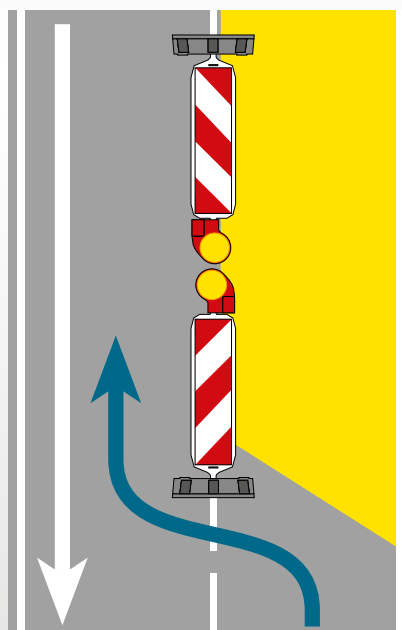
uni-directional, keep left



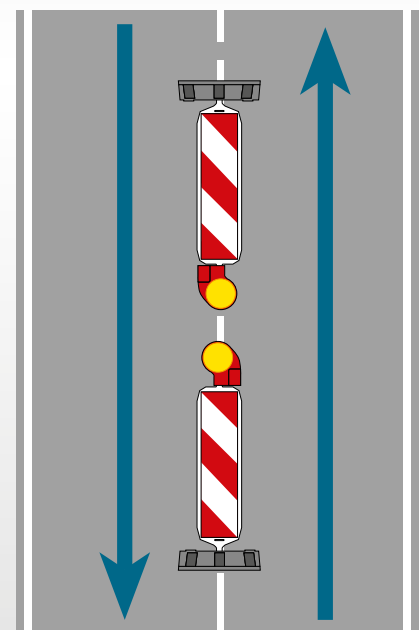
uni-directional, keep right



uni-directional, keep left



bi-directional, keep left/right



bi-directional, keep right/right

Overview of retro-reflective sheetings and their different application

Photometric performance classes of sheetings

RA1, Desing A & C

Retro-reflective materials of the standard performance grade used for traffic signs are available in desings A and C. Glass bead based materials have been successfully used for traffic signs for many years, especially for traffic signs in slow moving traffic zones, e.g. no parking signs or short – term parking signs. They are also used for tourist information signs, street signs and advertising signs. Design A materials are not rotation sensitive.

RA2, Design B & C

Class RA2 is achieved with retro-reflective sheeting of design B or C. In general, the RA2 grade offers higher retro-reflective values for improved long distance visibility at night. RA2 materials are now an established standard for traffic signs. They are mainly used for applications such as stop signs and speed restriction sings. Design B materials have especially good reflective properties at large entrance angles, e.g. at roundabouts.

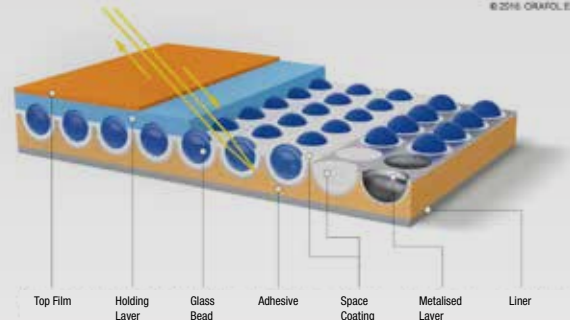
RA3, Design C

Reflective sheeting of performance class RA3 are only available as prismatic materials in design C. They provide the highest reflective performance values. These materials are used for trafic signs in areas where a particularly high degree of reflectivity is required. They are mainly used for long distance guidance signs, e.g. on motorwarys and in brightly illuminated environments.

Technical illustrations of the basic composition of different retro-reflective sheeting

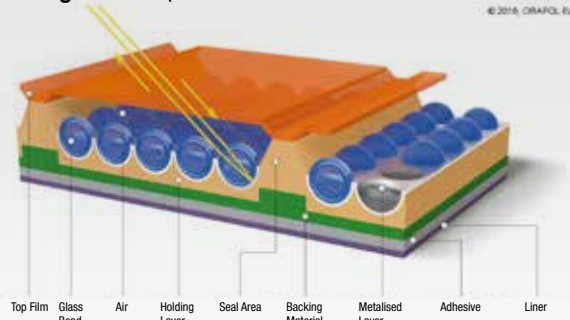
Design A - Embedded Glass Bead Construction

© 2016, ORAFOL, Europe GmbH



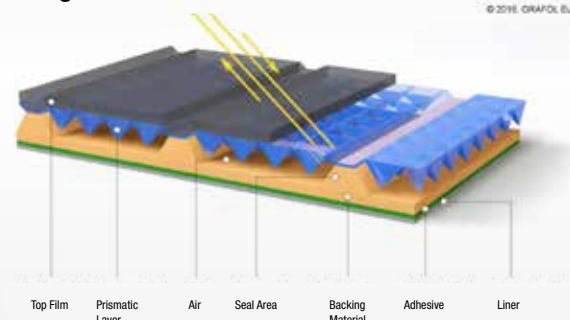
Design B - Encapsulated Glass Bead Construction

© 2016, ORAFOL, Europe GmbH



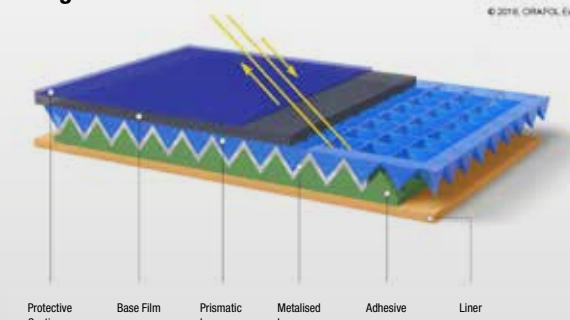
Design C - Prismatic Air-backed Construction

© 2016, ORAFOL, Europe GmbH










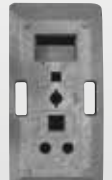
Design C - Prismatic Metalised Construction

© 2016, ORAFOL, Europe GmbH



Delineator system approved by German BAST with **fixed** adapter

NEW Turn-twist-system

RD	WD
<ul style="list-style-type: none"> Twist n'plug reversible delineator system RD. Now also approved by German BAST in combination with base K35 and TopLED. By means of a 180° rotation a right showing delineator is turned into a left showing one 	
	
TopLED, page 30	OptiLED, page 31
	
Safety delineator WD-/RD-system, page 17	Safety delineator WD-/RD-system, page 17
	
Safety base K35, page 24	Safety base D300M, page 24
	

K35-Twist-lock-system, KD

- The base plate used for the K35-system distinguishes itself by its excellent stacking properties
- Base K35 is particularly suited for the use with sign stands



TopLED, page 30
RS 2001/02, page 32



Safety delineator KD-system, page 18



Safety base K35, page 24



Standard Twist-lock-system, SD

- Due to its large contact area the safety base D300M provides a maximum of sturdiness
- Especially suited for the use on motorways due to its high sturdiness



TopLED, page 30
RS 2001/02, page 32



Safety delineator SD-system, page 19



Safety base D300M, page 24



Delineator system approved by German BAST with **exchangeable** adapter

Twist-lock-adapter-system, D

- On the horizon safety delineator with D-system the D-Adapter can be exchanged easily and cost-saving after a crash the delineator body is maintained



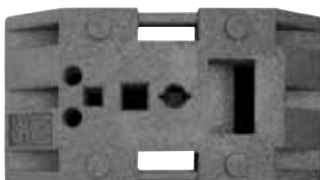
TopLED, page 30
RS 2001/02, page 32



Safety delineator
D-system, page 20



Safety base K35,
page 24



- On the horizon safety delineator with D-system the D-Adapter can be exchanged easily and cost-saving after a crash, the delineator body is maintained
- Due to its large contact area the safety base D300M provides a maximum of sturdiness



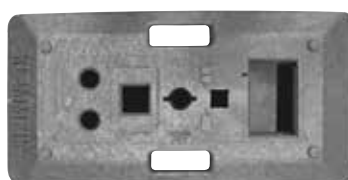
RS 2001/02,
page 32



Safety delineator
D-system, page 20



Safety base D300M,
page 24



M-adapter-system, M

- On the horizon safety delineator with M-system the M-Adapter can be exchanged easily and cost-saving after a crash - the delineator body is maintained
- The M-Adapter of the delineator with M-system are suitable for bases with 40/40 mm holes
- Due to its large contact area the safety base D300M provides a maximum of sturdiness



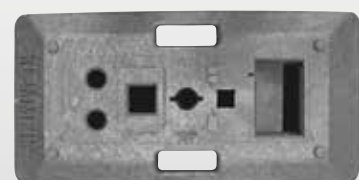
RS 2001/02,
page 32



Safety delineator
M-system, page 21



Safety base D300M,
page 24



Twist n'plug reversible delineator by horizont - make assurance double sure



The twist-lock system – developed by horizont – combines easiest handling with perfect stability and highest torsion resistance.

The integrated sturdy metal pin can be easily screwed into the adapter of the base with minimum effort. Once it has latched into the receptacle the system is sturdily mounted and crash proof.

The twist n'plug reversible delineator is equipped with an anti-twist-pin at both ends of the delineator! That's what we developed our new OptiLED for. This delineator lamp is designed for tool-free mounting via rotation at the delineator and thus crash – proof fastened to the delineator.



Twist - lock system by horizont - a crash-proof system with the flick of the wrist



The twist-lock system – developed by horizont – combines easiest handling with perfect stability and highest torsion resistance.

The integrated sturdy metal pin can be easily screwed into the adapter of the base with minimum effort. Once rotated by 90° and locked, the system is sturdily mounted and crash-proof.

The patented twist-lock system is also used in further delineator systems – WD, SD and D-system – all of them approved by the German BAST.



The D-Adapter - Replaceable in the twink of an eye



The replaceable twist-and lock adapter allows easiest handling with perfect stability and highest torsion resistance.

The integrated sturdy metal pin can be easily screwed into the adapter of the base with minimum effort. After a crash the D-Adapter can be replaced easily and cost-saving at horizont safety delineators with D-system.



The M-Adapter - Replaceable in the twink of an eye



The delineator system with M-Adapter is characterized by the fact that the adapter bends over at the pre-determined breaking point.

In combination with the recessed sheeting area the delineator is protected against major damages.

After a crash the M-Adapter can be replaced with little effort and at low costs.



Delineator WD-/RD-system

Double twist-lock system approved by German BAST

Make assurance double sure! No problem: with the chevron twist n'plug delineator you can turn a right-pointing delineator into a left-pointing delineator and vice-versa with literally „the flick of the wrist“. The twist n'plug reversible delineator is now equipped with an anti-turn-pin at both ends of the delineator thus enabling the tool-free mounting of the purpose built road hazard lamp OptiLED.

The integrated sturdy metal pin can be easily screwed into the adapter of the base with minimum effort. Once it has been latched into the receptacle the system is sturdily mounted and crash-proof.

- **optimized for use with the purpose built OptiLED and base D300M**
- **New since 2019: approved by German BAST in combination with base K35 and TopLED.**
- designed for motorways, approved by German BAST according to TL-Leitbaken
- a right-showing delineator becomes a left-showing delineator by turning it 180°
- chevron sheeting type RA2
- twist-lock system
- twisting in and out in both directions possible
- recessed sheeting area
- specially thick-walled, bellied and solid delineator body
- no extra securing pin require



Part No.	Description	BAST approved	PQ
25574PSDD	one-sided, chevron sheeting RA2	✓	30






Direct link:

✓ www.horizont.com/25574PSDD

Weight approx., kg	Dims. / delineator H*W, mm	Dims. / sheeting, H*W, mm
4.15	1,280 * 300	1,000 * 250

Twist n'plug reversible delineator by horizont – ONE delineator for TWO passing directions!



Safety delineator	Approved system	Warning Lamp	Safety base
Reversible delineator WD-/RD-System 	WD-system	OptiLED (page 31) 	Safety base D300M (page 24) 
	RD-system	TopLED (page 30) 	Safety base K35 (page 24) 

Our service for you!
The WD- system at a glance

Choose the right products in order to build a system approved by the BAST.

Please find an overview about all systems available on pages 14-15



Safety delineator KD-system

Unilateral twist-lock system approved by German BAST

The twist-lock system – developed by horizont – combines easiest handling with perfect stability and highest torsion resistance. The integrated sturdy metal pin can be easily screwed into the adapter of the base with minimum effort. Once it has latched into the receptacle the system is sturdily mounted and crash-proof.

- **optimized for use with TopLED lamp and safety base K35**
- **approved by German BAST according to TL-Leitbaken**
- sheeting type RA1 or RA2
- twist-lock system
- twisting in and out in both directions possible
- recessed sheeting area
- especially thick-walled, bellied and solid delineator body
- no extra securing pin required
- also available with chevron sheeting

Part No.	Description	BAST approved	PQ
25572KD	right/left showing, RA1	✓	30
25576KD	right/left showing, RA2	✓	30
25577KD	right/right showing, RA2	✓	30
25574KD	left showing, RA2	✓	30
25575KD	right showing, RA2	✓	30

Direct link:





✓ www.horizont.com/25572KD

Weight approx., kg	Dims. / delineator H*W, mm	Dims. / Sheeting, H*W, mm
3.5	1,225 * 300	1,000 * 250

Our service for you! The KD-system at a glance

Choose the right products in order to build a system approved by the BAST.

Please find an overview about all systems available on pages 14-15

Safety delineator	Approved System	Warning lamp	Safety base
Safety delineator KD twist lock system	KD-system	TopLED (page 30) 	Safety base K35 (254941, page 24) 
		RS 2001 / 2002 (page 32) 	



Safety delineator SD-system

Unilateral twist-lock system approved by German BAST

The twist-lock system – developed by horizont – combines easiest handling with perfect stability and highest torsion resistance. The integrated sturdy metal pin can be easily screwed into the adapter of the base with minimum effort. Once it has latched into the receptacle the system is sturdily mounted and crash-proof.

- optimized for use with TopLED lamp and safety base D300M
- approved by German BAST according to TL-Leitbaken
- sheeting type RA1 or RA2
- twist-lock system
- twisting in and out in both directions possible
- recessed sheeting area
- especially thick-walled, bellied and solid delineator body
- no extra securing pin required
- also available with chevron sheeting

BAST

TL


Leitbaken







Direct link:

www.horizont.com/25572SD

Part No.	Description	BAST approved	PQ
25572SD	right/left showing, RA1	✓	30
25576SD	right/left showing, RA2	✓	30
25577SD	right/right showing, RA2	✓	30
25574SD	left showing, RA2	✓	30
25575SD	right showing, RA2	✓	30

Weight approx., kg	Dims. / delineator H*W, mm	Dims. / Sheeting, H*W, mm
3.5	1,225 * 300	1,000 * 250

Safety delineator	Approved System	Warning lamp	Safety base
Safety delineator SD twist lock system 	SD-system	TopLED (page 30) 	Safety base D300M (25568DM, page 24) 
		RS 2001 / 2002 (page 32) 	

Our service for you!
 The SD-system at a glance

Choose the right products in order to build a system approved by the BAST.

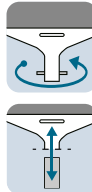
Please find an overview about all systems available on pages 14-15



BAST

TL

Leitbaken



Safety delineator D-system

Safety delineator with exchangeable D-adapter, approved by German BAST

The exchangeable twist-lock system combines easiest handling with perfect stability and highest torsion resistance. The integrated sturdy metal pin can be easily screwed into the adapter of the base with minimum effort. Once it has latched into the receptacle the system is sturdily mounted and crash proof. The D-adapter can be replaced easily, e.g. after a crash, thus saving high costs for new delineators.

- optimized for use with TopLED lamp and safety base K35
- approved by German BAST according to TL-Leitbaken
- sheeting type RA1 or RA2
- twist-lock system
- twisting in and out in both directions possible
- exchangeable D-adapter
- cost saving replacement of the D-adapter in just a few simply steps
- recessed sheeting area
- especially thick-walled, bellied and solid delineator body
- no extra securing pin required
- also available with chevron sheeting

Part No.	Description	BAST approved	PQ
25572D	right/left showing, RA1	✓	30
25576D	right/left showing, RA2	✓	30
25577D	right/right showing, RA2	✓	30
25574D	left showing, RA2	✓	30
25575D	right showing, RA2	✓	30

Recommended accessory

25578	D-Adapter 78 (for replacement) for delineators type D-system		30
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Direct link:

✓ www.horizont.com/25572D

Weight approx., kg	Dims. / delineator H*W, mm	Dims. / Sheeting, H*W, mm
4.0	1,315 * 300	1,000 * 250

Our service for you! The D-system at a glance

Choose the right products in order to build a system approved by the BAST.

Please find an overview about all systems available on pages 14-15

Safety delineator	Approved system	Warning Lamp	Safety base
Safety delineator D twist lock system	D-system	TopLED (page 30)	Safety base K35 (254941, page 24)
		RS 2001 / 2002 (page 32)	
Safety delineator D twist lock system	D-system	RS 2001 / 2002 (page 32)	Safety base D300M (25568DM, page 24)

Safety delineator M-system

Safety delineator with exchangeable M-adapter, approved by German BAST

The delineator system with M-Adapter is characterized by the fact that the adapter bends over at the predetermined breaking point.

In combination with the recessed sheeting area the delineator is protected against major damages. After a crash the M-Adapter can be replaced with little effort and at low costs.

- **optimized for use with RS2001 / 2001 LED delineator lamp and safety base D300M**
 - **approved by German BAST according to TL-Leitbaken**
 - sheeting type RA1 or RA2
 - exchangeable M-adapter, aluminium
 - cost saving replacement of the M-adapter in
- just a few simply steps
 - recessed sheeting area
 - especially thick-walled, bellied and solid delineator body
 - no extra securing pin required
 - also available with chevron sheeting

Part No.	Description	BAST approved	PQ
25572M	right/left showing, RA1	✓	30
25576M	right/left showing, RA2	✓	30
25577M	right/right showing, RA2	✓	30
25574M	left showing, RA2	✓	30
25575M	right showing, RA2	✓	30

Recommended accessory




25579	M-adapter 77 (for replacement) for delineators M-system	30
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Direct link:

www.horizont.com/25572M

Weight approx., kg	Dims. / delineator H*W, mm	Dims. / Sheeting, H*W, mm
4.0	1,240 * 300	1,000 * 250

Safety delineator	Approved system	Warning Lamp	Safety base
Safety delineator M with M-adapter 	M-system	RS 2001 / 2002 (page 21) 	Safety base D300M (25568DM, page 24) 

Our service for you!

The M-system at a glance

Choose the right products in order to build a system approved by the BAST.

Please find an overview about all systems available on pages 14-15



Standard delineator

High quality standard delineator with square foot 60 / 60 mm

The standard delineator made by horizont gains its stability from a one-piece robust plastic body and does not require any re-enforcing metal parts. The protective edge does not only fulfil its original function but also serves as an ergonomically shaped handle for transportation and set up.

- sheeting type RA 1
- square foot 60 / 60 mm
- recessed sheeting area
- also available with chevron sheeting

Part No.	Description	PQ
25487	right/left showing, RA1	72
Suitable for		
2549904	Universal base K1	30

Direct link:

www.horizont.com/25487

Weight approx., kg	Dims. / delineator H*W, mm	Dims. / Sheeting, H*W, mm
3,1	1,225 * 300	1,000 * 250



Reversible delineator 60 / 60

Reversible delineator with square foot 60 / 60 mm at both ends

The reversible delineator made by horizont gains its stability from a one-piece robust plastic body and does not require any re-enforcing metal parts. The protective edge does not only fulfil its original function but also serves as an ergonomically shaped handle for transportation and set up.

- in case one foot is damaged, the delineator can still be used with the second foot and does not necessarily have to be replaced
 - delineators with sloped reflective sheeting keep their guidance direction after reversal
 - one-sided delineators with reflective chevron sheeting change their guidance direction from "keep left" to "keep right"
- which means reduced costs for maintenance and replacement as well as for storage place as you only need to stock just one type of delineator**
- sheeting type RA1
 - two square feet 60 / 60 mm
 - recessed sheeting area

Part No.	Description	PQ
25861IROLP	60 / 60, one-sided, right or left showing, chevron sheeting RA1	72
25861IP	60 / 60, right/left showing, chevron sheeting RA1	72
25861IRRP	60 / 60, right/right showing, chevron sheeting RA1	72
Suitable for		
2549904	Universal base K1	30

Direct link:

www.horizont.com/25861IROLP

Weight approx., kg	Dims. / delineator H*W, mm	Dims. / Sheeting, H*W, mm
3,1	1,225 * 300	1,000 * 250

PREMIUM QUALITY

Made by **horizont**

Delineator systems, Road hazard lamps, Collapsible delineators
horizont In-Touch

Faizullah ***Alam***

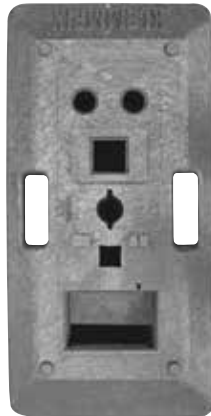
Production Team

Since when? July 2016

What? Employee in the plastic injection division

About? Faizullah originates from Logar in Afghanistan and came to Korbach via Frankfurt in 2016. He spends his free time learning German, playing volleyball or meeting up with friends.

***OUR BIGGEST
POTENTIAL -
THE PEOPLE
BEHIND THE LOGO!***



BAST ✓

K1 ✓

K30 ✓

K31 ✓

K33 ✓

Safety base D300M

For many years the safety base D300M by horizont has set the standards in the class of safety bases approved according to TL-Leitbaken. The flat design provides a large contact surface and in combination with the horizont anti-skid system this results in an excellent stability.

- for delineators with SD, WD, M-system and standard delineator
- certified by the German BAST according to TL-Leitbaken
- BAST ID: K1 / 30 / 31 / 33
- especially designed to accept delineators with D-adapter and M-adapter as well as 60 / 60 mm and 2x Ø 42 mm
- break proof
- resistant against frost, salt, exhaust fumes and oil
- battery compartment
- 2 carrying handles
- stackable
- anti-skid-system

Part No.	Description	BAST approved	PQ
25568DM	Safety base D300M	✓	30

Direct link:

✓ www.horizont.com/25568DM

Weight approx., kg

28.0

Dims. / L*W*H, mm

870 * 420 * 110

Material

Recycling

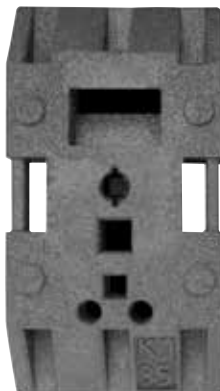
Our service for you!

Suitability of safety base D300M

Choose the right products in order to build a system approved by the BAST.

Please find an overview about all systems available on pages 14-15

Safety base	Approved systems	Safety delineator lamp	Safety delineator (all delineators of the series)
D300M (25568DM)	SD-system	TopLED (page 30) RS 2001 / 2002 (page 32)	Safety delineator SD –system (page 19)
	D-system	RS 2001 / 2002 (page 32)	Safety delineator D-system (page 20)
	M-system	RS 2001 / 2002 (page 32)	Safety delineator M-system (page 21)
	WD-system	OptiLED (page 31)	Twist n'plug reversible delineator WD-System (page 17)



BAST ✓

K1 ✓

K35 ✓

Safety base K35

Due to its special recycling mix, the K35 Safety base plate ensures the highest degree of break resistance. Its compact design, combined with the extra big stacking knobs and two ergonomically designed carrying handles confirms once again our slogan "Quality made in Germany"!

- for delineators KD and D-System and standard delineators
- certified by the German BAST according to TL-Leitbaken
- BAST ID: K1 / K35
- especially designed to accept delineators with D-adapter, as well as 40 / 40 mm, 60 / 60 mm, 2x Ø 42 mm
- break proof
- resistant against frost, salt, exhaust fumes and oil
- battery compartment
- 2 carrying handles
- stackable
- anti-skid-system

Part No.	Description	BAST approved	PQ
254941	Safety base K35	✓	30

Weight approx., kg

28.0

Dims. / L*W*H, mm

830 * 425 * 120

Material

Recycling

Our service for you!

Suitability of safety base K35

Choose the right products in order to build a system approved by the BAST.

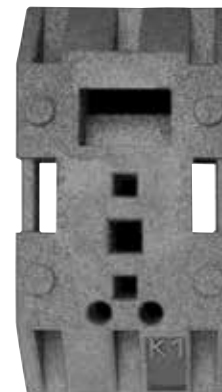
Please find an overview about all systems available on pages 14-15

Safety base	Approved systems	Safety delineator lamp	Safety delineator (all delineators of the series)
K35 (254941)	KD-system	TopLED (page 30) RS 2001 / 2002 (page 32)	Safety delineator KD-system (page 18)
	D-system	TopLED (page 30) RS 2001 / 2002 (page 32)	Safety delineator D-system (page 20)
	RD-system	TopLED (page 30)	Safety delineator RD-system (page 17)

Universal base K1

- for standard delineators and mounting devices
- Class K1
- 2x 40 / 40 mm, 60 / 60 mm and 2x Ø 42 mm
- break proof
- resistant against frost, salt, exhaust fumes and oil
- battery compartment
- 2 carrying handles
- stackable
- anti-skid studs

Part No.	Description	PQ
2549902	Universal base K1	30



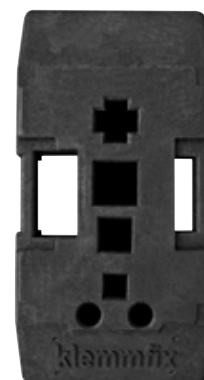
Der direkte Link zum Online-Produkt:
www.horizont.com/2549902

Weight approx., kg	Dims. / L*W*H, mm	Material
28.0	830 * 425 * 120	Recycling

Compact base

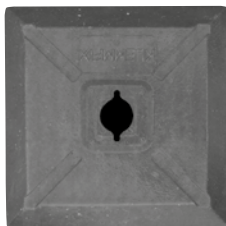
- lightweight base, less than 25 kg
- also stackable with various bases from other manufacturers
- 40 / 40 mm, 60 / 60 mm, 80 / 80 mm, 2x Ø 42 mm, 1 crosshole 80 / 40 mm
- break proof
- resistant against frost, salt, exhaust fumes and oil
- battery compartment
- 2 carrying handles
- stackable
- Euro-pallet size

Part No.	Description	PQ
25493106	Compact base	36



Direct link:
www.horizont.com/25493106

Weight approx., kg	Dims. / L*W*H, mm	Material
25.0	790 * 390 * 120	Recycling



Base D80

- D-hole – accepts Vario-hexagon posts
- break proof
- resistant against frost, salt, exhaust fumes and oil
- stackable

Part No.	Description	PQ
25080D	Base D80	80

Direct link:

www.horizont.com/25080D

Weight approx., kg	Dims. / L*W*H, mm	Material
12.0	400 * 400 * 110	Recycling



Base 80

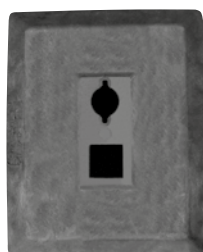
- accepts 60 / 60 mm
- break proof
- resistant against frost, salt, exhaust fumes and oil
- stackable

Part No.	Description	PQ
25080	Base 80	80

Direct link:

www.horizont.com/25080

Weight approx., kg	Dims. / L*W*H, mm	Material
12.0	400 * 400 * 110	Recycling



Base D81

- D-hole and 60 / 60 mm
- break proof
- resistant against frost, salt, exhaust fumes and oil
- stackable

Part No.	Description	PQ
25081D	Base D81	60

Direct link:

www.horizont.com/25081D

Weight approx., kg	Dims. / L*W*H, mm	Material
15.0	500 * 400 * 110	Recycling



Base 70

- accepts 40 / 40 mm, 60 / 60 mm, Ø 20 mm, Ø 43 mm, 2x 42 / 80 mm
- break proof
- resistant against frost, salt, exhaust fumes and oil
- 2 carrying handles
- stackable
- colour: silver

Part No.	Description	PQ
76070209	Base 70	32

Direct link:

www.horizont.com/76070209

Weight approx., kg	Dims. / Ø*H, mm	Material
24.0	500 * 135	Recycling

PREMIUM QUALITY

Made by **horizont**

Delineator systems, Road hazard lamps, Collapsible delineators
horizont In-Touch

Marika **Wilke**

Logistics

Since when? July 2007

What? Specialist for warehouse logistics in the receiving department

About? In her free time, Marika enjoys sports and dancing. She has got 2 dogs and enjoys spending a lot of time with them and with her family in nature.

**OUR BIGGEST
POTENTIAL -
THE PEOPLE
BEHIND THE LOGO!**

Classification of warning lamps

acc. to **TL-Warnleuchten** and **EN 12352**

Find the right warning lamp
for your application

Application	Illuminant	Optics, mm	Light emitting surface in cm ²	
Longitudinal and transversal shut-off with uni-directional light	Filament bulb or LED	180	≥ 250	
Longitudinal and transversal shut-off with bi-directional light	Filament bulb or LED	180	2 x ≥ 250	
Narrowing and transitions with uni-directional light	Filament bulb or high performance LED	180	≥ 250	
Cone flash lamps / Flash lamps (quick safeguarding lamps)	Xenon flash lights or high performance LED	180	≥ 250	
Advanced Mobile warning trailers in combination with small directional arrow with uni-directional light	Xenon flash lights or high performance LED	300	≥ 700	
Lights for Advanced Mobile Warning Trailers and small directional arrow, 2 – fold systems (also for vehicles), pre-warner, municipally used with uni-directional light	Filament bulb or high performance LED	180	≥ 250	
Advanced Mobile warning trailer 2 – fold systems (also for vehicles), pre-warner used for transition warning with uni-directional light	Filament bulb or high performance LED	300	≥ 700	
Longitudinal and transversal shut-off with 360° lamps	Filament bulb or high performance LED		≥ 30	

Find the right warning light via the
 class of warning lamps

 You know what you need?
 Then you will find the right product
 on this page...

					Class of warning lamps		You will find the lamps approved according to EN12352 on the following pages	Page
Use during					TL-Warnleuchten	EN 12352		
Effective luminous in intensity, cd								
Min.								
Max.								
Day	–	–	–	–	WL1 ✓ TL-Warnleuchten	L7 ✓ EN 12352	OptiLED , amber, uni-directional	31
Night	Yes	20	100				Optima 2001 , amber, uni-directional	35
							RS2001LED , amber, uni-directional	32
							TopLED , amber or red, uni-directional	30
Day	–	–	–	–	WL2 ✓ TL-Warnleuchten	L6 ✓ EN 12352	Optima 2001 , amber, bi-directional	35
Night	Yes	10	100				RS2002LED , amber, bi-directional	32
							TopLED , amber, bi-directional	30
Day	100%	1500	5000		WL3 ✓ TL-Warnleuchten	L8H / L8M ✓ EN 12352		
Night	Dimmed	500	1000					
Day	100%	500	1000		WL4 ✓ TL-Warnleuchten	L8M / L8L ✓ EN 12352	Euro-Blitz Compact & Synchro	86, 87
Night	Dimmed	250	500				Euro-Blitz LED & Synchro	88, 89
							Euro-Blitz & Synchro	88, 89
							Tele-Blitz LED & Synchro	90, 91
							Tele-Blitz & Synchro	90, 91
							FlashMax & Synchro	96, 97
Day	100%	1500	5000		WL5 ✓ TL-Warnleuchten	L9M / L9L ✓ EN 12352	MS 340 LED Blitz	on request
Night	Dimmed	500	1000				MS 340 Blitz	on request
Day	100%	1500	5000		WL6 ✓ TL-Warnleuchten	L8H / L8M ✓ EN 12352	RS 2000 plus	127
Night	Dimmed	500	1000				RS 2000 Halogen	on request
							RS 2000 LED	on request
							HLPK 13	on request
Day	100%	20000	40000		WL7 ✓ TL-Warnleuchten	L9H / L9M ✓ EN 12352	MS 340 LED	on request
Night	Dimmed	2000	4000				MS 340 Halogen	on request
Day	–	–	–	–	WL8 ✓ TL-Warnleuchten	L1 ✓ EN 12352		
Night	Yes	4	–					



BAST



WL1+2



TL-Warnleuchten

L6+7



EN 12352

TL



Leitbaken

TopLED Safety delineator lamp

High quality product by horizont – universal application

With the TopLED safety lamp for delineators horizont provides an extremely sturdy safety delineator lamp for versatile applications – made in Germany, of course!

- **certified by the BAST acc. to TL-Warnleuchten**
- **certified by the BAST acc. to TL-Leitbaken**
- **suitable for all SD, KD and D-delineator systems, as well as for the Vario Safety Barrier**
- no battery orientation
- photocell for night time operation
- steady (ref. 210922 also flashing light)
- only one battery required, safely secured in the integrated battery compartment
- low current consumption
- long-life LEDs
- control LED, indicating proper function during day

Part No.	Description	BAST	PQ
210912	uni-directional, amber, no bracket, steady light	✓	10
210922	bi-directional, amber, no bracket, flashing and steady light	✓	10
210932	uni-directional, red, no bracket, steady light	✓	10
210992	bi-directional, red, no bracket, steady light	–	10

Recommended accessory

21004	Uni barricade holder (5 each / bag)	1 bag
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Direct link:

✓ www.horizont.com/210912

Part No.	Weight, kg	Operation time, h (flashing / steady)			
		1 * 7 Ah	1 * 9 Ah	1 * 20 Ah	1 * 50 Ah
210912	0.8	- / 300	- / 380	- / 850	- / 1,800
210922	0.8	560 / 300	740 / 380	1,600 / 850	4,000 / 1,800
210932	0.8	- / 300	- / 380	- / 850	- / 1,800
210992	0.8	- / 300	- / 380	- / 850	- / 1,800

Our service for you!

Usability of TopLED

Choose the right products in order to build a system approved by the BAST.

Please find an overview about all systems available on pages 14-15

Safety lamp for delineator	Approved systems	Safety delineator (all delineators of the system)	Safety base
TopLED (210912, 210922)	SD-system	Safety delineator SD-system (page 19)	Safety base D300M (page 24)
	KD-system	Safety delineator KD-system (page 18)	Safety base K35 (page 24)
	D-system	Safety delineator D-system (page 20)	Safety base K35 (page 24)
	RD-system	Safety delineator WD-/RD-system (page 17)	Safety base K35 (page 24)

OptiLED Safety delineator lamp

Purpose-built for the horizont reversible delineator system WD

horizont OptiLED safety delineator lamp is purpose-built for use with our reversible delineator system "WD". The special battery "SlimLine" is incorporated in the customized flat and compact housing – easy and tool-free to mount on the reversible delineator by means of a simple 45° turn.

- **certified by the BAST acc. to TL-Warnleuchten**
- **certified by the BAST acc. to TL-Leitbaken**
- **purpose-built for use with reversible delineators "WD" system**
- photocell for night time operation
- steady light
- tool-free battery replacement
- only one battery required
- low power consumption
- long-life LEDs
- control LED, indicating proper function during day



Part No.	Description	BAST	PQ
21173	OptiLED, Safety delineator lamp	✓	10

Recommended accessory

230121	Air-alkaline battery SlimLine	24
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Direct link:

www.horizont.com/21173

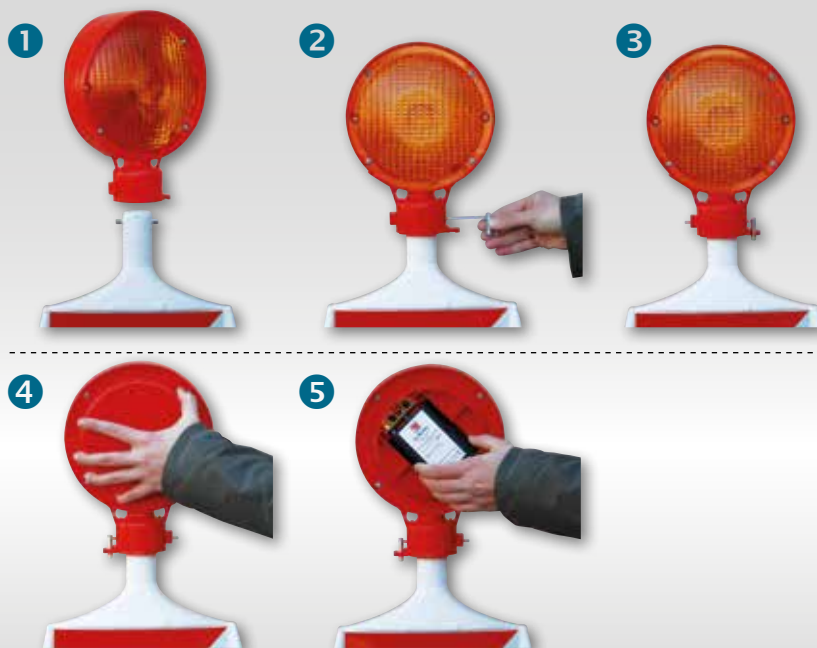
Weight approx., kg

0.8

Operation/h
1 * 12 Ah

150

OptiLED by horizont – tool-free mounting!



1 Put onto delineator and turn by 45°

2 Fasten with fixing pin

3 Ready!

4 Open tool-free

5 Replace battery - turn the lid until the stop is reached – ready!

Our **service** for you!

Usability of OptiLED

Choose the right products in order to build a system approved by the BAST.

Please find an overview about all systems available on pages 14-15

Safety lamp for delineator	Approved systems	Safety delineator (all delineators of the system)	Safety base
OptiLED (21173)	WD-system	Safety delineator WD-system (page 17)	Safety base D300M (page 24)



BAST



WL1+2



TL-Warn-
leuchten

L6+7



EN 12352

TL



Leitbaken

RS 2001 / RS 2002 LED Safety delineator lamp

Tool-free mounting with quick-release lock

horizont RS 2001 LED / RS 2002 LED is a state of the art safety delineator lamp, gaining its exceptional quality through its shock-absorbing, flexible housing. The required battery is stored in the baseplate.

- approved by the German BAST according to TL-Warnleuchten
- approved by the German BAST according to TL-Leitbaken
- suitable for all SD-, KD-, D- and M-delineator systems
- with photo cell for night time operation
- steady / flashing light
- low power consumption
- long-life LEDs
- control LED, indicating proper function during day

Part No.	Description	BAST	PQ
210372	uni-directional, amber	✓	10
210362	bi-directional, amber	✓	10

Accessory recommended

25213	battery box for 2x 4R25 battery, 6 V		1
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Direct link:

✓ www.horizont.com/210372

Weight approx., kg	Flashing rate/min.	Operation time, h (flashing / steady)	
		1 * 60 Ah	1 * 120 Ah
0.64	60	6,500 / 1,400	11,500 / 2,500

RS 2001 / RS 2002 by horizont - tool free mounting!



Insert fixing pin



Turn fixing pin



Ready!

Our service for you!

Usability of RS2001 / 02

Choose the right products in order to build a system approved by the BAST.

Please find an overview about all systems available on pages 14-15

Safety lamp for delineator	Approved systems	Safety delineator (all delineators of the system)	Safety base
RS 2001/02 (210372, 210362)	SD-system	Safety delineator SD-System (page 19)	Safety base D300M (page 24)
	KD-system	Safety delineator KD-System (page 18)	Safety base K35 (page 24)
	D-system	Safety delineator D-System (page 20)	Safety base K35 (page 24) Safety base D300M (page 24)
	M-system	Safety delineator M-System (page 21)	Safety base D300M (page 24)

PREMIUM QUALITY

Made by **horizont**

Delineator systems, Road hazard lamps, Collapsible delineators
horizont In-Touch

A woman with blonde hair and glasses, wearing a patterned shirt, is working on a red road hazard lamp in a factory setting. She is holding a blue and black power drill. The background shows industrial equipment and other workers.

Luise **Stadtler**

Production team

Since when? March 1994

What? Final assembly line for battery powered warning lamps

About? Luise is a big fan of the Borussia Dortmund Football club and often visits their matches together with her husband in order to support her team. She also loves to do Nordic walking in her leisure time.

