



Traffic Safety

MAIN CATALOG 2025/26

New in the Range!

New Hot Sellers for 2026

RAPID-DEPLOYMENT FLASHING LIGHT KIT

Street Flash

The StreetFlash is an innovative and reliable rapid warning system that helps site vehicle drivers quickly secure a hazard or incident area, reducing the risk of secondary accidents and other dangerous situations.

The rapid-deployment set consists of 6 lamp modules, each equipped with 20 LEDs: For optimal visibility when laid flat, 4 LEDs per side are positioned to provide 360° warning coverage.



MORE ON PAGE 88

FLASH & WARNING LAMP SYSTEM

FlashMax Stack

The FlashMax Stack is the safe, quick and space-saving protective device for securing hazardous areas, and is suitable for use by all emergency services. The bright flash lamp has been tested by the German Federal Highway Research Institute (BAST). The stable stainless steel base offers safe stackability, allowing several FlashMax lamps to be stacked on top of each other. Anti-skid feet ensure a secure footing on slippery and smooth surfaces, offering increased stability as vehicles pass by.

MORE ON PAGE 76



Our Service for You!

Conformity Marks at a Glance

	Tested by the German Federal Highway Research Institute (BAST)		Conforms to the respective specifications of the NCHRP (National Cooperative Highway Research Program)
	Conforms to the additional technical contract conditions and guidelines for safeguarding work at roadside work sites		Conforms to the respective weight class for traffic cones
	Conforms to the German Road Traffic Regulations (StVO)		Replaceable adapter
	Conforms to the German Road Traffic Licensing Regulations (StVZO)		Reversing adapter
	Conforms to the guidelines for safeguarding workplaces on roads		Reversible system
	Conforms to the guidelines for portable traffic lights (PTLs)		Sequential light system
	TüV-approved		Control via GPS signal
	Electromagnetically compatible according to the specifications of the German Federal Motor Transport Authority		Radio controlled
	Marking of motor vehicle components subject to approval in accordance with the respective specified standard xxxxxxx		Quartz controlled
	Tested in accordance with the German Technical Terms of Delivery xxxxxxxx		Magnetic base
	Tested according to the respective identifier		Suitable for forklifting
	Tested according to the respective warning light class		Optionally available with the horizon telematics system - see page 133
	Tested according to the respective European warning light standard EN 12352		
	Conforms to the respective DIN standard in each case xxxxxxxx		
	Conforms to the respective European DIN standard in each case xxxxxxxx		
	Conforms to the regulations of the German Association for Electrical, Electronic & Information Technologies (VDE) in accordance with the stated number xxxxxxxx		

horizont quality

PRINTED CIRCUIT BOARD ASSEMBLY

- Assembly output of approx. 193,000 PCBs per annum, in 260 variants
- Printed circuit boards consist of approx. 50 to 300 components
- Manual or fully automatic assembly

DESIGN AND DEVELOPMENT

- Design of injection molded parts, housings and tools
- Technical drawings in 2D and 3D
- Product development

TOOLMAKING AND INJECTION MOLDING

- Production of 660 different injection-molded parts; 75,000 blow-molded items
- Over 500 tools
- Annual production: approx. 3.2 – 3.5 million parts

PRODUCTION OF ELECTRONIC ASSEMBLIES

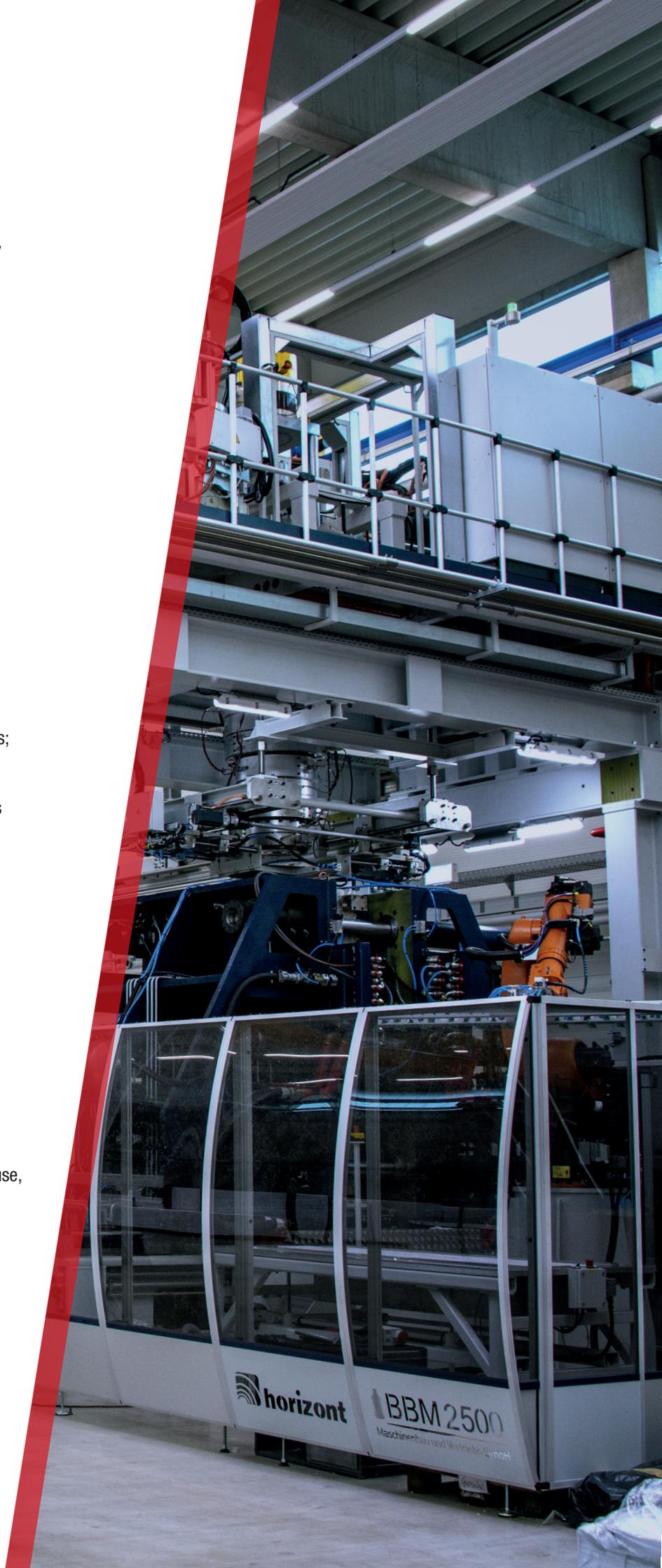
- Device assembly on the production line
- Device testing
- Professional packaging

PRINTING TECHNOLOGY AND MARKETING

- Our Marketing department develops stickers and printed products
- Pad printing, screen printing, digital printing
- The right printing type for every shape

LOGISTICS AND DISPATCH

- Incoming goods, order picking, high-bay warehouse, packing area
- Several thousand pallet storage spaces
- Loading of goods ready for dispatch



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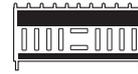


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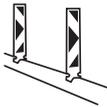


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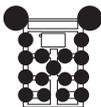


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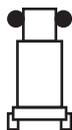


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horizont group gmbh

A success story

“The family-owned company horizont has existed for over 75 years and has developed from a one-man business into a Europe-wide group of companies. Social responsibility and responsible action have always been practiced values at horizont.”

FINDING A NAME

Familiar to every pilot: The artificial horizon in the aircraft cockpit. The development team of the current technical standard at that time also included the electrical engineer Dr. Heinz Müller. When Dr. Müller later sought a new field of activity and founded his own company in 1945, he called it "horizont" in memory of this invention.

TRAFFIC SAFETY – YOUR PARTNER

horizont Traffic Safety, one of the leading manufacturers of an extensive range of products in the field of traffic safety, has been able to establish itself as a reliable partner for customers in industry, wholesale trade, local authorities and emergency services, thanks to the superior product quality the company offers. The products are especially suitable for safeguarding danger and emergency zones, the area in which road workers, construction workers, fire brigades, technical emergency services and, of course, the police are active.

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 aim of constantly improving our customer relationships. We are committed to providing you with the best possible service!

MADE IN GERMANY

Since the company was formed, the horizont brand as a medium-sized company has been synonymous with Made in Germany. The innovative products are developed in Germany according to the latest technical standards. Many of the production steps involved in manufacturing electronic components take place at our production facilities in Germany. The same applies to almost all of our plastic products.

INNOVATIONS OF THE PAST YEARS



2017
Trailer combination that can transport up to three VMSs – operated by one person



2022
Sensor-supported warning light giving real-time information on position and barrier area.



2022
The stackable FlashMax can now be stowed safely in the trunk.



2024
Permanent active variable message sign, also available with a solar module.



HORIZONT IN NUMBERS



1945
Foundation



>500
employees worldwide



7
locations worldwide



~ 30
apprentices



>40,000 m²
production and storage area

Our horizont service: Comprehensive service for you

CONSULTING FOR MAJOR PROJECTS

In order to be able to meet the individual requirements of major projects, our trained staff looks forward to advising you personally. Together we will find the best and – most important – safest solution for you.

CONFIGURATION OF WARNING TRAILERS

Warning trailers must meet different requirements depending on where they are used, so you give you the option of configuring and customizing your trailer individually adapting it to your needs – for better road safety!

SUPPORT FOR TENDERING

Our experienced sales team supports our customers during tender preparation – even for complex projects. We always find a suitable solution!

SERVICE AND SUPPORT

The horizont service team is on the road for you. It's never too far to travel to ensure safety on our roads. Our support team would be pleased to provide you with on-site support and offer excellent service concerning our products.

Peter Unzicker is proud of his team: "We have years of experience and can provide quick and competent help with questions about our products – also by phone.

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





DIVISION MANAGER

PETER UNZICKER

Peter is fully committed to managing the Traffic Safety service department. In his private life, he enjoys hiking in the mountains, loves cycling at the lake and enjoys everything to do with football.

OFFICE SERVICE

JÜRGEN STEIN

In his leisure time, Jürgen likes to spend plenty of time with his family. He is avidly interest in everything to do with technology and computers.

Our horizon service MVAS seminars



CERTIFIED WORK-ZONE SAFETY INSTRUCTOR

MIKE BLECHSCHMIDT

In his leisure time, Mike enjoys cycling and reading – and whenever possible, taking short trips or city breaks with his wife. His latest and favorite hobby is spending time with his grandchildren.

RSA SEMINARS

In Germany, there is an extensive body of rules and guidelines on the subject of construction site safety. Above all, the RSA 21 (German guidelines for safeguarding of work zones in traffic) and the ZTV-SA (additional technical terms and guidelines for securing of construction sites) contain the most important regulations for correctly securing traffic at construction sites. The regulations must be put into practice on the construction site. Infringements can result in severe fines and claims for damages.

MVAS

To prevent this from happening, the German Federal Ministry of Transport has published the “Merkblatt über Rahmenbedingungen für erfolgreiche Fachkenntnisse zur Verkehrsabsicherung von Arbeitsstellen an Straßen” (Leaflet on framework conditions for effective expertise in traffic safety at roadside work sites), or MVAS for short.

This specialist knowledge can be acquired and certified by attending an MVAS seminar. Mike Blechschmidt offers this seminar for you! After the

seminar you will receive a certificate of participation in the MVAS training.

CERTIFIED INSTRUCTOR

Mike Blechschmidt is a qualified instructor on the subject of “Securing work sites on roads (pursuant to the MVAS)”. He meets all the requirements for conducting qualitative training and is listed in the certification directory of the German Road Equipment Industry Association (Industrieverband Straßenausstattung – IVSt).





SALES GERMANY

KATRIN SCHUBERT

Katrin enjoys spending free time with her family. She likes taking walks and appreciates things that help her take life at a gentler pace.

PRODUCT MANAGEMENT

AMINA GANOVIC

Amina is passionate about discovering new cultures and traditions while traveling. She also enjoys skiing, but most of all likes spending time outdoors with her family.

SALES GERMANY

ANIKA WAGENER

Anika is enthusiastic about air rifle shooting, enjoys working out at the gym, and loves spending her free time with friends.

SALES GERMANY

SENGÜL CIPLAK

Sengül loves spending her free time with her family or friends. She lives and breathes sports. She is also a Taekwondo and kickboxing trainer.



HEAD OF SALES GERMANY

SIMON SCHULZ

Simon is a huge soccer fan – whether on or off the field. His family and friends mean a lot to him, and he loves making the most of his free time with them.

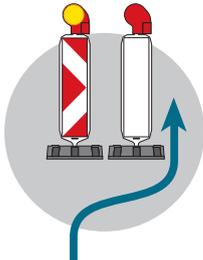


01

Delineator Systems, Road Hazard Lamps and Collapsible Delineators

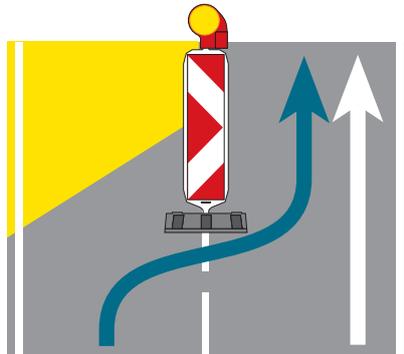
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Delineators are directional

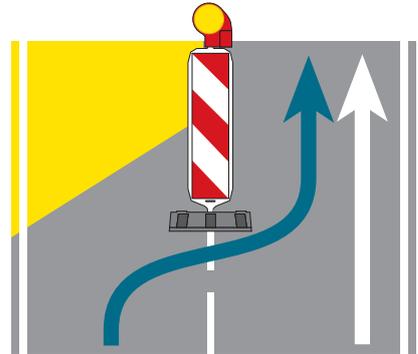


**UNI-DIRECTIONAL
RIGHT-POINTING:**

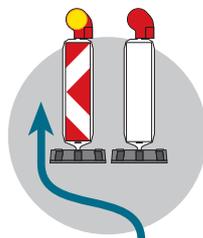
Directs traffic past the delineator to the right



Uni-directional, right-pointing
Roads with 2 lanes for one traffic direction

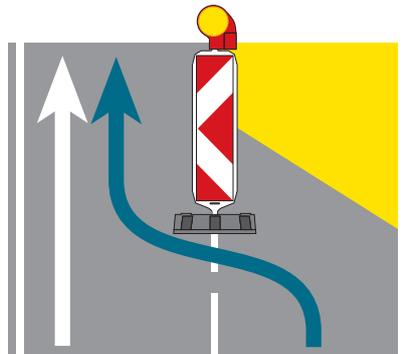


Uni-directional, right-pointing
Roads with 2 lanes for one traffic direction

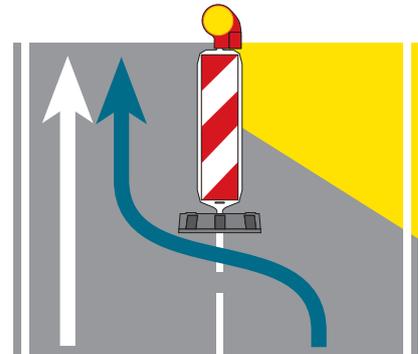


**UNI-DIRECTIONAL
LEFT-POINTING:**

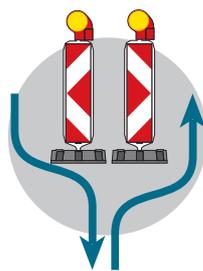
Directs traffic past the delineator to the left



Uni-directional, left-pointing
Roads with 2 lanes for one traffic direction



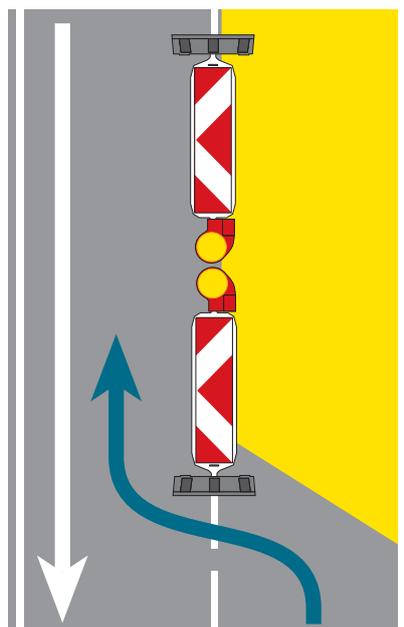
Uni-directional, left-pointing
Roads with 2 lanes for one traffic direction



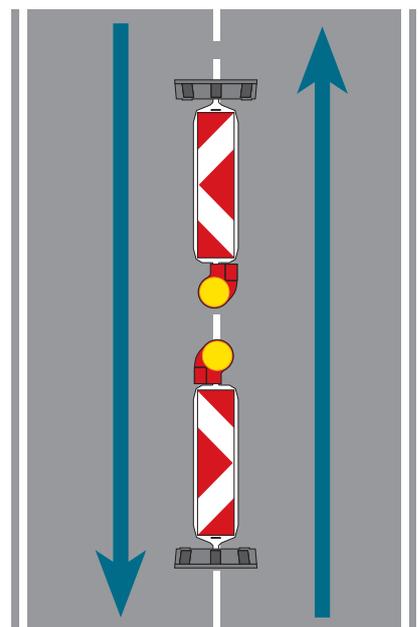
**BI-DIRECTIONAL
LEFT/RIGHT-POINTING,
RIGHT/RIGHT-POINTING:**

Directs traffic past the delineator to the right and left

When positioned in the center, traffic is directed to pass on the right.



Bi-directional, left/right-pointing



Bi-directional, right/right-pointing
central separation, right hand traffic

Various sheeting reflectivity classes

SHEETING REFLECTIVITY CLASSES: Properties and Areas of Application

REFLECTIVITY CLASS RA1, TYPE A & C

Retro-reflective materials of the lowest performance class used for traffic signs are available in sheeting types A and C. Reflective sheeting based on glass bead technology is technically mature and has proven itself over many years. It is used in particular for making signs for stationary traffic, e.g. parking prohibitions or short-stay parking zones, but also for tourist information signs, street name signs and advertising signs. Materials of prismatic structure A have excellent retro-reflective properties when rotated.

REFLECTIVITY CLASS RA2, TYPE B & C

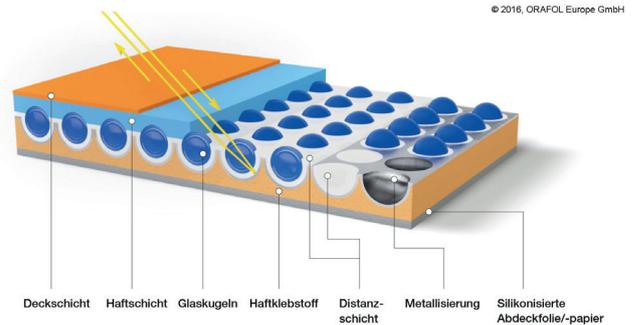
Performance class RA2 is achieved using type B and C reflective sheeting. Overall, class RA2 offers a higher level of retro-reflectivity values for improved visibility at night from greater distances. Performance class RA2 materials are now standard for signs for moving traffic such as right-of-way signs, stop signs and speed limits. Type B materials have very good retro-reflective properties at wider illumination angles.

In Germany, only Type RA2 sheeting is permitted in accordance with RSA 21. Exception: Safety barriers in pedestrian emergency walkway areas and No-Stopping signs (traffic signs 283/286).

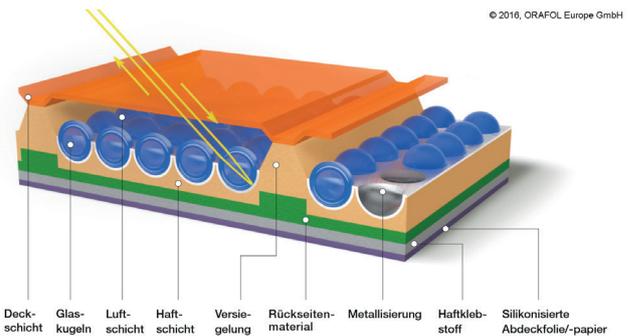
REFLECTIVITY CLASS RA3, TYPE C

Performance class RA3 retro-reflective sheeting is offered exclusively in the form of Type C microprismatic material and results in the highest retro-reflectivity values. These materials are used for traffic signs wherever a particularly high reflective performance is required to achieve the best visibility over long distances, e.g. on highways or in strongly illuminated surroundings.