***OUR BIGGEST
POTENTIAL -
THE PEOPLE
BEHIND THE LOGO!***

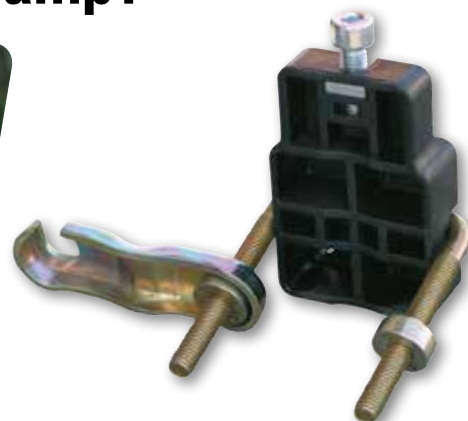
The Secura-Key – one for **ALL!**

- 1 Use the Secura - key for switching our warning lamps ON and OFF as well as for changing from static to flashing mode and vice-versa.
- 2 No further tools required! Use the Secura - key for easy and quick fixation of lamps to poles, scaffold and fences.
- 3 For battery change, just open the lamp housing with Secura key.
- 4 Quick and easy replacement of batteries without dismantling lamps from poles, etc. - just draw down lamp bottom with the Secura – key.



Buy one packaging unit / box of road hazard warning lamps type Optima or starLED and you will get 2 Secura-keys for free!

How to fix a road hazard warning lamp?



The security fixing bracket 52 mm "Secura 52" allows mounting to scaffolds and posts up to 52 mm. The security fixing bracket 82 mm "Secura 82" allows mounting to scaffolds and posts up to

82 mm. The purpose built holder "uni barricade holder" allows mounting to metal barricades. The holder fits underneath the bended edges on the back of the barricades. By this means, the front

sheeting remains fully visible. The multi-purpose fixing device "Secura Uni 52" as a two – in – one unit is the ideal combination of both fixing devices.

optima

The classic amongst road hazard warning lamps

- approved by the German BAST according to TL-Warnleuchten
- no need for battery orientation
- photo cell control for night time operation
- steady and flashing light
- no need for dismantling the lamp for battery change
- operation with 1 or 2 batteries possible
- control LED, indicating proper function during day

Part No.	Description	BAST	PQ
201752	bi-directional, amber, with Secura 52	✓	8
202172	bi-directional, red, with Secura 52		8

Recommended accessory

20104-10VP	Secura-key (10 pcs / 1 bag)	1 bag
------------	-----------------------------	-------



EN 12352



Direct link:

www.horizont.com/201752

Weight approx., kg	Flashing rate/min.	Operation time, h (flashing / steady)			
		2 * 7 Ah	2 * 9 Ah	2 * 20 Ah	2 * 50 Ah
0.8	60	720 / 180	990 / 230	2,000 / 550	5,300 / 1,400

starLED

State of the art LED technology in proven horizont quality

- no need for battery orientation
- photo cell control for night time operation
- steady and flashing light
- no need for dismantling the lamp for battery change
- operation with 1 or 2 batteries possible
- low power consumption
- long-life LEDs

Part No.	Description	PQ
20742	bi-directional, amber, with Secura 52	10
20743	bi-directional, red, with Secura 52	10

Recommended accessory

20104-10VP	Secura-key (10 pcs / 1 bag)	1 bag
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Direct link:

www.horizont.com/20742

Weight approx., kg	Flashing rate/min.	Operation time, h (flashing / steady)			
		2 * 7 Ah	2 * 9 Ah	2 * 20 Ah	2 * 50 Ah
0.8	60	3,400 / 850	4,400 / 1,100	9,500 / 2,200	24,300 / 6,100

SOLOLITE LED

Top cost-ratio performance

- photo cell control for night time operation
- steady and flashing light
- no need for dismantling the lamp for battery change
- operation with only 1 battery
- low power consumption
- long-life LEDs

Part No.	Description	PQ
252211	bi-directional, amber, with Secura 52	6
252231	bi-directional, red, with Secura 52	6

Recommended accessory

20104-10VP	Secura-key (10 pcs / 1 bag)	1 bag
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Direct link:

www.horizont.com/252211

Weight approx., kg	Flashing rate/min.	Operation time, h (flashing / steady)			
		1 * 7 Ah	1 * 9 Ah	1 * 20 Ah	1 * 50 Ah
0.8	60	500 / 120	650 / 150	1,800 / 400	4,600 / 1,100

Optimum night visibility

In Germany traffic jams are increasing more and more. The ADAC reports 189,000 traffic jams with a total length of 450,000 km per year. This is clearly more than the distance from the Earth to the Moon. On average every German is stuck in a traffic jam for 60 hours per year, that's 10 minutes of each day! And traffic volume is continuously rising. The German motorway network is 'outdated' - many tunnels and bridges have to be refurbished. Also the Federal Ministry of Transportation is expecting even more traffic jams in the next years. What to do?

Day construction sites (work sites of shorter duration) are also among the causes of traffic jams on German motorways. In addition, further accidents occur within these construction sites which result in even more congestions. The solution: many day-time construction sites could be converted into night time construction sites. At night (referred to the time between the evening and the morning rush hour traffic) the traffic volume is significantly lower.

To prevent from "less congestion" leading to 'more risk' for site staff, the legislator has established and

published the ARS No. 17/2009, a new regulation plan for night construction sites (D IV).

An important regulation: instead of traffic cones, only BAST-approved delineators have to be used for longitudinal safeguarding. In order to allow a quick deployment also the reduced version, Leitboy IV (sheeting height of 75 cm instead of 100 cm) may be used.

In contrast to traffic cones, delineators provide a larger visible sheeting surface area. Due to the planar design of the Leitboy, the headlight can be retro-reflected optimally.

Furthermore, delineators or Leitboys do also fulfil a directive function with sloped or chevron sheeting in order to show the driver where to pass the construction site safely.



BAST **BAST-approved systems for night time construction sites**

Collapsible delineator

In the event of a crash, the collapsible delineator folds down undamaged and remains in its position, while the traffic cone flies through the air as an uncontrolled projectile.

When the two sturdy hinges clearly perceptibly latch the collapsible delineator is rotation- and tilt-proof locked. Even high wind loads pose no problem for the horizont collapsible delineator.

The double-walled design leads to optimum dimensional stability.

It goes without saying that the integrated base plate of the collapsible delineator is equipped with the unique horizont anti-skid-system. Additionally the base plate is re-enforced with massive steel profiles which ensures excellent shape and position stability.

Handling becomes a child's play due to the low weight (only 12 kg) and the 2 carrying handles. All requirements as concerns transport and storage of the delineators are met by 3 different transport boxes especially designed for collapsible delineators.

Leitboy IV with base L54

The narrow base provides an outstanding stability. Due to the proven horizont two - tier profile, the base is firmly pressed on the roadway when impacted by a vehicle, thus minimizing dislocation.

In combination with the anti-skid system and a weight of 14 kg the base provides excellent position stability. The flexible rubber adapter of the sturdy double-walled Leitboy is inserted into the base via two guide slots and snap in cams. Being hit and rolled over by a car the Leitboy IV will raise back in position on its own.

Finally the arch-shaped cat's eye reflectors with 14 high performance reflectors complete the system - they make the system highly visible during night!





Collapsible delineator

Collapsible delineator with sturdy folding mechanism

horizont collapsible delineator, approved by German BAST according to TL-Leitbaken, is the smart alternative to standard delineators or traffic cones – especially when deployment has to be particularly fast and safe as well as for night time construction sites.

- **approved by German BAST according to TL-Leitbaken**
- **sheeting dimensions are reduced to 75% of the ones of a standard delineator**
- extremely sturdy folding mechanism with two hinges
- optimal visibility during the day due to a delineator body in bright orange and base plate in bright yellow, alternatively with delineator body in white and base plate in black colour
- reflective sheeting type RA2
- double-walled body
- carrying handle on delineator and base plate
- low weight, only 12 kg
- with recessed sheeting area
- anti-skid system
- also available with chevron sheeting
- also available with red/yellow sloped or chevron sheeting type RA2 C



Part No.	Description	BAST	PQ
25407KSNRL	right/left showing, sheeting type RA 2, body orange	✓	10
25407KSNRR	right/right showing, sheeting type RA 2, body orange	✓	10
25407KSNL	left showing, sheeting type RA 2, body orange	✓	10
25407KSNR	right showing, sheeting type RA 2, body orange	✓	10
25407RL	right/left showing, sheeting type RA 2, body white	✓	10
25407RR	right/right showing, sheeting type RA 2, body white	✓	10
25407L	left showing, sheeting type RA 2, body white	✓	10
25407R	right showing, sheeting type RA 2, body white	✓	10

Recommended accessory

25KC760	Transport and storage box for up to 5 collapsible delineators or Vario Sign Stands	1
25770KC	Transport and storage box for up to 20 collapsible delineators or Vario Sign Stands mounted on Euro-pallet	1
25771KC	Transport and storage box for up to 20 collapsible delineators or Vario Sign Stands, for lateral withdrawal	1



Direct link:

www.horizont.com/25407KSNRL

Weight approx., kg	Dims. / delineator, H*W, mm	Dims. / sheeting, H*W, mm	Material
12.5	970 * 315	750 * 187.5	plastics, recycling



Save. Quick. Efficient.
That's quality from horizont



BAST ✓

TL ✓
Warn-
leuchten

WL4 ✓
TL-Warn-
leuchten

**L8M /
L8L** ✓
EN 12352

Collapsible delineator with LED flash

Delineator with additional warning effect by LED – flash lamp

- with LED-flash lamp, approved by German **BAST** according to TL-Warnleuchten
- conforming to EN12352, L8M / L8L (WL4)
- permanent background light
- yellow LED flash
- extremely sturdy folding mechanism with two hinges
- optimum visibility during day time due to delineator body in bright orange and base plate in bright yellow
- sheeting type RA 2
- top section made of double-walled, blow-moulded high impact plastic (HDPE)
- carrying handle on delineator and base plate
- lightweight – only 12.5 kg
- with recessed sheeting area
- anti-skid system

Part No.	Description	BAST	PQ
25407KSNQLED2	horizontal sheeting type RA 2 on both sides, yellow LED flash lamp	✓	1
Recommended accessory			
25KC760	Transport and storage box for up to 5 collapsible delineators or Vario Sign Stands		1

Direct link:

✓ www.horizont.com/25407KSNQLED2

Weight approx., kg	Dims. / delineator H*W, mm	Dims. / sheeting H*W, mm	Material	Flashing rate/min.	Operation / h 4 * Baby LR 14
12.5	970 * 315	750 * 187.5	plastics, recycling	69	160

Collapsible delineator synchro

Sequential light, self-synchronizing – for even more efficient safeguarding of danger spots

- with LED-flash lamp, approved by German BAST according to TL-Warnleuchten
- conforming to EN12352, L8M / L8L (WL4)
- sequential light, self-synchronizing when switched on via integrated radio modules
- in contrast to conventional infrared technology, there's no need to place the units in a specific way in order to Synchroize them
- steady backlight
- yellow LED flash lamp
- extremely sturdy folding mechanism with

- two hinges
- optimum visibility during day time due to delineator body in bright orange and base plate in bright yellow
- sheeting type RA 2
- top section made of double-walled, blow-moulded high impact plastic (HDPE)
- carrying handle at delineator and base plate
- lightweight – only 12.5 kg
- with recessed sheeting area
- anti-skid system

BAST ✓

TL ✓
Warnleuchten

WL4 ✓
TL-Warnleuchten

L8M / L8L ✓
EN 12352



Part No.	Description	BAST	PQ
25407KSNQSYN	horizontal sheeting type RA 2, yellow LED flash lamp synchroizable	✓	1

Recommended accessory

25KC760	Transport and storage box for up to 5 collapsible delineators or Vario Sign Stands		1
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Direct link:

✓ www.horizont.com/25407KSNQSYN

Weight approx., kg	Dims. / delineator H*W, mm	Dims. / sheeting H*W, mm	Material	Flashing rate/min.	Operation / h 4 * Baby LR 14
12.5	970 * 315	750 * 187.5	plastics, recycling	69	160

Convince yourself online of the quick usability of the collapsible delineator synchro



✓ www.horizont.com/ytKlappbakeSynchro



✓ www.horizont.com/ytSynchroFamilie





Transport and storage box

For transport and storage of up to 30 delineators

- suitable for all horizont delineator systems
- no need to dismount warning lamps for transport or storage
- galvanized steel
- suitable for forklift transport
- with lashing straps for rigging by means of a net
- delineators not included in scope of delivery

Part No.	Description	PQ
251193006	Transport and storage box for up to 30 delineators	1

Direct link:

www.horizont.com/251193006

Weight approx., kg	Dims. L*W*H mm	Material
35	1,460 * 750 * 790	galvanized steel



Transport and storage pallet

For transport and storage of up to 30 safety bases

- for all common safety bases, e.g. D300M, K1, K35
- galvanized steel
- suitable for forklift transport
- with chain for safe lashing
- safety bases not included in scope of delivery

Part No.	Description	PQ
253899	Transport and storage pallet for up to 30 safety bases	1



Direct link:

www.horizont.com/253899

Weight approx., kg	Dims. L*W*H mm	Material
49	1,650 * 900 * 300	galvanized steel



Combination rack

For transport and storage of up to 20 safety bases, 10 vario safety barriers and 10 delineators

- for all horizont delineator systems, common safety bases and vario safety barriers 2,000 mm
- no need to dismount warning lamps for transport or storage
- galvanized steel
- suitable for forklift transport from all sides
- with tilt protection for forklift transport
- delineators, bases, safety barriers not included in scope of delivery

Part No.	Description	PQ
251193005	Combination rack, for up to 20 safety bases, 10 vario safety barriers and 10 delineators	1



Direct link:

www.horizont.com/251193005

Weight approx., kg	Dims. L*W*H mm	Material
70	2,460 * 1050 * 810	hot galvanized steel

Transport and storage box

For transport and storage of up to 5 collapsible delineators or vario sign stands

- extra fast and easy removal
- galvanized steel
- robust design
- two sturdy carrying handles ensure optimum handling even when fully equipped
- prepared fixing openings allow secure mounting, e.g. on a mobile warning trailer
- delineators not included in scope of delivery

Part No.	Description	PQ
25KC760	Transport and storage box for up to 5 collapsible delineator or vario sign stands	1



Direct link:

www.horizont.com/25KC760

Weight approx., kg	Dims. L*W*H mm	Material
9.0	660 * 320 * 330	galvanized steel

Transport and storage box on normed Euro-pallet

For transport and storage of up to 20 collapsible delineators or vario sign stands

- extra fast and easy removal
- galvanized steel
- robust design
- optimum handling on Euro-pallet
- delivered securely screwed on Euro-pallet

Part No.	Description	PQ
25770KC	Transport and storage pallet for up to 20 collapsible delineators or vario sign stands	1



Direct link:

www.horizont.com/25770KC

Weight approx., kg	Dims. L*W*H mm	Material
60	1,200 * 800 * 460	galvanized steel

Transport and storage pallet

For transport and storage of up to 20 collapsible delineators or vario sign stands, with lateral opening

The good handling characteristics of the transport and storage pallet simplify handling and logistics of the collapsible delineators, respectively of the vario sign stand again clearly. Due to the lateral opening, the pallet can remain on the loading area of the truck - with open tailgate it can now be conveniently loaded and unloaded by just one person. The 20 pieces of horizont collapsible delineator or vario sign stand are securely locked in place via the guide rails. A sturdy flap with a slotted guide system ensures perfect transport and load securing.

- secure storage on guide rails
- lateral opening
- galvanized steel
- robust design
- lifting eyes and forklift openings
- sturdy clasp with slotted guide system: tool-free transport and load security
- delineators or vario sign stands are not included in scope of delivery

Part No.	Description	PQ
25771KC	Transport and storage pallet for up to 20 collapsible delineators or vario sign stands, with lateral opening	1



Direct link:

www.horizont.com/25771KC









Weight approx., kg	Dims. L*W*H mm	Material
230	1,275 * 1,200 * 1,030	galvanized steel







Please choose the correct accessories and spare parts from the below table for the products of the previous chapter.

The accessories recommended by horizont are always stated next to the corresponding product in our catalogue.

Our **service** for you!

Accessories and spare parts

Accessory, spare part			for delineators		for road hazard warnig lamps and delineator lamps				
Picture	Part No., description	PQ	D-delineator, adapter page 20	M-delineator, adapter page 21	Optima 2001, page 35	StarLED, page 35	SOLOLite LED, page 35	TopLED, page 30	OptiLED, page 31
	25578 exchangeable twist adapter for D-delineators	30	✓						
	25579 exchangeable M-adapter for M-delineators	30		✓					
	20104-10VP Secura-key (10 pcs / 1 bag)	1 bag			✓	✓	✓	✓	✓
	20147 Secura-bracket 52 mm (10 pcs / 1 bag)	1 bag			✓	✓		✓	
	20240 Secura-bracket 82 mm (10 pcs / 1 bag)	1 bag			✓	✓		✓	
	21004 Multiple fixing barrier bracket (5 pcs / 1 bag)	1 bag			✓	✓		✓	
	21008 Secura-Uni 52 multiple fixing barrier bracket (10 pcs / 1 bag)	1 bag			✓	✓		✓	
	230502 Air-alkaline battery "Compact 50" 6 V / 50 Ah	20			✓	✓	✓	✓	

Accessory, spare part			for delineators		for road hazard warnig lamps and delineator lamps				
Picture	Part No., description	PQ	D-delineator, adapter page 20	M-delineator, adapter page 21	Optima 2001, page 35	StarLED, page 35	SOLOLite LED, page 35	TopLED, page 30	OptiLED, page 31
	250011 Battery 6 V / 9 Ah IEC 4 R 25	24			✓	✓	✓	✓	
	253967 Battery 6 V / 7 Ah IEC 4 R 25	24			✓	✓	✓	✓	
	230121 SLIMLINE Battery 6 V / 12 Ah	24							✓
	89289 Filament bulb 5 V / 90 mA	50			✓				
	92825 Three battery contact strip BD 90 mA with control LED	1			✓				
	92835 Three battery contact strip, LED amber	1				✓			
	92843 Three battery contact strip, LED red	1				✓			

A man with glasses and a black shirt is leaning on a white traffic barrier. In the background, there is a construction site with a yellow excavator and a dirt mound.

THOMAS **VAHL**

Sales Germany

Since when? January 1986

What? Order processing and customer care in office
(Baden-Württemberg and Bavaria)

About? Thomas is part of the horizont Traffic Safety team for many years.
In his spare time he enjoys spending time with his family and is interested
in everything related to the topic soccer.

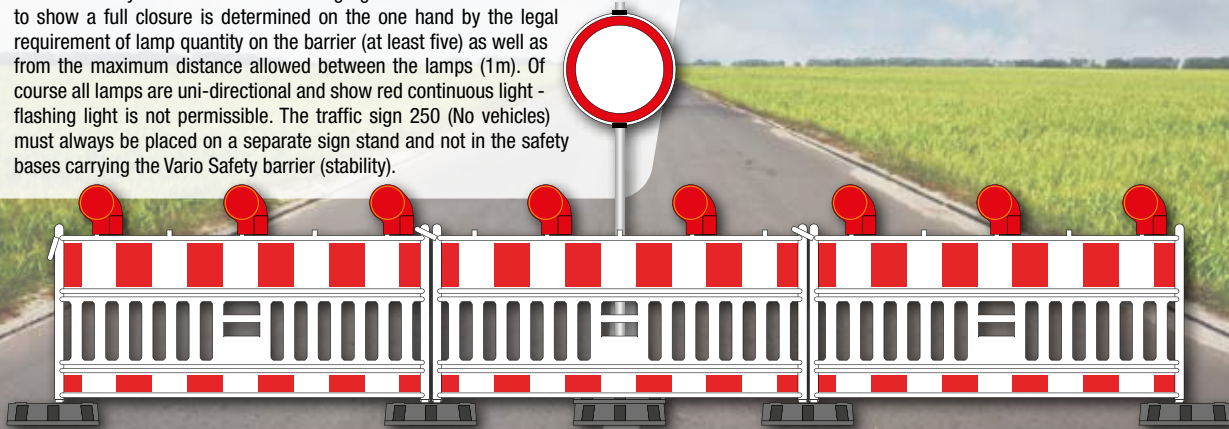


02 | Vario safety barriers, barrier material and traffic cones

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Traffic cones	53
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for Warnmax	55

In Germany, the complete closure of a roadway is done by means of barriers which run from road's edge to road's edge and, as far as possible, cover the entire width of the roadway. The number of warning lights which have to be used to show a full closure is determined on the one hand by the legal requirement of lamp quantity on the barrier (at least five) as well as from the maximum distance allowed between the lamps (1m). Of course all lamps are uni-directional and show red continuous light - flashing light is not permissible. The traffic sign 250 (No vehicles) must always be placed on a separate sign stand and not in the safety bases carrying the Vario Safety barrier (stability).

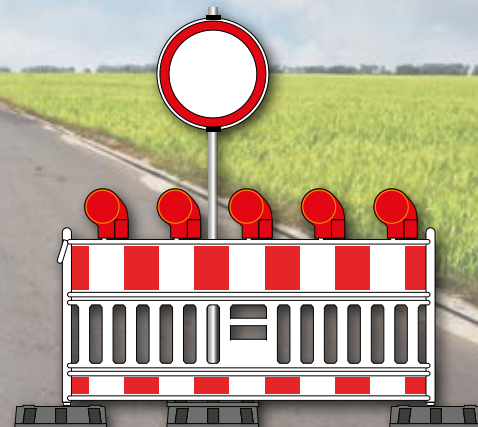
Complete closure – complete roadway



This is almost the classic variant of a complete closure – requires traffic sign 250 (No vehicles) with road barrier and five uni-directional red warning lamps, showing continuous red light.

The advantage of this variant is obvious: construction vehicles as well as rescue services and fire brigades can pass the closed area, as long as the restricted area permits vehicle traffic.

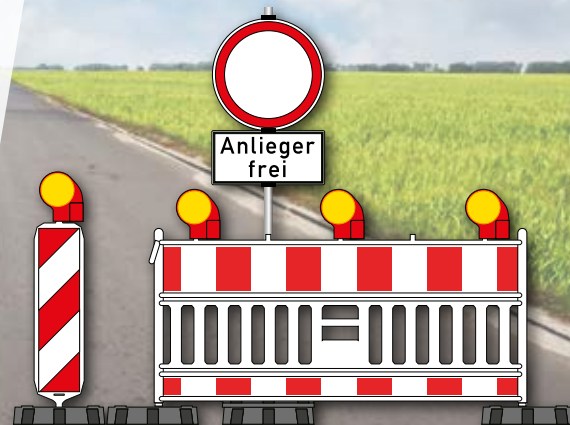
Complete closure



As soon as the closure is supplemented by an additional permission sign (e.g. "Residents Only"), yellow warning lamps have to be mounted on the barriers. Additionally, a double-sided delineator, showing the direction where to pass the barrier, has to be set up. This delineator has to carry a bi-directional yellow warning lamp. All warning lamps show continuous yellow light.

In general, this closure can be regarded as a preliminary stage.

Partial closure



Text Source: www.RSA-95.de



Vario safety barrier

Safety barrier made of polyethylene for versatile applications

horizont Vario Safety Barrier combines easy and problem-free handling with a plus of safety. It provides a reliable solution to protect working pits, shafts and construction holes. Due to its large surface, which leads to a significantly better perception of the barrier - even in twilight - serious accidents can be avoided. Since the plastic used does not conduct any voltage, thus avoiding sparking, the Varios Safety Barrier also provides a clear plus in safety when working on gas and power lines.

- to be used with all safety bases type K1
- 2 especially thick-walled standpipes (no metal parts!), exchangeable, 42mm
- sturdy, shock absorbing plastic surface
- no bending or breaking, even in case of heavy use or exposure to external force
- sheeting 2000 mm, type RA 1
- pack of 10 pieces
- ergonomic, centrally positioned handle for a fool proof handling
- lightweight
- labelling field (230 mm x 100 mm) for your company logo

ZTV-SA ✓

TL (germ.) ✓
Absperreschranken



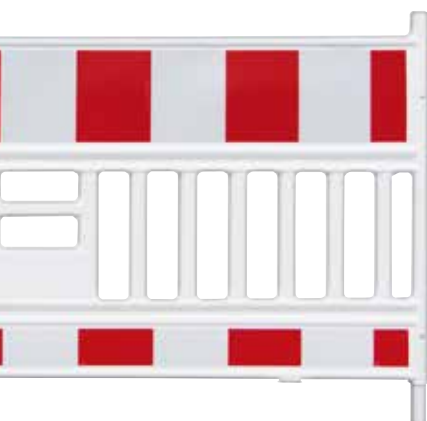
Part No.	Description	ZTV-SA	PQ
25119313-10	Sheeting 2,000 mm, type RA 1	✓	1 pack (10 pcs.)
25119313II-10	Sheeting 2,000 mm, type RA 2	✓	1 pack (10 pcs.)

Recommended Accessory

2511905	Lamp holders	1 pack (5 pcs.)
---------	--------------	--------------------

Direct link:
www.horizont.com/25119313-10

Part No.	Weight approx., kg	Dims./L*W*H,mm	Dims./sheeting L*H, mm	Sheeting type	Material
25119313-10	15.5	2130 * 80 * 1100	2000	RA 1	polyethylene
25119313II-10	15.5	2130 * 80 * 1100	2000	RA 2	polyethylene



Vario safety barrier without lamp holders

Safety barrier made of polyethylene for longitudinal fencing or for the event segment

horizont also supplies the Vario Safety Barrier without lamp holders for use in the event segment or for longitudinal fencing. However in case lamp holders should be required subsequently, we also have a solution for you: retrofittable lamp holders

- **conforming to German standards TL-Absperrschranken and legal provisions of ZTV-SA**
- **for longitudinal fencing or for the event segment**
- Labelling field (230 mm x 100 mm) for your company logo
- lamp holders can be easily retrofitted
- to be used with all standard K1 bases
- 2 standpipes, Ø 42, exchangeable

Part No.	Description	ZTV-SA	PQ
251193139-10	Sheeting 2,000 mm, type RA 1	✓	1 pack (10 pcs.)

Recommended Accessory

2511905	Lamp holders	1 pack (5 pcs.)
----------------	--------------	--------------------

Direct link:

✓ www.horizont.com/251193139-10

Weight approx., kg	Dims./L*W*H,mm	Dims./sheeting L*H, mm	Sheeting type	Material
15.5	2130 * 80 * 1050	2000	RA 1	polyethylene



Lamp holders

Exchangeable, respectively retrofittable for Vario safety barriers

Lamp holder for Vario Barriers, set of 5 pieces including fastening bolts

- **Seasy to replace if damaged, e.g. by vandalism**
- **without lamp holders the safety barrier can also be used as an economic solution for fencing at events, for example**
- retrofittable
- inclusive fastening bolts
- 5 pcs each set

Direct link:

✓ www.horizont.com/2511905

Part No.	Description	PQ
2511905	lamp holders	1 pack (5 pcs.)



Red and yellow warning lamps integrated for complete or partial closure

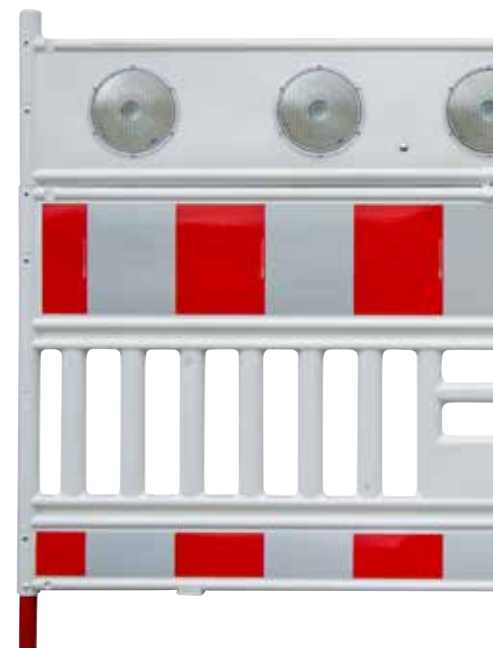
StrahlMax

Complete closure and partial closure with only one device

The first set which can show both: complete and partial closure. The StrahlMax is equipped with state of the art energy-efficient LED warning lights. By means of a central switch, the warning lamps can either show yellow or red light – thus the StrahlMax is ready to show a complete or a partial closure. No need for mounting of warning lamps nor for exchanging warning lamps!

The basic framework for the horizont StrahlMax is our proven Vario Safety Barrier, approved according to TL-Absperrschranken - extremely sturdy due to dough density polyethylene and particularly safe due to the closely arranged plastics struts, thus preventing children from climbing on and stepping through the barrier.

- **for use with all standard K1 base plates**
- warning lamps are integrated in a massive and impact-resistant polyethylene body, thus significantly minimizing the risk of vandalism and theft
- due to the central power supply you only need to replace one battery instead of five – quick and easy!
- efficient and quick operation of all lamps by one central switch
- central switch mounted at an inconspicuous place – no chance for pranksters
- yellow lamps: bi-directional steady light and bi-directional flashing light – especially eye-catching
- red lamps: uni- and bi-directional steady light
- low power consumption due to state of the art LED technology
- 2 exchangeable standpipes, 42 mm Ø
- labelling field (230 mm x 100 mm) for your company logo



Part No.	Description	PQ
21152	Sheeting 2,000 mm, type RA 1	1
21152II	Sheeting 2,000 mm, type RA 2	1

Direct link:

www.horizont.com/21152

Weight approx., kg	Dims./L*W*H,mm	Dims./sheeting L*H, mm	Sheeting type	Material
23.5	2130 * 80 * 1450	2000	RA 1, RA 2	polyethylene
Flashing rate / min.	Operation time, h (flashing / steady)			
60	2 * 7 Ah 205 / 32	2 * 9 Ah 265 / 42	2 * 20 Ah 580 / 90	



Warnmax P

Proven during Police operations

horizont Warnmax depicts the sheeting of the proven safety delineators in a version reduced to 50%. Warnmax P by horizont comes with horizontal striped sheeting which enables a quick securing of hazardous spots, e.g. an accident, as you don't have to consider the passing direction when deploying the Warnmax. Due to the use of sheeting type RA 2 C there is a significantly better reflection, thus visibility.

- **especially suited for quick safeguarding of hazardous spots**
- **sheeting dimensions are a 50% reduced version of the proven safety delineator**
- sturdy folding mechanism with two hinges
- panel in bright red for best visibility
- space-saving storage – collapses
- especially flat
- sheeting type RA 2 C, red-white horizontal stripes
- ergonomic carrying handle
- lightweight – approx. 5 kg only
- with recessed sheeting area
- anti-skid system

Part No.	Description	PQ
25303III1	Warnmax P	1
Recommended accessory		
257741KC	Transport and storage box for up to 6 Warnmax or up to 4 Soundmax, respectively Flashmax	1

Direct link:

www.horizont.com/25303III1

Weight approx., kg	Dims. max., H*W, mm	Dims. / sheeting, H*W, mm	Sheeting	Material
5.2	710 * 215	500 * 187,5	RA 2 C	polyethylene



Warnmax

Optimum visibility, collapsible and easy to transport

horizont Warnmax depicts the sheeting of the proven safety delineators in a version reduced to 50%.

- **sheeting dimensions are a 50% reduced version of the proven safety delineator**
- sturdy folding mechanism with two hinges
- panel in bright red for best visibility
- space-saving storage – collapses
- especially flat
- sheeting type RA 2
- ergonomic carrying handle
- lightweight – approx. 5 kg only
- with recessed sheeting area
- anti-skid system

Part No.	Description	PQ
25303RL	right/left showing, sheeting type RA 2	1
Recommended accessory		
257741KC	Transport and storage box for up to 6 Warnmax or up to 4 Soundmax, respectively Flashmax	1

Direct link:

www.horizont.com/25303RL

Weight approx., kg	Dims. max., H*W, mm	Dims. / sheeting, H*W, mm	Sheeting	Material
5.2	710 * 215	500 * 187,5	RA 2	polyethylene



BAST
✓

Flashmax-Synchro

The **ASt** approved flashing light amongst our Warnmax series

Please find further information on Flashmax Synchro on pages 96-98





horicone traffic cone

Traffic cone approved according to TL-Leitkegel (technical delivery terms), two-piece cone

- **BASt-approved according to TL-Leitkegel**
- **approved according to European standard for traffic cones DIN EN 13422**
- **confirming to German StVO (Road Traffic Act) §43, 3, No.2**
- **weight category 3 of TL**
- fully reflective cones
- two-piece cone
- very robust reflective material with special strong wide angle effect
- break proof, cold – and heat resistant, flexible
- recessed hand grip
- heavy base for optimum stability
- anti-skid system
- easy to stack
- upper part made of polyethylene

Part No.	Description	BASt	PQ
251941	horicone, 500 mm, type A	✓	10
251931	horicone, 750 mm, type A	✓	5
251941B	horicone, 500 mm, type B	✓	10
251931B	horicone, 750 mm, type B	✓	5

Recommended accessory

27923	Transport cart for traffic cones	1
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Direct link:

✓ www.horizont.com/251941

Part No.	Weight approx., kg	Dims., H, mm	Reflectivity class	Material	Weight category (TL)
251941	2.6	500	Typ A	Polyethylene, recycling	III
251931	5.8	750	Typ A	Polyethylene, recycling	III
251941B	2.6	500	Typ B	Polyethylene, recycling	III
251931B	5.8	750	Typ B	Polyethylene, recycling	III



horicone traffic cone

Traffic cone approved according to TL-Leitkegel (technical delivery terms), one-piece cone

- **BASt-approved according to TL-Leitkegel**
- **approved according to European standard for traffic cones DIN EN 13422**
- **confirming to German StVO (Road Traffic Act) §43, 3, No.2**
- **weight category 2 of TL**
- fully reflective cones
- one-piece cone
- very robust reflective material with special strong wide angle effect
- break proof, cold and heat resistant, flexible
- optimum stability
- easy to stack
- upper part made of strong PVC

Part No.	Description	BASt	PQ
251911	horicone, 500 mm, type A	✓	10
251921	horicone, 750 mm, type A	✓	5
251911B	horicone, 500 mm, type B	✓	10
251921B	horicone, 750 mm, type B	✓	5

Recommended accessory

27923	Transport cart for traffic cones	1
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Direct link:

✓ www.horizont.com/251911

Part No.	Weight approx., kg	Dims., H, mm	Reflectivity class	Material	Weight category (TL)
251911	2.3	500	Typ A	Polyethylene, recycling	II
251921	4.2	750	Typ A	Polyethylene, recycling	II
251911B	2.3	500	Typ B	Polyethylene, recycling	II
251921B	4.2	750	Typ B	Polyethylene, recycling	II

Traffic cone

With two painted stripes, one-piece

- traffic cone with two painted stripes
- one-piece cone
- white stripes
- high stability
- stackable
- robust PVC



Part No.	Description	PQ
251851	Cone, 350 mm	10
251901	Cone, 500 mm	20
251841	Cone, 750 mm	5

Recommend accessory

27923	Transport cart for traffic cones	1
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Direct link:

www.horizont.com/251851

Part No.	Weight approx., kg	Dims., H, mm	white stripe	Material	Weight category (TL)
251851	0.6	350	1	PVC	–
251901	1.1	500	2	PVC	–
251841	2.8	750	2	PVC	–

Folding signs / Folding triangles

Folding triangles with stable galvanized steel frame and umbrella-like clamping mechanism

- **Folding triangle 700 mm for use on urban and rural streets**
- **Folding triangle 900 mm for use on motorways and highways**
- stable galvanized steel frame
- firm tightening due to umbrella-like clamping mechanism
- covering material made of PVC coated synthetic woven, white
- imprint with warning triangle, red and texts black
- all traffic signs according to German StVO and StVZO available and free to choose
- further symbols, combinations and signs on request
- delivery inclusive protective case made of PVC coated woven



Part No.	Description	PQ
256872	700 mm, traffic sign 101, fluorescent	1
256882	700 mm, traffic sign 123, fluorescent	1
256892	700 mm, traffic sign 101, retro-reflective	1
256902	700 mm, traffic sign 123, retro-reflective	1
256912	900 mm, traffic sign 101, fluorescent	1
256922	900 mm, traffic sign 123, fluorescent	1
256932	900 mm, traffic sign 101, retro-reflective	1
256942	900 mm, traffic sign 123, retro-reflective	1

Recommend accessory

256972	weight rod for folding triangles with 700 / 900 mm	1
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Direct link:

www.horizont.com/256872

Part No.	Weight approx., kg	Dims., leg length, mm	Dims, H, mm	Sheeting type	Traffic sign	Material
256872	2.9	700	720	fluorescent	VZ 101	PVC
256882	2.9	700	720	fluorescent	VZ 123	PVC
256892	2.9	700	720	retro-reflective	VZ 101	PVC
256902	2.9	700	720	retro-reflective	VZ 123	PVC
256912	3.8	900	950	fluorescent	VZ 101	PVC
256922	3.8	900	950	fluorescent	VZ 123	PVC
256932	3.8	900	950	retro-reflective	VZ 101	PVC
256942	3.8	900	950	retro-reflective	VZ 123	PVC



Transport and storage pallet

For transport and storage of up to 20 Vario safety barriers

- for Vario safety barrier with 2,000 mm
- Vario Safety Barriers are transported and stored safely and gently
- galvanized steel
- sturdy construction
- suitable for forklift transport from all sides
- in combination with the stacking aid, our part no. 25389551 several pallets can be stacked
- Vario Safety Barrier not included in scope of delivery



Part No.	Description	PQ
2511930031	Transport – and storage pallet for up to 20 Vario safety barriers 2,000 mm	1
Recommended Accessory		
25389552	Stacking aid (4 pcs required!)	1

Direct link:

www.horizont.com/2511930031

Weight approx., kg	Dims. L* W* H, mm	Material
92	2,290 * 1,170 * 280	hot galvanized steel



Combination rack

For transport and storage of up to 20 safety bases, 10 vario safety barriers and 10 delineators

- for all horizont delineator systems, common safety bases and vario safety barriers 2,000 mm
- no need to dismount warning lamps for transport or storage
- hot galvanized steel
- suitable for forklift transport from all sides
- with tilt protection for forklift transport
- delineators, bases, safety barriers not included in scope of delivery



Part No.	Description	PQ
251193005	Combination rack, for up to 20 safety bases, 10 vario safety barriers and 10 delineators	6

Direct link:

www.horizont.com/251193005

Weight approx., kg	Dims. L* W* H, mm	Material
70	2,460 * 1,050 * 810	hot galvanized steel

Transport box

For transport and storage of up to 6 Warnmax or 4 Soundmax, respectively Flashmax

The transport box for horizont Warnmax has been especially designed for a quick removal of up to 3 Warnmax units with just one hand.

- for all products of the horizont Warnmax family
- for vehicle mounting
- plastic coated
- Warnmax not included in scope of delivery



Part No.	Description	PQ
257741KC	Transport – and storage box for up to 6 Warnmax, or 4 Soundmax respectively Flashmax	1

Direct link:
www.horizont.com/257741KC

Weight approx., kg	Dims. L* W* H, mm	Material
7	560 * 260 * 430	hot galvanized steel



A photograph of two women, Jutta Noltén and Karin Dingler, at a construction site. Jutta is standing in the background, wearing a black polo shirt and a necklace. Karin is sitting in the foreground, also wearing a black polo shirt and blue jeans. They are both smiling. In the background, there are blue construction vehicles and orange and white striped safety barriers.

JUTTA & **KARIN** **NOLTEN** & **DINGLER**

Sales Export

Sales Export

Since when? January 2002

What? International order processing and customer care in office, translations

About? Jutta loves to be creative and enjoys spending her time with her children. Besides of her passion for foreign languages she loves doing gardening and reading in her leisure time.

Since when? August 2005

What? International order processing and customer care in office

About? Karin loves to go horse riding in her leisure time and spends as much time as possible with her horses. The long rides in nature are a perfect balance to her job.