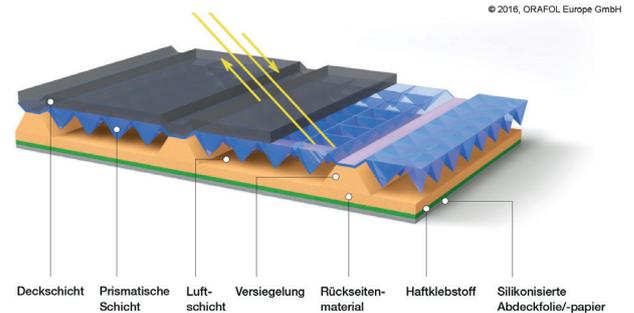
SHEETING TYPES: Detailed Structure



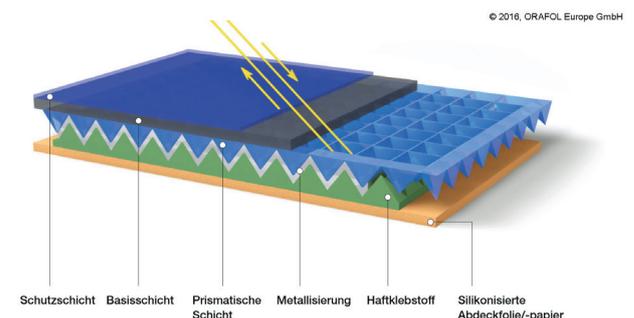
TYPE A: Embedded glass bead structure



TYPE B: Encapsulated glass bead structure



TYPE C: Prismatic, metalized structure



TYPE C: Prismatic structure with "air cell technology"

BASt-Approved Delineator Systems

SYSTEM VARIANTS:



K35 twist-lock system: KD

The K35 safety base plate used in the common K35 system is particularly easy to stack. This base plate is also suitable for use in installation devices.



Standard twist-lock system: SD

The D300M safety base plate offers maximum stability thanks to its large contact surface. The SD system is very well suited for use on highways due to its particularly good positional stability.



Twist-lock adapter system: D

The horizont D-System safety delineator allows the swivel adapter to be easily and economically replaced following a collision; the delineator core remains in place.

SYSTEM COMPONENTS:



Safety delineator KD-System



> MORE ON PAGE 18



Safety delineator SD-System



> MORE ON PAGE 19



Safety delineator D-System



> MORE ON PAGE 20



TopLED

> MORE ON PAGE 30



TopLED

> MORE ON PAGE 30



TopLED

> MORE ON PAGE 30



K35 safety base plate

< MORE ON PAGE 24



D300M safety base plate

> MORE ON PAGE 24



K35 safety base plate

< MORE ON PAGE 24

The practical twist-lock system



Twist n'plug reversible system: RD & WD

The reversible delineator is now equipped with an anti-turn pin at both ends of the delineator!

By turning a right-pointing delineator through 180° it becomes a left-pointing delineator.



Safety delineator RD-/WD-System



> MORE ON PAGE 17



TopLED or OptiLED

> MORE ON PAGE 30



Safety base plate K35 or D300M

< MORE ON PAGE 24



3.4.3 Standard delineators, warning delineators, marker boards
 (1) [...] As a rule, single-sided delineators should be used. Double-sided delineators are only used if the same lane is also used by oncoming traffic [...]



STARTING POSITION:

Safety delineator is left-pointing



TWIST:

Turn safety delineator through 180°



END POSITION:

Safety delineator is right-pointing

Connecting Delineators and Base Plates Using the Practical Twist-Lock System

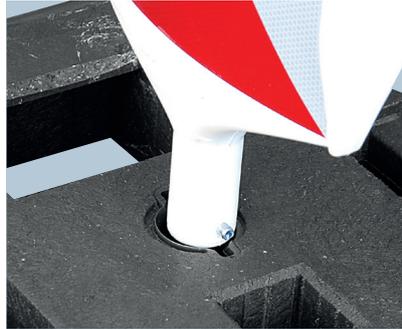
THE TWIST-LOCK SYSTEM INVENTED BY HORIZONT Quick-lock connection!



The twist-lock system – a horizont invention – combines the easiest handling with perfect stability and torsion resistance.

The sturdy metal pin can be easily screwed into the adapter of the base plate with minimum effort. Once turned through 90° and locked in place, the delineator stands securely.

The patented twist-lock system is also used in other BAST-approved systems – such as the RD, SD and D systems – from horizont.

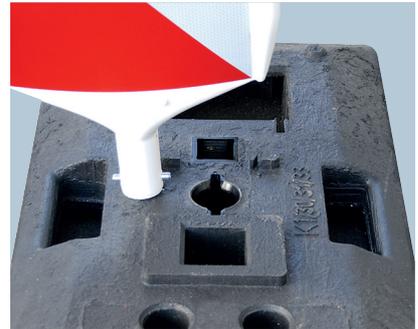


THE TWIST N'PLUG REVERSIBLE SYSTEM FROM HORIZONT: Double-Lock Connection



The reversible delineator is equipped with an anti-turn pin at both ends of the delineator! That's why we developed our OptiLED.

This is attached to the delineator without tools by twisting, allowing it to survive every collision.

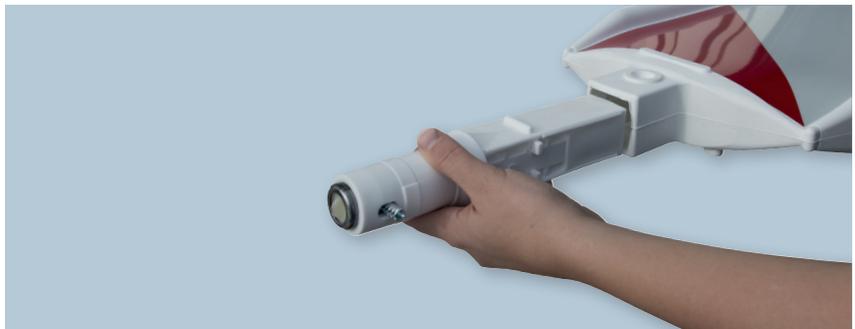


THE SWIVEL ADAPTER: Easily Replaceable!



The interchangeable Twist-lock system of this safety delineator combines the easiest handling with perfect stability and torsion resistance. Thanks to its integrated internal spring, the delineator can also be easily twisted into dirty base plates.

The swivel adapter on the horizont D-System safety delineator can be quickly and affordably replaced after a collision



RD-/WD System Safety Delineator

BAST-Approved Reversible Delineator with Double Twist-Lock System

The arrow delineator makes it possible: A right-pointing delineator easily becomes a left-pointing delineator by turning it 180° – and vice versa. With the new RD or WD delineator system from horizon, you are guaranteed to always have the right delineator on site. The reversible delineator is now equipped with an anti-turn pin at both ends of the delineator! BAST-approved with our top LED warning lamps (manufactured from 2020) and the proven K35 base plate! This means that base plates and lamps can continue to be used. The twist-lock system – a horizon invention – combines the easiest handling with perfect stability and torsion resistance. The sturdy metal pin can be easily screwed into the adapter of the base plate with minimum effort. Once engaged, the delineator stands securely.

Also BAST-approved with our OptiLED warning lamp in conjunction with the D300M base plate.

- Tested with our K35 safety base plate and TopLED warning lamp
- Optimized for use with our OptiLED warning lamp and D300M safety base plate
- BAST-approved according to the "TL-Leitbaken" standard
- A right-pointing delineator becomes a left-pointing delineator by turning it 180°
- Twisting in and out is possible in both directions
- Chevron sheeting, reflectivity class RA 2
- Twist-lock system
- With protective film edge
- Particularly thick-walled, bulbous and solid delineator body
- No securing pin required
- ONLY the delineator is supplied!



Item No.	Product	BAST	PU
25574PSDD	Chevron sheeting, single-sided, reflectivity class RA 2	✓	30

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

✓ BAST-approved according to the "TL-Leitbaken" standard:

Test No.: V4 - 332-19 (B, K) 35
V4 - 11/2014 (L) 30, 31, 33

OUR SERVICE FOR YOU: The RD-/WD-System at a glance!

Safety delineators (all delineators in the range)	Approved system	Safety delineator lamps	Safety base plate
RD-/WD-System safety delineator 	RD-System	TopLED (page 30) 	K35 safety base plate (page 24) 
	WD-System	OptiLED (page 30) 	D300M safety base plate (page 24) 

Select the right products to create BAST-approved systems

You can find a complete system overview on pages 14-15.

THE TWIST-LOCK SYSTEM FROM HORIZONT



One delineator for both directions!



KD-System Safety Delineator

Certified Safety Delineator with Single-Sided Twist-Lock System

The twist-lock system – a horizon invention – of this safety delineator combines the easiest handling with perfect stability and torsion resistance. The sturdy metal pin can be easily screwed into the adapter of the base plate with minimum effort. Once engaged, the delineator stands securely.

- Optimized for use with the TopLED warning lamp and K35 safety base plate
- BAST-approved according to the "TL-Leitbaken" standard
- Reflectivity class RA 2
- Twist-lock-system
- Twisting in and out is possible in both directions!
- With protective film edge
- Particularly thick-walled, bulbous and solid delineator body
- No securing pin required
- Also available with sloped sheeting

Item No.	Product	BAST	PU
25576PKD	Right/left-pointing, reflectivity class RA 2	✓	30
25577PKD	Right/right-pointing, reflectivity class RA 2	✓	30
25574PKD	Left-pointing, reflectivity class RA 2	✓	30
25575PKD	Right-pointing, reflectivity class RA 2	✓	30

✓ BAST-approved according to the "TL-Leitbaken" standard:
Test No.: V4 - 14/2010 (B, K) 35

Weight approx., kg	Dimensions / delineator, L*W, mm	Dimensions / sheeting, L*W, mm
3.5	1,225 * 300	1,000 * 250

OUR SERVICE FOR YOU: The KD-System at a glance!

Select the right products to create BAST-approved systems

You will find a complete system overview on pages 14-15.

Safety delineators (all delineators in the range)	Approved system	Safety delineator lamp	Safety base plate
KD-System Safety Delineator 	KD-System	TopLED (page 30)  RS 2001 / 2002 	Safety base plate K35 (2549411SW, page 24) 



SD-System Safety Delineator

Certified Safety Delineator with Single-Sided Twist-Lock System

The twist-lock system – a horizonz invention – of this safety delineator combines the easiest handling with perfect stability and twist resistance. The sturdy metal pin can be easily screwed into the adapter of the base plate with minimum effort. Once engaged, the delineator stands securely.