03

Guide curb,
markers,
speed bumps**Chapter overview** 56-57

Guide curb at a glance 58-59

Guide curb 60-61

Leitboys at a glance 62-63

Leitboys 64-67

Leitboy I, II, V and bollards 64-65

Leitboys III, IV approved by German BAST 66-67

Leitboy bases 68-69

Leitboy bases L49, L50, L51 68

Leitboy base L54 approved by German BAST 69

Markers / Mini-Leitboys 70

Speed bumps 72-73

Speed Stop 72

Car Stop 72

Speed bumps 73

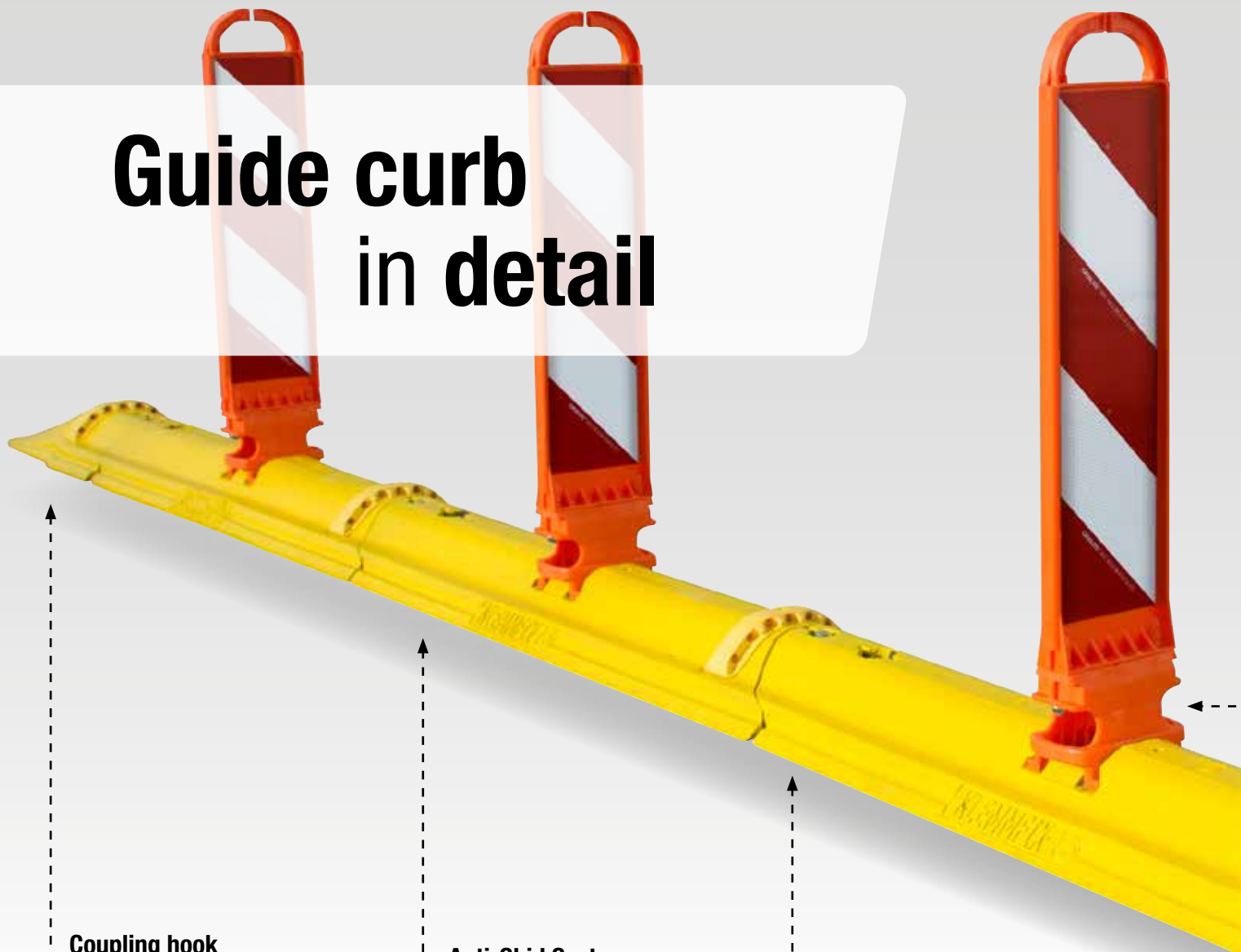
Hose and cable bridges 74

Hose bridge 74

Cable bridge 74

Fastening sets 75

Guide curb in detail



Coupling hook

- the individual elements of horizont Guide curb are interconnected by an extremely stable steel hook and a safety screw.
- end piece A is equipped with a steel coupling hook, end piece B comes with a moulded in receptacle.



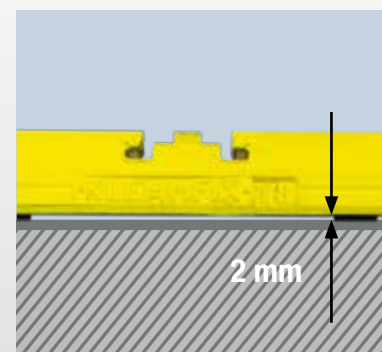
Anti-Skid System

- The 8 exchangeable rubber feet of the anti-skid-system (ARS) on the bottom of the Guide curb ensure excellent grip on the road. In case of wear and tear they can be easily exchanged.
- horizont Guide curbs neither need to be glued to the road, nor require an additional fixation by screws.
- In contrast to marking nails or foils no material stains or adhesive residues remain on the road. The danger of „ghost markings“ is thus avoided.



2 mm of “air” to prevent from waterlogging

- the anti-skid system on the bottom side of the Guide curb provides excellent grip on the road, however allows the surface water (rain) to drain off.
- traffic flow disruptions due to standing water are thus minimized.



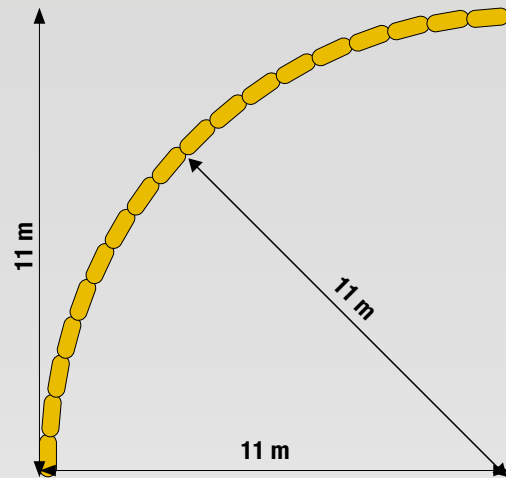
Leitboys with flexible adapter

- the Leitboy is sturdily mounted by means of 2 guide slots and latching studs located in the insertion device of the Guide curb. Even if being hit or run over by a vehicle it will bounce back into its original position (see BAST test report). By this means the warning- and traffic guidance effects always remain active.
- the recessed sheeting area reduces risk of sheeting damages to a minimum.
- plane sheeting surfaces achieve best reflection values.



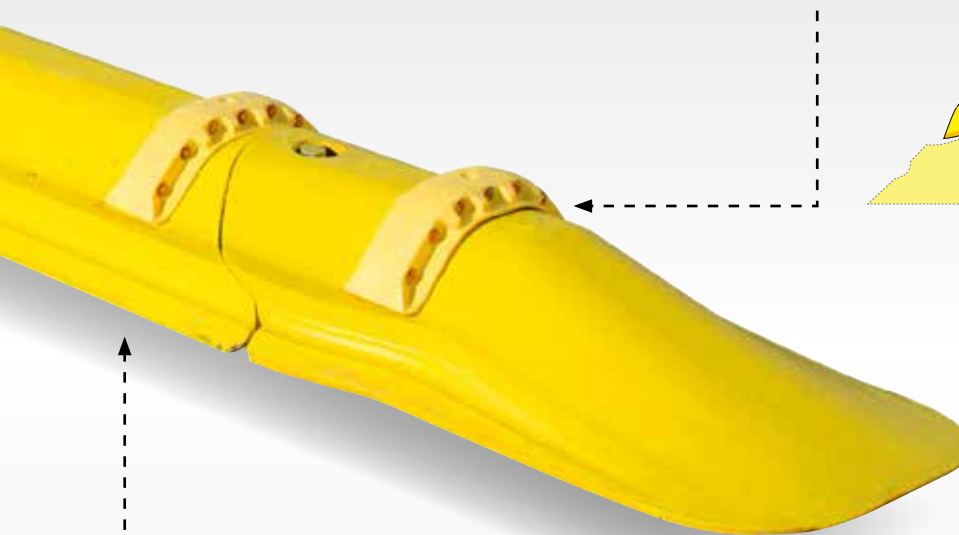
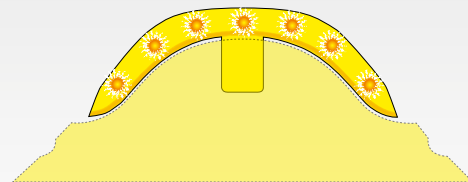
90° angle on 11 x 11 m

- the stable yet flexible connection ensures sufficient scope to lay the Guide curb guide rail in different curve radii. (90° angle on approx. 11 x 11 m).



Reflective arch

- by means of the arch shaped reflector the contour of the Guide curb is clearly depicted.
- this is especially true and important for motorcyclists during night-time, ensuring that they visualize the elevation on the road.

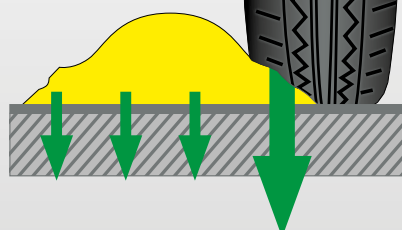


Original horizont two-tier profile

- the lateral climbing edges ensure that an impacting tire fist glides over a sloped shape, then to a second, rounded tier and thus pressing the Guide curb firmly to the ground by the weight of the vehicle – a very driver friendly process as tires climb, level, climb again and simultaneously press the separator firmly on the roadway which minimized dislocation.
- skid resistant grips on the bottom of each one-meter separator raise the separator slightly above the pavement surface so that water can run underneath.

horizont Guide curb

The two-tier profile passes tire forces straight down to the pavement, thus providing stable position.



Imitated systems

Separators skid into traffic lanes due to lateral tire forces.





BAST



TL



Leit-
elemente

**NCHRP
350**



Guide curb - LN 60

Best visibility, highest stability and easy to install

The individual elements of the Guide curb, available in yellow or white, are interconnected by an extremely sturdy metal hook. The anti-skid system (ARS) on the underside of the Guide curb provides excellent surface adhesion on the road. horizont Guide curbs neither need to be glued nor screwed to the road. The lateral guide rails - climbing edges - ensure that the separator is firmly pressed to the ground by the weight of the vehicle passing or running over it. Our Guide curbs can be equipped with Leitboys or markers of different sizes and design, as well as with Leitboy bollards.

- approved by German BAST (Federal Highway Research Institute) acc. to TL-Leit-elemente, in combination with Leitboy III certified acc. to NCHRP 350 by U.S. FHWA
- white or yellow
- with steel hook interlocking system and safety screw
- two-tier shape
- 90°-curve on approx. 11 x 11 m
- break-proof
- all weather durability
- skid resistant grips
- 8 interchangeable anti-skid studs

Part No.	Description	BAST	PQ
25581	Guide curb, yellow	✓	50
25581WEISS	Guide curb, white	✓	50

Direct link:

✓ www.horizont.com/25581

Weight approx., kg	Dims. L*W*H, mm	Material
16.0	1000 * 270 * 90	Recycling

horizont Bike Lanes - More space, more safety.

In the wake of the Corona crisis and the associated Corona crisis and the associated distance regulations, more and more cities and municipalities are investing in finding alternatives to public transport services. Not only because of its flexible deployment options, but also thanks to its ease of installation, the Guide Curb by horizont is used all over the world when it comes to implementing temporary or permanent traffic management.

Further information, please find at:

✓ www.klemmfix.horizont.com/horizont-pop-up-bike-lanes



Guide curb end piece A – LN 61

With steel hook

The chamfered end piece A comes with moulded-in steel hook. Like the Guide curb itself it's made of recycling material and is equipped with an anti-skid-system.

- **BAST certified acc. to TL-Leitelemente**
- white or yellow
- with moulded-in steel hook
- two-tier shape
- break-proof
- all weather durability
- skid resistant grips

Part No.	Description	BAST	PQ
25582	End piece A, with steel hook, yellow	✓	1
25582WEISS	End piece A, with steel hook, white	✓	1

BAST ✓**TL** ✓
Leit-
elemente**NCHRP**
350 ✓

Direct link:
www.horizont.com/25582

Weight approx., kg	Dims. L*W*H, mm	Material
6.0	440 * 270 * 90	Recycling

Guide curb end piece B - LN 62

With steel hook

The chamfered end piece B comes with moulded-in receptacle for steel hook. Like the Guide curb itself it's made of recycling material and is equipped with an anti-skid-system.

- **BAST certified acc. to TL-Leitelemente**
- white or yellow
- with moulded-in receptacle for steel-hook
- two-tier shape
- break-proof
- all weather durability
- skid resistant grips

Part No.	Description	BAST	PQ
25583	End piece B, with receptacle for steel hook, yellow	✓	1
25583WEISS	End piece B, with receptacle for steel hook, white	✓	1

BAST ✓**TL** ✓
Leit-
elemente**NCHRP**
350 ✓

Direct link:
www.horizont.com/25583

Weight approx., kg	Dims. L*W*H, mm	Material
5.7	480 * 270 * 90	Recycling

Reflective arch – L 65

For Guide curb and Leitboy-base L54

It is recommended to use one reflective arch per Guide curb. Our reflective arch is available in yellow and white, each with 14 cat's eyes reflectors. By means of the arch shaped reflector the contour of the Guide curb is clearly depicted. This is especially true and important for motorcyclists during night-time, ensuring that they visualize the elevation on the road.

- **BAST-certified acc. to TL-Leitelemente**
- **one reflective arch per guide curb element**
- white or yellow
- 14 yellow cat's eyes reflectors
- snap-in installation
- break-proof
- all weather durability

Part No.	Description	BAST	PQ
25584	Reflective arch, yellow	✓	100
25584WEISS	Reflective arch, white	✓	100

BAST ✓**TL** ✓
Leit-
elemente**NCHRP**
350 ✓

Direct link:
www.horizont.com/25584

Weight approx., kg	Dims. L*W*H, mm	Material
0.133	180 * 56 * 60	plastic

Leitboys and Leitboy bollards with flexible adapter



Leitboy I

Suited perfectly for individual solutions where no certification is required

See more details on page 64

Leitboy II

Suited perfectly for individual solutions where no certification is required

See more details on page 64

Leitboy V

Suited perfectly for individual solutions where no certification is required

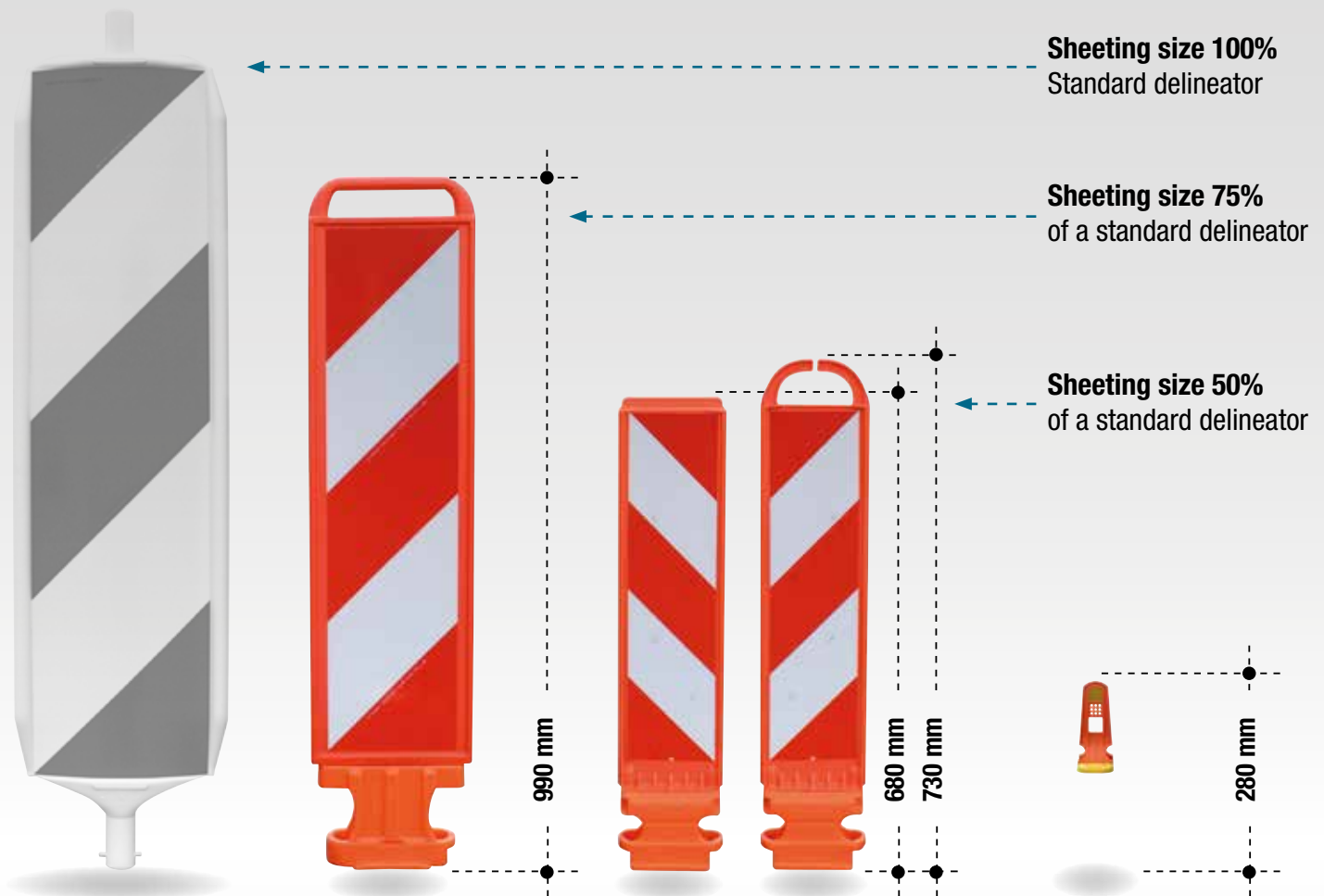
See more details on page 65

Leitboy bollard

Leitboy bollard is ideal for use in multi-storey car parks, on parking lots and in the city design as an orientation and guidance aid

See more details on page 67

Leitboys and markers with flexible adapter approved by German BAST



Leitboy IV

In combination with Leitboy base L54 our Leitboy IV is approved for use on motorways by German BAST.

See more details on page 67



Leitboy III

In combination with our Guide curb, Leitboy III is approved for use on motorways by German BAST

See more details on page 66



Mini-Leitboy

Our Mini-Leitboy is approved in combination with Leitboy base L49 by German BAST

See more details on page 70





Leitboy I, L42

- with flexible rubber adapter
- sheeting type RA 2
- recessed sheeting area
- highly flexible TPE
- also available with chevron sheeting

Part No.	Description	PQ
25590-1	right-/left-showing, with handle, sheeting type RA 2	10
25591-1	right-/right-showing, with handle, sheeting type RA 2	10
25588-1	left-showing, with handle, sheeting type RA 2	10
25589-1	right-showing, with handle, sheeting type RA 2	10

Direct link:

www.horizont.com/25590-1

Weight approx., kg	Dims. overall, H*W, mm	Dims. sheeting, H*W, mm	Material
1.7	570 * 180	290 * 135	plastic



Leitboy II, L72

- with flexible rubber adapter
- adapter detachable
- sheeting type RA 2
- recessed sheeting area
- panel made of high impact plastic

Part No.	Description	PQ
25590-2	right-/left-showing, with handle, sheeting type RA 2	10
25591-2	right-/right-showing, with handle, sheeting type RA 2	10
25588-2	left-showing, with handle, sheeting type RA 2	10
25589-2	right-showing, with handle, sheeting type RA 2	10

Direct link:

www.horizont.com/25590-2

Weight approx., kg	Dims. overall, H*W, mm	Dims. sheeting, H*W, mm	Material
1.7	760 * 215	500 * 187,5	plastic



Leitboy V - L102

- extra large
- with flexible rubber adapter
- adapter detachable
- sheeting type RA 2
- convex shape for best visibility even in curves
- also available with chevron sheeting

Part No.	Description	PQ
25L102RL	right-/left-showing, sheeting type RA 2	10
25102RRL	right-/right-showing, sheeting type RA 2	10
256228	left-showing, sheeting type RA 2	10
256229	right-showing, sheeting type RA 2	10
25102ABWL	centre out, sheeting type RA 2	10



Direct link:

www.horizont.com/25L102RL

Weight approx., kg	Dims. overall, H*W, mm	Dims. sheeting, H*W, mm	Material
2.2	1.030 * 220	750 * 187,5	HDPE (Polyethylen)

Leitboy Poller - L120

- with flexible rubber adapter
- adapter detachable
- sheeting type RA 2
- two horizontal sheeting stripes, white or red

Part No.	Description	PQ
251202L	white, red sheeting type RA 2	5
251203L	red, white sheeting type RA 2	5
251205L	black, white sheeting type RA 2	5
251207L	yellow, white sheeting type RA 2	5
251209L	blue, white sheeting type RA 2	5



Direct link:

www.horizont.com/251202L

Weight approx., kg	Dims. overall, H*Ø, mm	sheeting H, mm	Material
2.2	810 * 190	100 umlaufend	plastic



Leitboy III, L82

Recommended to be used with guide curb

- when using Guide curb a Leitboy has to be installed every 10 meter, according to German's guidelines, however it is highly recommended to place a Leitboy every 5 m
- sheeting size 50% of a standard delineator
- with flexible rubber adapter
- adapter detachable
- sheeting type RA 2
- recessed sheeting area
- panel made of high impact plastic
- also available with chevron sheeting

Part No.	Description	BAST	PQ
25619RL	right-/left-showing, with handle, sheeting type RA 2	✓	10
25619RR	right-/right-showing, with handle, sheeting type RA 2	✓	10
25607	left-showing, with handle, sheeting type RA 2	✓	10
25608R	right-showing, with handle, sheeting type RA 2	✓	10
25619ABW	centre out, with handle, sheeting type RA 2	✓	10
25608RL-OG	right-/left-showing, without handle, sheeting type RA 2	✓	10
25614RR-OG	right-/right-showing, without handle, sheeting type RA 2	✓	10
25619LOG	left-showing, without handle, sheeting type RA 2	✓	10
25619ROG	right-showing, without handle, sheeting type RA 2	✓	10
25082ABW0GL	centre out, without handle, sheeting type RA 2	✓	10

Direct link:

✓ www.horizont.com/25619RL

Part no.	Handle	Weight approx., kg	Dims. overall, H*W, mm	Dims. sheeting, H*W, mm	Material
25619RL	yes	1.0	730 * 155	500 * 125	plastic
25619RR	yes	1.0	730 * 155	500 * 125	plastic
25607	yes	1.0	730 * 155	500 * 125	plastic
25608R	yes	1.0	730 * 155	500 * 125	plastic
25619ABW	yes	1.0	730 * 155	500 * 125	plastic
25608RL-OG	no	1.0	680 * 155	500 * 125	plastic
25614RR-OG	no	1.0	680 * 155	500 * 125	plastic
25619LOG	no	1.0	680 * 155	500 * 125	plastic
25619ROG	no	1.0	680 * 155	500 * 125	plastic
25082ABW0GL	no	1.0	680 * 155	500 * 125	plastic

Our service for you!

Leitboy III is approved by German BAST according to TL-Leitelemente in combination with our Guide curb and therefore approved for use on motorway.

Choose the right products in order to build your BAST approved system

You will find our Guide Curb on pages 58-61

Leitboy IV, L92

Recommended to be used with L54 base

- approved for use on German motorways by German BAST in combination with base L54
- sheeting size 75% of a standard delineator
- with flexible rubber adapter
- adapter detachable
- sheeting type RA 2
- recessed sheeting area
- panel made of high impact plastic
- also available with chevron sheeting



Part No.	Description	BAST	PQ
25622	right-/left-showing, with handle, sheeting type RA 2	✓	10
25609RR	right-/right-showing, with handle, sheeting type RA 2	✓	10
256220	left-showing, with handle, sheeting type RA 2	✓	10
256221	right-showing, with handle, sheeting type RA 2	✓	10
25LN92ABW	centre out, with handle, sheeting type RA 2	✓	10

Recommended Accessory

25594	Leitboy base L54		40
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Direct link:

www.horizont.com/25622

Weight approx., kg	Dims. overall, H*W, mm	Dims. sheeting, H*W, mm	Material
2.1	990 * 235	750 * 187,5	plastic



horizont bike lanes

- ✓ physical and optical separation for more safety and attention
- ✓ individual customisation to the application concept
- ✓ no obstruction in emergency cases due to traversability

Learn more about our pop-up-bike-lanes at:

www.klemmfix.horizont.com/horizont-pop-up-bike-lanes



Leitboy base L49

For Leitboy I, III and Mini-Leitboy

Leitboy bases L49 are suitable for horizont Leitboy I and Leitboy III as well as for Mini-Leitboys. With amber cat's eyes reflectors for improved visibility. Can be positioned using glue, glue mats or bolts.

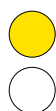
- **for Leitboy I, III and Mini-Leitboy**
- yellow or black
- clamping jaws with cat's eyes reflectors
- to be fastened with glue, hot glue mats or bolts
- fixing material not included

Part No.	Description	PQ
25497RL	yellow	10
25495RL	black	10

Direct link:

www.horizont.com/25497RL

Weight approx., kg	Dims. L*W*H, mm	Material
0.2	174 * 120 * 24	plastic



Leitboy base L50

Suitable for all horizont Leitboys and Leitboy bollards

horizont Leitboy bases L50 are especially suitable for long-term installation as the Leitboy or Leitboy bollard is fixed to the base by 4 integral screws. Leitboy base L50 is designed to accept all horizont Leitboys and Leitboy bollards.

- **suitable for all horizont Leitboys and Leitboy bollards**
- white or yellow
- with 4 integral screws
- to be fastened with bolts
- fixing material not included

Part No.	Description	PQ
2562221	yellow	7
25589	white	7

Direct link:

www.horizont.com/2562221

Weight approx., kg	Dims. L*W*H, mm	Material
1.3	300 * 250 * 50	plastic



Leitboy base L51

Suitable for all horizont Leitboys and Leitboy bollards

The Leitboy base L51 has been designed to accept our Leitboys and bollards from horizont and is therefore universally applicable. The yellow colour increases the visibility of this wide base plate. The anti-skid system allows the installation without the need for gluing or screwing which makes Leitboy base L51 very easy to install.

- **suitable for all horizont Leitboys and Leitboy bollards**
- recommended to be used with Leitboy I - III
- skid resistant grips

Part No.	Description	PQ
25593	yellow	90

Direct link:

www.horizont.com/25593

Weight approx., kg	Dims. L*W*H, mm	Material
7.0	590 * 260 * 60	recycling

Leitboy base L54

Certified by the BAST in combination with Leitboy IV

The Leitboy base L54 by horizont convinces with its robust design. In combination with our Leitboy IV, the use on motorways is also permitted. The anti-skid system ensures a high level of stability and makes gluing or screwing to the underground unnecessary. Other Leitboy models and bollards with flexible rubber adapter can also be inserted into this base. Leitboy base L54 should always be equipped with two reflective arches.

- suitable for all horizont Leitboys and Leitboy bollards
- allowed to be used on German motorways
- in combination with Leitboy IV
 - skid resistant grips

Part No.	Description	PQ
25594	yellow	40
Recommended accessory		
25584	Reflective arch	100



Direct link:

www.horizont.com/25594

Weight approx., kg	Dims. L*W*H, mm	Material
14.0	1.000 * 270 * 90	recycling



Our service for you!

Leitboy base L54 is approved by German BAST according to TL-Leitelemente in combination with base Leitboy IV and therefore approved for use on motorways.

Choose the right products in order to build your BAST approved system

You will find our Leitboy IV on page 67





Mini-Leitboys

- marker orange or white
- base yellow, white or orange, with reflectors
- sheeting 40 x 40 mm, type RA 2
- highly flexible plastic
- to be fastenend with glue or bolts
- fixing material not included

Part No.	Description	PQ
25L30	Mini-Leitboy orange, sheeting yellow, base yellow	10
25032L	Mini-Leitboy orange, sheeting yellow, base orange	10
25302L	Mini-Leitboy white, sheeting white, base white	10

Recommended accessory

766205	Fastening screws (set)	1
767200	Hot glue mat	1

Direct link:
www.horizont.com/25L30

Weight approx., kg	Dims. L*W*H, mm	Material
0.45	174 * 120 * 280	plastic



PREMIUM QUALITY

Made by **horizont**

Guide curb, markers, speed bumps
horizont In-Touch

Adam Ernst

**Team-leader final assembly
Traffic Safety**

Since when? September 2005

What? Team-leader final assembly Traffic Safety

About? Adam likes to ride his bike after work or to do some darting in the "Schumacher Dartliga". He also loves good food and enjoys cooking fancy dishes.

**OUR BIGGEST
POTENTIAL -
THE PEOPLE
BEHIND THE LOGO!**



Speed Stop

Significant speed reduction

Installation of our Speed Stop with a height of 40 mm contributes to significantly reducing the speed of vehicles. Multi-storey car parks, streets and city centres can thus be reliably protected against speeding. Speedstop is available in eye-catching yellow colour (or white) and black. It is clearly visible from a distance and therefore also has a warning character - even during night time due to the integrated cat's eyes. A pre-drilled hole ensures a comfortable dowelling to the underground.

- installation in rows of 3 is recommended
- **NOTE! Speed Stop is not suitable for use in heavy load traffic!**
- black
- upper insert either white or yellow
- upper insert with 4 yellow cat's eyes reflectors
- fixing with 1 fastening screw / element
- fixing material not included in delivery (part no. 766202, 766209, see page 77)

Direct link:

www.horizont.com/259382

Part No.	Description	PQ
259382	Speed Stop with white insert	10
2562321	Speed Stop with yellow insert	10

Weight, approx. kg	Dims., Ø *H, mm	Material
1.7	230 * 45	recycling



Car Stop

Threshold for parking lots

The Car Stop is an approach threshold for front limitation in car parks or multi-storey car parks. In addition, it can also be used as a lateral parking barrier. Car Stop is available in eye-catching yellow or black. It is clearly visible from a distance and therefore also has a warning character - even during night time due to the integrated lateral cat's eyes.

- for use on car parks or multi-storey car parks
- assists in precise parking and optimises the use of the available space
- protects buildings and vehicles from shunting damage
- black or yellow
- 6 lateral cat's eyes and 1 frontal reflector
- fixing with 2 fastening screws / element
- fixing material not included in delivery (part no. 766206, see page 77)



Direct link:

www.horizont.com/2562311

Part No.	Description	PQ
2562311	Threshold, black	1
259347R	Threshold, yellow	1

Weight, approx. kg	Dims., L *W *H mm	Material
6.4	1.000 * 120 * 60	recycling

Speed bump

Speed reduction to 10 km/h or 20 km/h

Speed bump is available in two different heights, 50 mm or 60 mm, yellow or black with corresponding end-pieces. Both versions should achieve a significant speed reduction and are therefore perfectly suitable for protecting against speeding in car parks, urban areas and streets.

- 50 mm height for 20 km/h
- 60 mm height for 10 km/h
- **NOTE! Speed bumps are not suitable for use in heavy load traffic!**
- can be assembled with any desired number of individual elements
- black or yellow
- with 4 cat's eyes reflectors
- fixing with 4 fastening screws / element
- fixing material not included in delivery (part no. 766206, 766209 see page 77)

Part No.	Description	PQ
25931N	black, 60 mm height	1
25931N7	yellow, 60 mm height	1
25931N50	black, 50 mm height	1
25931N750	yellow, 50 mm height	1

Part no.	Weight, approx. kg	Dims., L*W *H mm	Material
25931N	11.1	500 * 430 * 60	recycling
25931N7	11.1	500 * 430 * 60	recycling
25931N50	10.4	500 * 430 * 50	recycling
25931N750	10.4	500 * 430 * 50	recycling



Direct link:

www.horizont.com/25931N

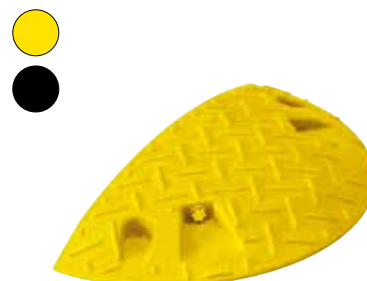
Speed bump end piece

Speed reduction to 10 km/h or 20 km/h

- 50 mm height for 20 km/h
- 60 mm height for 10 km/h
- **NOTE! Speed bumps are not suitable for use in heavy load traffic!**
- black or yellow
- with 2 cat's eyes reflectors
- fixing with 2 fastening screws / element
- fixing material not included in delivery (part no. 766206, 766209 see page 77)

Part No.	Description	PQ
25932N	black, 60 mm height	1
25932N7	yellow, 60 mm height	1
25932N50	black, 50 mm height	1
25932N750	yellow, 50 mm height	1

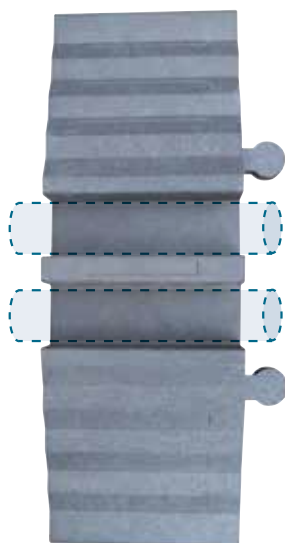
Part no.	Weight, approx. kg	Dims., L*W *H mm	Material
25932N	4.0	215 * 430 * 60	Recycling
25932N7	4.0	215 * 430 * 60	Recycling
25932N50	4.0	215 * 430 * 50	Recycling
25932N750	4.0	215 * 430 * 50	Recycling



Direct link:

www.horizont.com/25932N





Hose protection bridge

for hoses up to 3"

Modular system for the protection of exposed cables, hoses or pipes which have to be crossed at construction sites or in case of operations.

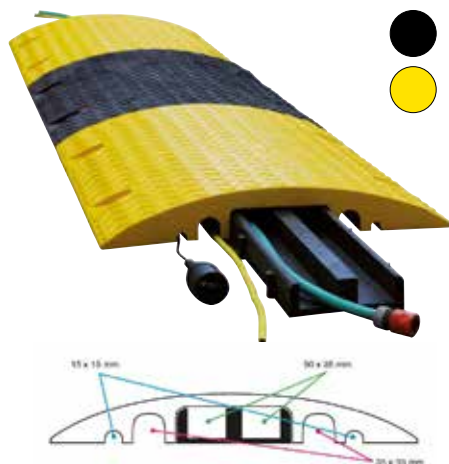
- max. crossing speed of 10 km/h
- for hoses up to 3"
- **NOTE! Hose bridges are not suitable for use in heavy load traffic!**
- black
- both channels have the same size
- cable bridge is secured by lateral safety snap-in knobs to prevent slipping
- can be assembled with any desired number of individual elements
- no fixation required

Part No.	Description	PQ
25931N12	Hose protection bridge	60

Direct link:

www.horizont.com/25931N12

Weight, approx. kg	Dims., L*W*H mm	Material	Cable channels: Qty, W*H
15.0	835 * 300 * 80	Recycling	2 x, 92 * 70



Cable bridge

with 6 different channels

Modular system for the protection of exposed cables, smaller hoses or pipes which have to be crossed at construction sites or in case of operations.

- max. crossing speed of 10 km/h
- maximum diameter of hoses / cables / pipes 50 x 35 mm
- **NOTE! Cable bridges are not suitable for use in heavy load traffic!**
- black or yellow
- 6 different channel sizes
- anti-slip effect due to structured surface
- can be assembled with any desired number of individual elements
- no fixation required due to its high weight

Part No.	Description	PQ
25931N11	Cable bridge, black	20
25931N11GELB	Cable bridge, yellow	20

Direct link:

www.horizont.com/25931N11

Weight, approx. kg	Dims., L*W*H mm	Material	Cable channels: Qty, W*H
29.4	800 * 600 * 80	recycling	2 x, 15 * 15 2 x, 35 * 35 2 x, 50 * 35





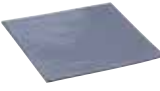


Please choose the suiting accessories and spare parts for the products of the previous chapter from the following table.

You will also find the recommended fastening accessories under every product description.

Our service for you!

Fastening sets

Fastening material			for Guide curbs, Leitboy bases and speed bumps						
Illustration	Part No. / Description	PQ	Guide Curb, page 62	Leitboy base, L49, page 70	Leitboy base L50, page 70	Leitboy base L54, page 71	Speed bump, page 75	Speed Stop, page 74	Car Stop, page 74
	766202 2 screws 10 * 140 mm, washer / dowel, width across flats 17	1 bag			✓	✓		✓	
	766205 2 screws 8 * 140 mm, washer / dowel, width across flats 13	1 bag		✓					
	766206 2 screws 10 * 110 mm, washer / dowel, width across flats 17	1 bag					✓		✓
	766209 2 screws 10 * 160 mm, washer (no dowel required) width across flats 18	1 bag	✓			✓	✓	✓	
	767200 Hot glue mat	1		✓					

A man with short brown hair, smiling, wearing a dark grey suit jacket over a white button-down shirt. He is standing outdoors next to a red traffic light with a large yellow lens. The background shows a blue sky and some white structural elements.

KAI OBERLIES

Sales Export

Since when? November 2017

What? Sales Manager Export
(North America, North- & Northeast Europe, Africa, Asia & Oceania)

About? In his free time, Kai tries to spend as much time as possible with his family and friends. Besides, he also loves to go for a jog, to cycle and to ride his motorbike.



04 | Traffic guiding light,
Sequential light

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Traffic guiding light	78-80
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Xenon cascade	80
LED cascade	80



TopLED Synchro

Wireless traffic guiding system

TopLED Synchro is a powerful, radio-controlled warning light, incorporating a self-synchronizing controller. Installed in a row the TopLED Synchro lamps either form a sequential light or a progressive light, in order to guide vehicles safely past dangerous areas.

- **deployable as sequential or progressive light**
- **deployable as a single warning lamp on delineators**
- **infinitely extendable**
- self-synchronizing
- sequential light, progressive light or synchronous light (road blocked)
- automatic night dimming
- background light
- alternating flash light: 2-3-2
- only night- or day-night operation
- working range from sender (D-Frankfurt), approx. 2000 km
- with Secura Uni 52
- remote control included (part no. 98268P)
- delineator and base plate not included in scope of delivery

Part No.	Description	PQ
21132	TopLED Synchro, Set of 5 lamps; extent of delivery: 5 lamps, 1 allen key, 1 pin key, 1 remote control	1 Set

Direct link:

www.horizont.com/21132

Weight approx., kg	Flashing rate / min.	Operation time, days (single lamp) with 1x 50 Ah
4.0	60	58



TopLED Synchro

Single lamp

- **deployable as extension for existing TopLED Synchro sets**
- **infinitely extendable**
- self-synchronizing
- sequential light, progressive light or synchronous light (road blocked)
- automatic night dimming
- background light
- alternating flash light: 2-3-2
- only night- or day-night operation
- working range from sender (D-Frankfurt), approx. 2,000 km
- with Secura Uni 52
- delineator and base plate not included in scope of delivery

Part No.	Description	PQ
21131	TopLED Synchro, single lamp; extent of delivery: 1 TopLED synchro lamp, 1 allen key, 1 pin key	1

Direct link:

www.horizont.com/21131

Weight approx., kg	Flashing rate / min.	Operation time, days (single lamp) with 1x 50 Ah
0.8	60	58

TopLED Synchro GPS

Wireless traffic guiding system, **GPS controlled**

TopLED Synchro GPS is a powerful, GPS-controlled warning light, incorporating a self-synchronizing controller. Due to the GPS controller, TopLED Synchro GPS is suitable for world-wide application. Installed in a row the TopLED Synchro GPS lamps form a sequential light, in order to guide vehicles safely past dangerous areas.

- world-wide applicable due to GPS controller
- deployable as sequential light
- deployable as a single warning lamp on delineators
- infinitely extendable
- self-synchronizing
- sequential light
- automatic night dimming
- background light
- alternating flash light: 2-3-2
- only night- or day-night operation
- with Secura Uni 52
- delineator and base plate not included in scope of delivery



Part No.	Description	PQ
211321	TopLED Synchro GPS, Set of 5 lamps; extent of delivery: 5 lamps TopLED Synchro GPS, 1 allen key, 1 pin key	1 Set

Direct link:

www.horizont.com/211321

Weight approx., kg	Flashing rate / min.	Operation time, days (single lamp) with 1x 50 Ah
4.0	60	58

TopLED Synchro GPS

GPS controlled, single lamp

- world-wide applicable due to GPS controller
- deployable as extension lamp for TopLED Synchro GPS five – unit traffic guiding light
- infinitely extendable
- self-synchronizing
- sequential light
- automatic night dimming
- background light
- alternating flash light: 2-3-2
- only night- or day-night operation
- with Secura Uni 52
- delineator and base plate not included in scope of delivery



Part No.	Description	PQ
211311	TopLED Synchro GPS, single lamp; extent of delivery: 1 TopLED Synchro GPS single lamp, 1 allen key, 1 pin key	1

Direct link:

www.horizont.com/211311

Weight approx., kg	Flashing rate / min.	Operation time, days (single lamp) with 1x 50 Ah
0.8	60	58



Our horizon spans the entire globe

Experience the horizon quality



Xenon flash sequential light system

To be combined as required – from 1 to 10 lamps

Extremely bright Xenon flash sequential light system, ideal in case of strong sunlight

- to be combined as required, from 1 to 10 lamps
- you need 1 master lamp and 1 to 9 slave lamps
- only night- or day-night operation
- power supply via a 12 V- rechargeable battery (accessory), to be connected to the master lamp
- delineators and base plates not included in scope of delivery

Part No.	Description	PQ
208990N	Xenon flash master lamp, with 5 m power cord and battery clamps	1
209170N	Xenon flash slave lamp, with 15 m connection cable	1

Direct link:

www.horizont.com/208990N

Weight approx., kg	Flashing rate / min.	Operation time, days (sequential light, 1 set of 5 lamps) with 1x 180 Ah
1.5	60	6



LED sequential light system

To be combined as required – from 1 to 10 lamps

State of the art and power saving LED sequential light system

- to be combined as required, from 1 to 10 lamps
- you need 1 master lamp and 1 to 9 slave lamps
- only night- or day-night operation
- power supply via a 12 V- rechargeable battery (accessory), to be connected to the master lamp
- delineators and base plates not included in scope of delivery

Part No.	Description	PQ
20899LED	LED master lamp, with 5 m power cord and battery clamps	1
20917LED	LED slave lamp, with 15 m connection cable	1

Direct link:

www.horizont.com/208990N

Weight approx., kg	Flashing rate / min.	Operation time, days (sequential light, 1 set of 5 lamps) with 1x 180 Ah
1,5	60	16

PREMIUM QUALITY

Made by **horizont**

Traffic guiding light, Sequential light systems
horizont In Touch

Stefan Wolff

Printing and product customization

Since when? February 2014

What? Printing and product customization

About? In his leisure time, Stefan loves to do various sports. He plays table tennis in a local sports club and also loves to go cycling. Furthermore he also enjoys cooking.

***OUR BIGGEST
POTENTIAL -
THE PEOPLE
BEHIND THE LOGO!***

A man with glasses and a beard, wearing a black shirt and blue jeans, is kneeling on a paved surface. He is holding a red portable warning lamp with a large yellow lens. In the background, there is a construction site with various equipment and materials.

MIKE **BLECHSCHMIDT**

Trainings Manager

Since when? Mai 2001

What? Responsible for data administration on product details, consultant on safety and security guidelines for construction sites

About? In his leisure time Mike is a keen cyclist and loves to read – but most important:– he enjoys going on city trips together with his wife and children.



05 | **Flash lamps,
Warning lamps**

Chapter overview 82-83

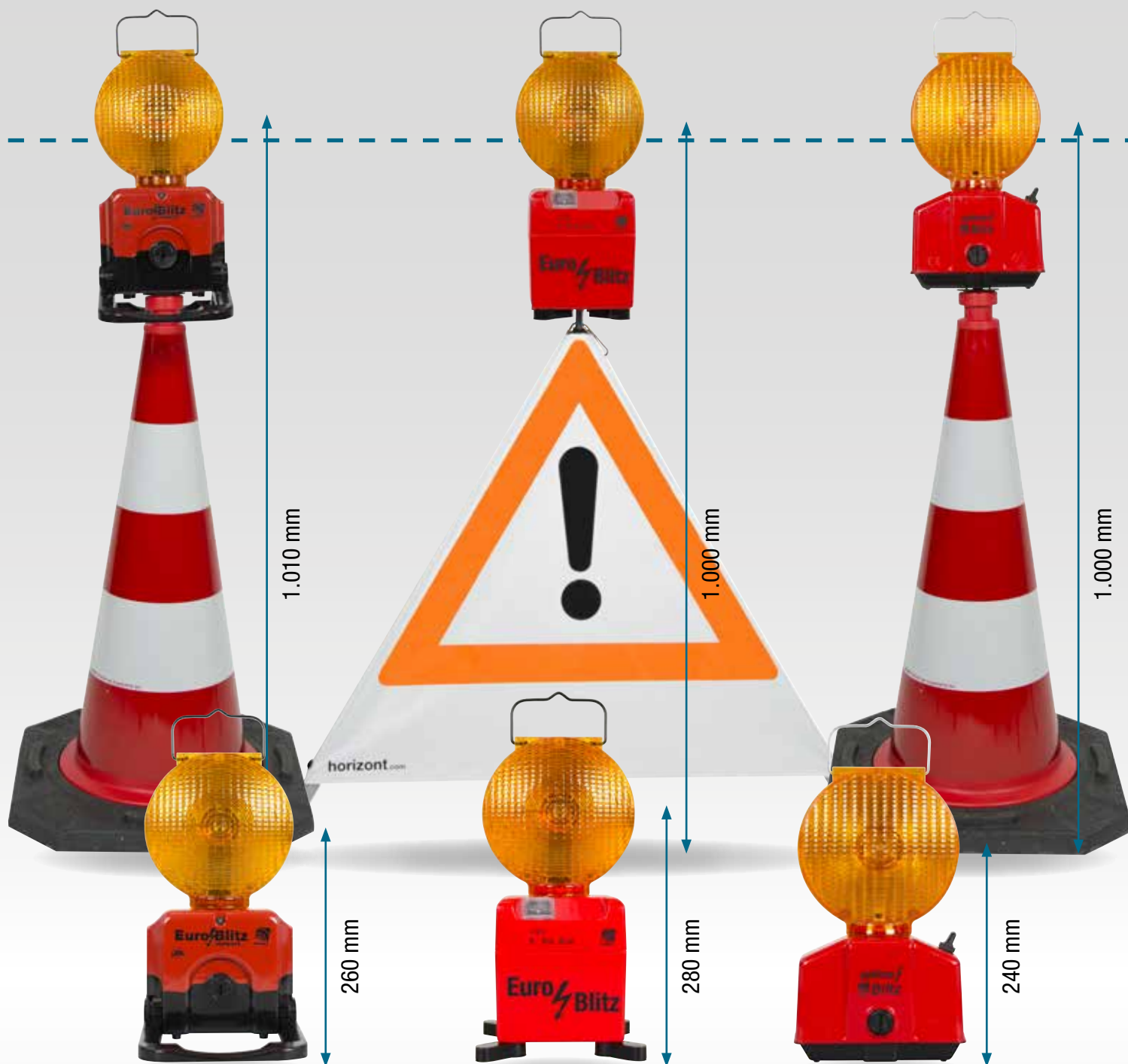
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Euro-Blitz compact

The Euro-Blitz compact is the perfect choice for situations which require quickest action – no need to operate a switch: Unfold – Flashes – Ready! Stands sturdily – no additional feet needed.



more details
on pages
86-87

Euro-Blitz

For many years now a constant and reliable companion of German fire brigades. Euro-Blitz stands for “Quick securing at high stability”. Euro-Blitz is perfectly suited for use on traffic cones.



more details
on pages
88-89

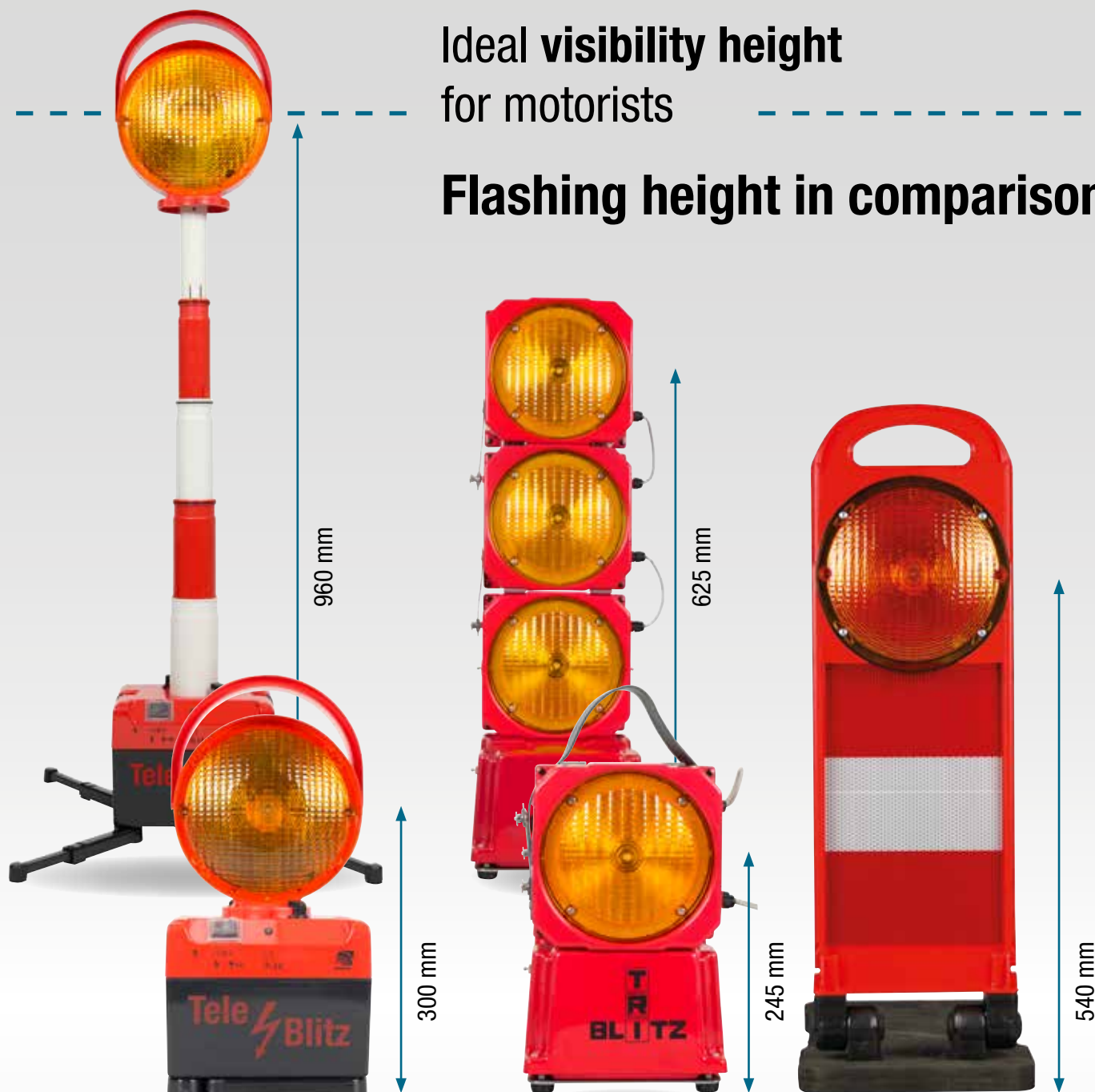
Optima-Blitz

Our new lamp ensures best cost-effectiveness ratio for versatile applications.

more details on page 93

Ideal visibility height
for motorists

Flashing height in comparison



Tele-Blitz

horizont TeleBlitz perfectly combines the persistent reliability of our Euro-Blitz with an ideal visibility height for motorists. Flashing at a height of 1 m, the Tele-Blitz is clearly visible.



more details
on pages
90-91

TRI-Blitz

TRI-Blitz is in fact a traffic guiding light, hidden in a xenon flash light. Due to the 5 different modes TRI-Blitz provides you are at any time-perfectly equipped for all applications required.

more details on page 92

FlashMax

The FlashMax is the most recent member of the horizont Flash-Synchro family. Presenting the ideal solution for the Police's requirement for quick safeguarding, it is already deployed by public authorities in numerous federal states of Germany.



more details
on pages
96-98



BAST



**KBA
EMV**

**L8M /
L8L**

EN 12352

WL4

TL-Warn-
leuchten

Euro-Blitz compact

The new compact class

horizont Euro-Blitz compact is the perfect solution for quick and secure safeguarding with state of the art LED-technology.

- **BAST approved according to TL-Warnleuchten**
- **EMC approved by KBA (German Federal Motor Transport Authority)**
- **luminous intensity complies with EN 12352, class L8L/L8M**
- automatic switching ON – OFF by simply folding the feet
- stable and skid resistant due to large footprint
- impact resistant and weatherproof enclosure
- great performance; bright LED flasher and steady backlight
- fits also on folding signs (tripods)
- rechargeable unit equipped with automatic overcharging and discharging protection
- recharging and trickle charging from vehicle mains via charging cable
- automatic charging in the transport-and charging box via external contacts at the lamp's housing
- rechargeable battery lead-gel 6 V / 4.5 Ah incl. (in-built)
- non rechargeable battery not included

Part No.	Description	BAST	PQ
21212NEU	bi-directional, amber, battery version	✓	1
21222NEU	bi-directional, amber, rechargeable battery version for charging box or mains (not inclusive)	✓	1

Recommended accessory

21225	Transport- and charging box with supply cable, to be used as single charger or to be connected with extension charger boxes, part no. 21226		1
21226	Transport- and charging box with connection cable, extension box for 2-6 units		1
21227	Transport box, no charger		1
84706	Safety catch, as transport lock for single boxes		1
84265	Mains adapter 230 V / 1.5 A		1
926033VP	Vehicle charger cable 12 / 24 V		1
251031	Rechargeable battery 6 V / 4.5 Ah		1

Direct link:

✓ www.horizont.com/21212NEU

Part No.	Weight approx., kg	Dims., L*W*H, mm	Flashing rate / min.	Operation time, h				
				1 * 7 Ah	1 * 9 Ah	1 * 20 Ah	1 * 50 Ah	1 * 4,5 Ah rechargeable
21212NEU	1.5	185 * 90 * 345	60	74	96	200	265	–
21222NEU	2.8	185 * 90 * 345	60	–	–	–	–	50



Euro-Blitz compact synchro

Compact, mobile LED guiding light system

Euro-Blitz compact synchro by horizont uses state of the art LED technology as well as the latest radio technology to ensure that danger spots are secured particularly quickly and safely. The horizont synchro system allows installing a ready to use guiding light system in the twink of an eye – simply install the lamps – the synchronization takes place automatically via radio modules.

- **BAST approved according to TL-Warnleuchten**
- **EMC approved by KBA (German Federal Motor Transport Authority)**
- **luminous intensity complies with EN 12352, class L8L/L8M**
- **latest radio technology used for synchronization**
- guiding light system, self-synchronizing when switched on
- in contrast to systems with conventional infra-red technology, Euro-Blitz compact synchro lamps can be arranged arbitrarily in order to be synchronized
- automatic switching ON – OFF by simply folding the feet
- impact resistant and weatherproof enclosure
- stable and skid resistant due to large footprint
- great performance; bright LED flasher and steady backlight
- fits also on folding signs (tripods)
- rechargeable unit equipped with automatic overcharging and discharging protection
- recharging and trickle charging from vehicle mains via charging cable
- automatic charging in the transport- and charging box via external contacts at the lamp's housing
- any Euro-Blitz compact synchro lamp can also be used as a single lamp
- rechargeable battery lead-gel 6 V / 4.5 Ah incl. (in-built)
- non rechargeable battery not included

Part No.	Description	BAST	PQ
21223NEU	uni-directional, amber, battery version	✓	1
21224NEU	uni-directional, amber, rechargeable battery version for charging box or mains (not inclusive)	✓	1

Recommended accessory

21225	Transport- and charging box with supply cable, to be used as single charger or to be connected with extension charger boxes, part no. 21226		1
21226	Transport- and charging box with connection cable, extension box for 2-6 units		1
21227	Transport box, no charger		1
84706	Safety catch, as transport lock for single boxes		1
84265	Mains adapter 230 V / 1.5 A		1
926033VP	Vehicle charger cable 12 / 24 V		1
251031	Rechargeable battery 6 V / 4.5 Ah		1

Part No.	Weight approx., kg	Dims., L*W*H, mm	Flashing rate / min.	Operation time, h				
				1 * 7 Ah	1 * 9 Ah	1 * 20 Ah	1 * 50 Ah	1 * 4,5 Ah rechargeable
21223NEU	1.5	185 * 90 * 345	60	100	150	250	480	–
21224NEU	2.8	185 * 90 * 345	60	–	–	–	–	90



Direct link:

www.horizont.com/21223NEU

Convince yourself online of the quick usability of the Euro-Blitz compact



www.horizont.com/ytEuroblitzCompact



www.horizont.com/ytSynchroFamilie



Euro-Blitz LED

Euro-Blitz in LED Technology

horizont Euro-Blitz LED secures particularly safely and highly visible dangerous spots with state of the art LED-technology

- **BAST approved according to TL-Warnleuchten**
- **EMC approved by KBA (German Federal Motor Transport Authority)**
- **luminous intensity complies with EN 12352, class L8L/L8M**
- membrane sealed rocker switch
- stable and skid resistant due to 4 fold out feet
- impact resistant and weatherproof enclosure
- steady backlight can be selected if required
- fits also on folding signs (tripods)
- rechargeable unit equipped with automatic overcharging and discharging protection
- recharging and trickle charging from vehicle mains via charging cable
- automatic charging in the transport- and charging box via external contacts at the lamp's housing
- rechargeable battery lead-gel 6 V / 7 Ah incl. (in-built)
- non rechargeable battery not included

Part No.	Description	BAST	PQ
208802LED	bi-directional, amber, battery version	✓	1
209742ALEd	bi-directional, amber, rechargeable battery version for charging box or mains adapter (not inclusive)	✓	1

Recommended accessory

84265	Mains adapter 230 V / 1.5 A		1
926033VP	Vehicle charger cable 12 / 24 V		1
20975	Transport/Charging box for Euro-Blitz LED / Euro-Blitz LED synchro with rechargeable battery		1
211074	Transport/Charging box for up to 4 Euro-Blitz LED / Euro-Blitz LED synchro with rechargeable battery		1

Direct link:

✓ www.horizont.com/208802LED

Part No.	Weight approx., kg	Dims., L*W*H, mm	Flashing rate / min.	Operation time, h				
				4 * 7 Ah	4 * 9 Ah	4 * 20 Ah	4 * 50 Ah	1 * 7 Ah, rechargeable
208802LED	1.5	140 * 150 * 380	60	200	250	700	1,250	—
209742ALEd	2.8	140 * 150 * 380	60	—	—	—	—	50

Discover the extensive range of products particularly suitable for fire-fighters' requirements.

✓ www.horizont.com



Euro-Synchron LED

Mobile LED guiding light system

Euro-Synchron LED by horizont uses state of the art LED technology as well as the latest radio technology to ensure that danger spots are secured particularly quickly and safely. The horizont synchro system allows installing a ready to use guiding light system in the twinkling of an eye – simply install the lamps – the synchronization takes place automatically via radio modules!

- **BAST approved according to TL-Warnleuchten**
- **EMC approved by KBA (German Federal Motor Transport Authority)**
- **luminous intensity complies with EN 12352, class L8L/L8M**
- membrane sealed rocker switch
- in contrast to systems with conventional infra-red technology Euro-Blitz compact synchro lamps can be arranged arbitrarily in order to be synchronized
- stable and skid resistant due to large footprint
- impact resistant and weatherproof enclosure
- steady backlight can be selected if required
- fits also on folding signs (tripods)
- rechargeable unit equipped with automatic overcharging and discharging protection
- recharging and trickle charging from vehicle mains via charging cable
- automatic charging in the transport- and charging box via external contacts at the lamp's housing
- any Euro-Synchron LED lamp can also be used as a single lamp
- rechargeable battery lead-gel 6 V / 7 Ah incl. (in-built)
- non rechargeable battery not included



Part No.	Description	BAST	PQ
208821LED	uni-directional, amber, battery version	✓	1
208831ATLED	uni-directional, amber, rechargeable battery version for charging box or mains (not inclusive)	✓	1

Recommended accessory

84265	Mains adapter 230 V / 1.5 A	1
926033VP	Vehicle charger cable 12 / 24 V	1
20975	Transport/Charging box for Euro-Blitz LED / Euro-Blitz LED synchro with rechargeable battery	1
211074	Transport/Charging box for up to 4 Euro-Blitz LED / Euro-Blitz LED synchro with rechargeable battery	1

Direct link:

www.horizont.com/208821LED

Part No.	Weight approx., kg	Dims., L*W*H, mm	Flashing rate / min.	Operation time, h				
				4 * 7 Ah	4 * 9 Ah	4 * 20 Ah	4 * 50 Ah	1 * 7 Ah , rechargeable
208821LED	1.5	140 * 150 * 380	69	400	500	1,400	2,250	–
208831ATLED	2.8	140 * 150 * 380	69	–	–	–	–	90

Convince yourself online of the quick usability of the Euro-Synchron LED



www.horizont.com/ytEuroblitzSynchro



www.horizont.com/ytSynchroFamilie



BAST



**KBA
EMV**

**L8M /
L8L**

EN 12352

WL4

TL-Warn-
leuchten

Tele-Blitz LED

LED flash lamp on eye level

horizont Tele-Blitz LED uses latest LED technology to ensure that danger spots or road works are visible even from afar - flashing either at ground level or particularly visible at eye level in 1 m height.

- **BAST approved according to TL-Warnleuchten**
- **EMC approved by KBA (German Federal Motor Transport Authority)**
- **luminous intensity complies with EN 12352, class L8L/L8M**
- sturdy telescopic pole extendible to 1 m height
- telescopic pole with red/white horizontal stripe – additional warning effect
- membrane sealed rocker switch
- stable and skid resistant due to fold-out and pull-out feet
- impact resistant and weatherproof enclosure
- steady backlight can be selected if required
- rechargeable unit equipped with automatic overcharging and discharging protection
- recharging and trickle charging from vehicle mains via charging cable
- automatic charging in the transport- and charging box via external contacts at the lamp's housing
- any Tele-Synchron LED lamp can also be used as a single lamp
- rechargeable battery lead-gel 6 V / 7 Ah incl. (in-built)
- non rechargeable battery not included

Part No.	Description	BAST	PQ
208502LED	bi-directional, amber, battery version	✓	1
208512ATLED	bi-directional, amber, rechargeable battery version for charging box or mains (not inclusive)	✓	1
Recommended accessory			
84265	Mains adapter 230 V / 1.5 A		1
926033VP	Vehicle charger cable 12 / 24 V		1
21135	Transport/Charging box for up to 2 Tele-Blitz LED / Tele-Synchron LED		1
21128	Transport/Charging box for up to 4 Tele-Blitz LED / Tele-Synchron LED		1

Direct link:

🔗 www.horizont.com/208502LED

Part No.	Weight approx., kg	Dims., L*W*H, mm	Height, mm	Flashing rate / min.	Operation time, h				1 * 7 Ah, rechargeable
					4 * 7 Ah	4 * 9 Ah	4 * 20 Ah	4 * 50 Ah	
208502LED	2.1	210 * 150 * 465	1,100	60	250	300	700	1250	–
208512ATLED	3.8	210 * 150 * 465	1,100	60	–	–	–	–	100

Discover our range of customized products for the Police.

🔗 www.horizont.com/polizei

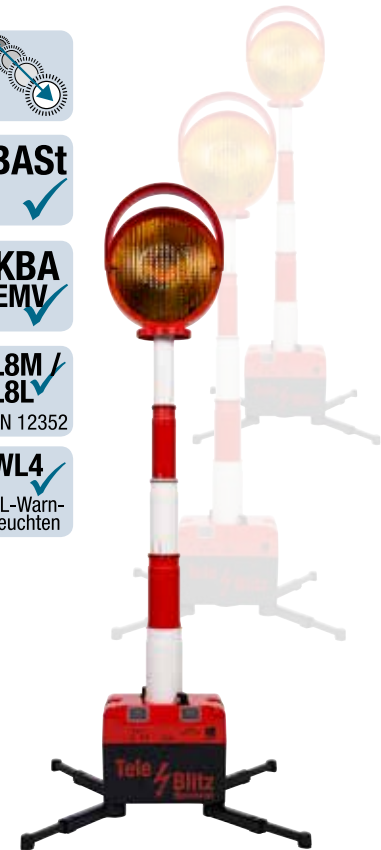


Tele-Synchron LED

Mobile LED guiding light system on eye level

horizont Tele-Synchron LED uses latest LED technology as well as the latest radio technology to ensure that danger spots are secured particularly quickly and safely. Due to the telescopic pole, Tele-Synchron LED is visible even from afar - flashing either at ground level or particularly visible at eye level in 1 m height. The horizont synchro system allows installing a ready to use guiding light system in the twinkling of an eye – simply install the lamps – the synchronization takes place automatically via radio modules!

- **BAST approved according to TL-Warnleuchten**
- **EMC approved by KBA (German Federal Motor Transport Authority)**
- **luminous intensity complies with EN 12352, class L8L/L8M**
- **latest radio technology used for synchronization**
- guiding light system, self-synchronizing when switched on
- in contrast to systems with conventional infra-red technology, Tele-Synchron LED lamps can be arranged arbitrarily in order to be synchronized
- sturdy telescopic pole extendible to 1 m height
- telescopic pole with red/white horizontal stripe – additional warning effect
- membrane sealed rocker switch
- stable and skid resistant due to fold-out and pull-out feet
- impact resistant and weatherproof enclosure
- steady backlight can be selected if required
- rechargeable unit equipped with automatic overcharging and discharging protection
- recharging and trickle charging from vehicle mains via charging
- automatic charging in the transport- and charging box via external contacts at the lamp's housing
- any Tele-Synchron LED lamp can also be used as a single lamp
- rechargeable battery lead-gel 6 V / 7 Ah incl. (in-built)
- non rechargeable battery not included



Part No.	Description	BAST	PQ
20852LED	uni-directional, amber, battery version	✓	1
20853ATLED	uni-directional, amber, rechargeable battery version for charging box or mains (adapter not inclusive)	✓	1

Recommended accessory

84265	Mains adapter 230 V / 1.5 A	1
926033VP	Vehicle charger cable 12 / 24 V	1
21135	Transport/Charging box for up to 2 Tele-Blitz LED / Tele-Synchron LED	1
21128	Transport/Charging box for up to 4 Tele-Blitz LED / Tele-Synchron LED	1

Direct link:

www.horizont.com/20852LED

Part No.	Weight approx., kg	Dims. , L*W*H, mm	Height, mm	Flashing rate / min.	Operation time, h				
					4 * 7 Ah	4 * 9 Ah	4 * 20 Ah	4 * 50 Ah	1 * 7 Ah Akku
20852LED	2.1	210 * 150 * 465	1,100	69	500	600	1,400	2,700	–
20853ATLED	3.8	210 * 150 * 465	1,100	69	–	–	–	–	180

Convince yourself online of the quick usability of the Euro-Synchron LED



www.horizont.com/ytTeleSynchro



www.horizont.com/ytSynchroFamilie



TRI-Blitz

Portable triple-flash light system

Horizont TRI-Blitz 1 is a triple flash unit providing, amongst other modes, a running light in downward movement, thus visually giving a request to slow down the speed. With the extremely powerful xenon flash of 3 x 1 Joule, the system provides optimal visibility and by this securing danger spots in the best way possible. horizont TRI-Blitz provides numerous applications in just one system, e.g. flash light system, running light, guiding light, one- and bi- directional flash light.

- extremely powerful flash with 3 x 1 Joule
- various modes: flash light system, running light system (upwards and downwards), guiding light system (right or left showing), uni- and bi-directional flash
- particularly compact design in transport position
- impact resistant and weatherproof enclosure
- equipped with automatic overcharging and discharging protection
- different types of charging devices available, not included in scope of delivery

Part No.	Description	PQ
20652A	with two in-built rechargeable batteries, 6 V / 7 Ah	1

Recommended accessory

25556TRI	Charging device, 230 V - 12 V for rechargeable batteries with intelligent / automatic switch-over to charge conservation, charging time approx. 14 h for empty rechargeable batteries, constant charging possible	1
21038	Vehicle charger 12 / 24 V, external charger for immediate use after application, to be connected to the vehicle's mains supply via cigarette plug, charging time approx. 14 h for empty rechargeable batteries, constant charging possible	1

Direct link:
www.horizont.com/20652A

Weight, kg	Dims., L*W*H, mm	Flashing rate / min.	Operation time, h, 2*7 Ah
10.0	280 * 210 * 340	60	15



Optima-Blitz LED

Perfect visibility during day and night in proven enclosure

With a maximum light output of 320 Cd (complies with EN 12352, class L8L), horizont Optima – LED flash ensures optimal visibility during day and night time. State of the art LED –technique integrated in the field-proven enclosure of our Optima road hazard warning lamp – that's quality "Made in Germany"!

- 3-phase membrane sealed rocker switch or hidden switch
- day and day/night time operation (photo-cell)
- night-dimming
- steady backlight during night time mode
- fits also on folding signs (tripods)
- batteries not included
- also available as xenon flash lamp

Part No.	Description	PQ
20752KLED	with 3-phase membrane sealed rocker switch	1
20886LED0H	with hidden switch, to be operated by means of Secura-key	1
Recommended accessory		
20104-10VP	Secura-key, bag of 10	1
20147	Secura-bracket 52 mm, bag of 10	1



Direct link:

www.horizont.com/20752KLED

Weight, kg	Dims., L*W*H, mm	Flashing rate / min.	Operation time, h, 2*20 Ah
1.0	120 * 190 * 335	60	1,000

ConeFix, LED Warning lamp for traffic cones

Automatically activated by placing on a traffic cone (min 500 mm)

The UPGRADE to your traffic cones! Developed for safeguarding in poor visibility conditions or at night, this light increases visibility and thus your safety.

ConeFix is activated by simply placing it on the traffic cone (min. 500 mm) via contact; its uniform LED light will then warn approaching vehicles about hazardous spots ahead.

ConeFix is powered by a standard 4R25 6-volt block battery.

- **automatic switching on / off by simply placing on the cone**
- powered by one standard 4R25 6 Volt battery
- diameter lens: 180 mm
- housing red
- LED and lens amber

Part No.	Description	PQ
20892	ConeFix, LED warning lamp for traffic cones	10



Direct link:

www.horizont.com/20892

Weight, kg	Dims., L*W*H, mm	Flashing rate / min.	1 * 7 Ah	Operation time, h 1 * 9 Ah	1 * 20 Ah
0.46	225 * 190 * 190	60	340	430	970

Choose your cone from our large range of traffic cones - you will find cones recommended by horizont on page 52





Cone flash lamp RS 2000 LED, incl. supply box

For traffic cones 750 mm height

Powerful LED cone flash light equipped with 4 high-performance LEDs. Quick and easy mounting on standard 750 mm cones. Power supply box for 4 block batteries connected to the lamp by a sturdy tube. Quick fixation via wing nut. Especially quick and easy battery change due to battery box enclosure equipped with "click-lock" system.

- **BAST approved according to TL-Warnleuchten**
- **mandatory in Germany (North Rhine-Westphalia) for short term, non-urban construction sites**
- **L8H/L8M, WL 6**
- **for use with traffic cones of 750 mm height**
- **plug system allows quick and easy mounting**
- quick battery change due to battery box equipped with "click-lock" system
- rubber sealed toggle switch
- excellent stability due to battery box inside the cone firmly placed on the ground
- sturdy design
- long-life LEDs
- low power consumption
- also available as version for rechargeable battery
- traffic cones not included
- batteries not included

Part No.	Description	BAST	PQ
21311LED	Cone flash lamp RS 2000 LED Scope of delivery: 1x RS 2000 LED lamp (21175) 1x supply box for 4 batteries 4R 25 (20947)	✓	1

Direct link:

✉ www.horizont.com/21311LED

Weight, kg	Dims., L*W*H, mm	Flashing rate / min.	Operation time, h			
			4 * 7 Ah	4 * 9 Ah	4 * 20 Ah	4 * 50 Ah
2.5	140 * 230 * 1,000	40	120	180	400	700



Cone flash lamp, incl. supply box

For traffic cones 750 mm height

Powerful LED cone flash light equipped for quick and easy mounting on standard 750 mm cones. Power supply box for 4 block batteries, respectively 2x 6 V / 7 Ah rechargeable batteries connected to the lamp by a sturdy tube. Quick fixation via wing nut. Especially quick and easy battery change due to battery box enclosure equipped with "click-lock" system.

- **for use with traffic cones of 750 mm height**
- plug system allows quick and easy mounting
- quick battery change due to battery box equipped with "click-lock" system
- uni- or bi-directional, respectively 360° omni-directional
- push switch
- excellent stability due to battery box inside the cone firmly placed on the ground
- version for rechargeable batteries comes inclusive 2x 6 V / 7 Ah lead-gel rechargeable battery
- traffic cones not included
- batteries not included

Part No.	Description	VE
21307	Cone flash lamp, uni-/ bi-directional Scope of delivery: 1x xenon flash lamp, ø 180 mm (20953) 1x supply box for 4 batteries 4R 25 (20947)	1
21309A	Cone flash lamp, uni-/ bi-directional Scope of delivery: 1x xenon flash lamp, ø 180 mm (20953) 1x supply box incl. 2 rechargeable 6 V / 7 Ah batteries (20971A)	1

Recommended accessory

25556ANS	Charger for part no. 21309A, 230 V / 12 V with control indicator and automatic charge monitoring	1
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Direct link:

✉ www.horizont.com/21307

Part No.	Weight, kg	Dims., L*W*H, mm	Flashing rate / min.	Operation time, h			
				4 * 7 Ah	4 * 9 Ah	4 * 20 Ah	2 * 7 Ah rechargeable
21307	2.4	155 * 160 * 1.100	60	55	75	180	—
21309A	4.88	155 * 160 * 1.100	60	—	—	—	60

TopFlash

For traffic cones min. 500 mm height

Xenon Flash technology at its best - embedded in a compact and robust housing. The TopFlash flash generator (2 Joule) supplies more than 650 Cd (Candela) of light output - thus especially suited for safeguarding work sites. TopFlash is supplied by one single 6V battery which enables a very long operation time. We recommend our high performance 20 Ah Alkaline battery. TopFlash can be easily operated via membrane sealed rocker switch on the front housing. Make your system complete with our cone adapter "DrehFix" - easy and tool free assembly on any customary cone: Plug! Twist! Fix! - in fact fixed so firmly, that you may "use" the TopFlash lamp to carry and displace the traffic cone itself.

- for traffic cones of minimum 500 mm height
- quick and tool-free mounting by means of the plug and twist system
- membrane sealed rocker switch
- compact and sturdy housing
- low power consumption
- we recommend our high performance Alkaline battery 20 Ah
- traffic cone not included
- batteries not included

Part No.	Description	PQ
21306	TopFlash	1

Empfohlenes Zubehör

82113	Leitkegeladapter DrehFix für TopFlash	1
-------	---------------------------------------	---



Direct link:
www.horizont.com/21306

Weight, kg	Dims., L*W*H, mm	Flashing rate / min.	1 * 7 Ah	Operation time, h	
				1 * 9 Ah	1 * 20 Ah
0.840	80 * 245 * 290	60	15	20	40

Cone flash lamp

For traffic cones min. 500 mm height

High performance xenon flash or LED cone flash lamp. Quick and easy mounting on customary traffic cones, minimum height 500 mm. Battery tube for 5 mono-cells (D-cells) LR 20, respectively 5 NiMH rechargeable batteries 5 Ah / 1.2 V - easy to replace due to plug-system.

- for use with traffic cones of min. 500 mm height
- plug systems allows quick and easy mounting
- easy battery exchange due to plug system
- choose between powerful xenon flash or state of the art LED technique
- long-life LEDs and lower power consumption if you decide for LED technique
- push switch
- traffic cones not included
- batteries not included

Part No.	Description	PQ
20891	uni- / bi-directional, xenon flash for 5x LR 20 mono-cells	1
20891LED	uni-directional, LED, for 5x LR 20 mono-cells	1
208912LED	bi-directional, LED, for 5x LR 20 mono-cells	1
20891ALED	uni-directional, LED, with rechargeable batteries, 5x NimH, 5 Ah / 1.2 V, incl. charging adapter 230 V – 12 V / 1 Ah	1
208912ALED	bi-directional, LED, with rechargeable batteries, 5x NimH, 5 Ah / 1.2 V, incl. charging adapter 230 V – 12 V / 1 Ah	1

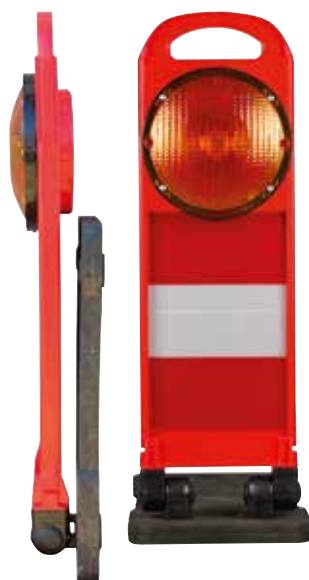


Direct link:
www.horizont.com/20891

Part No.	Weight, kg	Dims., L*W*H, mm	Flashing rate / min.	Operation time, h	
				5 * LR 20	5 * 5 Ah rechargeable
20891	1.3	100 * 180 * 630	60	30	—
20891LED	1.3	100 * 180 * 630	60	90	—
208912LED	1.3	100 * 180 * 630	60	45	—
20891ALED	1.85	100 * 180 * 630	60	—	90
208912ALED	1.85	100 * 180 * 630	60	—	45



Save. Quick. Efficient.
That's quality from horizont



BAST ✓

TL ✓
Warn-
leuchten

WL4 ✓
TL-Warn-
leuchten

**L8M /
L8L** ✓
EN 12352

FlashMax

Small collapsible delineator with additional LED flash lamp

horizont FlashMax, safe, fast and effective safeguarding in hazardous accident areas for all emergency services such as police or fire brigade. Space-saving, with a bright flashing light approved by the Federal Highway Research Institute (BAST) (according to WL 4). Sheeting type RA 2 C on both sides! With additional emergency power supply possible via a 9 V battery, so that continued use over several hours is guaranteed.

- **BAST approved according to TL-Warnleuchten**
- **luminous intensity complies with EN 12352, class L8L/L8M (WL4)**
- steady backlight
- yellow LED flash lamp
- sturdy folding mechanism with two hinges
- panel in bright red, for best visibility
- sheeting type RA 2 C, block -stripes in red/white
- lightweight – only 6 kg
- carrying handle on panel
- recessed sheeting area
- anti-skid system
- powered by 4 batteries LR 14 (not included)

Part No.	Description	BAST	PQ
2562241QUER	FlashMax	✓	1
Recommended accessory			
257741KC	Transport and storage box for up to 6 Warnmax or up to 4 Soundmax, respectively Flashmax		1

Direct link:

✂ www.horizont.com/2562241QUER

Weight, kg	Dims., H*W, mm	Dims. sheeting, H*W, mm	Sheeting type	Material	Flashing rate / min.	Operation time, h 4* LR 14 battery
6.0	710 * 215	300 * 187.5	RA 2 C	polyethylene	69	160

FlashMax Synchro

Collapsible delineator with self-synchronizing sequential light for quick and efficient safeguarding of danger spots

- **BAST approved according to TL-Warnleuchten**
- **luminous intensity complies with EN 12352, class L8L/L8M (WL4)**
- Sequential light self-synchronizing when switched on by integrated radio modules
- in contrary to systems with conventional infra-red technology, FlashMax Synchro lamps can be arranged arbitrarily in order to be synchronized
- steady backlight
- amber LED
- sturdy folding mechanism with two hinges
- panel in bright red, for best visibility
- space saving storage – collapses especially flat
- sheeting type RA 2 C, red / white, horizontal stripes
- ergonomic carrying handle
- recessed sheeting area
- anti-skid system
- powered by 4 batteries LR14 (not included!)
- any FlashMax Synchro can also be used as single lamp

BAST ✓

TL ✓
Warn-
leuchten

WL4 ✓
TL-Warn-
leuchten

**L8M /
L8L** ✓
EN 12352



Part No.	Description	BAST	PQ
2562241 SYNCHRON	FlashMax Synchro	✓	1

Recommended accessory

257741KC	Transport and storage box for up to 6 Warnmax or up to 4 Soundmax, respectively Flashmax	1
-----------------	--	---

Direct link:

✓ www.horizont.com/2562241SYNCHRON

Weight, kg	Dims., H*W, mm	Dims. sheeting, H*W, mm	Sheeting type	Material	Flashing rate / min.	Operation time, h 4* LR 14 battery
6.0	710 * 215	300 * 187.5	RA 2 C	polyethylene	69	160

Convince yourself online of the quick usability of the FlashMax Synchro



✓ www.horizont.com/ytFlashMax



✓ www.horizont.com/ytSynchroFamilie





BAST ✓

TL ✓
Warn-
leuchten

WL4 ✓
TL-Warn-
leuchten

L8M / L8L ✓
EN 12352

FlashMax Design "Police" (Germany)

Small collapsible delineator with LED - flashlight for additional warning effect

Horizont FlashMax - safe, fast, effective protection in hazardous accident areas for all police forces - in a new police design.