- Optimized for use with the TopLED warning lamp and D300 safety base plate
- BAST-approved according to the "TL-Leitbaken" standard
- Reflectivity class RA 2
- Twist-lock-system
- Twisting in and out is possible in both directions!
- With protective film edge
- Particularly thick-walled, bulbous and solid delineator body
- No securing pin required
- Also available with sloped sheeting



Item No.	Product	BAST	PU
25576PSD	Right/left-pointing, reflectivity class RA 2	✓	30
25577PSD	Right/right-pointing, reflectivity class RA 2	✓	30
25574PSD	Left-pointing, reflectivity class RA 2	✓	30
25575PSD	Right-pointing, reflectivity class RA 2	✓	30

Weight approx., kg	Dimensions / delineator, L*W, mm	Dimensions / sheeting, L*W, mm
3.5	1,225 * 300	1,000 * 250

✓ BAST-approved according to the "TL-Leitbaken" standard:
Test No.: 942 K 001 (B, K) 33, 34

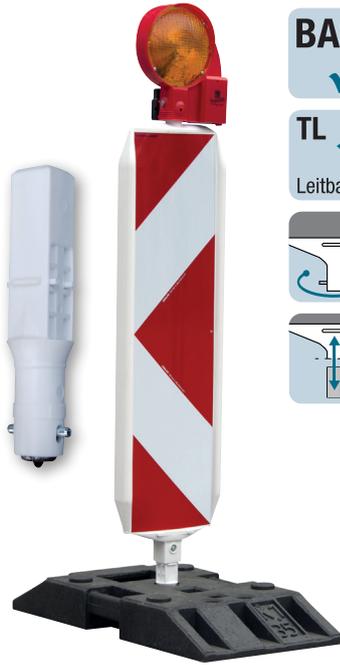
OUR SERVICE FOR YOU: The SD-System at a Glance!

Safety delineators (all delineators in the range)	Tested system	Safety warning lamps	Safety base plate
SD-System Safety Delineator 	SD-System	TopLED (page 30)  RS 2001 / 2002 	D300M safety base plate (255681DM-SW, page 24) 

Select the right products to create BAST-approved systems

You can find a complete system overview on pages 14-15.





D-System Safety Delineator

BAST-Approved Safety Delineator with Exchangeable Swivel Adapter

The exchangeable twist-lock system of this safety delineator combines the easiest handling with perfect stability and twist resistance. The sturdy metal pin can be easily screwed into the adapter of the base plate with minimum effort. Once engaged, the delineator stands securely.

The swivel adapter on the horizon DS605 and DSS605 safety delineators can be quickly and affordably replaced after a collision

- **Optimized for use with the TopLED warning lamp and K35 safety base plate**
- **BAST-approved according to the "TL-Leitbaken" standard**
- Reflectivity class RA 2
- Twist-lock-system
- Twisting in and out is possible in both directions!
- Exchangeable twist adapter
- Adapters can be economically exchanged in just a few easy steps!
- With protective film edge
- Particularly thick-walled, bulbous and solid delineator body
- No securing pin required
- Also available with sloped sheeting

Item No.	Product	BAST	PU
25576PD	Right/left-pointing, reflectivity class RA 2	✓	30
25577PD	Right/right-pointing, reflectivity class RA 2	✓	30
25574PD	Left-pointing, reflectivity class RA 2	✓	30
25575PD	Right-pointing, reflectivity class RA 2	✓	30
Recommended accessories			
25578	Swivel adapter 78 (for exchange) for delineator types DS605 and DSS605		30

✓ BAST-approved according to the "TL-Leitbaken" standard:

Test No.: V4 - 19/2005 (B, K) 35

Weight approx., kg	Dimensions / delineator, L*W, mm	Dimensions / sheeting, L*W, mm
4.0	1,315 * 300	1,000 * 250

OUR SERVICE FOR YOU:

Select the right products to create BAST-approved systems

You will find a complete system overview on pages 14-15.

Safety delineators (all delineators in the range)	Approved system	Safety delineator lamps	Safety base plate
	D-System	TopLED (page 30)	Safety base plate K35 (2549411SW, page 24) 
		RS 2001 / 2002	

Barrier Posts

Standard delineator, with horizontally striped sheeting (according to drawing 600-60)

The standard delineator with protective film edge and 60x60 connecting stud is laminated on both sides with horizontal stripes in accordance with reflectivity class RA2 to form a barrier post. Barrier posts (sign 600-60) are a special form of barrier. According to RSA 21, they are traffic control devices with horizontal red-and-white stripes. They may only be positioned if they have a regulating, securing or prohibiting effect on traffic.

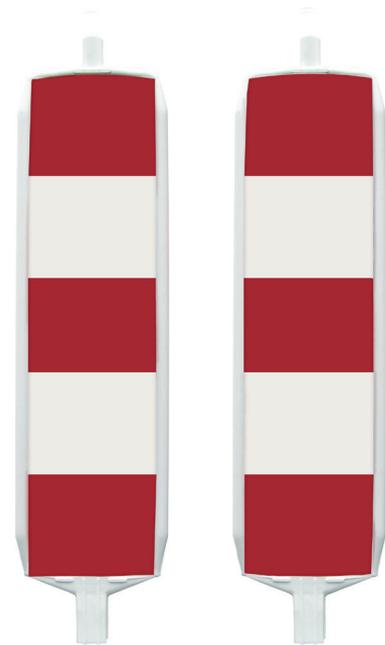
This "new" traffic sign is intended in particular as a safety element in sidewalk areas. In contrast, standard delineators may not be used in sidewalk areas (see RSA 21 General Part A 3.4.3(4)).

When used as a traffic sign, however, this sign also requires a traffic legislation order in Germany.

- Reflectivity class RA 2
- Double-sided with horizontally striped sheeting
- With protective film edge
- With 60/60 mm connecting stud

Item No.	Product	BASt	PU
25487IIQ	Double-sided with horizontally striped sheeting, reflectivity class RA 2		30
Recommended accessories			
2549904	K1 universal base plate	✓	30

Weight approx., kg	Dimensions / delineator, L*W, mm	Dimensions / sheeting, L*W, mm
3.54	1,230 * 300	1,000 * 250



*3.4.3 Delineators, warning delineators, marker boards
(1) Delineators are only used for traffic guidance on the roadway (longitudinal and acute-angled transverse barriers). They are not permitted on walkways. Small delineators are permitted on special cycle paths.*





Standard Delineator

High-Quality Standard Delineator with 60/60 mm Connecting Stud on One Side.

The R605 standard delineator made by horizon gains its stability from a single-piece robust plastic body and does not require any metal parts whatsoever. The protective film edge doubles as an ergonomic handle for easy transport and setup.

Reflectivity class RA2 is required in Germany.

- Reflectivity class RA 1
- With 60/60 mm connecting stud
- With protective film edge
- Also available with chevron sheeting

Item No.	Product	PU
25487	Right/left-pointing, reflectivity class RA 1	72

Recommended accessories

2549904	K1 universal base plate	30
---------	-------------------------	----

Weight approx., kg	Dimensions / delineator, L*W, mm	Dimensions / sheeting, L*W, mm
3.1	1,225 * 300	1,000 * 250



Reversible Delineator 60/60 Export

Reversible Delineator with 60/60 mm Connecting Stud on Both Sides

The horizon reversible delineator gains its stability from a single-piece robust plastic body and does not require any metal parts whatsoever. The protective film edge doubles as an ergonomic handle for easy transport and setup. Reflectivity class RA2 is required in Germany.

- **In case one connecting stud is damaged, the delineator can still be used with the second stud and does not necessarily have to be replaced.**
- **Delineators with sloped diagonal striped sheeting keep their guidance after reversal.**
- **One-sided delineators with chevron sheeting change their guidance direction when turned.**

You will save time, money and space by only needing to stock one type of delineator.

- Reflectivity class RA 1
- With two 60/60 mm connecting stud
- With protective film edge
- Also available with yellow/red sheeting for e.g. Austria, Finland and Sweden

Item No.	Product	PU
25861IROLP	60/60 single-sided, right or left-pointing, chevron sheeting, reflectivity class RA 1	72
25861IP	60/60 right/left-pointing, chevron sheeting, reflectivity class RA 1	72
25861IRRP	60/60 right/right-pointing, chevron sheeting, reflectivity class RA 1	72

Recommended accessories

2549904	K1 universal base plate	30
---------	-------------------------	----

Weight approx., kg	Dimensions / delineator, L*W, mm	Dimensions / sheeting, L*W, mm
3.1	1,225 * 300	1,000 * 250



CREATED IN KORBACH!

“A large part of our in-house production takes place at the Korbach site. We place great importance on quality and meticulous work.”



BAST ✓

K1 ✓
Kennung

K35 ✓
Kennung

TL ✓
Aufstellvorrichtungen

TL ✓
Leitbaken

✓ BAST-approved according to the "TL-Leitbaken" standard:

Test No.: 982K15

K35 Safety Base Plate

The special recycled material mix from horizon ensures that this safety base plate exhibits the highest degree of resistance to breakage. Top 'Made in Germany' quality that is immediately apparent. Its compact design, extra-large stacking feet and two ergonomically shaped carrying handles also add the benefit of perfect handling.

- For **KD-, RD- and D-System, Standard Delineator**
- **BAST-approved according to the "TL-Leitbaken" standard**
- **BAST ID K1 / 35**
- Hole pattern: Receptacle for D-adapter, 40/40 mm, 60/60 mm, 2 x Ø 42 mm
- Break-proof
- Resistant against frost, salt, exhaust fumes and oil, etc.
- Battery compartment
- Sturdy carrying handles
- Stackable
- Anti-skid feet

Item No.	Product	BAST	PU
2549411SW	K35 safety base plate	✓	30

Weight approx., kg	Dimensions / delineator, L*W, mm	Material
28.0	830 * 425 * 120	Recycled

OUR SERVICE FOR YOU: Compatibility of the K35

Safety base plate	Approved systems	Safety warning lamps	Safety delineators (all delineators in the range)
K35 (254941)	KD-System	TopLED (page 30) RS 2001 / 2002	Safety delineator KD-System (page 18)
	D-System	TopLED (page 30) RS 2001 / 2002	Safety delineator D-System (page 20)
	RD-System	TopLED (page 30)	Safety delineator RD-System (page 17)



BAST ✓

K1 ✓
Kennung

K30 ✓
Kennung

K31 ✓
Kennung

K33 ✓
Kennung

TL ✓
Leitbaken

✓ BAST-approved according to the "TL-Leitbaken" standard:

Test No.: 942 K 001

D300M Safety Base Plate

For many years, horizon's D300M has set the standard in the category of safety bases tested according to the "TL-Leitbaken" standard. Its flat design provides a large contact surface. This results in excellent stability in combination with the horizon anti-skid system.