Additional emergency power supply possible via a 9V battery to ensure continued use for several hours. With battery control indicator! Your safety is our priority.

- **BAST-approved according to TL-Warnleuchten (WL4), complies with EN1352, class L8M/L8L**
- **sturdy folding mechanism with two hinges**
- **zadditional battery compartment for a 9V 6LR61 block battery for emergency power supply and battey control indicator**
- **design: for German police: blue body, sheeting yellow/red, type RA2C**
- **also available as self-synchronizing lamp (part no. 2562246SYNCHRON)**
- **amber LED-flash lamp**
- **steady backlight**
- **lightweight - only 6 kg**
- **anti-slip system**
- **with recessed sheeting area**
- **ergonomic carrying handle**
- **powered by 4 batteries LR14 (baby-cells), not included in delivery!**

Direct link:

✂ www.horizont.com/2562246

Part No.	Description	PQ
2562246	FlashMax Design "Police" (Germany)	1
2562246 SYNCHRON	FlashMax Design "Police" (Germany) Synchro	1
Recommended accessory		
257741KC	Transport and storage box for up to 6 Warnmax or up to 4 Soundmax, respectively Flashmax	1

Weight, kg	Dims., H*W, mm	Dims. sheeting, H*W, mm	Sheeting type	Material	Flashing rate / min.	Operation time, h 4* LR 14 battery
6.0	710 * 215	300 * 187.5	RA 1	plastic, recycling	69	160



BAST ✓

TL ✓
Warn-
leuchten

WL4 ✓
TL-Warn-
leuchten

L8M / L8L ✓
EN 12352

FlashMax with blue LED Flash (Export)

Small collapsible delineator with LED - flashlight for additional warning effect

Horizont FlashMax - safe, fast, effective protection in hazardous accident areas for all police forces - in a new police design.

Additional emergency power supply possible via a 9V battery to ensure continued use for several hours. With battery control indicator! Your safety is our priority.

- **BAST-approved according to TL-Warnleuchten (WL4), complies with EN1352, class L8M/L8L**
- **sturdy folding mechanism with two hinges**
- **zadditional battery compartment for a 9V 6LR61 block battery for emergency power supply and battey control indicator**
- **design: for German police: blue body, sheeting yellow/red, type RA2C**
- **also available as self-synchronizing lamp**
- **lense translucid with blue LED flash**
- **steady backlight**
- **lightweight - only 6 kg**
- **anti-slip system**
- **with recessed sheeting area**
- **ergonomic carrying handle**
- **powered by 4 batteries LR14 (baby-cells), not included in delivery!**

Direct link:

✂ www.horizont.com/2562246GL

Part No.	Description	PQ
2562246GL	FlashMax Design "Police" with blue LED Flash (Export)	1
2562246GL SYNCHRON	FlashMax Design "Police" with blue LED Flash Synchro (Export)	1
Recommended accessory		
257741KC	Transport and storage box for up to 6 Warnmax or up to 4 Soundmax, respectively Flashmax	1

Weight, kg	Dims., H*W, mm	Dims. sheeting, H*W, mm	Sheeting type	Material	Flashing rate / min.	Operation time, h 4* LR 14 battery
6.0	710 * 215	300 * 187.5	RA 1	plastic, recycling	69	160



Transport- and / or charging box

For up to 6 Euro-Blitz compact

- for transport of 1 to 6 Euro-Blitz compact lamps, any version
- for charging of 1 to 6 Euro-Blitz compact for rechargeable batteries
- re-charging or trickle charging possible in the vehicle via charging cable
- Euro-Blitz compact with rechargeable batteries is charged via external contacts at the lamp's housing
- arrange the transport-and charging boxes as you please in order to adapt to the available space
- just one box or up to 6 - lengthwise, crosswise or even in L-form
- one box needs less than 0.09 m²!
- lamps not included in scope of delivery

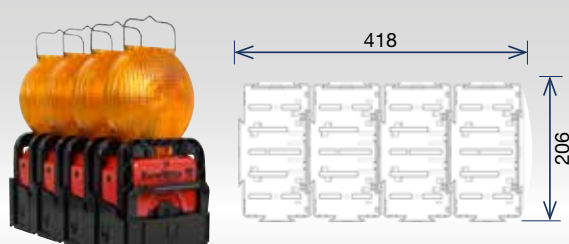
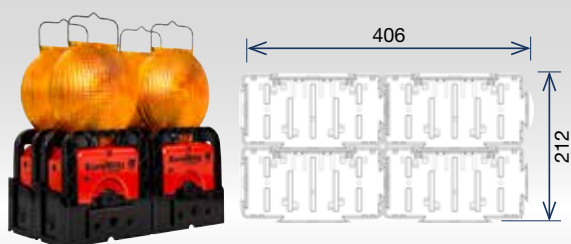


Part No.	Description	PQ
21225	Transport- and charging box with supply cable, to be used as single charger or to be connected with extension charger box, part no. 21226	1
21226	Transport- and charging box with connection cable, extension box for 2-6 units	1
21227	Transport box, no charger	1
84706	Safety catch, as transport lock for single boxes	1

Direct link:
www.horizont.com/21225

Part No.	Weight, kg	Dims., L*W*H, mm
21225	0.3	206 * 109 * 107
21226	0.3	206 * 109 * 107
21227	0.3	206 * 109 * 107

Arrange the single boxes according to the space available – lengthwise or crosswise!





Vehicle charger box

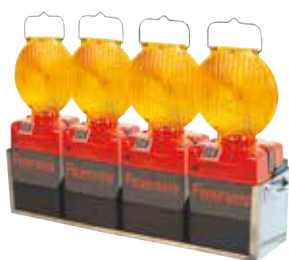
Suitable for Euro-Blitz, Euro-Blitz LED, Euro-Synchron, Euro-Synchron LED

- charges via external contacts at the lamp's housing
- lamps not included in scope of delivery

Direct link:
www.horizont.com/20975

Part No.	Description	PQ
20975	Transport- and charging box	1

Weight, kg	Dims. , L*W*H, mm	Material
0.7	185 * 210 * 173	plastic



Transport- and charging box

Suitable for recharge and storage of up to 4 Euro-Blitz / Euro-Synchron

- for up to 4 Euro-Blitz / Euro-Synchron lamps (LED or Xenon)
- also available as box for two, three or five lamps
- charges via external contacts at the lamp's housing
- Euro-Blitz / Euro-Synchron can be charged via 12 or 24 V
- Lamps not included in scope of delivery

Direct link:
www.horizont.com/211074

Part No.	Description	PQ
211074	Transport- and charging box for up to 4 Euro-Blitz / Euro-Synchron (LED or Xenon)	1

Weight, kg	Dims. , L*W*H, mm	Material
5.5	740 * 180 * 190	stainless steel / plastic



Transport- and charging box

Suitable for recharge and storage of 2 respectively 4 Tele-Blitz / Tele-Synchron

- for up to 4 Tele-Blitz / Tele-Synchron lamps (LED or Xenon)
- available as box for two or four lamps
- charges via external contacts at the lamp's housing
- Tele-Blitz / Tele-Synchron can be charged via 12 or 24 V
- Lamps not included in scope of delivery

Direct link:
www.horizont.com/21135

Part No.	Description	PQ
21135	Transport- and charging box for up to 2 Tele-Blitz / Tele-Synchron (LED or Xenon)	1
21128	Transport- and charging box for up to 4 Tele-Blitz / Tele-Synchron (LED or Xenon)	1

Part No.	Weight, kg	Dims. , L*W*H, mm	Material
21135	3.0	350 * 235 * 190	stainless steel / plastic
21128	6.5	696 * 235 * 190	stainless steel / plastic



Transport and storage box

For transport and storage of up to 6 Warnmax or up to 4 Soundmax, respectively Flashmax

The transport box for horizont Warnmax has been especially designed for a quick removal of up to 3 Warnmax units with just one hand.

- for all products of the horizont Warnmax family
- for vehicle mounting
- plastic coated
- Warnmax not included in scope of delivery

Direct link:
www.horizont.com/257741KC

Part No.	Description	PQ
257741KC	Transport – and storage box for up to 6 Warnmax or 4 Soundmax, respectively Flashmax	1

Weight approx., kg	Dims. L*W*H, mm	Material
7	560 * 260 * 430	hot galvanized steel

Our service for you!

Charging adapters

Choose the right charging adapter for your rechargeable version of the flash lamps presented in the previous chapter.

Charging adapter / Charging cable			Suitable for flash lamps in rechargeable version				
Picture	Part No., Description	PQ	Euro-Blitz compact, Euro-Blitz compact synchron pages 88-89	Euro-Blitz LED, Euro-Synchron LED pages 90-91	Tele-Blitz LED, Tele-Synchron LED pages 92-93	TRI-Blitz, page 94	Traffic cone flash lamp page 96
	84265 Charging adapter 230 V – 12 V, for rechargeable batteries	1	✓	✓	✓		
	82203 Charging adapter, 230 V - 12 V	1	✓ for devices built since 06/2015	✓ for devices built since 06/2015	✓ for devices built since 06/2015		
	926033VP Vehicle charging adapter 12 / 24 V – 12 V for vehicle mains	1	✓	✓	✓		
	92603VP Vehicle charging adapter, 12 / 24 V- 12 V	1	✓ for devices built since 06/2015	✓ for devices built since 06/2015	✓ for devices built since 06/2015		
	25556TRI Charging adapter 230 V – 12 V, for rechargeable batteries	1				✓ for devices built since 2018	
	25556ANS Charging adapter 230 V – 12 V, for rechargeable batteries	1				✓ for devices built before 2018	✓
	21038 Vehicle charging adapter 12 / 24 V – 12 V for vehicle mains	1				✓	✓

MARCUS BAUER

Sales Director National

Since when? February 2021

What? Sales Director National

About? In his leisure time, Marcus loves to spend time with his family and friends. His favourite hobbies are hunting, squash, skiing and old Defenders.



06 Traffic signs and installation devices

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Different designs of traffic signs 106

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Installation devices 109

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Vario-Family 112-117

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Vario-Adapters 114-115

Vario sign stand 116

Storage and transport of traffic signs 116

Vario square posts 117

Clamps, mounting supports, etc. 118-119

Plastic poles & adapters 120

Different sizes of traffic signs



Individual requirements

Size and design of traffic signs have to be tailored to the specific, individual requirements. **Traffic signs which are unnecessarily large should be avoided.**



Determination of traffic sign size

In case the size of a traffic sign is **not** already **determined** by the German StVO, VwV-StVO or other official regulations, the choice of the required traffic sign size is determined on a case-by-case basis, after **careful consideration, based on the of the following table.**



Traffic sign sizes for motorways

On motorways and roads being of similar size to motorways and without speed limits, prohibitions and related directives are initially displayed by signs of **size 3 (140%)**, repetitions usually are displayed by signs of size 2.

all dims in mm	Size 1 (70%)	Size 2 (100%)	Size 3 (125% resp. 140%)
----------------	-----------------	------------------	-----------------------------

Different sizes of traffic signs with determined content: Circulars, triangles and squares / rectangles

Circular, diameter	420	600	750 (125%)
Triangular, side length	630	900	1260 (140%)
Square, side length	420	600	840 (140%)
Rectangle, HxW	630 x 420	900 x 600	1260 x 840 (140%)

Sizes of traffic signs with additional symbols

Height 1, HxW	231 x 420	330 x 600	412 x 750
Height 2, HxW	315 x 420	450 x 600	562 x 750
Height 3, HxW	420 x 420	600 x 600	750 x 750

Traffic sign sizes for triangles, squares and rectangles dependent on speed (in general)

Speed range, km/h	20 < 50	50 to 100	> 100 (140%)
-------------------	---------	-----------	--------------

Traffic sign sizes for circulars dependent on speed (in general)

Speed range, km/h	0 to 20	>20 to 80	>80 (125%)
-------------------	---------	-----------	------------

Samples for traffic signs

Regulatory			
Warning signs			
Directive signs			
Additional signs			

Overview of retro-reflective sheetings and their different application

Photometric performance classes of sheetings

RA1, Desing A & C

Retro-reflective materials of the standard performance grade used for traffic signs are available in desings A and C. Glass bead based materials have been successfully used for traffic signs for many years, especially for traffic signs in slow moving traffic zones, e.g. no parking signs or short – term parking signs. They are also used for tourist information signs, street signs and advertising signs. Design A materials are not rotation sensitive.

RA2, Design B & C

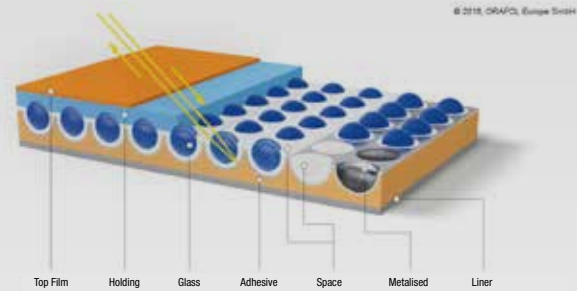
Class RA2 is achieved with retro-reflective sheeting of design B or C. In general, the RA2 grade offers higher retro-reflective values for improved long distance visibility at night. RA2 materials are now an established standard for traffic signs. They are mainly used for applications such as stop signs and speed restriction signs. Design B materials have especially good reflective properties at large entrance angles, e.g. at roundabouts.

RA3, Design C

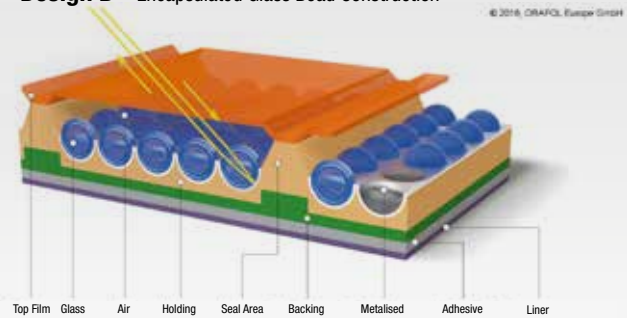
Reflective sheeting of performance class RA3 are only available as prismatic materials in design C. They provide the highest reflective performance values. These materials are used for trafic signs in areas where a particularly high degree of reflectivity is required. They are mainly used for long distance guidance signs, e.g. on motorwarys and in brightly illuminated environments.

Technical illustrations of the basic composition of different retro-reflective sheeting

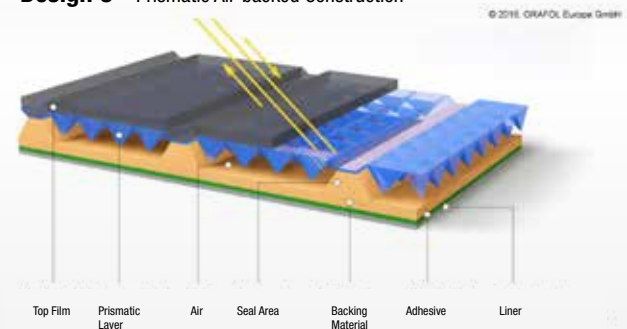
Design A - Embedded Glass Bead Construction



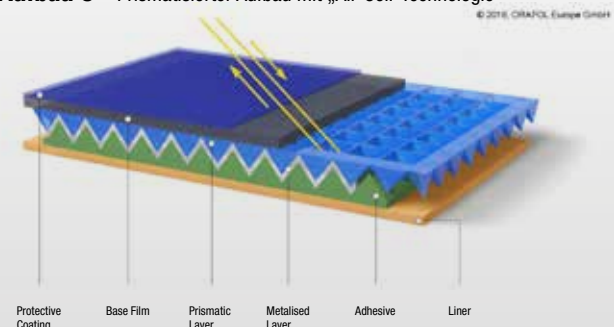
Design B - Encapsulated Glass Bead Construction



Design C - Prismatic Air-backed Construction



Aufbau C - Prismatisierter Aufbau mit „Air-Cell-Technologie“



Overview on the different traffic sign designs



Flat – shaped traffic sign

Aluminium sheet steel of approx. 2 to 3 mm thickness. To be mounted by means of hot galvanized pipe clamps or **by means of horizont Vario-Adapter 8047**, see page 114



Profiled sheet steel design “Alform”

Aluminium sheet steel of approx. 2 to 3 mm thickness with surrounding aluminium edge. To be mounted by means of aluminium ALFORM-clamps or **by means of horizont Vario-Adapter 8048**, see page 115



Special edged profile sheet steel design “Flanged edge”

Aluminium sheet steel of approx. 2 mm thickness with flanged edge. To be mounted by means of aluminium ALFORM-clamps or **by means of horizont Vario-Adapter 8048**, see page 115












New in our assortment – Traffic signs










		Size		Design					
				Flat		Alform		Flanged edge	
				„Sheetings RA 1“	„Sheetings RA 2“	„Sheetings RA 1“	„Sheetings RA 2“	„Sheetings RA 1“	„Sheetings RA 2“
Triangle		1 = 70 %	SL 630	x	x	x	x	x	x
		2 = 100 %	SL 900	x	x	x	x	x	x
		3 = 140 %	SL 1260	x	x	x	x	x	x
Circular		1 = 70 %	ø 420	x	x	x	x	x	x
		2 = 100 %	ø 600	x	x	x	x	x	x
		3 = 125 %	ø 750	x	x	x	x	x	x
Square		1 = 70 %	420 x 420	x	x	x	x	x	x
		2 = 100 %	600 x 600	x	x	x	x	x	x
		3 = 140 %	840 x 840	x	x	x	x	x	x
Rectangle		1 = 70 %	630 x 420	x	x	x	x	x	x
		2 = 100 %	900 x 600	x	x	x	x	x	x
Town sign one sided		2 = 100 %	600 x 900	x	x	x	x	x	x
		3 = 140 %	840 x 1260	x	x	x	x	—	—
Town sign double sided		2 = 100 %	600 x 900	x	x	—	—	—	—
		3 = 140 %	840 x 1260	x	x	—	—	—	—
Directional sign one sided			250 x 1000	x	x	x	x	—	—
			350 x 1400	x	x	x	x	x	x
			450 x 1750	x	x	x	x	—	—
Directional sign double sided			250 x 1000	x	x	—	—	—	—
			350 x 1400	x	x	—	—	—	—
			450 x 1750	x	x	—	—	—	—
Additional sign 1/2 line		1 = 70 %	231 x 420	x	x	x	x	x	x
		2 = 100 %	330 x 600	x	x	x	x	x	x
		3 = 140 %	412 x 750	x	x	x	x	x	x
Additional sign 2/3 line		1 = 70 %	315 x 420	x	x	x	x	x	x
		2 = 100 %	450 x 600	x	x	x	x	x	x
		3 = 140 %	562 x 750	x	x	x	x	x	x

Using installation devices













Categorization of installation devices out of town (0.42 kN/m²)

Description	Sign	Size 3 / Installation height in m		
		2.0	1.5	0.6
Circular		K4	K3	K2
Triangle		K6	K5	K3
Traffic guidance panel		2xK9	2xK8	2xK5
Two circulars		2xK5	K7	K5
Circular with additional sign, double line		K7	K7	K4
Two triangles				
Triangle with additional sign, three-line		2xK6	K8	K5
Triangle with circular		2xK6	K8	K5
Triangle with additional sign, single-line and circular		K9	2xK6	K7

Categorization of installation devices out of town (0.42 kN/m²)

Description	Sign	Size 2 / Installation height in m		
		2.0	1.5	0.6
Circular		K2	K2	K1
Triangle		K3	K2	K1
Traffic guidance panel		2xK9	2xK9	2xK5
Two circulars		K5	K5	K3
Circular with additional sign, double line		K6	K4	K3
Two triangles		K6	K5	K3
Triangle with additional sign, three-line		K7	K6	K3
Triangle with circular		K6	K5	K3
Triangle with additional sign, single-line and circular		K7	K7	K4

Categorization of installation devices in town (0.25 kN/m²)

Description	Sign	Size 2 / Installation height in m			
		2.2	2.0	1.5	0.6
Circular		K2	K2	K1	K1
Triangle		K2	K2	K2	K1
One way		K2	K1	K1	K1
Traffic guidance panel		K6	K6	K5	K3
Two circulars		K4	K3	K3	K2
Circular with additional sign, single line		K3	K3	K3	K2
Two triangles		K4	K4	K3	K2
Triangle with additional sign, three-line		K5	K4	K4	K2
Triangle with circular		K5	K4	K4	K2
Diversion		K2	K2	K2	
End of diversion		K2	K2	K2	
Triangle with additional sign, single-line and circular		K5	K5	K4	K3

This table was created on the basis of the German regulation "TL- Aufstellvorrichtungen" and represents a recommendation under ideal local conditions. Actual local conditions such as subsurface, wind conditions, installation area must be taken into account during installation. The recommended values are only valid when using an installation device by horizont – please see more details on page 111.

Aluminium installation device, size 2

- approved according to TL-Aufstellvorrichtung:
K2 with two base plates K1
K3 with three base plates K1
K4 with four base plates K1
- ideal for urban use with restricted space
- for square posts 40 x 40 mm
- takes base plates type K1
- base plates not included in delivery scope

Part No.	Description	PQ
252922	Installation device for square posts 40 x 40 mm	1

TL ✓
Aufstellvorrichtungen

K2 ✓
Kennung

K3 ✓
Kennung

K4 ✓
Kennung



Direct link:
www.horizont.com/252922

Weight, approx. kg	Dims., L*W*H, mm	Material
4.5	830 * 460 * 670	Aluminium

Aluminium installation device, size 3

- approved according to TL-Aufstellvorrichtung:
K5 with two base plates K1
K8 with four base plates K1
- securing bracket (part no. 2529231) - required according to German TL - for securing base plates when using installation devices
- for square posts 40 x 40 mm
- takes base plates type K1
- with all round angle border
- base plates not included in delivery scope
- securing bracket not included in delivery scope

Part No.	Description	PQ
252923	Installation device for square posts 40 x 40 mm	1
2529231	Securing bracket for 252923	1

TL ✓
Aufstellvorrichtungen

K5 ✓
Kennung

K8 ✓
Kennung



Direct link:
www.horizont.com/252923

Weight, approx. kg	Dims., L*W*H, mm	Material
19.0	1,790 * 450 * 990	Aluminium

Aluminium installation device, size 4

- approved according to TL-Aufstellvorrichtung:
K5 with four base plates K1
K6 with six base plates K1
K8 with ten base plates K1
- securing bracket (part no. 2529241) - required according to German TL - for securing base plates when using installation devices
- for square posts 60 x 60 mm
- takes base plates type K1
- with all round angle border
- base plates not included in delivery scope
- securing bracket not included in delivery scope

Part No.	Description	PQ
252924	Installation device for square posts 60 x 60 mm	1
2529241	Securing bracket for 252924	1

TL ✓
Aufstellvorrichtungen

K5 ✓
Kennung

K6 ✓
Kennung

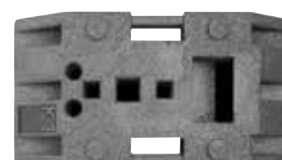
K8 ✓
Kennung



Direct link:
www.horizont.com/252924

Weight, approx. kg	Dims., L*W*H, mm	Material
20.5	920 * 980 * 1.010	Aluminium

In order to weigh down your installation device, feel free to choose a base from our extensive overall range.
 You will find our recommended Universal base plate K1 on page 25





Aluminium square post

Length 2,000 and 3,000 mm, with rounded edges

- to be used with base plates with opening 40 x 40 mm resp. 60 x 60 mm
- to be used with aluminium installation devices, drive in sleeves and crash barrier supports
- square post 40 x 40 mm resp. 60 x 60 mm
- traffic signs not included in delivery
- base plates not included in delivery

Direct link:

www.horizont.com/252881

Part No.	Description	PQ
252881	Square post 40 x 40 mm, 2,000 mm length, walls 2 mm	1
252912	Square post 40 x 40 mm, 3,000 mm length, walls 2 mm	1
25293	Square post 60 x 60 mm, 3,000 mm length, walls 3 mm	1



Impact sleeve

For square posts 40 x 40 and 60 x 60 mm

- suited for square posts, traffic sign holders and posts
- for square posts of 40 x 40 and 60 x 60 mm

Part No.	Description	PQ
7680071	Impact sleeve for square post 40 x 40 and 60 x 60 mm	1

Direct link:

www.horizont.com/7680071

Weight, approx. kg	Dims., L*W*H, mm	Material
11.0	898 * 250 * 178	hot galvanized steel



Crash barrier mounting support

For square posts or poles

- suited for fastening of square post, poles, sign posts and poles at crash barriers
- conforming to German TL- Aufstellvorrichtung 97
- for square posts up to 40 x 40 or 60 x 60 mm
- for poles up to Ø 40 or 60 mm

Part No.	Description	PQ
251662	For square posts up to 60 x 60 mm, or poles up to Ø 60 x 60 mm	1

Direct link:

www.horizont.com/251662

Weight, approx. kg	Dims., L*W*H, mm	Material
5.0	490 * 185 * 205	hot galvanized steel

PREMIUM QUALITY

Made by **horizont**

Traffic signs and installation devices
horizont In-Touch

Arne Ebeling

Welding shop

Since when? February 2017

What? Certified welder (ISO 9606)

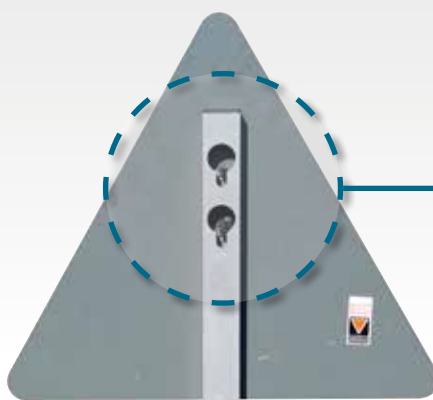
About? In his leisure time Arne does a lot of sports and trains the junior football club in his home town.

**OUR BIGGEST
POTENTIAL -
THE PEOPLE
BEHIND THE LOGO!**

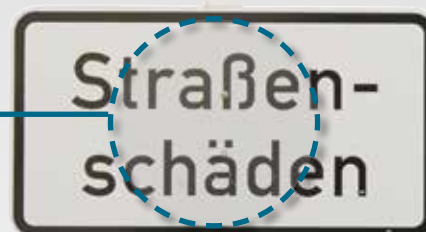
Using the Vario-Adapter

Please find the Vario-Adapter
on page 114-115

- ✓ The horizont Vario-Adapter is perfectly suited for a quick installation of traffic signs.
- ✓ With our Vario-Adapter traffic signs can be hinged into the two keyhole-shaped receptacles at the Vario Sign Post or Vario Sign Stand easily and tool-free. Disassembly works as easy as assembly – quick and tool-free.
- ✓ Our Vario Sign Rack completes the series, providing the possibility for quick handling as well as safe transportation of traffic signs with Vario-Adapter.

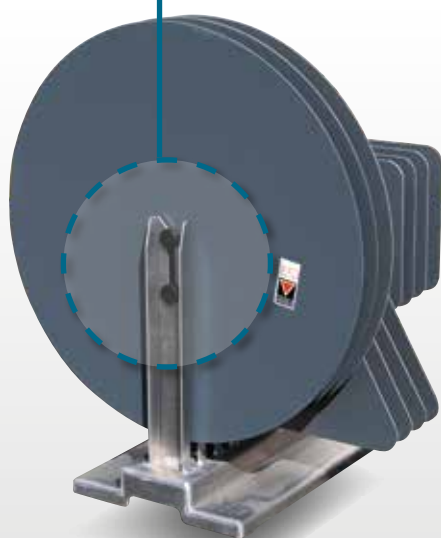


Please find the Vario sign stand
on page 116



Please find the Vario square
post on page 117

Please find Base plates on
pages 24-26



Please find the Vario sign rack
on page 116





Vario-Adapter 8047

With our Vario-Adapter traffic signs can be hinged into the two keyhole-shaped receptacles at the Vario sign post or Vario sign stand easily and tool-free.

- **for traffic signs with flat frame**
- **to be hinged into Vario square post, Vario sign stand, Vario sign rack**
- fixing screws included in scope of delivery (1 bag with 10 adapters and 20 screws)

Part No.	Description	PQ
2562265-10	Vario-Adapter 8047	1 bag (10 pcs)

Direct link:

www.horizont.com/2562265-10

Weight, approx. kg	Dims., L*W*H, mm	Material
0.05	110 * 35 * 16	plastic

How to mount the Vario-Adapter at a traffic sign with flat frame

You will find an assortment of traffic signs on page 107
Vario square posts please find on page 117



Vario-Adapter 8048

The „Vario-Adapter 8048“ with integrated spacer 20 mm enables a fast and tool-free mounting of traffic signs with profiled sheet steel design „Alform“ in the two keyhole-shaped receptacles of a suitable post.

- for traffic signs with profiled sheet steel design, Alform
- to be hinged into Vario Square Post, Vario Sign Stand, Vario Sign Rack
- fixing screws included in scope of delivery (1 bag with 10 adapters and 20 screws)

Part No.	Description	PQ
2562266-10	Vario-Adapter 8048	1 bag (10 pcs)



Direct link:

www.horizont.com/2562266-10

Weight, approx. kg	Dims., L*W*H, mm	Material
0.05	110 * 35 * 39	plastic

How to mount the Vario-Adapter at a traffic sign with profiled steel frame, Alform

You will find an assortment of traffic signs on page 107
Vario square posts please find on page 117





Vario sign stand

Sign post and base plate in one

- for up to four traffic signs of all shapes: **circular, triangle, rectangle or square**
- portable sign stand, collapsible
- sturdy, two hinged folding mechanism
- post with two vario receptacles at both sides
- post height 800 mm
- base plate made of stable recycling material
- base plate with anti-skid system

Direct link:

www.horizont.com/257702

Part No.	Description	PQ
257702	Vario sign stand	1

Weight, approx. kg	Dims., L*W*H, mm	Material
12.0	670 * 310 * 930	stainless steel / recycling



Transport and storage box

For transport and storage of up to 5 collapsible delineators or vario sign stands

- particularly quick and easy take out
- galvanized steel
- sturdy construction
- two sturdy carrying handles ensure optimum handling even when fully equipped
- by means of pre-assembled fastening slots the transportation and storage box can securely be fastened on, e.g. a Mobile warning trailer
- Vario sign stands and / or collapsible delineators not included in scope of delivery

Part No.	Description	PQ
25KC760	Transport- and storage box for transport and storage of up to 5 collapsible delineators or Vario sign stands	1

Direct link:

www.horizont.com/25KC760

Weight, approx. kg	Dims., L*W*H, mm	Material
8.6	660 * 320 * 330	hot galvanized steel



Vario sign rack

Easy yet secure handling and transportation of flat framed traffic signs with Vario-Adapter

- suited for traffic signs with flat frame and Vario-Adapter 8047 (part no. 2562265)
- for up to 11 traffic signs with Ø 600 mm or side length of 900 mm (traffic signs up to size 2)
- traffic signs not included

Part No.	Description	PQ
257701	Vario sign rack	1

Direct link:

www.horizont.com/257701

Weight, approx. kg	Dims., L*W*H, mm	Material
4.1	490 * 290 * 429	stainless steel

Vario square posts

Square posts made of plastics with Vario receptacles – 2,000, 2,500 and 3,000 mm height

- suitable for use with base plates with openings of 60 x 60 mm
- each with three pairs of Vario receptacles at front and back to hinge planks or traffic signs with Vario-Adapters
- square post with 60 x 60 mm

Part No.	Description	PQ
259061	Vario square post, 2,000 mm	10
259062	Vario square post, 2,500 mm	10
259060	Vario square post, 3,000 mm	10



Direct link:

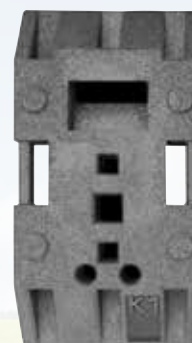
www.horizont.com/259061

Part No.	Weight, approx. kg	Dims., L*W*H, mm	Material
259061	2.5	2,000 * 60 * 60	plastic
259062	3.1	2,500 * 60 * 60	plastic
259060	3.8	3,000 * 60 * 60	plastic

Our **service** for you!

Our Universal base K1 is perfectly suited for safely installing Sign posts and poles

Choose a horizont base plate from our wide range of bases – please see page 25



Our **service** for you!

In case you'd rather have base plate and post in one, have a closer look at our Vario sign stand

Feel free to choose your components from our Vario-Family. You will find our Vario sign stand on page 116





Clamping support

- for mounting of traffic guidance plates of different sizes
- suited for square posts of 60 x 60 mm
- height adjustable as required
- locking screw against lateral displacement

Part No.	Description	PQ
25294	Clamping support	1

Direct link:

www.horizont.com/25294

Weight, approx. kg	Dims., L*W*H, mm	Material
2.3	235 * 50 * 50	hot galvanized steel



Metal clamp

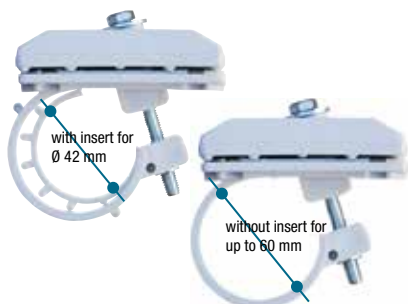
- for clamping traffic signs without mounting holes to square posts and poles
- suited for square posts 40 x 40 mm
- suited for poles Ø 38 – 42 mm
- per traffic sign two clamps are required

Part No.	Description	PQ
25287	Metal clamp	1

Direct link:

www.horizont.com/25287

Weight, approx. kg	Dims., L*W*H, mm	Material
0.1	65 * 60 * 55	hot galvanized steel



Plastic clamp 126M0

- for clamping traffic signs without mounting holes to square posts and poles
- suited for poles Ø 38 – 42 mm (with insert)
- suited for square posts 40 x 40 mm (without insert)
- bendable
- per traffic sign two clamps are required

Part No.	Description	PQ
25324	Plastic clamp 126M0	1

Direct link:

www.horizont.com/25324

Weight, approx. kg	Dims., L*W*H, mm	Material
0.1	80 * 90 * 80	plastic

Our service for you!

We are proud to be a one-stop-shop for all items required for traffic signs set up.

Please find an assortment of traffic signs on page 107



Fastening clamp 128 MS or 128 M

- for clamping traffic signs without mounting holes to square posts and pole
- suited for poles \varnothing 38 - 42 mm
- suited for posts 40 x 40 mm
- bendable
- available with eye bolt or hexagon head screw
- per traffic sign two clamps are required

Part No.	Description	PQ
25308	Fastening clamp 128 MS, with eye bolt screw	150
25128M	Fastening clamp 128 M, with hexagon head screw	150



Direct link:
www.horizont.com/25308

Weight, approx. kg	Dims., L*W*H, mm	Material
0.12	85 * 80 * 60	plastic

Plank holder 121

- suited for clamping planks to square posts and poles
- incl. plank brackets
- for poles \varnothing 42 mm and square posts 40 x 40 mm

Part No.	Description	PQ
251210	Plank holder 121	50



Direct link:
www.horizont.com/251210

Weight, approx. kg	Dims., L*W*H, mm	Material
0.2	130 * 130 * 90	plastic



Circular plastic pole 91 – 95

Circular plastic pole in different lengths: 1,250, 1,350, 1,500, 1,700, 2,000 mm

- suited for use with base plates with a 60 x 60 mm receptacle
- circular pole, red, Ø 42 mm
- with square foot for receptacle 60 x 60 mm
- also available without square foot

Direct link:

www.horizont.com/760901

Part No.	Description	PQ
760901	Circular plastic pole 91, 1,250 mm	10
760902	Circular plastic pole 92, 1,350 mm	10
760903	Circular plastic pole 93, 1,500 mm	10
760904	Circular plastic pole 94, 1,700 mm	10
760905	Circular plastic pole 95, 2,000 mm	10

Part No.	Weight, approx. kg	L*Ø, mm	Material
760901	1.2	1,250 * 42	plastic
760902	1.3	1,350 * 42	plastic
760903	1.4	1,500 * 42	plastic
760904	1.6	1,700 * 42	plastic
760905	1.8	2,000 * 42	plastic



Square foot

- adapter to be used with circular poles Ø 42 mm in standard base plates with receptacle 60 x 60 mm
- for circular poles up to Ø 42 mm

Part No.	Description	PQ
25368	Square foot	138

Direct link:

www.horizont.com/25368

Weight, approx. kg	Dims., L*W*H, mm	Material
0.1	60 * 60 * 110	plastic



Reducing adapter

- reducing adapter to be used with square posts 40 x 40 mm or 50 x 50 mm in standard base plates with receptacle 60 x 60 mm
- for square posts 40 x 40 mm or square posts 50 x 50 mm

Part No.	Description	PQ
768061	Reducing adapter for square posts 40 x 40 mm	160
768065	Reducing adapter for square posts 50 x 50 mm	147

Direct link:

www.horizont.com/768065

Weight, approx. kg	Dims., L*W*H, mm	Material
0.1	60 * 60 * 110	plastic

PREMIUM QUALITY

Made by **horizont**

Traffic signs and installation devices
horizont In-Touch

KEA **Haman-Siebrands**

Screen print

Since when? August 2009

What? Screen printer, head of department

About? Kea is a very creative person and loves crafting in her free time. She is an absolute family woman and loves to spend time with her family and friends.

**OUR BIGGEST
POTENTIAL -
THE PEOPLE
BEHIND THE LOGO!**

ALEXANDER & THOMAS SCHWEIGERT LUB

Sales

Sales

Since when? May 2020

What? Order processing and customer care for Traffic Warning Trailers, Light arrows and PTLs (Brandenburg, Berlin, Bremen, Hamburg, MVP, Lower Saxony, Saxony-Anhalt, Schleswig-Holstein, Thüringen)

About? Alexander does a lot of sport and loves riding his motorbike in his leisure time - all the stuff that is fun!

Since when? June 2013

What? Order processing and customer care for Traffic warning trailers, Light arrows and PTL in office (Baden Wuerttemberg and Bavaria).

About? Thomas enjoys spending his free time with his wife and his two daughters – they love to go camping in their holidays. Besides he is a keen sports marksman.

07 | **Advanced warning and traffic information**

**MAS
BE**

Chapter overview **122-123**

Solar-Kit, Solar family **124-125**

Advanced warner **126-127**

MS 340 plus 126

RS 2000 plus 127

Light arrow, HLP 8 **128-129**

LED VMS Standalone **130**

**HOT -
horizont telematik system** **131**



Solar-Kit

Extend the operating times of advance warning devices, light arrows and LED technology

With the Solar-Kit, horizont now also offers a possibility to extend the operating hours of e.g. a customary MS 340 plus advanced warning lamp, via solar power supply.

The solar module inclusive charge controller provides an output of 50 watts. Under optimum conditions, the Solar-Kit can produce four times as much power as required so that a MS 340 plus can be operated without external recharging of the battery.

Please consider that the power supply may be reduced by various external circumstances.

One essential factor is of course the intensity and duration of the solar radiation.

The daily hours of sunshine (depending on the season) as well as the degree of cloudiness are of major importance for the operating hours.

Taking into account weather-related limitations, power supply by solar energy offers an excellent possibility to support the operation of the advanced warning lights.

Optimum use of this product is ensured by correct positioning, a dust-free surface of the panel and care of the battery.

In combination with our installation device, together with corresponding base plates, a pole as well as battery box and rechargeable battery horizont offers a power saving and practical solution to operate a warning lamp by means of solar power.

- **incl. charge controller**
- **solar module with an output of 50 W**
- **IP-65**
- **under optimum conditions the MS 340 plus lamp can be operated without external recharging**

Part No.	Description	PQ
21244	Solar-Kit consists of: 1 support for solar module (14143), solar module (14873), alignment tube, solar panel (84416), 60 x 60 mm adapter (84417), connection set STAK / STAS and PG – screw fitting	1 Set
Recommended accessory		
252924	Aluminium installation device size 4, for 4 baseplates K1	1
2529241	Security clamp for installation device size 4	1
25293	Aluminium square pole 3,000 mm, 60 x 60 mm	1
2549902	Universal base K1, 830 * 425 * 120 mm	4
21264	Battery box	1
25014B	Rechargeable battery, 12 V / 180 Ah	1
20823PLUS	MS 340 Plus advanced warning light	1
92464VP	+ Mounting support for MS 340 LED	1
209291LED	RS 2000 Plus advanced warning light, LED	1

Weight approx., kg	Dims., H*W*H, mm	Operating voltage, V	Output solar panel
12	850 * 560 * 760	12	50

Direct link:

www.horizont.com/21244

horizont **Solar family**

Sustainable and innovative use of solar energy with horizont's variety of solar applications!

VMS trailer with Solar-Kit

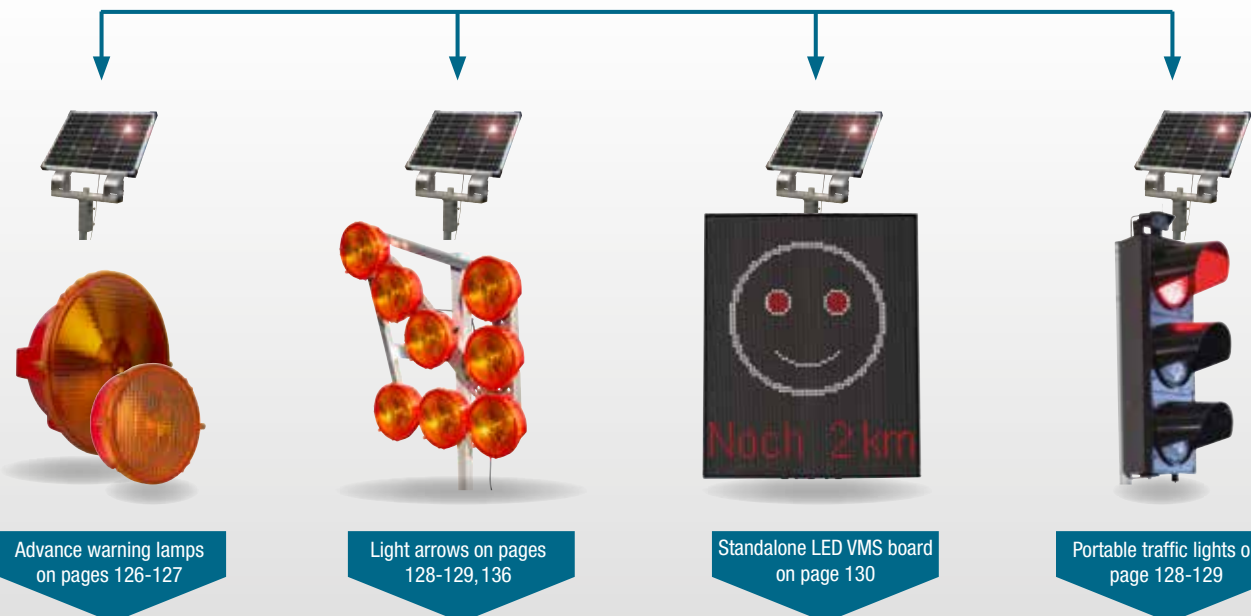
The Solar-Kit allows to extend the operating hours of the horizont VMS trailer to up to 100% self-sufficiency. The solar panel is automatically erected while raising the LED board itself - no additional motor is needed!



VMS trailer with Solar-Kit
on page 147

The variety of Solar-Kit combinations

Simply combine the horizont solar kit with all products from our range of advance warning systems that are operated with 12 V. In this way, you can significantly extend your operating times or, under ideal conditions, achieve self-sufficient operation during the summer.





nach
L9M / L9L ✓
EN 12352

nach
L9H / L9M ✓
EN 12352

nach
WL5 ✓
TL-Warn-
leuchten

nach
WL7 ✓
TL-Warn-
leuchten

MS 340 plus

Advanced warning lamp in compact design

The new MS 340 plus advanced warning lamp convinces with its compact design at the same luminosity and energy efficiency as the predecessor model. It is exclusively produced with state of the art diodes – thus reliably securing road construction sites, warning motorists of dangerous road courses and improving visibility of warning trailers at lowest energy consumption. According to your requirements the light emission characteristics can be individually set to either comply with EN 12352- L9M / L9L (WL5) flashing, or to comply with EN 12352 – L9H / L9M (WL 7), blinking.

- according to EN 12352 – L9M / L9L, WL 5
- according to EN 12352 – L9H / L9M, WL7
- to be used as advanced warning lamp, vehicle safety warning lamp, for mobile warning trailers or light-arrows
- long-life LED technique with 4 high performance diodes
- high reliability due to dual circuitry
- low power consumption
- quick and easy to open due to twist lock cap
- splash-proof housing
- incl. Secura 82 bracket
- incl. 5 m power cable

Part No.	Description	PQ
20825Plus	MS 340 Advanced warning lamp, incl. Secura 82 bracket 12 / 24 V, incl. 5 m power cable	1

Direct link:

🔗 www.horizont.com/20825Plus

Weight approx., kg	Dims. Ø*H, mm	Blinking / flashing rate / min.	Operating voltage, V	Power consumption, W at 12 V
0.8	340 * 127	40 / 60	12 / 24	1



nach
L9M / L9L ✓
EN 12352

nach
L9H / L9M ✓
EN 12352

nach
WL5 ✓
TL-Warn-
leuchten

nach
WL7 ✓
TL-Warn-
leuchten

MS 340 plus, double set

2-fold LED advanced warning system

The new MS 340 plus advanced warning lamp convinces with its compact design at the same luminosity and energy efficiency as the predecessor model. It is exclusively produced with state of the art diodes – thus reliably securing road construction sites, warning motorists of dangerous road courses and improving visibility of warning trailers at lowest energy consumption.

Our new MS 340 plus is also available as two-fold system, the single lamps being connected via a 3.5 m cable. Feel free to equip your construction vehicle, light arrows or traffic warning trailers with an additional advance warning system, in order to enhance their visibility for kilometres.

According to your requirements the light emission characteristics can be individually set to either comply with EN 12352- L9M / L9L (WL 5) flashing, or to comply with EN 12352 – L9H / L9M (WL7), blinking.

- according to EN 12352 – L9M / L9L, WL 5
- according to EN 12352 – L9H / L9M, WL7
- to be used as advanced warning lamp, vehicle safety warning lamp, for mobile warning trailers or light-arrows
- long-life LED technique with 4 high performance diodes
- high reliability due to dual circuitry
- low power consumption
- quick and easy to open due to twist lock cap
- splash-proof housing
- Secura 82 bracket available as accessory
- incl. 5 m power cable

Part No.	Description	PQ
25822Plus	2-fold MS 340 Advanced warning system, connected with 3.5 m cable Consists of: 1x Master lamp, 20823Plus and 1x Slave lamp 20824Plus, 12 / 24 V, incl. 5 m power cable	1

Recommended accessory

92464VP	Secura bracket 82 mm	1
----------------	----------------------	---

Direct link:

🔗 www.horizont.com/25822Plus

Weight approx., kg	Dims. Ø*H, mm	Blinking / flashing rate / min.	Operation voltage, V	Power consumption, W at 12 V
1.6	340 * 127	40 / 60	12 / 24	2

RS 2000 plus

LED advanced warner in compliance with EN 12352 – L8H / L8M, WL 6

horizont RS 2000 plus advanced warner combines BAST-approved tested light intensity with very low power consumption by using exclusively state of the art LED technology – without compromising on the operational safety! As advanced warning lamp, RS 2000 plus warns of any hazard or construction kilometres ahead. The splash-proof housing is robust and optimally secures the internal electronics. RS 2000 plus advance warner is delivered with already mounted Secura 52 bracket – thus optimally secured against theft and easy to fix.

- **BAST approved according to TL-Warnleuchten**
- **according to EN12352 L8H / L8M, WL 6**
- **to be used as advanced warning lamp, for multiple systems, light arrows (with 8, 15 or 24 RS 2000 lamps), traffic safety trailers**
- ø 200 mm optics
- long-life LED technique with 4 high performance diodes
- high reliability due to dual circuitry
- very low power consumption, only 120 mA* (*own testing)
- sturdy housing in flat, compact design with low installation depth
- tool free mounting and dismantling
- splash-proof housing
- including Secura 52 bracket (bracket 82 mm available as accessory)

BAST**L8H / L8M**

EN 12352

WL6

TL-Warnleuchten

TüV

Part No.	Description	BAST	PQ
209291LED	RS 2000 plus single advanced warner, including Secura 52, 12 / 24 V, incl. 5 m power cable	✓	1

Direct link:

www.horizont.com/209291LED

Weight approx., kg	Dims. Ø*H, mm	Flashing rate / min.	Operating voltage, V	Power consumption, W
0.6	210 * 75	40	12 / 24	0.9

RS 2000 plus, 2-fold system

LED 2-fold advanced warning system according to EN 12352 L8H/L8M, WL 6

horizont RS 2000 plus is also available as two-fold (or three / four-fold) system, the single lamps being connected via a 3.5 m cable.

Feel free to equip your construction vehicle, light arrows or traffic warning trailers with an additional advance warning system, in order to enhance their visibility for kilometres.

- **BAST approved according to TL-Warnleuchten**
- **according to EN12352 L8H / L8M, WL 6**
- **to be used as advanced warning lamp, on municipal vehicles, construction vehicles or at danger spots**
- ø 200 mm optics
- long-life LED technique with 4 high performance diodes
- high reliability due to dual circuitry
- very low power consumption, only 120 mA* (single lamp, *own testing)
- sturdy housing in flat, compact design with low installation depth
- tool free mounting and dismantling
- splash-proof housing
- including Secura 52 bracket (bracket 82 mm available as accessory)

BAST**L8H / L8M**

EN 12352

WL6

TL-Warnleuchten

TüV

Part No.	Description	BAST	PQ
214091LED	2-fold RS 2000 LED system, connected with 3.5 m cable, incl. Secura 52 bracket Consists of: 1x Master lamp, 209301LED and 1x Slave lamp 209311LED, 12 / 24 V, incl. 5 m power cable	✓	1

Direct link:

www.horizont.com/214091LED

Weight approx.,kg	Dims. Ø*H, mm	Flashing rate / min.	Operating voltage, V	Power consumption, W, at 12 V
0.6	210 * 75	40	12 / 24	1.8

Our service for you!

Benefit from our wide range of load securing systems in order to safely transport your light arrow.

Please find more details
on pages 172-173



BASt



**L8H /
L8M**

EN 12352

WL6



TL-Warn-
leuchten

horizont Light arrow – HLP 8 LED

Simple light arrow for traffic guidance

horizont light arrow HLP 8 is the convenient traffic guidance option which allows you to effortlessly draw the motorists attention to an approaching lane change. The 8 LED advanced warning lamps operate very energy efficiently, emitting a very bright light. Mounted on vehicles, it is ideal for mobile use. When fitted on crash barriers, it serves as an ideal advance warning. The direction of the arrow can be manually changed to either right or left showing. The integrated photo sensor reduces the light intensity of the arrow in darkness in order to avoid dazzling of road users.

Optional equipment: battery box and / or radio remote control

Mounted on a very lightweight aluminium frame and equipped with a battery compartment, the new Light arrow is a real light weight: including the battery the light arrow weighs only 11.0 kg (max.) thus enabling the workers to take arrow and battery with only one roadway crossing to the central reservation and back! This of course means a significant risk reduction for road maintenance personnel.

Using the radio remote control – consisting of sender and receiver – you can control the light arrow from a secure area, e.g. from behind of the mobile warning trailer. This feature enables the workers to install the light arrow even before the construction works begin and can therefore prevent from unnecessary and dangerous road crossings.

- BASt approved according to TL-Warnleuchten
- according to EN12352 L8H / L8M, WL 6
- to be mounted, e.g. on crash barriers or side walls of construction vehicles or trailers
- ideal for advanced warning and traffic guiding
- 8 RS 2000 Plus LED advanced warning lamps
- also available with battery box and / or remote control (optional)
- deep discharge protection
- no dazzling during night time due to integrated photo sensor, reducing the light intensity automatically during night
- easy and manual change of pointing direction (right/left)
- stainless steel frame, mounting support for vehicles not included
- 3.5 m cable with battery clamps included



Direct link:

www.horizont.com/210662LED

Part No.	Description	BASt	PQ
210662LED	HLP 8	✓	1
210662LEDB	HLP 8, incl. battery box	✓	1
210662LEDF	HLP 8, incl. radio remote control	✓	1
210662LEDBF	HLP 8, incl. battery box and radio remote control	✓	1

Part No.	Weight approx., kg	Dims. L*W*H*	Operating voltage, V	Power consumption, W, at 12V
210662LED	8.5	850 * 850 * 165	12 / 24	8
210662LEDB	9.5	850 * 850 * 180	12 / 24	8
210662LEDF	8.5	850 * 850 * 165	12 / 24	8
210662LEDBF	9.5	850 * 850 * 180	12 / 24	8

horizont Light arrow – HLP 8 LED

Mounted on mobile battery cart

horizont light arrow HLP 8 mounted on a mobile battery cart, thus enlarging the operation time by a large rechargeable battery. Furthermore, the battery cart serves also as a mobile installation device. Made of hot galvanized steel, the battery cart is weather- and corrosion resistant and therefore ideally suited for outdoor operation. In order to change the guiding direction you just have to plug the light arrow the other way manually. The integrated photo sensor automatically reduces the light intensity during night time in order to prevent from dazzling of motorists.

- **BASt approved according to TL-Warnleuchten**
- **according to EN12352 L8H / L8M, WL 6**
- **ideal for advanced warning and traffic guiding**
- 8 RS 2000 Plus LED advanced warning lamps
- mounted on mobile battery cart
- deep discharge protection
- no dazzling during night time due to integrated photo sensor, reducing the light intensity automatically during night
- easy and manual change of guiding direction (right/left)
- battery cart hot galvanized for rechargeable battery up to 180 Ah (20 h)
- solid rubber tyres $\varnothing \times B$: 200 x 50 mm
- 3.5 m cable with battery clamps included

Part No.	Description	BASt	PQ
25156LP8LED	HLP 8 LED, mounted on mobile battery cart	✓	1

BASt**L8H / L8M**

EN 12352

WL6

TL-Warnleuchten



Direct link:

www.horizont.com/25156LP8LED

Part No.	Weight approx., kg	Dims. L*W*H*	Operating voltage, V	Power consumption, W, at 12V
25156LP8LED	35.0	1500 * 550 * 2100	12 / 24	8

**Our service for you!**

Find more advanced warning arrows by horizont in chapter 08 – Vehicle safety

Please find a range of light arrows on pages 136-139



Variable Message Sign LED Standalone

State of the art traffic management for more safety on all roads

The modern LED variable message signs StandAlone are permanently installed at the edge of the road providing constant traffic information. By means of the horizont telematic system HOT, the displayed information can be easily and quickly adapted to the current traffic situation.

- **freely programmable (no "restricted" lower text field)**
- no reflection causing front screen
- each high performance LED separately encapsulated in a lens to give extra clarity and output
- full colour version with up to 16.7 million colours
- sturdy, powder coated metal housing
- to be controlled via PC on site or remotely via HOT
- no phantom light
- displays road signs and guidance arrows according to German standard (StVO)
- steady and flashing light, animated pictures, road signs and texts (alternating)
- easy to use software included in scope of delivery
- long operation time due to low power consumption
- automatic night dimming
- multifunctional fastening and installation options
- optional equipment offered by horizont: crash barrier support, installation device made of aluminium, high performance rechargeable battery
- Solar-Kit (part no. 21244) can be used to enlarge operation time
- available in two sizes

Part No.	Description	PQ
259289- RGBECO-H	LED Variable Message Sign, 64 x 80 pixel, full colour LEDs, controlled via HOT – system	1
259288- RGBECO-H	LED Variable Message Sign, 48 x 48 pixel, full colour LEDs, controlled via HOT – system	1

Direct link:

www.horizont.com/259289-RGBECO-H

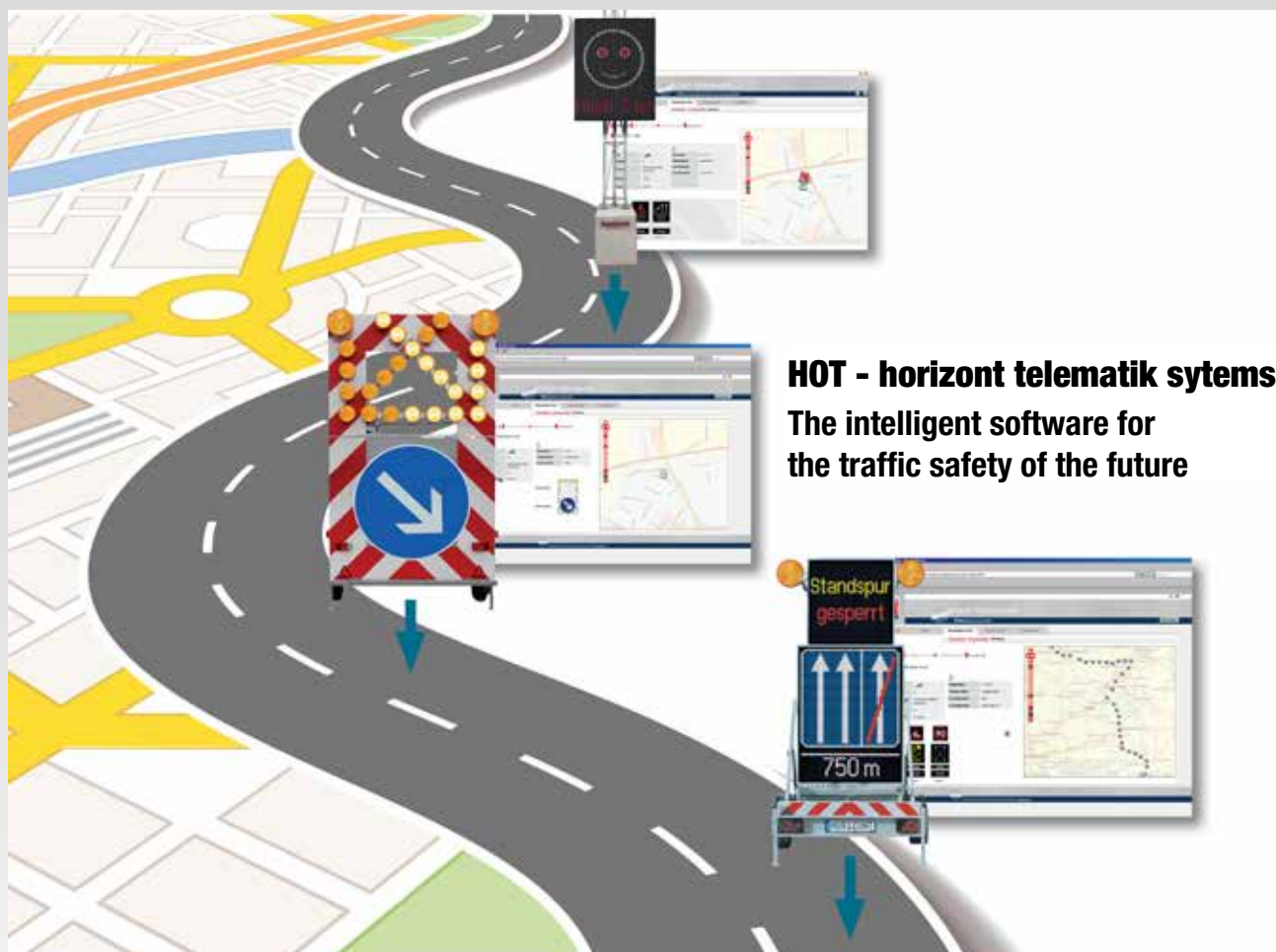
Part No.	Weight approx., kg	Dims. L*W*H, mm	Power consumption, W	Pixel, L*W
259289- RGBECO-H	70	1,645 * 1,330 * 180	60	64 * 80
259288- RGBECO-H	40	1,010 * 1,010 * 180	12	48 * 48

Digital Signage

Use horizont VMS boards also for your event!

Please find further information on Digital Signage on pages 152-155 and at

<http://digital-signage.horizont.com>



HOT – horizont telematik system

horizont HOT system is a system made for surveillance of advanced Mobile warning trailers as well as for surveillance and control of VMS trailers and Standalone signs.

- GPS positioning of your mobile warning trailers and / or standalone signs in a map
- no additional server required - just log in via any internet access available
- surveillance of signs displayed, status of the rechargeable battery and orientation in real time
- control of signs to be displayed
- error indications sent via SMS
- incl. mounting ex-factory for new acquisitions

Part No.	Description	PQ
26533E	HOT-Box incl. mounting	1



Direct link:
www.horizont.com/26533E

SEBASTIAN WIECK

Product Manager

Since when? August 2017

What? Product Manager

About? In his leisure time Sebastian likes to go hunting and hiking.
Most of his free time he spends however with his family and friends.



08 | Vehicle safety

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PolVis 140-143

PolVis / FeuVis 140-141

PolVis-VM RGB Fullmatrix 142-143



**EUR A
E2** ✓
0090121

Rotating beacon MRT 2M

Magnetic base with two magnets

The rotating beacon MRT 2M ensures that your construction- and emergency vehicles are recognizable as such from far away. Even in darkness and difficult visibility conditions it achieves a high warning effect. Road users are warned of any possible obstruction early enough. The rotating beacon MRT 2M operates with a rotating mirror and it can be fixed to the vehicle by means of a magnetic holder or rod mounting. In Germany, beacons with magnetic bases may only be used on stationary vehicles.

- according to EN EUR A E2 0090121
- use on German roads only allowed for stationary vehicles
- dome to be fastened by screws
- magnetic base with two magnets
- metallized steel mirror with balancing counter-weight and slipping clutch for manual rotation
- radio interference filter
- incl. coiled cable and plug for cigarette lighter

Direct link:

✓ www.horizont.com/25443M

Part No.	Weight approx., kg	Dims. Ø*H, mm	Flashing rate / min.	Power Consumption, W	Operating voltage, V
25443M	1.0	135 * 177	120	55	12
25445M	1.0	135 * 177	120	70	24

Part No.	Description	PQ
25443M	Rotating beacon MRT 2M, 12 V	1
25445M	Rotating beacon MRT 2M, 24 V	1

VDE ✓
0875

DIN ✓
14620



Rotating beacon Magnus

Double or single flash, 12 / 24 VDC, with flat base (type B1) or with mounting support for mounting tube (type A)

The rotating beacon Magnus ensures that your construction - and emergency vehicles are recognizable as such from far away. Even in darkness and difficult visibility conditions it achieves a high warning effect. Road users are warned of any possible obstruction early enough.

The low-wear flashing beacons of the Magnus series are available as single flash and double flash version. The rotating beacons come with either a magnetic holder or can be attached to the vehicle by means of a rod attachment (accessory).

- type approved by the German Institute of lighting technology in Karlsruhe
- according to DIN 14620
- K-No. 18603 yellow
- in Germany, beacons with magnetic bases may only be used on stationary vehicles
- Magnus double flash
- flat base (type B1) or for mounting at tube (type A)
- fully electronic, free of mechanical wear parts
- radio interference suppression according to DIN VDE 0875
- splash water proof
- reverse polarity protected
- incl. plug for cigarette lighter (for version with coiled cable)

Part No.	Description	PQ
20809	Magnus double flash with flat base (type B1), 12 / 24 VDC, dome yellow	1
20810	Magnus double flash with mounting support for mounting tube (type A), 12 / 24 VDC, dome yellow	1

Recommended accessory

25066	mounting tube for Magnus type A	1
-------	---------------------------------	---

Direct link:

✓ www.horizont.com/20809

Part No.	Weight approx., kg	Dims. Ø*H, mm	Flashing rate / min.	Power Consumption, W	Operating voltage, V
20809	1.1	160 * 200	120	32	12 / 24
20810	1.3	160 * 260	120	32	12 / 24



horizont S4 – LED front flasher / street clearer

Available with amber or blue LEDs

The ECE-R 65 type-approved and ECE 10R-approved horizont S4 front flasher offers 19 different flash modes, from single flash to quad flash or continuous light. Available with amber or blue LEDs.

- **approved according to R10 and according to R65 (only amber)**
- **19 different flash modes**
- fixation by means of suction cups to the windshield
- cable length: 3 m – with plug for cigarette lighter and switch
- sturdy die-cast aluminium housing
- 4x 3 W LED, horizontally rotatable
- working temperature -20°C to + 80°C

Part No.	Description	PQ
2527001BL	horizont S4 – LED front flasher / street clearer, blue	1
2527001GE	horizont S4 – LED front flasher / street clearer, amber	1

Weight approx., kg	Dims. L*W*H, mm	Power Consumption, W	Operating voltage, V
0.3	90 * 35 * 25	12	10 - 33

ECE

10R

ECE

R-65



Direct link:

www.horizont.com/2527001BL

Vehicle warning sheet

According to DIN 30710

Vehicles with special rights within the meaning of § 35 (6) of the German Road Traffic Regulations, i.e. vehicles that are used during construction or the maintenance or cleaning of roads and installations in road traffic, or winter road maintenance vehicles have to be equipped - according to DIN 30710- with safety markings (retro-reflective vehicle warning sheeting) (§ 52 German StVZO, § 35 (6) German StVO). The white and red slopes of the warning marking must be fully retro-reflective (at least reflection class RA 2, formerly type 2).

- **standard compliant warning marking according to DIN 30710**
- **premium kit with squeegee**
- **with edge protector (seals the cut edged combs)**
- completely removable, especially important for leasing vehicles
- very soft – therefore easy to work with even on curves
- printed under the top-coat; the colour is untouched
- one roll each right showing, one roll each left showing
- red / white slopes, fully retro-reflective
- reflection class RA 2

Part No.	Description	PQ
25455	2 rolls each 9,000 x 141 mm (1 right-, 1 left-showing) 1 squeegee, 1 edge protector	1 Set

Weight approx., kg	Dims. L*H, mm
1.9	9,000 * 141

DIN

30710



Direct link:

www.horizont.com/25455



horizont Light arrow - HLP 8 LED

Lightweight light arrow for mounting at vehicles

The horizont light arrow HLP 8 is the low cost possibility for traffic guidance allowing you to effortlessly draw the road users' attention to a lane change ahead. The 8 directional LED spotlights are energy-saving and highly visible. Mounted on vehicles, the HLP 8 LED is ideal for mobile use. When fitted onto crash barriers, it is the ideal advanced warning device. The direction of the arrow can be changed manually. The integrated photo sensor automatically reduces the light intensity of the HLP 8 in order to prevent from dazzling of road users.

- **BAST-approved according to TL-Warnleuchten**
- **EN 12352 – L8H / L8M, WL6**
- **suitable for mounting on different side boards of any vehicle or trailer**
- **perfectly suited for advanced warning and traffic guidance**
- 8 LED advanced warning lamps RS 2000 Plus
- deep-discharge protection for rechargeable batteries
- automatic reduction of light intensity during night to avoid from dazzling
- stainless steel frame, without support for vehicle mounting
- incl. 3.5 m connection cable with battery clamps

Direct link:

www.horizont.com/210662LED

Part No.	Description	BAST	PQ
210662LED	HLP 8	✓	1

Weight approx., kg	Dims. L*W*H, mm	Operating voltage, V	Current consumption at 12 V, W	Lifting actuator	Additional lamps incl.
8.5	850 * 850 * 165	12 / 24	8	–	–



horizont Light Cross - HLK 9

Simple light cross for mounting at vehicles

The HLK 9 is delivered with 9 high intensity RS 2000 Plus lamps and 2 advanced warning lamps in order to draw the driver's attention to the danger spot ahead.

The remote control allows you to operate the lamps and to choose the position (lifted/lowered) of the light cross (optional).

- **BAST-approved according to TL-Warnleuchten**
- **electromagnetic compatibility approved by KBA**
- **conforming to German RSA and StVO**
- **9 LED advanced warning lamps RS 2000 Plus**
- **2 MS 340 LED advanced warning lamps**
- **available with electronic lifting / lowering actuator**
- all functions to be selected via cable remote control (10 m), incl. in delivery
- automatic brightness adjustment
- all metal parts made of stainless steel
- deep discharge protection
- incl. 6 m connection cable with 2 battery clamps
- further special versions on request

Direct link:

www.horizont.com/210221LED

Part No.	Description	BAST	PQ
210221-0903	horizont light cross HLK 9	✓	1
210502-0901	horizont light cross HLK 9 with electronic lifting / lowering actuator	✓	1

Part No.	Weight approx., kg	Dims. L*W*H, mm	Operating voltage, V	Current consumption at 12 V, W	Lifting actuator	Additional lamps incl.
210221-0903	25	1,400 * 1,300 * 260	12 / 24	11	–	yes
210502-0901	48	1,380 * 1,040 * 295	12 / 24	11	yes	optional



Steffen **Schüttler**

Final assembly Traffic Safety

Since when? August 2015

What? Mechatronic engineer, final assembly Traffic Safety

About? Steffen has grown up with agriculture and therefore already knows the horizont electric fences since his childhood. In his spare time he works on his parental farm or helps other farmers in the neighbourhood.

***OUR BIGGEST
POTENTIAL -
THE PEOPLE
BEHIND THE LOGO!***



BAST



L8H / L8M

EN 12352

WL6

TL-Warnleuchten

KBA EMV

horizont Light arrow – HLPK 15

Equipped for all requirements related to vehicle safety

horizont HLPK 15 Light arrow is equipped with 15 high performance RS2000 Plus LED lamps.

It is also available with two advanced warning lamps MS 340, which draw the drivers' attention to work or hazard spots sufficiently early.

On request, it is also possible to add 2 rotating beacons. The Light arrow is controlled by means of the remote control which is included in delivery. The remote control allows you to choose different signs (cross, arrow right, arrow left, etc.) as well as the position (lifted/lowered) of the light arrow (optional).

Our system is approved by the German BAST according to TL-Warnleuchten.

- **BAST approved according to TL-Warnleuchten**
- **EN12352 – L8H/L8M, WL6**
- **conforming to German RSA and StVO**
- **electromagnetic compatibility approved by KBA**
- 15x RS 2000 Plus LED lamps
- 2x MS 340 LED lamps (either already mounted or only mounting facilities)
- available with electronic lifting / lowering actuator
- all functions to be selected via cable remote control (10 m), incl. in delivery
- automatic brightness adjustment
- all metal parts made of stainless steel
- incl. 6 m connection cable with 2 battery clamps
- deep discharge protection
- on request you can also mount two rotating beacons
- further special versions on request!



Part No.	Description	BAST	PQ
210201-1509	with 15x RS 2000 Plus LED lamps	✓	1
210211-1509	with 15x RS 2000 Plus LED lamps and 2x MS 340 LED flash lamp	✓	1
210501-1501	with 15x RS 2000 Plus LED lamps, incl. lifting / lowering actuator	✓	1
21026V1EL-1501	with 15x RS 2000 Plus LED lamps and 2x MS 340 LED flash lamps, incl. lifting / lowering actuator	✓	1
21026V1EL-1501-RKL	with 15x RS 2000 Plus LED lamps and 2x MS 340 LED flash lamps, incl. lifting / lowering actuator and mounting facilities for two rotating beacons	✓	1

Recommended accessories

20245	Holder for MS left and right	✓	1
20828Plus	MS 340 Plus - please note 2 pieces to order!	✓	1

Direct link:

✓ www.horizont.com/210201-1509

Part No.	Weight approx., kg	Dims. L*W*H, mm	Operating voltage, V	Current consumption at 12 V, W	Lifting actuator	Additional lamps incl.
210201-1509	26	1.090 * 1.040 * 140	12 / 24	15	–	–
210211-1509	36	1.450 * 1.400 * 245	12 / 24	17	–	MS 340 LED flash
210501-1501	50	1.380 * 1.040 * 295	12 / 24	15	yes	–
21026V1EL-1501	75	1.504 * 1.400 * 289	12 / 24	17	yes	MS 340 LED flash
21026V1EL-1501-RKL	75	1.504 * 1.400 * 289	12 / 24	17	yes	MS 340 LED flash and mounting facilities for rotating beacons



horizont Vertical lift arrow – HSP 15

Space-saving with full warning effect

The newly developed vertical lifting arrow completes our product range for municipalities, construction yards and landscape gardeners. In case the installation of a standard collapsible light arrow HKLPK 15 is not suitable, we do provide the perfect solution: the vertical lifting arrow can be mounted on the vehicle's platform or behind the driver's cabin.

- ✓ extremely corrosion-resistant due to a stainless steel frame
 - ✓ arrow lifts up approx. 1 m
 - ✓ in retracted position lamps are protected by a cover plate
 - ✓ optionally you can mount additional advance warning lamps either at the arrow itself or at the vehicle
 - ✓ operating time with fully charged battery, 180 Ah, approx. 100 h for day operation, approx. 250 h for night operation
 - ✓ no additional fuel consumption in retracted position
 - ✓ no speed limit in retracted position
 - ✓ no annoying wind noises in retracted position
- BAST approved according to TL-Warnleuchten
 - EN 12352 - L8H/L8M, WL6
 - conforming to German RSA and StVO
 - electromagnetic compatibility approved by KBA
 - 15x RS 2000 Plus LED lamps
 - 2x MS 340 LED flash lamps (either already mounted or only mounting facilities)
 - all functions to be selected via cable remote control (10 m), included in delivery
 - automatic night dimming
 - all metal parts made of galvanized steel
 - deep discharge protection
 - incl. 6 m connection cable with battery clamps

BAST

L8H / L8M

EN 12352

WL6

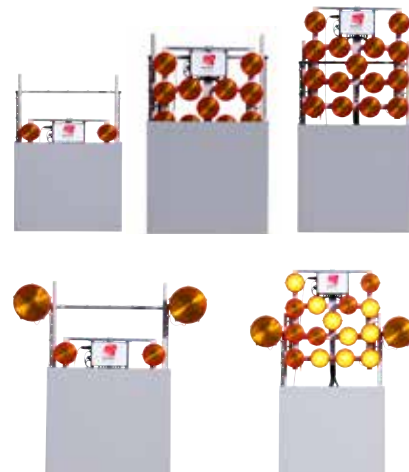
TL-Warnleuchten

KBA

EMV



Part No.	Description	BAST	PQ
21025-1514	with 15x RS 2000 Plus	✓	1
210251-1514-MS	with 15x RS 2000 Plus and 2x MS 340 LED flash	✓	1
Recommended accessory			
20828Plus	MS 340 LED Advanced warning lamp (Note: for retrofitting 2 MS 340 are required)	✓	1
20246	Set for retrofitting of MS 340 – consists of: mounting support (galvanized steel elbow), cables, bolts and cable glands (MS 340 not included)		1



Direct link:

www.horizont.com/21025-1514

Part No.	Weight approx., kg	Dims. H*W*D, mm	Dims. lifted, H, mm	Operating voltage, V	Current consumption at 12 V, W	Lifting actuator	Additional lamps incl.
21025-1514	75	1,855 * 1,135 * 368	2,300	12 / 24	15	ja	–
210251-1514-MS	78	1,855 * 1,785 * 368	2,300	12 / 24	17	ja	MS 340 LED flash



BAST
✓
begutachtet

DIN EN
✓
12966

KBA EMV
✓

PolVis / FeuVis

Collapsible traffic management system – LED VMS for mounting on vehicle roof top

Fast and safe operation - even in stressful situations - was right at the top of the specifications when developing our PolVis Variable message sign.

The simple solution: each key has a single display function. On the clearly arranged remote control, each key is easily identified and assigned to a single sign. This prevents from faulty operations even in stressful situations. In addition, the sign which is currently displayed on the panel is shown on a LCD display integrated in the remote control.

With regard to the design, visibility and brightness of the traffic signs, our PolVis has been positively assessed by the experts of the Federal Highway Research Institute (BAST).

- **assessed by the German BAST**
- **photometric type approved by the German BAST according to EN12966**
- **EMC approved**
- **memory capacity for 12 traffic signs and / or texts**
- **suited for all customary roof racks with square support tubes**
- collapsible LED VMS for roof top mounting
- no phantom light due to sunlight or other light irradiation
- partly assembled, the most common traffic signs can be shown high performance LEDs: red, amber, white, blue
- with either amber or blue flashers in the upper corners of the LED matrix
- starting and operation can be carried out while driving
- supply voltage 12 V
- electronic lifting / lowering actuator
- flat frame made of stainless steel, powder coated black
- remote control with LCD display and 15 keys, 12 of which are freely combinable with traffic signs or texts
- 12 keys can be pre-programmed ex-factory with the following traffic signs or arbitrary text modules:
 - ✓ Caution, VZ 101
 - ✓ Queuing, VZ 124
 - ✓ No overtaking, cars, VZ 276
 - ✓ No overtaking, trucks, VZ 277
 - ✓ Road works, VZ 123
 - ✓ Arrow, keep left, VZ 222-10
 - ✓ Arrow, keep right, VZ 222-20
 - ✓ Cross
 - ✓ Blue or amber flashers
- texts up to 9 digits can be displayed alternating each on two layers:
 - e.g. Caution <> Oil spill
 - Keep <> Distance
- flashing and steady light as well as animated pictures can be displayed by means of displaying them on different layers
- choose between automatic or manual light intensity adjustment



Part No.	Description	BAST	PQ
25142TXT-BAST	Optionally with blue or yellow LED flashers	✓	1



Direct link:

✓ www.horizont.com/25142TXT-BAST

Part No.	Weight approx., kg	Dims. L*W*H, mm	Pixel/LED panel	Operating voltage, V	Approx. medium power consumption, W
25142TXT-BAST	54	915 * 1,032 * 330	depending on requests	12	6



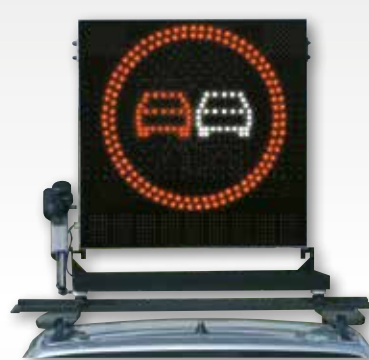
↑ Alternating text ↓



↑ Alternating text ↓



↑ Alternating text ↓



Suited for all types of vehicles – Passenger Car, MPV, SUV, Van, Transporter or special trailers – PoVis always fits



DIN
EN ✓
12966

KBA
EMV ✓

PolVis-VM RGB Fullmatrix

RGB Fullmatrix traffic management system with tablet remote control

When developing the very first PolVis version we concentrated on the requirements of the end users – the device should be easy to operate even in stressful situations. We have implemented this with the concept: One button --> One function!

The most important signs for warning of danger spots or protection of construction sites can be called up immediately - without detours via menus and submenus. Keeping to our concept of easy and faultless operation of the system consequently led to a limited number of keys on the remote control.

Of course, in case the requirements and operating conditions might change, horizont also provides a suitable solution: The 6 most important signs can still be chosen directly by using fixed keys.

In addition, up to 50 characters and 12 texts can be selected via a character and text catalogue and can be displayed on the portable VMS.

Easy and safe operation without restriction in character selection: More security for police operations with the new PolVis VM 50 from horizont!