- For **SD-, D-, WD- and M-System, Standard Delineator**
- **BAST-approved according to the "TL-Leitbaken" standard**
- **BAST ID K1 / 30 / 31 / 33**
- Hole pattern: Receptacle for D-adapter, 40/40 mm for M-delineator, 60/60 mm, 2 x Ø 42 mm
- Break-proof
- Resistant to frost, salt, exhaust fumes and oil, etc.
- Battery compartment
- Sturdy carrying handles
- Stackable
- Anti-skid system
- Unsuitable for square poles

Item No.	Product	BAST	PU
255681DM-SW	D300M Safety Base Plate	✓	30

Weight approx., kg	Dimensions / delineator, L*W, mm	Material
28.0	870 * 420 * 110	Recycled

OUR SERVICE FOR YOU: Compatibility of the D300M

Safety base plate	Approved systems	Safety warning lamps	Safety delineators (all delineators in the range)
D300M (25568DM)	SD-System	TopLED (page 30) RS 2001 / 2002	Safety delineator SD-System (page 19)
	WD-System	OptiLED (page 30)	WD-System Twist n'plug reversible delineator (page 17)

Select the right products to create BAST-approved systems

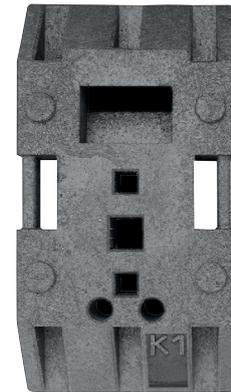
You can find a complete system overview on pages 14-15.

K1 Universal Base Plate

- For standard delineators and installation devices
- **BAST ID K1**
- Hole pattern: 40/40 mm, 60/60 mm, 2 x Ø 42 mm
- Break-proof
- Resistant to frost, salt, exhaust fumes and oil, etc.
- Battery compartment
- Sturdy carrying handles
- Stackable
- Anti-skid feet

K1 ✓
Kennung

TL ✓
Aufstellvorrichtungen



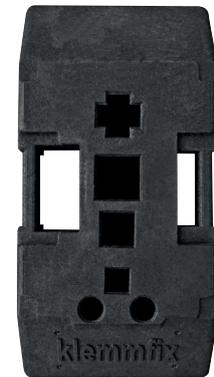
Item No.	Product	PU
2549902	K1 universal base plate	30

Weight approx., kg	Dimensions / delineator, L*W, mm	Material
28.0	830 * 425 * 120	Recycled

KOMPAKT Base Plate

KOMPAKT base plate LESS THAN 25 kg - meets legal requirements in various countries, e.g. Denmark, France etc. Please note: For Germany, 28 kg is required according to TL-Aufstellvorrichtung (installation devices standard) K1!

- Less than 25 kg
- Sturdy carrying handles
- Euro-pallet size
- Resistant to frost, salt, exhaust fumes and oil, etc.
- Hole pattern: 40/40mm, 60/60mm, 80/80mm, 2 x Ø 42mm, crosshole 80/40mm
- Break-proof
- Stackable - also with products from many other manufacturers
- Made of recycled materials



Item No.	Product	PU
25493106	KOMPAKT base plate	36

Weight approx., kg	Dimensions / delineator, L*W, mm	Material
25.0	790 * 390 * 120	Recycled



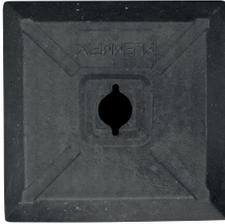
ORDER THE FULL

MUNICIPAL RANGE

CATALOG NOW



<https://rb.gy/fhzt49>

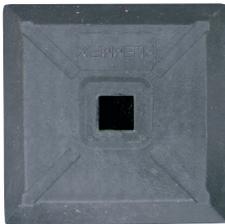


D80 Base Plate

- Hole pattern: Receptacle for D-adapter
- Break-proof
- Resistant to frost, salt, exhaust fumes and oil, etc.
- Stackable

Item No.	Product	PU
25080D	D80 base plate	80

Weight approx., kg	Dimensions / delineator, L*W, mm	Material
12.0	400 * 400 * 110	Recycled



80 Base Plate

- Hole pattern: 60/60 mm
- Break-proof
- Resistant to frost, salt, exhaust fumes and oil, etc.
- Stackable

Item No.	Product	PU
25080	Base plate 80	80

Weight approx., kg	Dimensions / delineator, L*W, mm	Material
12.0	400 * 400 * 110	Recycled



D81 Base Plate

- Hole pattern: Receptacle for D-adapter, 60/60 mm
- Break-proof
- Resistant to frost, salt, exhaust fumes and oil, etc.
- Stackable

Item No.	Product	PU
25081D	D81 Base Plate	60

Weight approx., kg	Dimensions / delineator, L*W, mm	Material
15.0	500 * 400 * 110	Recycled



70 Base Plate

- Hole pattern: 40/40 mm, 60/60 mm, Ø 20 mm, Ø 43 mm, 2 x 43 / 80 mm
- Break-proof
- Resistant to frost, salt, exhaust fumes and oil, etc.
- Sturdy carrying handles
- Stackable
- Color: silver

Item No.	Product	PU
76070209	70 Base Plate	32

Weight approx., kg	Dimensions / delineator, Ø, mm	Material
24.0	500 * 135	Recycled

PLEASE NOTE:

For Germany, 28 kg is required according to TL-Aufstellvorrichtung (installation devices standard) K1!



**THIS ALLOWS ME TO
WORK EFFICIENTLY!**

“At worksites, speed is paramount, which is why we need high-quality and, above all, durable products”

Warning Light Classes Pursuant to the “TL-Warnleuchten” standard and EN 12352

Application	Lamp	Optic, mm	Light emitting area in cm ²
Longitudinal and transverse barriers with uni-directional lights	Filament bulb or LED	180	≥ 250
Longitudinal and transverse barriers with bi-directional lights	Filament bulb or LED	180	2 x ≥ 250
Narrowing and transitions with uni-directional light	Halogen bulb or high performance LED	180	≥ 250
Cone flash lamps / Flash lamps (emergency flash lights) with uni-directional lights	Xenon flash lights or high performance LEDs	180	≥ 250
Mobile warning trailer in combination with small directional arrow with uni-directional light	Xenon flash lights or high performance LEDs	300	≥ 700
Light arrow lights and small directional arrow Double advanced warning system (also for vehicles) Advanced warning lights for urban use 180 mm with uni-directional light	Halogen bulb or high performance LEDs	180	≥ 250
Mobile warning trailer (traffic sign 615) Double advanced warning system (also for vehicles) Advanced warning lights for diversions with uni-directional light	Halogen bulb or high performance LEDs	300	≥ 700
Longitudinal and transverse barriers with 360° warning beacon	Filament bulb or LEDs		≥ 30

Type of use		Luminous intensity, cd	
		Min.	Max.
Day	–	–	–
Night	Yes	20	100
Day	–	–	–
Night	Yes	10	100
Day	100%	1500	5000
Night	dimmed	500	1000
Day	100%	500	1000
Night	dimmed	250	500
Day	100%	1500	5000
Night	dimmed	500	1000
Day	100%	1500	5000
Night	dimmed	500	1000
Day	100%	20000	40000
Night	dimmed	2000	4000
Day	–	–	–
Night	Yes	4	–

WARNING LIGHT CLASSES

Photometric requirements
in accordance with

TL-Warnleuchten	EN 12352
	
	
	
	
	
	
	
	

You can find approved horizontal warning lights on the following pages	Page
OptiLED , amber, uni-directional	30
TopLED , amber or red, uni-directional	30
GEO TopLED , amber, uni-directional	32
TopLED , amber, bi-directional	30
Euro-Blitz Compact LED & Synchro LED	78.79
Euro-Blitz LED & Synchro LED	80.81
Tele-Blitz LED & Synchro LED	82.83
FlashMax Stack & Synchro	76
MS 340 LED Blitz	on request
MS 340 Blitz	on request
RS 2000 plus	119
HLP 8	124
HLK 9	126
HLPK 15	127
MS 340 LED	118
MS 340 Halogen	on request
optima WL8 (in preparation)	31



- BAST** ✓
- WL1+2** ✓
TL-Warnleuchten
- L6+7** ✓
EN 12352
- TL** ✓
Leitbaken

TopLED Safety Warning Lamps

Universally Applicable Quality From horizon

The horizon TopLED is an extremely robust safety delineator lamp and our versatile, top-quality model among warning lamps - "Made in Germany" of course

- **BAST-approved according to the "TL-Warnleuchten" standard**
- **BAST-approved according to the "TL-Leitbaken" standard**
- **Suitable for SD-, KD-, D- and RD delineator systems and safety barriers**
- The battery may be inserted in any orientation
- Automatic twilight control
- Continuous light (item 210922 flashing and continuous light)
- Only one battery required
- Low power consumption
- Long-life LEDs
- Visual function check

✓ BAST-approved according to the "TL-Warnleuchten" standard:

Test No.: V4-13-2001 (item 210912)
V4-14-2001 (item 210922)
V4-41-2002 (item 210932)

✓ BAST-approved according to the "TL-Leitbaken" standard:

BAST ID K (items 210912, 210922, 210932)

Item No.	Product	BAST	PU
210912	Uni-directional, amber, without bracket - continuous light	✓	10
210922	Bi-directional, amber, without bracket - flashing and continuous light	✓	10
210932	Uni-directional, red, without bracket - continuous light	✓	10
210992	Uni-directional, red, without bracket - continuous light		10

Recommended accessories

21004	Universal barrier bracket set (5 pcs. / bag)		1 bag
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OUR SERVICE FOR YOU: Compatibility of the TopLED

Safety delineator lamps	Tested system	Safety delineators (all delineators in the range)	Safety base plate
TopLED (210912, 210922)	SD-System	Safety delineator SD-System (page 19)	D300M safety base plate (page 24)
	KD-System	Safety delineator KD-System (page 18)	K35 safety base plate (page 24)
	D-System	Safety delineator D-System (page 20)	K35 safety base plate (page 24)
	RD-System	Safety delineator RD-System (page 17)	K35 safety base plate (page 24)

Select the right products to create BAST-approved systems.

You can find a complete system overview on pages 14-15.



- BAST** ✓
- WL1** ✓
TL-Warnleuchten
- L7** ✓
EN 12352
- TL** ✓
Leitbaken

OptiLED Safety Delineator Lamp

Optimized for the horizon WD Reversible Delineator System

This safety delineator lamp is purpose-built for use with our "WD" reversible delineator system. The lamp is mounted on the delineator via the fixing pin and is fastened by turning it through 45°. The OptiLED uses an extremely compact battery system.