- **photometric type approved by the German BAST according to EN12966**
- **EMC approved**
- **collapsible LED VMS for roof top mounting suitable for all customary roof racks**
- **no phantom light due to sunlight or other light irradiation**
- **16.7 million colours can be displayed**
- **high performance LEDs: RGB**
- starting and operation while can be carried out while driving
- display of the most common traffic signs:
Circular up to ø 750 mm, triangular with side length up to 780 mm and squares up to 750 mm
- flashing and steady light as well as animated pictures can be displayed
- display of up to 4 traffic lanes possible
- fullmatrix design
- electronic lifting / lowering actuator
- free to programme
- outdoor tablet with touchscreen, protected against falls
- flat frame made of stainless steel, powder coated black
- resolution 40 x 40 pixel

Part No.	Description	BAST	PQ
25140VM-TAB-ECO-V3	PolVis RGB Fullmatrix traffic information system	✓	1

Direct link:

✓ www.horizont.com/25140VM-TAB-ECO-V3

Weight approx., kg	Dims. L*W*H, mm	Pixel/LED panel	Operating voltage, V	Approx. medium power consumption, W
40	900 * 1.000 * 150	40 * 40	12	6







STEFAN **SCHULZE**

Sales

Since when? July 1996

What? Order processing and customer care for Traffic warning trailers, Light arrows and Portable Traffic Lights (PTLs) in office (Hesse, North Rhine-Westphalia, Rhineland-Palatinate, Saarland)

About? Stefan has been part of our team for many years now. In his spare time he likes to go skiing and to spend time with his family.

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DIN
EN
12966

KBA
EMV

(HOT)

VMS LED trailer Standard RGB

Mobile variable message sign trailer in RGB-full-colour technique - with tablet

With our VMS-trailer your construction site is optimally secured at any time.

True to the motto "A picture is worth a thousand words" our VMS trailers warn the road users with traffic signs displayed by high performance LEDs (so-called "active light") of construction sites or danger spots ahead, thus achieving a substantially higher attention value than conventional traffic signs.

- photometric type approved by the German BAST according to EN12966
- EMC approved
- 16.7 million colours can be displayed
- full matrix design, freely programmable
- supplied with tablet remote control
- starting and operation can be carried out while driving from driver's cabin
- display of common traffic signs
- animated pictures and texts can be shown at the same time
- display of static, dynamic, flashing and alternating symbols and signs
- 9 brightness levels and automatic light intensity adjustment
- memory capacity on the remote control for up to 1,500 traffic signs and texts, freely selectable
- a huge pre-programmed sign set is included ex-factory
- further customized signs can be edited by means of a sign creation programme, included in delivery
- modular design, thus simplifying exchange of defective LED panels
- no phantom light due to sunlight or other light irradiation

Upper board (standard version)

- LED board 1,010 x 1,010 x 180 mm
- display of various signs: circulars up to Ø 940 mm, triangles up to 980 mm side length
- squares up to 940 mm side length
- upper board also available in different sizes

Lower board (standard version)

- LED board 1,245 x 1,645 x 180 mm
- traffic guidance arrows fill the complete height of the board, texts can be overlayed
- lower board also available in different sizes

Chassis

- completely hot galvanized
- electronic lifting and lowering of the LED board
- electronic locking device secures board during transport and in upright position
- sturdy steel boxes with checker plate lid height adjustable drawbar, hot galvanized, 350 – 1,050 mm
- two rear jacks and one height adjustable jockey wheel
- parking brake
- suited for transport on a FA 1 LR or Pick-up trailer



Direct link:

www.horizont.com/21703-00-TAAL

Part No.	Description	BAST	PQ
21703-00-TAAL	VMS trailer, standard version, upper board 48 x 48, lower board 48 x 64 / different sizes available on request	✓	1

GVWR, kg	UVW, approx. kg	Dims. L*W, mm	Dims. board lifted, H mm	Dims. board lowered, H mm
750	670	4,320 * 1,780	3,840	1,380
Pixel, upper board	Pixel, lower board	Operating Voltage, V	Medium current consumption, W	
48 * 48	48 * 64	12	60	



VWS LED with Solar-Kit

extended operation time up to 100% autarky

horizont VMS-Trailer FullMatrix with Solar-Kit for extended operation time is perfectly suited for those applications where a prolonged operation time of the VMS trailer is required! The solar KIT allows to extend the operating time of the VMS trailer of up to 100% autonomy. Further outstanding features of our VMS-trailer with SolarKit support:

no additional actuator for lifting and lowering required - the solar panel raises automatically while the LED panel is raised. The specially designed folding mechanism for the solar panel also deserves special mention as it allows to charge the batteries also during transport or when parked! The solar kit consists of: 1x solar panel, power 430 watts, 1x solar regulator, frame holder with articulated joint made of hot-dip galvanized steel, cable and small parts, separate main cut-off switch, safety fuse to protect the electronics. It's also possible to retrofit existing trailers with the solar kit at our works in Korbach. Our team is looking forward to providing you with your individual offer!

Special Feature:

Hinged without separate motor!

KBA
EMV

nach
WLZ
TL-Warn-
leuchten

(HOT)



- conforming to German regulations by RSA and ZTV-SA
- photometric type approved according to EN 12966
- EMC approved by German KBA
- with MS 340 LED advanced warning twin – system
- 430 W solar panel, mounted in hot dip galvanized stainless steel frame with articulated joint
- no additional actuator required for lifting the solar panel
- charging of batteries also during transport and parking possible
- extension of operating time of up to 100% self-sufficiency
- controlled via 8" tablet with touchscreen display, WLAN
- RGB - full colour, 16.7 million colours can be displayed
- Image change frequency selectable between 15-60 /min.
- automatic brightness adjustment
- further 9 brightness levels can be chosen manually
- display of all common traffic signs
- animated pictures and texts can be displayed at the same time
- Memory capacity for up to 1,500 signs and/ or

texts - a large sign set is provided at delivery

- further customized signs can easily be created via a sign creation programme, included in delivery

Upper LED board

- dimensions 1,010 x 1,010 x 180 mm
- traffic signs with Ø up to 1,000 mm respectively side length 1,000 mm can be displayed

Lower LED board

- dimensions 1,245 x 1,645 x 180 mm
- traffic guidance arrows fill the complete height of the board
- texts can be overlaid

Trailer, Chassis

- completely hot dip galvanized
- electronic lifting / lowering device
- electronic locking device secures the board in upright and transport position
- sturdy steel boxes with checker plate lid
- height adjustable drawbar 350 - 1,050 mm, hot galvanized
- up to 750 kg as standard for 100 km/h without surcharge
- prepared both structurally and dimensionally for loading and carrying a mobile warning trailer type FA1LR

Part No.	Description	BAST	PQ
21703-00-TAAL-SOL	VMS LED trailer with Solar-Kit	✓	1

Direct link:

www.horizont.com/21703-00-TAAL-SOL

GVWR, kg	UVW, approx. kg	Dims. L*W, mm	Dims. board lifted, H mm	Dims. board lowered, H mm
750	740	4,320 * 1,780	3,840	1,500
Pixel, upper board	Pixel, lower board	Operating Voltage, V	Medium current consumption, W	
48 * 48	48 * 64	12	60	





Universal VMS LED

The flexible solution ready for truck mounting

When our Universal VMS was originally designed it was thought to be transported on a flatbed vehicle. horizont decided to enhance this design and now our Universal VMS can be equipped with a chassis of a frame for Stand Alone Signs on request. This makes the application possibilities of our Universal VMS much more versatile. Using the chassis the Universal VMS can be transported as a trailer – just like a common warning trailer.

By means of the Stand Alone Frame with height adjustable supports it can be securely placed next to the road. The basic frame of our Universal VMS is equipped with forklift shoes to facilitate the loading with a forklift truck. Standardly installed eyelets ensure secure installing of the Universal VMS with lashing straps on the cargo bed. With the Universal VMS mounted on the cargo bed of a pick-up truck you now have the possibility to hinge another Mobile warning trailer to this vehicle – and if this second Mobile Warning Trailer is a horizont trailer type FA 1 LR, you might also carry a second VMS trailer on its large cargo bed to the construction side! Using the horizont Universal VMS you can equip a complete construction site with two VMS signs and one Mobile warning trailer! At the same time, you retain the flexibility to also use the device with other vehicles.

Of course, you also benefit from all the other advantages a LED Variable Message Sign by horizont provides!

- photometric type approved by the German BAST according to EN12966
- EMC approved
- 16.7 million colours can be displayed
- full matrix design, freely programmable
- supplied with tablet remote control
- starting and operation can be carried out while driving from driver's cabin
- display of common traffic signs
- animated pictures and texts can be shown at the same time
- display of static, dynamic, flashing and alternating symbols and signs
- 9 brightness levels and automatic light intensity adjustment
- memory capacity on the remote control for up to 1,500 traffic signs and texts, freely selectable
- a huge pre-programmed sign set is included ex-factory
- further customized signs can be edited by means of a sign creation programme, included in delivery
- modular design, thus simplifying exchange of defective LED panels
- no phantom light due to sunlight or other light irradiation

Upper board (standard version)

- LED board 1,010 x 1,010 x 180 mm
- display of various signs: circulars up to Ø 940 mm, triangles up to 980 mm side length
- squares up to 940 mm side length
- upper board also available in different sizes

Lower board (standard version)

- LED board 1,245 x 1,645 x 180 mm
- traffic guidance arrows fill the complete height of the board, texts can be overlaid
- lower board also available in different sizes



Part No.	Description	BAST	PQ
217031-00-TAAL	Universal VMS, for transportation and operation on a pick up truck	✓	1
259240-FG-AVVTE	Chassis for Universal VMS for use it as VMS trailer		1
2959112801	Stand-Alone frame for installing the board next to the road		1

Direct link:

✓ www.horizont.com/217001-00-WTAL

Part. No.	Weight, kg	Dims. L*W*H mm	Dims. board lifted, H mm	Pixel upper board	Pixel, lower board	Operating voltage, V	Current consumption, W
217031-00-TAAL	490	2,770 * 1,720 * 1,220	3,300	48 * 48	48 * 64	12	60
259240-FG-AVVTE	200	4,300 * 1,780 * 600	–	–	–	–	–
2959112801	300	2,500 * 2,000 * 940	–	–	–	–	–

One Universal VMS - three options

Stay flexible!



Simply use the Universal VMS mounted on your PickUp truck and gain more flexibility in the use of hitch.

Use our Universal VMS together with the stand-alone frame and have the flexibility to place it anywhere next to the road.

Simply use the Universal VMS with our trailer chassis and operate it like a common VMS trailer.



Convince yourself online of the fast operational readiness of the Universal VMS



www.horizont.com/ytAvwt



Die City-Tafel

The Multi-Tool among road safety trailers

Our City-Trailer has been developed for the special requirements on trailers in urban areas, as well as for the use on federal and rural roads. The City-Trailer is a multifunctional vehicle which can be used as VMS trailer as well as cargo vehicle for safety material.

- two full matrix RGB LED boards, freely programmable
- special LEDs conforming to class B7 as concerns radiation (according to EN12966) allow best visibility even on short distances
- 16.7 million colours can be displayed
- cargo bed with lashing rails ensure flexible and secure transport of further equipment
- cargo bed without side walls for easy and ergonomic loading and unloading
- versatile use due to possibility of displaying most of the common traffic signs
- LED advanced warning lamps can be switched on and off with the handset
- guidance and / or warning of road users
- memory capacity on the remote control for up to 1,500 traffic signs and texts, freely selectable
- additional warning effect due to two or three advanced warning lamps, conforming to German TL-Warnleuchten
- upper and lower board with high performance LEDs, RGB
- starting and operation can be carried out while driving
- supply voltage 12 V
- animated pictures and texts can be shown at the same time
- display of static, dynamic, flashing and alternating symbols and signs
- 9 brightness levels and automatic light intensity adjustment via photo cell
- modular design, thus simplifying exchange of defective LED panels

LED board

- two full matrix LED boards, 48 x 48 pixel each
- dimensions each board 1,010 x 1,010 mm
- full colour RGB
- with up to 16.7 million colours
- free to programme
- supplied with tablet remote control can also be governed by the horizont GPS system HOT
- 3 LED advanced warning lamps which can be switched on and off

Chassis and equipment

- GVWR: 1,500 kg
- Payload: 820 kg
- Width: 2,010 mm
- Length (drawbar extended): 5,230 mm
- Height, upper board lifted: 3,320 mm
- Height, upper board lowered: 2,340 mm
- electronic lifting and lowering device
- 3 lashing rails for cargo securing
- sheeting type RA 2 C
- cargo bed (LxW): 2,500 x 1,500 mm
- no side walls
- floor made of skid proof, extra-strong lined plywood, waterproof
- drawbar height adjustable 300 - 1,050 mm
- two rechargeable batteries 12 V / 230 Ah each
- battery box made of galvanized steel with lid made of aluminium checker-plate
- operation time approx. 60 h (depends from signs displayed and light intensity)

Part No.	Description	BAST	PQ
25901-1525-B7-ECO	City-Trailer, 48 x 48 RGB full matrix	✓	1

Direct link:

✓ www.horizont.com/25901-1525-B7-ECO

GVWR, kg	UVW, approx. kg	Dims. L*W*H, mm	Dims. board lifted, H mm	Dims. cargo bed, L*W mm
1,500	820	5,230 * 2,010 * 2,340	3,320	2,500 * 1,500
Pixel, upper board	Pixel, lower board	Operating Voltage, V	Medium current consumption, W	
48 * 48	48 * 48	12	80	

The City-Trailer – guiding and informing at any place - whether construction site or local event

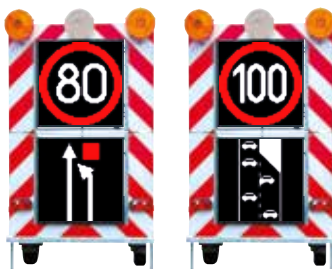
Guiding



Guiding and warning



Pre-warner



Height controls



Traffic guidance



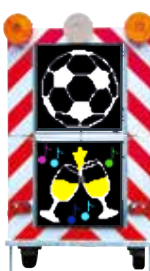
Queue warning



Information



Events



**The City-Trailer is a multi-purpose trailer
and versatile in use!**

Our service for you!
Overview cargo security

You will find further information
regarding cargo security on pages
172-173



Digital Signage - Eventboards made by horizont



Event Trailer

Benefit from decades of experience in construction of trailers for construction sites. We have combined state of the art technology with our long standing experience and have developed our Event Trailer with a 3.75 m² LED panel with 3.9 mm pixel pitch – the ideal and roadworthy solution for your promotional requirements.

3,75 m² advertising space for your use



Traffic / Information VMS

For many years now our Traffic / Information VMS has been a sustainable and reliable companion of German Traffic Safety.

Our VWT-LED in oversized dimensions combines the decade-long proven experience and quality in construction site protection with innovative, advertising added value.

One VMS for all requirements!

2 m² advertising space for your use



Event Trailer

The eye-catcher among road safety trailers

Our mobile Digital Signage Solutions are tailor made in Germany. You choose display size, pixel pitch, trailer construction, painting and display control options.

- full colour LED VMS board with freely programmable full matrix up to 16.7 million colours displayable
- the event trailer is especially suited for merchandising your event and displaying of pictures and animated pictures due to its high resolution, but also for private celebrations, for traffic guidance and information e.g. in parking management
- chassis: hot galvanized steel, painted in any RAL-colour
- lifting takes place via two electronic actuators

Controlling

- Multimedia PC, 24/7 with OS Windows 10
- controllable via WLAN, UMTS 3G

GWVR, kg	1,000
Transport dims. L*W*H	4,150 * 2,210 * 1,370
Dims. lifted, H mm	3,500
Operating voltage, V	230 V AC
Current consumption, approx., A	7 - 12
Dims. display, W*H mm	1,500 * 2,500
Pixel / LED panel, L*B, Stk.	640 * 384
Pixel pitch, mm	3,9
Luminous intensity, cd/m ² (nit)	2,500

Direct link:

<http://digital-signage.horizont.com>



Traffic guidance and information trailer

Advanced Variable Message Sign Trailer, RGB – Full-colour

Our mobile Digital Signage Solutions are tailor-made in Germany. You choose display size, pixel pitch, trailer construction, painting and display control options.

- photometric type approved by the German BAST according to EN12966
- EMC approved
- 16.7 million colours can be displayed
- full matrix design, freely programmable
- our traffic guidance and information trailer is most suitable for traffic guidance and displaying of traffic information but can also be used for event support or parking management
- chassis: hot galvanized steel
- lifting takes place via 1 electronic actuator

Controlling

- content can be transferred to the board via cable or via a horizon CMS

GWVR, kg	1,000
Transport dims. L*W*H	5,380 * 1,920 * 1,330
Dims. lifted, H mm	4,000
Operating voltage, V	12 V DC
Current consumption, approx., A	5 - 30
Dims. display top, W*H mm	1,280 * 1,280
Dims. display bottom, W*H mm	1,280 * 1,600
Pixel / LED panel top, L*B, Stk.	64 * 64
Pixel / LED panel bottom, L*B, Stk.	64 * 80
Pixel pitch, mm	20
Luminous intensity, cd/m ² (nit)	13,000

Direct link:

<http://digital-signage.horizont.com>

Latest innovation by horizont - Event trailer Lift & Rotate



Event trailer - Lift & Rotate

Benefit from decades of experience in trailer construction for safeguarding construction sites. We have used this experience and expertise to create a 3.75 m² LED panel with a 3.9 mm pixel pitch. The result is the ideal roadworthy product for your promotional requirements.

Convince yourself online on our event board



**You
Tube**



www.horizont.com/ytEventtafelLiftRotate

**3,75 m² advertising
space for your use**



Event trailer - Lift & Rotate

The eye-catcher among the event boards

Mobile LED Board, rotatable by 90° featuring a wide range of applications
 Our mobile Digital Signage Solutions are tailor made in Germany.
 You choose your display size, the pixel pitch, trailer construction, the painting as well as the option how to control the display.

- **Fullcolour LED - board, freely programmable**
- **up to 16,7 million colours can be displayed**
- **our Event-boards are perfectly suited for event support, private celebrations, traffic guidance and traffic information (e.g. parking areas management) or the display of images and animations**

Chassis

- galvanised steel with paint finish in desired RAL colour upon customer's request
- lifting of the board by means of 2 lifting spindle motors

Controlling

- 24/7 Multimedia - PC with operating system Windows 10
- to be controlled via WLAN, UMTS 3G, HDMI

GWVR, kg	1,000
Transport dims. L*W*H	4,150 * 2,210 * 1,370
Dims. lifted, H mm	3,800
Operating voltage, V	230 V AC
Current consumption, approx., A	7 - 12
Dims. display, L*W mm	1,500 * 2,500
Pixel LED board, L*W, each	640 * 384 / 384 * 640
Pixel pitch, mm	3.9
Luminous intensity, cd/m² (nits)	2,500

Direct link:

 www.digital-signage.horizont.com

PickUp VMS-LED - 3 in one go!

The PickUp-VMS trailer is our latest development which enables you to secure construction sites with three VMS boards in a fast, safe and cost-saving way. Cost efficiency is more than ever the focus of everyone

active in road safety. With our PickUp-VMS trailer you are now able to take three horizontal LED VMS boards (two on trailers, one without chassis) to the construction site in one go!



Anwendungsgebiete

- ✓ safeguarding of short term construction sites on motorways
- ✓ in areas or counties where the use of three VMS boards is mandatory the PickUp-VMS trailer can save one towing vehicle inclusive driver
- ✓ a third horizontal LED VMS can be transported on the cargo bed of a flat-bed vehicle (Universal VMS LED)
- ✓ Throughout Germany (except Bavaria), a complete construction site can be set up with only one vehicle and only one person by using our PickUP VMS Trailer.

Advantages

- ✓ up to three fully functional VMS boards can be installed by just one person
- ✓ you can save 1 towing vehicle, thus reducing costs and CO2 emissions
- ✓ loading and unloading of the second trailer is done automatically via an electrical rope winch
- ✓ increased safety for the operator as loading and unloading is controlled from the side
- ✓ the trailer transported piggybacked can also be used to warn the traffic approaching from behind
- ✓ automatic up- and unloading possible even on downhill stretches (no need to involve further personnel)

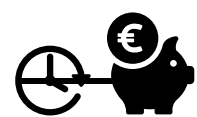
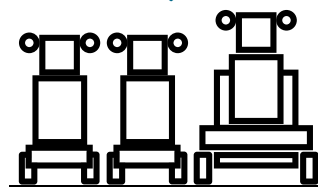
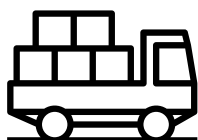


1
Vehicle

1
Employee

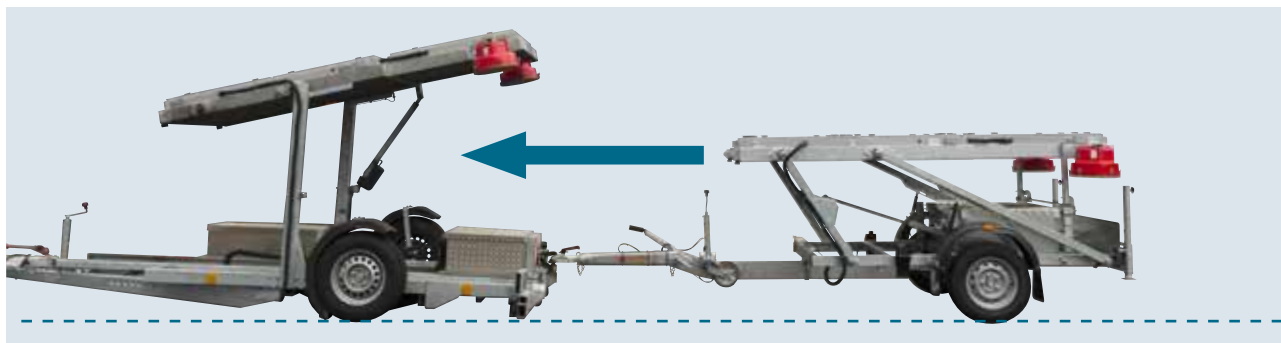
3
VMS boards

**You'll save
time and
money**



How does it work?

- 1 In order to pick up a second horizont VMS trailer, the PickUp-trailer is positioned in front of the second VMS-trailer
- 2 The axle of the PickUp trailer is lowered hydraulically at the push of a button



- 3 The second trailer is hooked into the receptacle provided for this purpose and is moved forward electronically
- 4 The lowered axle of the PickUp VMS is lifted, the VMS-LED to be transported hangs due to its own weight firmly in two provided pick-up supports and the hitching jaw



Sample calculation

Not yet convinced?

Saving of a vehicle with driver

- 150 operations per year
- transport of one VMS-trailer / board from the location of the traffic safety company and back (2* 1 h)
- mounting and dismounting of traffic safety equipment (2 * 0.5 h)
- costs for transport vehicle and driver 70 €/h

150 operations * 3 h per operation * 70 €/h =
31,500 € savings a year

Amortization time of the additional costs of
a PickUp VMS trailer compared to a standard
VMS trailer for the example shown

< 1 year

Then have a look online and convince yourself!



www.horizont.com/ytPickupVWT-LED

Direct link:
www.horizont.com/217035-00-WTAL

Part No.	Discription	PQ	VE
217035-00-WTAL	PickUp VMS-LED RGB with fix drawbar		1
217035-00-WTALZ	PickUp VMS-LED RGB with height-adjustable drawbar		1

Part No.	GVWR, kg	UVW, approx. kg	Dims. L*W*H mm	Dims., board lifted, H mm
217035-00-WTAL	1,800	1,100	5,700 * 1,930 * 2,050	3,700
217035-00-WTALZ	1,850	1,150	5,995 * 1,930 * 2,050	

Part No.	Pixel, upper board	Pixel, lower board	Operating voltage, V	Medium current consumption, W
217035-00-WTAL	48 * 48	48 * 64	12	60
217035-00-WTALZ				

Mobile warning trailers for use on roads **with two-way traffic**



- ✓ Tailor-made and freely configurable
- ✓ Made in Germany
- ✓ Conforming to German laws

TL ✓
Absperr-
tafeln

TL ✓
Warn-
leuchten

RSA
95 ✓

StVO ✓

ZTV-
SA ✓

Our **service** for you!

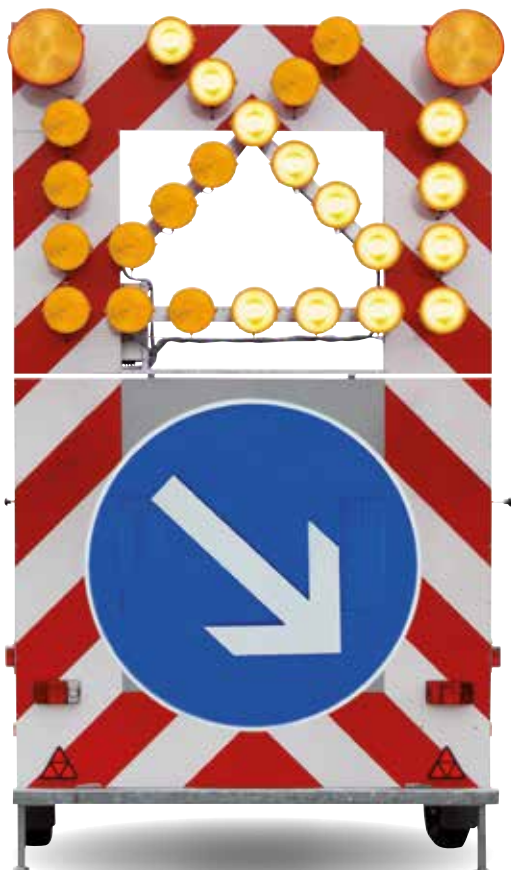
All versions at a glance

Choose the Mobile warning trailer for roads with two-way traffic according to your requirements from the below table.

Detailed information on the trailers please find on pages 160-163

FA 2 versions	FA 2 page 160	FA 2 L page 161	FA 2 GL page 162	FA 2 LR page 163
GVWR, kg	450	750	1,500	1,500
UVW, approx. kg	360	350	550	700
Dims., L*W mm drawbar extended	3,460 * 1,700	3,460 * 1,700	4,900 * 1,700	5,100 * 1,700
Dims. warning board, H*W mm	2,500 * 1,700	2,500 * 1,700	2,500 * 1,700	2,500 * 1,700
Dims. lifted, H mm	2,920	2,920	2,920	2,920
Dims. lowered, H mm	1,930	1,930	1,930	1,930
Dims. cargo bed, L*W mm	–	1,150 * 1,320	2,500 * 1,320	2,500 * 1,320
Dims. loading ramp, L*W mm	–	–	–	1,700 * 1,250
Clearance height, mm	–	1,135	1,175	1,175
Side board height, mm	–	300	300	300
Operating voltage, V	12	12	12	12
Power consumption, W	17	17	17	17

Mobile warning trailers for use on **motor ways**



✓ Tailor-made and freely configurable

✓ Made in Germany

✓ Conforming to German laws

TL ✓
Absperr-
tafeln

TL ✓
Warn-
leuchten

RSA
95 ✓

StVO ✓

ZTV-
SA ✓

Our **service** for you!

All versions at a glance

Choose the Mobile warning trailer for motorways according to your requirements from the below table.

Detailed information on the trailers please find on pages 164-168

FA 1 versions	FA 1 page 164	FA 1 L page 165	FA 1 GL page 166	FA 1 LR page 167
GVWR, kg	750	750	1,500	1,600
UVW, approx. kg	540	590	750	800
Dims. L*W mm drawbar extended	3,550 * 2,200	3,550 * 2,200	5,080 * 2,200	5,080 * 2,200
Dims. warning board, H*W mm	3,600 * 2,200	3,600 * 2,200	3,600 * 2,200	3,600 * 2,200
Dims. lifted, H mm	4,000	4,000	4,000	4,000
Dims. lowered, H mm	2,620	2,620	2,620	2,620
Dims. cargo bed, L*W mm	–	1,310 * 1,800	2,500 * 1,800	2,500 * 1,800
Dims. loading ramp, L*W mm	–	–	–	1,980 * 2,200
Clearance height, mm	–	1,740	1,770	1,770
Side board height, mm	–	300	300	300
Operating voltage, V	12	12	12	12
Power consumption, W	26	26	26	26



TL ✓
Absper-
tafeln

TL ✓
Warn-
leuchten

RSA
95 ✓

StVO ✓

**ZTV-
SA** ✓

VZ
615
optional

(HOT)

Mobile warning trailer FA 2

without cargo bed, small light arrow with 15 RS 2000 LED,
2 MS 340 LED and directional arrow

- Mobile warning trailer for use on roads with two-way traffic
- Mobile warning trailer according to German TL-Absperftafeln
- Light arrow according to German TL-Warnleuchten

Chassis

- single axle type AL-KO (alternatively KNOTT), maintenance free
- drawbar: type AL-KO, height adjustable from 340 to 1,050 mm (alternatively type KNOTT, tool-free one hand height adjustable from 340 to 1,100 mm)
- parking brake
- ball hitch / din eye hitch
- vehicle illumination, 12 V - 13 pins (standard)
- hot galvanized

Warning board

- center folding
- light arrow board according to German TL-Warnleuchten, consisting of 15 RS 2000 LED class WL 6 (L8H/L8M, EN 12352) and 2 MS 340 LED flash lamps class WL 5 (L9M/L9L, EN 12352)
- directional arrow adjustable by electronic actuator
- sheeting type RA 2 C (micro-prismatic)

Battery box

- WxDxH: 1,320 x 440 x 300 mm
- walls made of galvanized steel
- lid made of aluminium checker-plate, walkable
- incl. battery holder

Direct link: www.horizont.com/259001-05

Part. No.	Product	VE
259001-05	Mobile warning trailer FA 2, without cargo bed, small light arrow with 15 RS 2000 LED, 2 MS 340 LED and directional arrow	1

GVWR, kg	UVW, approx. kg	Dims. L*W mm drawbar extended	Dims. warning board, W*H mm	Dims. warning board lifted, H mm	Dims. warning board lowered, H mm
450	360	3,460 * 1.700	2,500 * 1,700	2,920	1,930
Dims. cargo bed L*W mm	Dims. cargo ramp L*W mm	Clearance height mm	Height sidewalls mm	Operating voltage, V	Current consumption, W
-	-	-	300	12	17

Mobile warning trailer FA 2 L

with small cargo bed, small Light Arrow with 15 RS 2000 LED, 2 MS 340 LED and directional arrow

- Mobile warning trailer for use on roads with two-way traffic
- Mobile warning trailer according to German TL-Absperrtafeln
- Light arrow according to German TL-Warnleuchten

Chassis

- Single axle type AL-KO (alternatively KNOTT), maintenance free
- drawbar: type AL-KO, height adjustable from 340 to 1,050 mm (alternatively type KNOTT, tool-free one hand height adjustable from 340 to 1,100 mm)
- parking brake
- ball hitch / din eye hitch
- vehicle illumination, 12 V - 13 pins (standard)
- hot galvanized

Warning board

- center folding
- light arrow board according to German TL-Warnleuchten, consisting of 15 RS 2000 LED class WL 6 (L8H/L8M, EN 12352) and 2 MS 340 LED flash lamps class WL 5 (L9M/L9L, EN 12352)
- directional arrow adjustable by electronic actuator
- sheeting type RA 2 C (micro-prismatic)

Battery box

- WxDxH: 1,320 x 440 x 300 mm
- walls made of galvanized steel
- lid made of aluminium checker-plate, walkable
- incl. battery holder

Cargo bed

- free loading / unloading from the side
- side walls made of galvanized steel
- floor made of skid proof, extra-strong lined plywood, waterproof

TL ✓
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tafeln

TL ✓
Warn-
leuchten

RSA ✓
95

StVO ✓

ZTV-
SA ✓

VZ
615
optional

(HOT)



Direct link: www.horizont.com/259031-07

Part. No.	Product	VE
259031-07	Mobile warning trailer FA 2 L, with small cargo bed, small light arrow with 15 RS 2000 LED, 2 MS 340 LED and directional arrow	1

GVWR, kg	UVW, approx. kg	Dims. L*W mm drawbar extended	Dims. warning board, W*H mm	Dims. warning board lifted, H mm	Dims. warning board lowered, H mm
750	350	3,460 * 1,700	2,500 * 1,700	2,920	1,930
Dims. cargo bed L*W mm	Dims. cargo ramp L*W mm	Clearance height mm	Height sidewalls mm	Operating voltage, V	Current consumption, W
1,150 * 1,320	-	1,320	300	12	17





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**ZTV-
SA** ✓

VZ
615
optional

(HOT)

Mobile warning trailer FA 2 GL

with large cargo bed, small light arrow with 15 RS 2000 LED, 2 MS 340 LED and directional arrow

- Mobile warning trailer for use on roads with two-way traffic
- Mobile warning trailer according to German TL-Absperrtafeln
- Light arrow according to German TL-Warnleuchten

Chassis

- single axle type AL-KO (alternatively KNOTT), maintenance free
- drawbar: type AL-KO, height adjustable from 340 to 1,050 mm (alternatively type KNOTT, tool-free one hand height adjustable from 340 to 1,100 mm)
- parking brake and overrun brake with auto revers
- ball hitch / din eye hitch
- vehicle illumination, 12 V - 13 pins (standard)
- hot galvanized

Warning board

- center folding
- light arrow board according to German TL-Warnleuchten, consisting of 15 RS 2000 LED class WL 6 (L8H/L8M, EN 12352) and 2 MS 340 LED flash lamps WL 5 (L9M/L9L, EN 12352)
- directional arrow adjustable by electronic actuator
- sheeting type RA 2 C (micro-prismatic)

Battery box

- WxDxH: 1,320 x 440 x 300 mm
- walls made of galvanized steel
- lid made of aluminium checker-plate, walkable
- incl. battery holder

Cargo bed

- free loading / unloading from the side
- side walls made of galvanized steel
- floor made of skid proof, extra-strong lined plywood, waterproof

Direct link: www.horizont.com/259011-15-13

Part No.	Discription	PQ
259011-15-13	Mobile warning trailer FA 2 GL, with large cargo bed, small light arrow with 15 RS 2000 LED, 2 MS 340 LED and directional arrow	1

GVWR, kg	UVW, approx. kg	Dims. L*W mm drawbar extended	Dims. warning board, W*H mm	Dims. warning board lifted, H mm	Dims. warning board lowered, H mm
1,500	550	4,900 * 1,700	2,500 * 1,700	2,920	1,930
Dims. cargo bed L*W mm	Dims. cargo ramp L*W mm	Clearance height mm	Height sidewalls mm	Operating voltage, V	Current consumption, W
2,500 * 1,320	-	1320	300	12	17

Mobile warning trailer FA 2 LR

with large cargo bed and loading ramp, small light arrow with 15 RS 2000 LED, 2 MS 340 LED and directional arrow

- **Mobile warning trailer for use on roads with two-way traffic**
- **Mobile warning trailer according to German TL-Absperrtafeln**
- **Light arrow according to German TL-Warnleuchten**
- **suited for transport of VMS trailers**

Chassis

- single axle type AL-KO (alternatively KNOTT), maintenance free
- drawbar: type AL-KO, height adjustable from 340 to 1,050 mm (alternatively type KNOTT, tool-free one hand height adjustable from 340 to 1,100 mm)
- parking brake and overrun brake with auto revers
- ball hitch / din eye hitch
- vehicle illumination, 12 V - 13 pins (standard)
- hot galvanized

Warning board

- center folding
- light arrow board according to German TL-Warnleuchten, consisting of 15 RS 2000 LED class WL 6 (L8H/L8M, EN 12352) and 2 MS 340 LED lash lamps class WL 5 (L9M/L9L, EN 12352)
- directional arrow adjustable by electronic actuator
- sheeting type RA 2 C (micro-prismatic)

Battery box

- WxDxH: 1,320 x 440 x 300 mm
- walls made of galvanized steel
- lid made of aluminium checker-plate, walkable
- incl. battery holder

Cargo bed

- free loading / unloading from the side
- side walls made of galvanized steel
- floor made of skid proof, extra-strong lined plywood, waterproof
- loading ramp sheeted with slip-proof aluminium checker-plate

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leuchten

RSA ✓
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StVO ✓

ZTV-
SA ✓

VZ
615
optional

(HOT)



Direct link: www.horizont.com/259021-15-13

Part No.	Description	PQ
259021-15-13	Mobile warning trailer FA 2 LR, with large cargo bed and loading ramp, small light arrow with 15 RS 2000 LED, 2 MS 340 LED and directional arrow	1

GVWR, kg	UVW, approx. kg	Dims. L*W mm drawbar extended	Dims. warning board, W*H mm	Dims. warning board lifted, H mm	Dims. warning board lowered, H mm
1,500	700	5,100 * 1,700	2,500 * 1,700	2,920	1,930
Dims. cargo bed L*W mm	Dims. cargo ramp L*W mm	Clearance height mm	Height sidewalls mm	Operating voltage, V	Current consumption, W
2,500 * 1,320	1,700 * 1,250	1,320	300	12	17





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StVO ✓

**ZTV-
SA** ✓

(HOT)

Mobile warning trailer FA 1

without cargo bed, light arrow with 24 RS 2000 LED, 2 MS 340 LED and directional arrow

- Mobile warning trailer for use on motorways
- Mobile warning trailer according to German TL-Absperrtafeln
- Light arrow according to German TL-Warnleuchten

Chassis

- single axle type AL-KO (alternatively KNOTT), maintenance free
- drawbar: type AL-KO, height adjustable from 340 to 1,050 mm (alternatively type KNOTT, tool-free one hand height adjustable from 340 to 1,100 mm)
- parking brake
- ball hitch / din eye hitch
- vehicle illumination, 12 V - 13 pins (standard)
- hot galvanized
- drop supports at the rear with automatic latching

Warning board

- center folding
- light arrow board according to German RSA and TL-Absperrtafeln, consisting of 24 RS 2000 LED, according to German TL-Warnleuchten, German class WL 6 (L8H/L8M, EN 12352) and 2 MS 340 LED flash lights according to TL-Warnleuchten, class WL 5 (L9M/L9L, EN12352)
- sheeting type RA 2 C (micro-prismatic)
- directional arrow adjustable by electronic actuator
- directional arrow with two open-close lamella viewing windows
- cable remote control (optional cable/radio remote control)
- electronic lifting / lowering of upper board

Battery box

- WxDxH: 1,870 x 450 x 360 mm
- walls made of galvanized steel
- lid made of aluminium checker-plate, walkable
- incl. battery holder

Direct link: www.horizont.com/259102

Part No.	Description	PQ
259102	Mobile warning trailer FA 1, without cargo bed light arrow with 24 RS 2000 LED and 2 MS 340 LED flash, directional arrow	1

GVWR, kg	UVW, approx. kg	Dims. L*W mm drawbar extended	Dims. warning board, W*H mm	Dims. warning board lifted, H mm	Dims. warning board lowered, H mm
750	540	3,550 * 2,200	2,200 * 3,600	4,000	2,620
Dims. cargo bed L*W mm	Dims. cargo ramp L*W mm	Clearance height mm	Height sidewalls mm	Operating voltage, V	Current consumption, W
-	-	-	300	12	26

Mobile warning trailer FA 1 L

with small cargo bed, light arrow with 24 RS 2000 LED,
2 MS 340 LED and directional arrow

- **Mobile warning trailer for use on motorways**
- **Mobile warning trailer according to German TL-Absperrtafeln**
- **Light arrow according to German TL-Warnleuchten**

Chassis

- single axle type AL-KO (alternatively KNOTT), maintenance free
- drawbar: type AL-KO, height adjustable from 340 to 1,050 mm (alternatively type KNOTT, tool-free one hand height adjustable from 340 to 1,100 mm)
- parking brake
- ball hitch / din eye hitch
- vehicle illumination, 12 V - 13 pins (standard)
- hot galvanized
- drop supports at the rear with automatic latching

Warning board

- center folding
- light arrow board according to German RSA and TL-Absperrtafeln, consisting of 24 RS 2000 LED according to German TL-Warnleuchten, class WL 6 (L8H/L8M, EN 12352) and 2 MS 340 LED flash lights according to TL-Warnleuchten, class WL 5 (L9M/L9L, EN12352)
- sheeting type RA 2 C (micro-prismatic)
- directional arrow adjustable by electronic actuator
- directional arrow with two open-close lamella viewing windows
- cable remote control (optional cable/radio remote control)
- electronic lifting / lowering of upper board

Battery box

- WxDxH: 1,870 x 450 x 360 mm
- walls made of galvanized steel
- lid made of aluminium checker-plate, walkable
- incl. battery holder

Cargo bed

- free loading / unloading from the side
- side walls made of galvanized steel
- floor made of skid proof, extra-strong lined plywood, waterproof

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Direct link: www.horizont.com/259212

Part No.	Description	PQ
259212	Mobile warning trailer FA 1 L, with small cargo bed light arrow with 24 RS 2000 LED and 2 MS 340 LED flash, directional arrow	1

GVWR, kg	UVW, approx. kg	Dims. L*W mm drawbar extended	Dims. warning board, W*H mm	Dims. warning board lifted, H mm	Dims. warning board lowered, H mm
750	590	3,550 * 2,200	2,200 * 3,600	4,000	2,620
Dims. cargo bed L*W mm	Dims. cargo ramp L*W mm	Clearance height mm	Height sidewalls mm	Operating voltage, V	Current consumption, W
1,300 * 1,800	-	1,800	300	12	26





Mobile warning trailer FA 1 GL

with large cargo bed, light arrow with 24 RS 2000 LED, 2 MS 340 LED and directional arrow

- Mobile warning trailer for use on motorways
- Mobile warning trailer according to German TL-Absperrtafeln
- Light arrow according to German TL-Warnleuchten

Chassis

- single axle type AL-KO (alternatively KNOTT), maintenance free
- drawbar: type AL-KO, height adjustable from 340 to 1,050 mm (alternatively type KNOTT, tool-free, one hand height adjustable from 340 to 1,100 mm)
- parking brake
- ball hitch / din eye hitch
- vehicle illumination, 12 V - 13 pins (standard)
- hot galvanized
- drop supports at the rear with automatic latching

Warning board

- center folding
- light arrow board according to German RSA and TL-Absperrtafeln, consisting of 24 RS 2000 LED according to German TL-Warnleuchten, class WL 6 (L8H/L8M, EN 12352) and 2 MS 340 LED flash lights according to TL-Warnleuchten, class WL 5 (L9M/L9L, EN12352)
- sheeting type RA 2 C (micro-prismatic)
- directional arrow adjustable by electronic actuator
- directional arrow with two open-close lamella viewing windows
- cable remote control (optional cable/radio remote control)
- electronic lifting / lowering of upper board

Battery box

- WxDxH: 1,870 x 450 x 360 mm
- walls made of galvanized steel
- lid made of aluminium checker-plate, walkable
- incl. battery holder

Cargo bed

- free loading / unloading from the side
- side walls made of galvanized steel
- floor made of skid proof, extra-strong lined plywood, waterproof

Direct link: www.horizont.com/259112

Part No.	Description	PQ
259112	Mobile warning trailer FA 1 GL, with large cargo bed light arrow with 24 RS 2000 LED and 2 MS 340 LED flash, directional arrow	1

GVWR, kg	UVW, approx. kg	Dims. L*W mm drawbar extended	Dims. warning board, W*H mm	Dims. warning board lifted, H mm	Dims. warning board lowered, H mm
1,500	750	5,080 * 2,200	2,200 * 3,600	4,000	2,620
Dims. cargo bed L*W mm	Dims. cargo ramp L*W mm	Clearance height mm	Height sidewalls mm	Operating voltage, V	Current consumption, W
2,500 * 1,800	-	1,800	300	12	26





Mobile warning trailer FA 1 LR

with large cargo bed, loading ramp, light arrow with 24 RS 2000 LED, 2 MS 340 LED and directional arrow

- **Mobile warning trailer for use on motorways**
- **Mobile warning trailer according to German TL-Absperrtafeln**
- **Light arrow according to German TL-Warnleuchten**

Chassis

- single axle type AL-KO (alternatively KNOTT), maintenance free
- drawbar: type AL-KO, height adjustable from 340 to 1,050 mm (alternatively type KNOTT, tool-free, one hand height adjustable from 340 to 1,100 mm)
- parking brake
- ball hitch / din eye hitch
- vehicle illumination, 12 V - 13 pins (standard)
- hot galvanized
- drop supports at the rear with automatic latching

Warning board

- center folding
- light arrow board according to German RSA and TL-Absperrtafeln, consisting of 24 RS 2000 LED according to German TL-Warnleuchten, class WL 6 (L8H/L8M, EN 12352) and 2 MS 340 LED flash lights according to TL-Warnleuchten, class WL 5 (L9M/L9L, EN12352)
- sheeting type RA 2 C (micro-prismatic)
- directional arrow adjustable by electronic actuator
- directional arrow with two open-close lamella viewing windows
- cable remote control (optional cable/radio remote control)
- electronic lifting / lowering of upper board

Battery box

- WxDxH: 1,870 x 450 x 360 mm
- walls made of galvanized steel
- lid made of aluminium checker-plate, walkable
- incl. battery holder

Cargo bed

- free loading / unloading from the side
- side walls made of galvanized steel
- floor made of skid proof, extra-strong lined plywood, waterproof
- loading ramp sheeted with slip-proof aluminium checker-plate

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TL ✓
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Direct link: www.horizont.com/259122

Art.-Nr.	Produkt	VE
259122	Mobile warning trailer FA 1 LR, with large cargo bed and loading ramp, light arrow with 24 RS 2000 LED and 2 MS 340 LED flash, directional arrow	1

GVWR, kg	UVW, approx. kg	Dims. L*W mm drawbar extended	Dims. warning board, W*H mm	Dims. warning board lifted, H mm	Dims. warning board lowered, H mm
1600	795	5,080 * 2,200	2,200 * 3,600	4,000	2,620
Dims. cargo bed L*W mm	Dims. cargo ramp L*W mm	Clearance height mm	Height sidewalls mm	Operating voltage, V	Current consumption, W
2,500 * 1,800	1,980 * 2,200	1,800	300	12	26



Mobile warning trailer FA 1 LRF

with large cargo bed, loading ramp, light arrow with 24 RS 2000 LED, 2 MS 340 LED, directional arrow, double axle

- Mobile warning trailer for use on motorways
- Mobile warning trailer according to German TL-Absperrtafeln
- Light arrow according to German TL-Warnleuchten

Chassis

- double axle type AL-KO (alternatively KNOTT), maintenance free
- drawbar: type AL-KO, height adjustable from 340 to 1,050 mm (alternatively type KNOTT, tool-free, one hand height adjustable from 340 to 1,100 mm)
- parking brake
- ball hitch / din eye hitch
- vehicle illumination, 12 V - 13 pins (standard)
- hot galvanized
- drop supports at the rear with automatic latching

Warning board, battery box, cargo bed and loading ramp – please see trailer FA 1 LR, single axle

Direct link: www.horizont.com/259122-25-35

Part No.	Discription	PQ
259122-25-35	Mobile warning trailer FA 1 LR, with large cargo bed and loading ramp, double axle light arrow with 24 RS 2000 LED and 2 MS 340 LED flash, directional arrow	1

GVWR, kg	UVW, approx. kg	Dims. L*W mm drawbar extended	Dims. warning board, W*H mm	Dims. warning board lifted, H mm	Dims. warning board lowered, H mm
2,500	1,050	6,250 * 2,350	2,200 * 3,600	4,000	2,620
Dims. cargo bed L*W mm	Dims. cargo ramp L*W mm	Clearance height mm	Height sidewalls mm	Operating voltage, V	Current consumption, W
3,500 * 1,800	2,200 * 1,980	1,800	300	12	26



Our service for you!

Our FA 1 LR is perfectly suitable for carrying Mobile warning trailers FA 2 and VMS trailers

Choose the matching VMS LED trailer for your application.

Please find the VMS LED trailers on pages 146-147

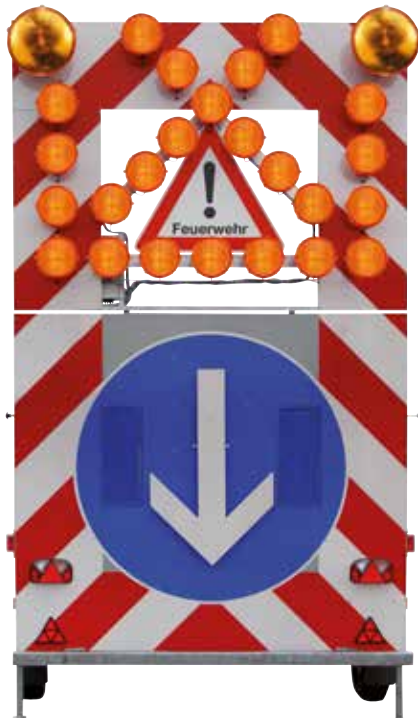


Please choose the suiting accessories and spare parts for the products from the previous chapter from the following table.

Our service for you!

Accessories and spare parts

Part No. and description	PQ	for Mobile warning trailers and VMS trailers				
		FA 1, pages 164-167	FA 2, pages 160-163	VMS-LED, pages 146-149	PickUp VMS-LED, pages 156-157	City-Trailer, pages 150-151
26533 HOT-device for trailer surveillance	1	✓	✓	✓	✓	✓
285020 CB-radio warning system, in 4 languages	1	✓	✓	✓	✓	✓
285022 CB radio warning system, in 8 languages	1	✓	✓	✓	✓	✓
2955100390 Working spotlight for cargo bed	1	✓	✓			✓
2915075004 Hand wire rope for loading a VMS LED trailer or similar to the cargo bed	1	✓ (only LR)	✓ (only LR)			
27960ELEKTR-KPL Electronic wire rope for loading a VMS LED trailer or similar to the cargo bed	Set of 1	✓ (only LR)	✓ (only LR)		✓	
25014B Rechargeable battery for drive and illumination, 180 Ah	1	✓	✓			
25012B Rechargeable battery for drive and illumination, 230 Ah	1			✓	✓	✓
2949412811 Bumper for protection of vehicle illumination	1	✓	✓			✓
2957301002 Lashing eye for load securing, different versions	Set of 4	✓	✓			✓
2959263451 Lashing rails for flexible transport	Set of 3	✓	✓			✓
27965TFF Supply socket for easy charging of batteries	1	✓	✓	✓	✓	✓
2914072102 Aggregate for running time extension	1	✓	✓	✓		✓
2959701501 Fixing support for HLP8 on trailer's side-board	1	✓	✓			
2959701691 Fixing support for thresholds	1	✓				
2956400301 Additional step on trailer's side-board	1	✓	✓			
2955402200E Charging cable for charging of battery via the vehicle's board	1	✓	✓	✓	✓	✓
2959320820 Additional set of rear lights to mount above the loading ramp	1	✓	✓			



VSA

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(HOT)

Mobile warning trailer for Firefighters

FA 1 KLF with small cargo bed, big light arrow and directional arrow

- In accordance with German technical specifications of road safety trailers construction (VSA), issued by the Bavarian State Ministry of the Interior 01/2012 and the German regulations of the StVZO, StVO, ZTV-SA, RSA, regulation for usage of work equipment as well German TL-Absperetafeln
- Mobile warning trailer for use on motorways
- Mobile warning trailer according to German TL-Absperetafeln
- Light arrow according to German TL-Warnleuchten

Chassis

- single axle type AL-KO (alternatively KNOTT), maintenance free
- drawbar: type AL-KO, height adjustable from 340 to 1,050 mm (alternatively type KNOTT, tool-free, one hand height adjustable from 340 to 1,100 mm)
- parking brake
- ball hitch / din eye hitch
- vehicle illumination, 12 V - 13 pins (standard)
- hot galvanized
- drop supports at the rear with automatic latching

Warning board

- center folding
- light arrow board according to German RSA and TL-Absperetafeln, consisting of 24 RS 2000 LED, according to German TL-Warnleuchten, class WL 6 (L8H/L8M, EN 12352) and 2 MS 340 LED flash lights according to TL-Warnleuchten, class WL 5 (L9M/L9L, EN 1352)
- sheeting type RA 2 C (micro-prismatic)
- directional arrow adjustable by electronic actuator
- directional arrow with two open-close lamella viewing windows
- warning triangle with text "Firefighters"
- cable remote control (optional cable/radio remote control)
- electronic lifting / lowering of upper board

Battery box and tool box

- LxWxH: 1,870 x 450 x 360 mm
- rechargeable battery for drive and illumination 12 V - / 180 Ah (20h)
- inclusive support, degassing system and separate protecting box
- charging connectors 12 / 24 V at the battery box
- tool box (LxWxH): 1,200 x 600 x 450 mm with two seals
- walls made of galvanized steel
- lid made of aluminium checker-plate, walkable
- lid to be opened with one hand only

Cargo bed

- free loading / unloading from the side
- side walls made of galvanized steel
- floor made of skid proof, extra-strong lined plywood, waterproof



Direct link: www.horizont.com/259231

GVWR, kg	UVW, approx. kg	Dims. L*W mm drawbar extended	Dims. warning board, W*H mm	Dims. warning board lifted, H mm	Dims. warning board lowered, H mm
750	545	3,550 * 2,200	3,600 * 2,200	4,000	2,620
Dims. cargo bed L*W mm	Dims. cargo ramp L*W mm	Clearance height mm	Height sidewalls mm	Operating voltage, V	Current consumption, W
1,300 * 1,470	-	1,740	300	12	26

Part No.	Description	PQ
259231	Mobile warning trailer FA 1 KLF, with small cargo bed, according to German "Brandwacht"	1






Our service for you!

Further equipment especially suited for Firefighters

Safety material as required according to German "Brandwacht"

Please have a look at the table on the right, showing material especially suited for "Firefighters"

- ✓ 3 folding triangles 900 mm, with exclamation mark and text "Firefighters"
- ✓ 3x Euro-Blitz for warning triangles, incl. fixing support
- ✓ 12 traffic cones 750 mm, incl. 2 holders screwed to the cargo bed
- ✓ trolley for traffic cones
- ✓ 4x LED cone flash lamp E1/2 or RS 2000 LED for traffic cones, incl. battery
- ✓ LED working spotlight 12 V-, 1,350 Lumen, incl. remote control
- ✓ tool box with sorting insert
- ✓ brake shoe, plastic, with fastening clamp
- ✓ adapter for charging cable - from 13 to 7 pins
- ✓ warning triangle optional

Accessories acc. to German "Brandwacht"		
Illustration	Part No., description	Qty.
	256932FEUE Folding triangle, "Danger" - text "Firefighters" <ul style="list-style-type: none"> 3-sided sturdy tripod, steel profile umbrella-like spring mechanism allow a firm tension cover made of PVC-coated synthetic material, white with red edges, text printed in black inclusive compact case, PVC-coated material 	3
	251931B Traffic cone 750 cm, incl. holders to be screwed to the cargo bed <ul style="list-style-type: none"> two-piece cone black base made of 100% recycling material easy grip recess on top, stackable weight category 3 of German TL (5.8 kg) approved by German BAST 	12
	27923 Transport trolley for traffic cones <ul style="list-style-type: none"> transport bed made of aluminium checker plate pneumatic tyres roller bearing safety handles solid steel pipe 	1
	21307 Xenon flash lamp for traffic cones (alternatively RS 2000 LED for traffic cones) <ul style="list-style-type: none"> scope of delivery of part no. 21307 (1 pc) 20953 1x Xenon flash lamp 180 mm Ø 20947 1x supply box for 4 batteries 4R25, 750 mm tube 	4
	21224 Euro-Blitz compact synchro <ul style="list-style-type: none"> guiding light system, self-synchronising when switched on via integrated radio modules automatic switch ON – OFF by simply folding the feet Contrary to the guideline of the „Brandwacht“ we recommend 6 pcs in order to show a sequential light 	3
LED working spotlight 12 V, 1,350 Lumen, incl. remote control		1
tool box with sorting insert		1
Angular socket pipe for a beacon to be operated with a handset		1
brake shoe, plastic, with fastening clamp		1
adapter for vehicle connection cable - from 13 to 7 pins		1
warning triangle optional		1

Better **safe** than **sorry!**

Cargo security by horizont

Experts assume that 70% of all truck loads are secured insufficiently. In Germany minor offences are already subject to fines from 50 € to 150 € and penalty points according to the German demerit point system. If it comes to a traffic accident with personal injury, high fines and also imprisonment will be imposed.

Insufficient cargo securing

- ... is the reason why up to 2/3 of all stopped trucks are prevented from continuing their journey
- ... is the second most frequent cause of truck accidents
- ... causes annual property damage of over 500 million Euro
- ... is the cause of 20% of all truck accidents involving personal injury
- ... is the reason for thousands of accidents with injured persons and fatalities every year

The responsibility for securing the load is in the hands of the driver, the owner and the loader of the vehicle. This major responsibility for the crucial issue of load securing affects particularly road maintenance companies, facing them with a large number of different tasks that have to be managed when dealing with road maintenance.

The various devices, tools and road safety materials required for road maintenance have to be stowed that safely, so that they don't become life-threatening 'projectiles' even during emergency braking and sudden collision avoidance manoeuvres.

The load must be secured in accordance with the current technological standard which is defined and described in the guidelines of VDI 2700 by the „Verein Deutscher Ingenieure“ (Association of German Engineers). Based on these guidelines horizont has developed a load securing system for Mobile warning trailers. The special requirements referring to working materials, machines, tools and road safety materials to be carried along by road maintenance services require a flexible, versatile, long-lasting, easy and fast to handle load securing system, which complies with those guidelines.

By means of the special Vario lashing rails recessed in the loading area lashing points, each 400 daN(!), can be set at any point of the rails, using slot nuts and ring bolts. This means each lashing point is always in the ideal position.

However, the real highlights are the different special modules developed by horizont, which are perfectly adapted to the rail system.

Presently there are already more than 10 various modules available for a wide variety of devices and road safety materials, e.g. traffic signs with posts, bases, cones, delineators, hand truck, tool box, brush cutter, shovel, spade, trench rollers, large area mowers and mobile traffic lights. Many of the modules can be hinged, thus allowing an easy lateral removal of materials such as cones and collapsible delineators over the side walls of the cargo bed.

Due to the freely selectable positioning of the modules an individual combination is possible at any time, limited only by the dimensions of the cargo bed chosen. The modules can be fixed, removed, repositioned and combined in a few minutes - turning the Mobile Warning Trailers by horizont into the ideal transport trailer for any road maintenance operation.

Our **service** for you!

Overview cargo security

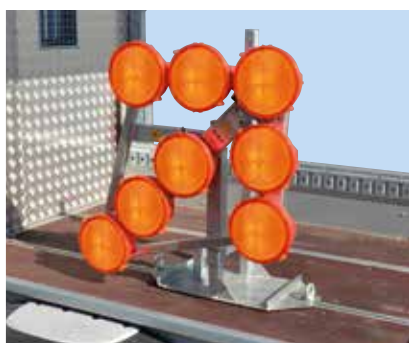
Choose the matching modules
for your Mobile warning trailer

Give us a call - we will be pleased to advise you on how
you can optimize your cargo security with our cargo
securing modules +49 5631 / 565-200





During selection and compilation of the modules available, please always take into consideration the available loading capacity and maximum payload of your trailer. We will be glad to help you with the compilation of your desired Warning trailer.





Truck mounted Attenuator, Euro – TMA

TMA – Truck mounted crash cushion combined with lane closure warning board

More than 300 vehicles every year - in Germany alone! - crash into maintenance vehicles or Mobile warning trailers of road maintenance services. Each fifth accident results in injured personnel of the road maintenance service provider. Almost one in three employees suffers serious injuries or is even killed in such accidents. Deployment of the horizont safety system EURO-TMA considerably reduces the risk of injury in such accidents.

According to a study of the University for road maintenance personnel the probability of being injured halves and the severity of the injuries decreases by 50% when a EURO-TMA is used. Horizont's EURO-TMA is tested and approved by German TÜV Rheinland in test levels 3-50 to 3-54 according to standard NCHRP 350 for 100 km/h

- Warning board according to TL- Absperrtafeln
- Light Arrow according to TL-Warnleuchten

Warning board

- lightweight aluminium construction
- big light arrow board
- directional arrow adjustable by electronic actuator
- sheeting (red / white slopes) type RA 2 C, micro-prismatic
- cable remote control
- battery box made of galvanized sheet steel, Id of aluminium checker plate
- power supply by means of two rechargeable batteries (not incl.) 180 Ah or vehicles' mains
- charging system with automatic charging device

Crash cushion

- electro-hydraulic lifting and lowering device
- tested by TÜV Rheinland in test levels 3-50 to 3-54
- according to standard NCHRP 350 for 100km/h
- complies with the Machinery Directive 2006/42/EC
- corrosion-free and watertight construction
- complete vehicle lighting in working and transport condition
- mounting on the vehicle via mounting adaptor plate
- Compatibility with the towing vehicle has to be specified when placing the order



Direct link: www.horizont.com/259105

Part No.	Discription	PQ
259105	Truck mounted Attenuator, Euro – TMA	1

GVWR, kg	Dims. warning board W*H mm	Dims. crash cushion, L*W*H mm	Operating voltage, V	Current consumption, W
1.200	3.600 * 2.200	2.900 * 2.300 * 600	24	26



The foldable lifesaver

No dead and no seriously injured persons during the crashes shown in the pictures on this page



Individual trailer construction - tailor-made according to your requirements



LED- directional arrow - No down arrow (e.g. for NZ or UK requirements)

for Mobile warning trailers

Instead of a rotating, mechanical guiding arrow, the guidance direction is displayed by high performance LEDs. The LEDs are integrated into the guiding arrow sign and show either a right pointing or left pointing arrow. By this means a confusing or inadmissible neutral position (arrow pointing downwards) is omitted and the traffic is safely guided past the construction site.

- supply voltage 9-36 V DC
- arrow pointing left, arrow pointing right
- photometric acc. to EN 12966
- Dims. housing: approx. 830 x 830 x 110 mm
- front with blue sheeting type RA 2 C
- automatic light intensity adjustment via photocell
- incl. 5 m connection cable, 7 core with MTA plug
- Weight: approx. 21 kg



Warning board type FA 1

mounted on the rear of a container trailer

Carried in a box trailer any kind of material will be protected from theft and weather conditions. At the same time the supplement warning board can be used for safeguarding construction sites.

- supply voltage 12 V
- big light arrow board and mechanical guiding arrow
- container according to your requests
- height adjustable drawbar
- lower board can also be designed to be a loading ramp



Mobile warning trailer FA 1

for transport of crash barriers

- for transport of crash barriers
- side walls can be hinged laterally
- pneumatic brake system
- cargo bed (WxL): 1,800 x 6,100 mm
- warning board (WxH): 2,200 x 3,600 mm
- GVWR: 6,500 kg

PREMIUM QUALITY

Made by **horizont**

Mobile warning trailers / VMS trailers
horizont In-Touch

Jürgen Stein

Service technician

Since when? January 2014

What? Service technician Traffic Safety

About? In his free time Jürgen likes to spend a lot of time with his children. While playing Lego together, he discovered that up to now there are no Mobile Warning Trailers made of the small bricks - a challenge, he wanted to face! Since October 2018 he has been re-producing our Mobile Warning Trailers and VMS-trailers with LEGO - and they are really impressive.

**OUR BIGGEST
POTENTIAL -
THE PEOPLE
BEHIND THE LOGO!**



JOSE **BENGOCHEA**

Sales Director International

Since when? September 2017

What? Sales Director International

About? José is a Spanish citizen, but was born and raised in Korbach. In his spare time, he loves to spend time with his family and also dedicates himself to his hobby: oldtimers.

10

Traffic Light Systems, Portable Traffic Lights (PTLs)

Chapter overview **178-179**

Multi-Signal - **180-181**

Traffic actuated PTL	
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Euro-Signal - **182-183**

Non traffic actuated PTL	
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Accessories & spare parts **184**



RiLSA



VDE



0832

DIN EN



12368

DIN EN



12675

Multi-Signal System

Portable Traffic Light system, traffic actuated, radio/cable/quartz-timer

Different battery carts available

The Multi-Signal by horizont can be operated as a radio, cable or quartz-timer controlled system. By means of radar sensors, the system can also run in a traffic actuated mode. The system is ready to work with up to 8 signal heads, which allows controlling of bottlenecks, junctions or intersections. Our Multi-Signal is programmed via the easy-to-use „micro terminal“ with 4 sensor keys and LCD screen. The small and handy device contains pre-installed programmes, so that for almost all applications you will have to enter a few parameters only. An integrated calculation program automatically calculates the green and red times required by RiLSA (German guidelines for traffic light systems). Of course, those parameters can also be changed manually.

- according to RiLSA (German guidelines for PTL systems), VDE 0832, DIN EN 12368, DIN EN 12675
- radio/cable/quartz-timer controlled, up to 8 signal heads in one system possible
- traffic actuated control via radar sensors
- pre-installed standard programs (e.g. bottlenecks, junctions or intersections) and individual programming
- internal program memory for the last 10 programs used, day time and weekly dependent programming possible
- battery cart hot-galvanized
- 4 radio frequencies (Germany), automatic frequency selection, encoded
- radio remote control or manual controller available as accessory
- click-in sun shades

Operation modes

- Quartz-timer: automatic, steady red, amber flashing, lamps OFF, manual mode
- Cable/Radio: automatic, steady red, amber flashing, lamps OFF, manual mode, traffic actuated (radar sensor)
- green-green conflict protection (cable/radio)
- feedback control (cable/radio)
- surveillance of red light
- automatic brightness adjustment
- deep-discharge protection for the rechargeable batteries
- transmitting power 100 mW (radio, Germany)

Micro terminal

- illuminated LC-display
- automatic calculation of red- and green-times by entering the length of the construction site and speed of vehicles (km/h)
- protection class IP 65
- internal battery for program storage, (operation time approx. 5 years)

Values

• m	5 - 1999
• km/h	5 - 80
• red time / seconds	3 - 999
• green time / seconds	1 - 999
• amber	0 - 9
• red / amber	0 - 15
• time gap (can be set individually for each signal head)	1 - 15

Operation range

- cable approx. 2,000 m
- radio approx. 1,000 m – depending on ambient conditions

Direct link: www.horizont.com/264222

Part no.	Total weight kg	Dims., L*W mm	Dims. upright position, H mm	Dims. folded, H mm	Operating voltage, V	Current consump- tion, W	Operating hours, h	Operating mode	System
							1 * 180 Ah rechargeable battery		
264202	100	950 * 550	2,750	1,850	12	12	168 h (7 days)		
26420LED2	100	950 * 550	2,750	1,850	12	6	336 h (14 days)		
264204	180	1,400 * 800	3,200	1,150	12	12	168 h (7 days)	traffic	Radio/
264201LED2	180	1,400 * 800	3,200	1,150	12	6	336 h (14 days)	actuated	cable/
264222	100	950 * 550	2,750	1,850	12	12	168 h (7 days)		quartz-
264202LED2	100	950 * 550	2,750	1,850	12	6	336 h (14 days)		timer



Part No.	Description	PQ	
LED Multi-Signal System, with telescopic pole radio/cable/quartz consisting of:			
264202	2 x 26421C	Signal head LED, incl. control unit, with telescopic pole	1 Set
	1 x 26313	Micro-terminal	
	2 x 25742	Radar sensor	
	2 x 26204	Battery cart (for 1 battery)	
Halogen Multi-Signal System, with telescopic pole radio/cable/quartz consisting of:			
26420LED2	2 x 26421C-LED	Signal head halogen, incl. control unit, with telescopic pole	1 Set
	1 x 26313	Micro-terminal	
	2 x 25742	Radar sensor	
	2 x 26204	Battery cart (for 1 battery)	



Part No.	Description	PQ	
LED Multi-Signal System with special twin pole radio/cable/ quartz consisting of:			
264204	2 x 264211C	Signal head Halogen, incl. control unit	1 Set
	1 x 26313	Micro terminal	
	2 x 25742	Radar sensor	
	2 x 262041	Battery cart with special twin pole (for 2 batteries)	
Halogen Multi-Signal System with special pole radio/cable/ quartz consisting of:			
264201LED2	2 x 264211CLED	Signal head LED, incl. control unit	1 Set
	1 x 26313	Micro terminal	
	2 x 25742	Radar sensor	
	2 x 262041	Battery cart with special twin pole (for 2 batteries)	



Part No.	Description	PQ	
LED Multi-Signal System, with foldable pole radio/cable/quartz consisting of:			
264222	2 x 26422C	Signal head halogen, incl. control unit, with telescopic pole	1 Set
	1 x 26313	Micro-terminal	
	2 x 25742	Radar sensor	
	2 x 26204	Battery cart (for 1 battery)	
LED, Multi-Signal-Anlage, mit Teleskopmast Modus Funk / Kabel / Quarz bestehend aus:			
264202LED2	2 x 26422C -LED	Signal head LED, incl. control unit, with telescopic pole	1 Set
	1 x 26313	Micro-terminal	
	2 x 25742	Radar sensor	
	2 x 26204	Battery cart (for 1 battery)	



Euro-Signal System

Traffic Light System, non traffic actuated PTL, Quartz
different battery carts available

The Euro-Signal quartz by horizont is a bottleneck traffic light system which combines simple programming with extensive safety electronics. Each program can be stored, overwritten and even adjusted while the program is running. All important information is displayed on the LC display of the handy micro-terminal. The safety electronics constantly monitors the individual signals, the operating voltage and ambient light conditions - the required adjustments are performed automatically by the system.

Possible errors, e.g. under-voltage or illuminant failure, are immediately displayed on the screen and the system switches automatically to yellow flashing light.

The operating mode „lamps off“ preserves the battery capacity e.g. during the weekend: while the set program is being processed internally in the micro-processor, without interruption, the signal heads remain in standby mode.

Convenience even when changing the battery: the operation of the system can be interrupted for up to approx. 20 hours without having to reprogram it. The set program remains stored in the internal memory.

- according to RiLSA (German guidelines for PTL systems), DIN EN 12368
- synchronisation via high precision quartz-timer
- non traffic actuated control
- pre-installed standard program (bottlenecks) and individual programming
- internal program memory for the last 10 programs used, day time and weekly dependent programming possible
- battery cart hot-galvanized
- click-in sun shades

Operation modes

- Quartz timer: automatic, steady red, amber flashing, lamps OFF, manual mode
- surveillance of red light
- automatic brightness adjustment
- deep-discharge protection for the rechargeable batteries

Micro terminal

- illuminated LC-display
- automatic calculation of red- and green-times by entering the length of the construction site and speed of vehicles (km/h)
- protection class IP 65
- internal battery for program storage (operation time approx. 5 years)

Values

• m	5	-	1999
• km/h	5	-	80
• red time / seconds	3	-	999
• green time / seconds	10	-	999
• amber	0	-	9
• red / amber	0	-	15
• time gap (can be set individually for each signal head)	1	-	15

Direct link: www.horizont.com/26500

Part no.	Total weight kg	Dims., L*W mm	Dims. upright position, H mm	Dims. folded, H mm	Operating voltage, V	Current consump- tion, W	Operating hours, h	Operating mode	System
							1 * 180 Ah rechargeable battery		
26500	100	950 * 550	2.750	1,850	12	12	168 h (7 days)	Non traffic actuated	Quartz- timer
26500-LED	100	950 * 550	2.750	1,850	12	6	336 h (14 days)		




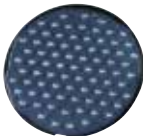








Part No.	Description		PQ
	LED Euro-Signal System with telescopic pole, quartz consisting of:		
26500	2 x 26501C	Signal head LED, incl. control unit, with foldable pole	1 Set
	1 x 26203	Micro-terminal	
	2 x 26204	Battery cart (for 1 battery)	
	Halogen Euro-Signal System with telescopic pole, quartz consisting of:		
26500-LED	2 x 26501-C-LED	Signal head halogen, incl. control unit, with foldable pole	1 Set
	1 x 26203	Micro-terminal	
	2 x 26204	Battery cart (for 1 battery)	



Please choose the suiting accessories and spare parts for the products of the previous chapter from the following table.

Our service for you!

Accessories and spare parts

Accessories / Spare part			Multi-Signal Systems		Euro-Signal Systems	
Illustration	Part No. / Description	PQ	Halogen, page 181	LED, page 181	Halogen, page 183	LED, page 183
	89796VP Halogen-bulb 12 V / 10 W	1	✓		✓	
	26245ES LED-cluster, red, 12V / 8W, 80LED	1		✓		✓
	26246ES LED-cluster, yellow, 12V / 8W, 80LED	1		✓		✓
	26247ES LED-cluster, green, 12V / 8W, 80LED	1		✓		✓
	25742 Radar sensor, with support, 80 cm cable	1	✓	✓		
	26203 Micro-terminal Euro-Signal	1			✓	✓
	26313 Micro-terminal Multi-Signal	1	✓	✓		
	26204 Battery cart, pole and battery not included	1	✓	✓	✓	✓
	262041 Battery cart BIG, with special pole, battery not included	1	✓	✓	✓	✓
	82243 Plug-connector for traffic lights with telescopic pole, approx. 700 mm	1	✓	✓	✓	✓
	26309 Receiver for radio-remote control	1	✓	✓		
	26308 Remote control	1	✓	✓		

Our **service** for you!

Replace the rechargeable battery without having to stop the running program (only at systems with telescopic pole)

You will find the plug-connector required for this process on page 184



JANINA & JULIA SCHMOLL & SCHRÖDER

**Assistant
Sales Management**

Sales

Since when? August 2002

What? Assistant Sales Management
– statistics and annual quotations

About? Janina is a caring mom of two children with whom she spends most of her free time. Besides, Janina likes to playing the piano and playing handball.

Since when? January 2021

What? Order processing and customer care in office
(Hesse, North Rhine-Westphalia, Saarland nad
Rhineland - Palatinate)

About? Julia is very busy in her leisure time - meeting friends, travelling, swimming and cooking are her favourite activities.



11 Batteries and rechargeable batteries

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Monobloc battery

6 V / 7 Ah, IEC 4 R 25

- to be used for: warning lights, delineator lamps, battery box (25213), torches
- long life battery, long shelf life when new
- zinc-carbon battery without mercury, nor cadmium, high energy density
- high durability

Direct link:

www.horizont.com/253967

Part No.	Description	PQ
253967	Monobloc battery, 6 V / 7 Ah, IEC 4 R 25	24

Weight approx. kg	Dims., L*W*H	Operating voltage, V	Capacity, Ah	Battery type
0.6	65 * 65 * 110	6	7	zinc-carbon



Monobloc battery

6 V / 9 Ah, IEC 4 R 25

- to be used for: warning lights, delineator lamps, battery box (25213), torches
- long life battery, long shelf life when new
- zinc-carbon battery without mercury, nor cadmium, high energy density
- especially high durability

Direct link:

www.horizont.com/250011

Part No.	Description	PQ
250011	Monobloc battery, 6 V / 9 Ah, IEC 4 R 25	24

Weight approx. kg	Dims., L*W*H	Operating voltage, V	Capacity, Ah	Battery type
0.6	65 * 65 * 110	6	9	zinc-carbon



ALKALINE 20 battery

6 V / 20 Ah, IEC 4 R 25

- to be used for: warning lights, delineator lamps, battery box (25213), torches and xenon flash lamps
- very long life battery, very long shelf life when new
- alkaline-manganese battery
- especially high durability

Direct link:

www.horizont.com/23020

Part No.	Description	PQ
23020	Alkaline battery 6 V / 20 Ah, IEC 4 R 25	20

Weight approx. kg	Dims., L*W*H	Operating voltage, V	Capacity, Ah	Battery type
0.7	65 * 65 * 110	6	20	alkaline-manganese

BAST



ALKALINE 20

Perfectly suitable
for flash lamps

Please find flash lamps
on pages 82-101




BAST


SLIMLINE

Customized for use in our delineator lamp OptiLED

Please find further information on OptiLED on page 31



ALKALINE battery SLIMLINE

6 V / 12 Ah

- customized for use in OptiLED

Part No.	Description	PQ
230121	SLIMLINE battery, 6 V / 12 Ah	24



Direct link:

www.horizont.com/230121

Weight approx. kg	Dims., L*W*H	Operating voltage, V	Capacity, Ah	Battery type
0.25	80 * 32.5 * 110	6	12	alkaline

KOMPAKT 50, Air-alkaline battery

6 V / 50 Ah, IEC 4 R 25

- to be used for: warning lights, delineator lamps, battery box (25213), torches
- battery is activated by air intake via an automatic opening valve

Part No.	Description	PQ
230502	KOMPAKT 50, 6 V / 50 Ah	20



Direct link:

www.horizont.com/230502

Weight approx. kg	Dims., L*W*H	Operating voltage, V	Capacity, Ah	Battery type
0.7	65 * 65 * 110	6	50	air-alkaline

KOMPAKT 120, Air-alkaline battery

6 V / 120 Ah

- to be used for: delineator lamps (RS 2001 / 2002)
- for all common base plates with battery compartment
- high performance
- battery is activated by air intake via an automatic opening valve

Part No.	Description	PQ
231202	KOMPAKT 120, 6 V / 120 Ah	5



Direct link:

www.horizont.com/230602

Part no.	Weight approx. kg	Dims., L*W*H	Operating voltage, V	Capacity, Ah	Battery type
231202	2.0	160 * 75 * 130	6	120	air-alkaline



Rechargeable battery for Euro-Blitz, Tele-Blitz and TRI-Blitz

6 V / 7 Ah

- to be used for: Euro-Blitz / Euro-Synchron, Tele-Blitz / Tele-Synchron, TRI-Blitz from production year 2007 onwards
- especially suited for long operation times
- specially customized lead-gel-battery
- no memory effect

Direct link:

www.horizont.com/250252

Part No.	Description	PQ
250252	Rechargeable battery for Euro-Blitz, Tele-Blitz, TRI-Blitz 6 V / 7 Ah	1

Weight approx. kg	Dims., L*W*H	Operating voltage, V	Capacity, Ah	Battery type
1.25	116 * 50 * 92	6	7	lead-gel rechargeable battery



Rechargeable battery for TRI-Blitz

6 V / 12 Ah

- to be used for: TRI-Blitz, till production year 2007
- especially suited for long operation times
- specially customized lead-gel-battery
- no memory effect

Direct link:

www.horizont.com/25026

Part No.	Description	PQ
25026	Rechargeable battery for TRI-Blitz 6 V / 12 Ah	1

Weight approx. kg	Dims., L*W*H	Operating voltage, V	Capacity, Ah	Battery type
2.0	152 * 50.2 * 94.5	6	12	lead-gel rechargeable battery



Rechargeable battery for TRI-Blitz

Please make sure to **choose the correct** type of battery for your TRI-Blitz – depending on the **year of production!**

More information about our TRI-Blitz you will find on page 92



Rechargeable battery for Euro-Blitz compact

6 V / 4,5 Ah

- to be used for: Euro-Blitz compact
- specially customized lead-gel-battery
- no memory effect

Direct link:

www.horizont.com/251031

Part No.	Description	PQ
251031	Rechargeable battery for Euro-Blitz compact 6 V / 4.5 Ah	1

Weight approx. kg	Dims., L*W*H	Operating voltage, V	Capacity, Ah	Battery type
0.85	70 * 48 * 102	6	4.5	lead-gel rechargeable battery



Rechargeable battery

Perfectly suited for VMS trailers and Mobile warning trailers

Please find VMS trailers and Mobile warning trailers on pages 144-176

Rechargeable battery for drive and illumination

12 V / 180 Ah or 12 V / 230 Ah

- to be used for: Mobile warning trailers, VMS trailers, PTLs, xenon flash sequential light systems
- according to DIN 43539 / part 3
- energy source for long operating times
- low self-discharge
- long live
- high cycle resistance



Part No.	Discription	PQ
25014B	12 V / 180 Ah	1
25012B	12 V / 230 Ah	1

Direct link:
www.horizont.com/25014B

Part no.	Weight approx. kg	Dims., L*W*H	Operating voltage, V	Capacity, Ah	Battery type
25014B	51	513 * 223 * 223	12	180	wet-cell-battery
25012B	63	518 * 291 * 242	12	230	wet-cell-battery

Lead-gel-rechargeable battery for drive and illumination

12 V / 210 Ah

- to be used for: VMS trailers, PTLs, xenon flash sequential light systems
- energy source for long operating times
- no need to re-fill water
- no leaking of acid liquids in case of an accident
- low self-discharge
- long live
- high cycle resistance



Part No.	Discription	PQ
250131	12 V / 210 Ah	5

Direct link:
www.horizont.com/250131

Weight approx. kg	Dims., L*W*H	Operating voltage, V	Capacity, Ah	Battery type
70	518 * 291 * 242	12	210	lead-gel rechargeable battery



DIRK **TROMPETER**

Technical Director

Since when? October 1992

What? Technical Director

About? In his spare time, our managing director likes to spend time sailing or hiking. In winter, skiing is one of his favourite activities.

www.horizont.com



12

Contact and Index

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