- **BAST-approved according to the "TL-Warnleuchten" standard**
- **BAST-approved according to the "TL-Leitbaken" standard**
- **Optimized for the horizon reversible delineator system WD**
- Automatic twilight control and continuous light
- The battery can be replaced without removing the lamp
- Only one battery required
- Low power consumption
- Long-life LEDs
- Visual function check
- Weight (kg): 0.8
- Operating time (hours), 1 * 12 Ah: 150

✓ BAST-approved according to the "TL-Warnleuchten" standard:

Test No.: V4-47-2011 / WL 1

✓ BAST-approved according to the "TL-Warnleuchten" standard:

BAST ID L

Item No.	Product	BAST	PU
21173	OptiLED, safety delineator lamp	✓	10

Recommended accessories

230121	SLIMLINE air-alkaline battery		24
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OUR SERVICE FOR YOU: Compatibility of the OptiLED

Safety delineator lamps	Approved system	Safety delineators (all delineators in the range)	Safety base plate
OptiLED (21173)	WD-System	Safety delineator WD-System (page 17)	D300M Safety Base Plate (page 24)

Select the right products to create BAST-approved systems.

You can find a complete system overview on pages 14-15.

optima WL8

LED with 360° Warning Beacon

LED road hazard lamps with 360° warning beacon, amber continuous light for longitudinal barriers along pedestrian emergency walkways.

- Long-life LEDs
- With 360° warning beacon, amber continuous light for longitudinal and transverse barriers along pedestrian emergency walkways.
- The battery can be replaced without removing the lamp
- The battery may be inserted in any orientation
- Can also be operated with a single battery
- Low power consumption

Item No.	Product	PU
25744SEC	360° warning beacon, amber, with Secura 52 bracket	8

Recommended accessories

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

Weight, kg	Operating time (hours)			
	1 * 7 Ah	2 * 9 Ah	1 * 20 Ah	2 * 20 Ah
0.8	425	1,100	1,100	2,200



in preparation



starLED

State-of-the-art LED technology in proven horizont quality

- The battery may be inserted in any orientation
- Automatic twilight control
- Switchover flashing/continuous light
- The battery can be replaced without removing the lamp
- Can also be operated with a single battery
- Low power consumption
- Long-life LEDs

Item No.	Product	PU
20742	Bi-directional, amber, with Secura 52 bracket	10
20743	Bi-directional, red, with Secura 52 bracket	10

Recommended accessories

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

Weight, kg	Operation/h (flashing/continuous)			
	2 * 7 Ah	2 * 9 Ah	2 * 20 Ah	2 * 50 Ah
0.8	3400 / 850	4400 / 1100	9500 / 2200	24300 / 6100



SOLOLITE LED

Excellent Price-Performance Ratio

- Automatic twilight control
- Switchover flashing/continuous light
- The battery can be replaced without removing the lamp
- Operates with just a single battery
- Low power consumption
- Long-life LEDs

Item No.	Product	PU
252211	Bi-directional, amber, with Secura 52 bracket	6
252231	Bi-directional, red, with Secura 52 bracket	6

Recommended accessories

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

Weight, kg	Operation/h (flashing/continuous)			
	1 * 7 Ah	1 * 9 Ah	1 * 20 Ah	1 * 50 Ah
0.8	500 / 120	650 / 150	1800 / 400	4600 / 1100



Secura key

2 free units included with the purchase of one PU (10 pcs) of road hazard warning lamp

- Switch warning lights on and off
- Switch from flashing to continuous light
- Easy mounting on posts and tubes
- Open the battery compartment



GEO TopLED – Monitoring via Satellite

Meets the “GeoNetDelineator Specification” Issued by the LSBG

The sensor-supported GEO TopLED warning light from horizon captures live information on the position and cordoned off area of construction sites. Under optimal conditions, the GPS position data transmitted by each GEO TopLED is accurate to within centimeters. Moreover, parameters such as battery voltage and ambient temperature are continuously monitored. This data is transmitted to a defined interface, enabling convenient digital monitoring and control of all construction sites from a computer.

The GEO TopLED allows you to communicate that your construction site has been fully deployed: As soon as all safety barriers and delineators are in place, the GEO TopLED is switched on and sends a signal to the contracting authority.

The GEO TopLED is compatible with the proven horizon delineator system, which means that you can continue using your existing delineators and bases without the need for a new delineator system. The standard TopLED is simply replaced by the GEO TopLED. **This makes the transition to the future of digital construction site monitoring remarkably simple.**

- BAST-approved according to the "TL-Warnleuchten" standard
- BAST-approved according to the "TL-Leitbaken" standard
- Suitable for SD-, KD- and D delineator systems and the RD reversible delineator system
- The battery may be inserted in any orientation
- Automatic twilight control
- Continuous light
- Only one battery required
- Long-life LEDs
- Visual function check



TL-Warnleuchten 90 and supplement in accordance with ARS No. 10/1998 issued by the BAST on 01.02.2022

Item No.	Product	BAST	PU	✓ BAST-approved according to the "TL-Warnleuchten" standard: Test No.: V3-014/2021
210912GN	GEO TopLED sensor-supported warning light	✓	10	



The future of digital construction site monitoring is here!

If your contracting authority requires digital construction site monitoring – such as the upcoming requirements in Hamburg – you can simply replace the TopLED with the GEO TopLED in your BAST-approved delineator system. There is no need to purchase a “new delineator system”; you can continue using your existing delineators and base plates.

The GEO TopLED can also be used for full or partial road closures. Simply mount an additional GEO TopLED (amber or red) on the safety barrier, and a signal is sent indicating that the road has been closed.

(Supplied WITHOUT software)

Satellite Monitoring

The sensor-supported GEO TopLED warning light from horizon captures live information on the position and cordoned off area of construction sites. Under optimal conditions, the GPS position data transmitted by each GEO TopLED is accurate to within centimeters. Moreover, parameters such as battery voltage and ambient temperature are continuously monitored. This data is transmitted to a defined interface, enabling convenient digital monitoring and control of all construction sites from a computer.

The GEO TopLED allows you to communicate that your construction site has been fully deployed: As soon as all safety barriers and delineators are in place, the GEO TopLED is switched on and sends a signal to the contracting authority.

The GEO TopLED is compatible with the proven horizon delineator system, which means that you can continue using your existing delineators and bases without the need for a new delineator system. The TopLED can be easily replaced with the GEO TopLED. **This makes transitioning to digital construction site monitoring incredibly easy.**

HORIONT's GEO TopLED has been honored with the German Innovation Award 2024 in the category 'Excellence in Business to Business/Electronic Technologies'.

The Korbach-based company has been named 'Winner' for this product innovation, which is unique in the industry to date.



**GERMAN
INNO
VATION
AWARD '24
WINNER**

User-friendly software

The work site can be conveniently monitored and controlled digitally on a computer. The GPS data is accurate to within a centimeter.



Optimal Visibility at Night

Traffic congestion in Germany is increasing. According to the ADAC, a total of 189,000 traffic jams are recorded per year, with a combined length of 450,000 km. This is significantly longer than the distance from Earth to the Moon. On average, every German spends 60 hours per year in traffic jams – that's 10 minutes every day! Traffic volumes continue to rise and the German motorway network is 'aging' with many tunnels and bridges requiring renovation.

The Federal Ministry of Transport also expects congestion to increase in the coming years. What can be done?

Daytime construction sites (shorter-term work sites) often cause traffic jams on German motorways. In addition, accidents often occur at construction sites, leading to further congestion.

One solution is to convert existing daytime construction sites into night-time sites. At night, i.e. during the period between the evening and morning rush hours, traffic volumes are significantly lower. To ensure that 'less congestion' does not lead to

'more risk' for construction site personnel, the legislator has published new regulations for night-time construction sites (D IV) in ARS No. 17/2009.

Instead of traffic cones, only BAST-approved delineators may be used for longitudinal safeguarding. To enable quick installation, the smaller Leitboy IV version (with a sheeting height of 75 cm instead of 100 cm) may also be used.

Unlike traffic cones, delineators offer a larger visible sheeting surface. Thanks to their flat design, headlight beams are optimally retro-reflected.

Moreover, the delineators perform a directional function, guiding motorists safely past the construction site with sloped or chevron sheeting



You can find the BAST-approved L 54 with Leitboy IV on page 62 and the Leitboy base plate on page 65

BAST-Approved Systems for Night-Time Construction Sites

Collapsible Delineator

In the event of a collision, collapsible delineators fold down undamaged and remain in position, whereas traffic cones fly through the air like uncontrolled projectiles.

When the two robust pivot joints distinctly click into place, the delineator panel securely locked against both rotation and tilting. Even high wind loads pose no problem for horizon collapsible delineators.

The double-walled design ensures optimum dimensional stability.

The integrated base plate of the collapsible delineator is naturally equipped with horizon's unique anti-skid-system. Moreover, the base plate is reinforced with solid steel profiles which ensures excellent shape and positional stability of the base on the roadway.

Handling becomes child's play thanks to the low weight (only 12 kg) and the 2 carrying handles.

With three specially designed collapsible delineator storage boxes, all transport and storage requirements are easily met.

Leitboy IV with L54 Base Plate

The narrow baseplate provides outstanding stability. The "climbing edge" – unique to horizon – creates a bookend-like effect, enhancing positional security.

Combined with the anti-skid system and a weight of 14 kg, outstanding stability on the roadway is ensured.

The sturdy, double-walled Leitboy is inserted into the base plate via a flexible rubber adapter that engages with two guide slots and snap-in cams. If it is run over by a vehicle, it automatically returns to an upright position.

The highlight, however, is the two attachable reflective arches, each equipped with 14 high-performance yellow reflectors – making this system impossible to miss at night!



You can find the BAST-approved collapsible delineator on page 35



Collapsible Delineator

Collapsible delineator with sturdy folding mechanism

The horizon collapsible delineator, approved according to the "TL-Leitbaken" standard, is an alternative to standard delineators or traffic cones – especially when deployment must be particularly rapid and safe. It is also particularly suitable for night-time construction sites.

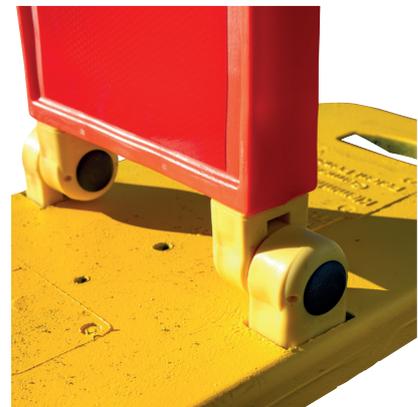
- **BAST-approved according to the "TL-Leitbaken" standard**
- Extremely sturdy folding mechanism with two hinges
- Optimal visibility during the day thanks to a bright orange delineator body and bright yellow base plate, alternatively with white delineator body and black base plate
- Reflectivity class RA 2
- Double-walled body
- Carrying handle on delineator and base plate
- Low weight of only 12.5 kg
- With protective film edge
- Anti-skid system
- Also available with sloped sheeting
- Also available with red/yellow sloped or chevron sheeting of reflectivity class RA 2 C



Item No.	Product	BAST	PU
25407RLP	Right/left-pointing, reflectivity class RA 2, white delineator panel	✓	10
25407RRP	Right/right-pointing, reflectivity class RA 2, white delineator panel	✓	10
25407LP	Left-pointing, reflectivity class RA 2, white delineator panel	✓	10
25407RP	Right-pointing, reflectivity class RA 2, white delineator panel	✓	10
25407KSNRLP	Right/left-pointing, reflectivity class RA 2, orange delineator panel	✓	10
25407KSNRRP	Right/right-pointing, reflectivity class RA 2, orange delineator panel	✓	10
25407KSNLP	Left-pointing, reflectivity class RA 2, orange delineator panel	✓	10
25407KSNRP	Right-pointing, reflectivity class RA 2, orange delineator panel	✓	10

Recommended accessories

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	1
25771KC	Transport and storage pallet for up to 20 collapsible delineators or Vario Sign Stands with side access for removal	1



✓ BAST-approved according to the "TL-Leitbaken" standard:
Test No.: 99 2K 09/LU

Weight approx., kg	Dimensions / delineator, L*W, mm	Dimensions / sheeting, L*W, mm	Material
12.5	970 * 315	750 * 187.5	Plastic, recycled





✓ BAST-approved according to the "TL-Warnleuchten" standard:
Test No.: V3-004-2017

Collapsible Delineator with LED Flash

Delineator with additional warning effect thanks to LED flash lamp

Collapsible delineator, sheeting type RA2, with integrated, BAST-approved flash lamps for efficiently safeguarding deployment locations/accident spots. With an operating time of up to 160 hours, four high-power LEDs provide a strong warning effect, with luminous intensity according to EN 12352, class L8M/L8L (WL4). Body and base plate connected with two robust tilting joints. Replaceable rubber feet under the base plate provide non-slip footing.

- With LED flash lamps, BAST-approved according to the "TL-Warnleuchten" standard
- Corresponds to EN12352, class L8M/L8L (WL4)
- Backed continuous light
- Amber LED flash lamp
- Extremely sturdy folding mechanism with two joints
- Optimum visibility during daytime thanks to bright orange delineator body and bright yellow base plate
- Reflectivity class RA 2
- Double-walled body
- Carrying handle on delineator and base plate
- Low weight of only 12.5 kg
- With protective film edge
- Anti-skid system
- Also available with white delineator body and black base plate

Item No.	Product	BAST	PU
25407KSNQLED2	Horizontally striped, reflectivity class RA 2, amber LED flash light	✓	1
Recommended accessories			
25KC760	Transport and storage box for up to 5 collapsible delineators or Vario Sign Stands		1

Weight approx., kg	Dimensions, L*W, mm	Dimensions / sheeting, L*W, mm	Material	Flash rate / min.	Operation/h (flash) 4 * Baby LR 14
12.5	970 * 315	500 * 188	Plastic, recycled	69	160



✓ BAST-approved according to the "TL-Warnleuchten" standard:
Test No.: V3-004-2017

Collapsible Delineator Synchro

Self-synchronizing sequential warning light system for efficient site protection

Collapsible delineator with reflective sheeting (RA2) and self-synchronizing sequential warning light system for efficient site protection. Integrated radio modules allow the lights to automatically synchronize to form a sequential light system as soon as they are switched on. Unlike traditional infrared systems, the units can be positioned anywhere to allow synchronization.

- With LED flash lamps, BAST-approved according to the "TL-Warnleuchten" standard
- Corresponds to EN12352, class L8M/L8L (WL4)
- Sequential light system, self-synchronizing when switched on, via integrated radio modules
- Unlike traditional infrared systems, the units can be placed anywhere for synchronization
- Permanent background light
- Amber LED flash lamp

Item No.	Product	BAST	PU
25407KSNQSYN	With horizontally striped sheeting, reflectivity class RA 2, amber LED flash lamps, synchronizable	✓	1
Recommended accessories			
25KC760	Transport and storage box for up to 5 collapsible delineators or Vario Sign Stands		1

Weight approx., kg	Dimensions, L*W, mm	Dimensions / sheeting, L*W, mm	Material	Flash rate / min.	Operation/h (flash) 4 * Baby LR 14
12.5	970 * 315	500 * 188	Plastic, recycled	69	160



IN USE: Collapsible Delineator Synchro

- ✓ www.horizont.com/ytKlappbakeSynchro
- ✓ www.horizont.com/ytSynchroFamilie

6/40

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RELIED ON BY THE FIRE SERVICE!

“Deployment locations must be safeguarded rapidly and efficiently. Our fire service range meets all these criteria.”





Delineator Transport and Storage Box

For transport and storage of up to 30 delineators

- Suitable for all horizont delineator systems
- No need to detach the lamps from the delineators during transport/storage
- Galvanized steel
- Suitable for forklift transport
- With lashing straps for tying down using a net
- Supplied empty

Item No.	Product	PU
251193006	Transport and storage box for up to 30 delineators	1

Weight approx., kg	Dimensions, L*W*H, mm	Material
35	1460 * 750 * 790	Hot-dip galvanized steel



Transport and Storage Pallet for Base Plates

For transport and storage of up to 30 base plates

- Suitable for all common base plates, e.g. D300M, K1 and K35 base plates
- Galvanized steel
- Suitable for forklift transport
- With chain for safe tying down
- Supplied empty

Item No.	Product	PU
253899	Transport and storage pallet for up to 30 base plates	1
2538991	Stacking bars, 4 pieces required for transport and storage pallet	1

Item No.	Weight approx., kg	Dimensions, L*W*H, mm	Material
253899	49	1650 * 900 * 300	Hot-dip galvanized steel



Combination Rack

For transport and storage of up to 20 base plates, 10 safety barriers and 10 delineators

- For all horizont delineator systems, common base plates and 2,000 mm safety barriers
- No need to detach the lamps from the delineators during transport / storage
- Galvanized steel
- Suitable for forklift transport from all sides
- With tilt protection during forklift loading
- Supplied empty

Item No.	Product	PU
251193005	Combination rack, for up to 20 base plates, 10 safety barriers and 10 delineators	1

Weight approx., kg	Dimensions, L*W*H, mm	Material
70	2460 * 1050 * 810	Hot-dip galvanized steel

Transport and Storage Box for Collapsible Delineators

For transport and storage of up to 5 collapsible delineators or Vario Sign Stands

- Particularly fast and easy removal
- Galvanized steel
- Robust design
- Two sturdy carrying handles ensure optimum handling even when fully equipped
- Prepared fixing receptacles allow secure mounting of the transport and storage box, e.g. on a mobile warning trailer
- Supplied empty



Item No.	Product	PU
25KC760	Transport and storage box, up to 5 collapsible delineators or Vario Sign Stands	1

Weight approx., kg	Dimensions, L*W*H, mm	Material
9	660 * 320 * 330	Hot-dip galvanized steel

Transport and Storage Box on Standard Euro-Pallet

For transport and storage of up to 20 collapsible delineators or Vario Sign Stands

- Particularly fast and easy removal
- Galvanized steel
- Robust design
- Optimal handling thanks to Euro-pallet
- Supplied bolted to standard Euro-pallet (included in scope of delivery)



Item No.	Product	PU
25770KC	Transport and storage pallet, up to 20 collapsible delineators or Vario Sign Stands	1

Weight approx., kg	Dimensions, L*W*H, mm	Material
650	1200 * 800 * 460	Hot-dip galvanized steel

Transport and Storage Pallet for Collapsible Delineators

For transport and storage of up to 20 collapsible delineators or Vario Sign Stands with side access for removal

The practical transport and storage pallet makes handling and logistics of collapsible delineators or Vario Sign Stands even easier. Thanks to the side opening, the pallet can remain on the truck's cargo bed and can be easily loaded and unloaded by one person with the drop side down. The 20 horizontal collapsible delineators or Vario Sign Stands are securely locked in place via the guide rails. A sturdy flap with a coulisse guide ensures perfect transport and load security.

- Secure storage on guide rails
- Side access for removal
- Galvanized steel
- Robust design
- Lifting eyes and forklift receptacles
- Sturdy flap with coulisse guide for tool-free transport and load securing without small parts
- Supplied empty



Item No.	Product	PU
25771KC	Transport and storage pallet, up to 20 collapsible delineators or Vario Sign Stands with side access for removal	1

Weight approx., kg	Dimensions, L*W*H, mm	Material
230	1275 * 1200 * 1030	Hot-dip galvanized steel

Our Service for You!

Accessories and Spare Parts

Please select the appropriate accessories and spare parts from the table below for the products in the previous chapter. The accessories recommended by horizon are always stated next to the corresponding product in our catalog.

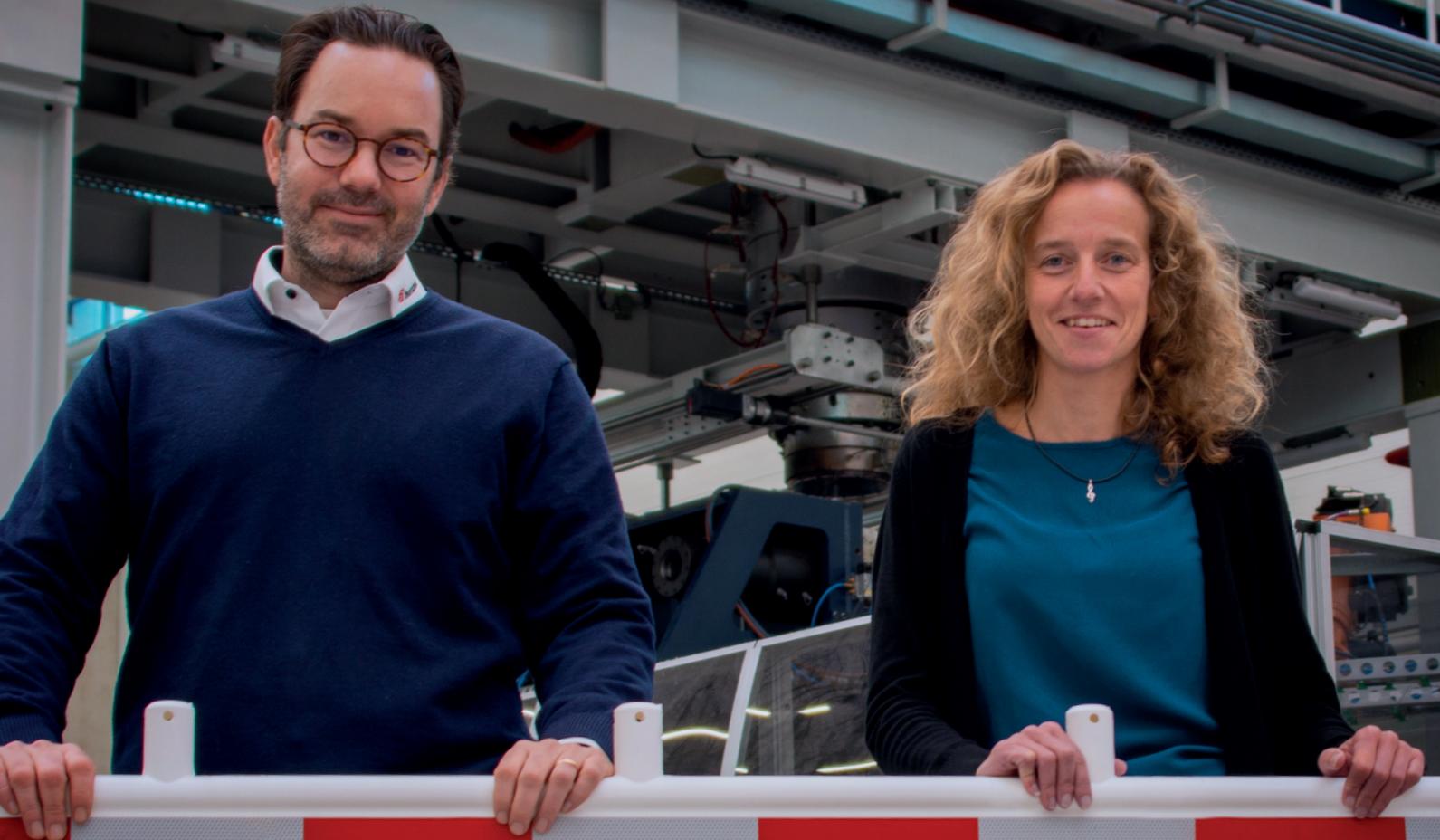
Accessory or spare part			For delineators		For road hazard warning and delineator lamps				
Picture	Item no., description	PU	D-delineator, adapter page 20	M-delineator, adapter	optima 2001 page 32	StarLED, page 32	SOLOLite LED page 33	TopLED page 30	OptiLED page 30
	25578 Exchangeable twist adapter for D-delineators	30	✓						
	25579 Exchangeable M-adaptor for M-delineators	30		✓					
	20104-10VP Secura-key (10 pcs. / bag)	1 bag			✓	✓	✓	✓	✓
	20147 Secura-bracket 52 mm (10 pcs. / bag)	1 bag			✓	✓		✓	
	20240 Secura-bracket 82 mm (10 pcs. / bag)	1 bag			✓	✓		✓	
	21004 Universal barrier bracket set (5 pcs. / bag)	1 bag			✓	✓		✓	
	21008 Secura-bracket 52 mm (10 pcs. / bag)	1 bag			✓	✓		✓	
	230502 Air-alkaline battery "Kompakt 50" 6 V / 50 Ah	20			✓	✓	✓	✓	

Accessory or spare part			For delineators		For road hazard warning and delineator lamps				
Picture	Item no., description	PU	D-delineator, adapter page 20	M-delineator, adapter	optima 2001 page 32	StarLED, page 32	SOLOLite LED page 33	TopLED page 30	OptiLED page 30
	250011 Block battery 6 V / 9 Ah IEC 4 R 25	24			✓	✓	✓	✓	
	253967 Block battery 6 V / 7 Ah IEC 4 R 25	24			✓	✓	✓	✓	
	23020 Block battery 6 V / 20 Ah IEC 4 R 25	20			✓	✓	✓		
	230121 SLIMLINE block battery 6 V / 12 Ah	24							✓
	89289 Filament bulb 5 V / 90 mA	50			✓				
	92825 Triple-strip battery contact insert BD 90 mA with control LED	1			✓				
	92835 Triple-strip battery contact insert yellow LED	1				✓			
	92843 Triple-strip battery contact insert red LED	1				✓			

SALES MANAGEMENT

MARCUS BAUER

Marcus loves to spend his leisure time with his family and friends. His favorite hobbies are hunting, squash, skiing, and basically anything to do with Defenders.



ASSISTANT SALES MANAGEMENT & CONTROLLING

JANINA SCHMOLL

Janina has two children with whom she spends most of her free time. Besides this, her hobbies also include playing the piano and handball.



02

Safety Barriers, Barrier Material and Traffic Cones

FULL OR PARTIAL CLOSURE	44
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FOLDING SIGNS/FOLDING TRIANGLES	51

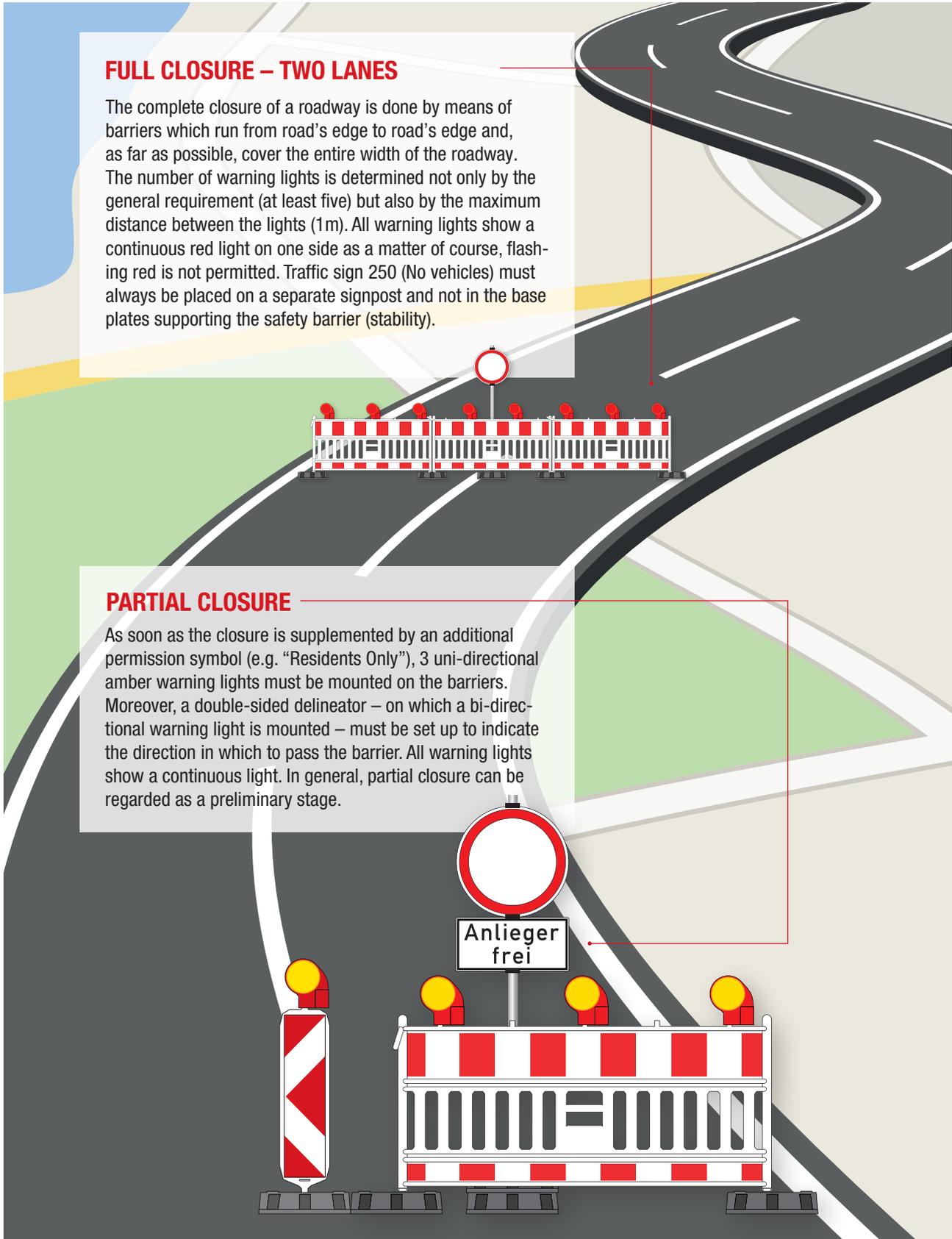
Full or partial closure

FULL CLOSURE – TWO LANES

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 is determined not only by the general requirement (at least five) but also by the maximum distance between the lights (1m). All warning lights show a continuous red light on one side as a matter of course, flashing red is not permitted. Traffic sign 250 (No vehicles) must always be placed on a separate signpost and not in the base plates supporting the safety barrier (stability).

PARTIAL CLOSURE

As soon as the closure is supplemented by an additional permission symbol (e.g. "Residents Only"), 3 uni-directional amber warning lights must be mounted on the barriers. Moreover, a double-sided delineator – on which a bi-directional warning light is mounted – must be set up to indicate the direction in which to pass the barrier. All warning lights show a continuous light. In general, partial closure can be regarded as a preliminary stage.



Evolution Safety Barrier

Plastic safety barrier for versatile applications

Anyone responsible for securing construction sites knows one thing: Efficiency is everything. Safety barriers (*Absperrschrankengitter* – hereinafter referred to as ASG) must be easy to transport, quick to install, and built for long service life. This is exactly where the evolution begins: The new generation of ASG safety barriers invented by horizont Traffic Safety makes handling easier, provides improved protection for the reflective sheeting, and offers more surface area for advertising or for officially required reflective sheeting. The ASG Evo provides reliable protection when securing excavations, manholes, and similar. Since the plastic material used is non-conductive and prevents sparking, the ASG Evo also delivers a significant increase in safety when working on gas and electrical lines.

Serious accidents can be avoided thanks to the large surface area of the safety barrier, which ensures significantly improved barrier visibility – even in low-light or dusk conditions.

Thanks to the new continuous rear panel, double-sided application of sheeting is possible for use in pedestrian emergency routes within the roadway, eliminating the need to install two safety barriers and saving valuable space (coordination with the relevant authority required). The innovative stacking points prevent the ASG Evo from slipping when the safety barriers are stacked for storage.

Pursuant to RSA 21, sheeting type RA 1 is still permitted for a longitudinal barrier.

- Complies with the German "TL-Absperrschranken" standard and legal provisions of the German technical regulations for safety and warning systems (ZTV-SA)
- Optimized for use with all K1 base plates
- Double-sided application of reflective sheeting possible
- Innovative stacking points for non-slip storage
- Practical, centrally positioned handle for easy handling
- Two replaceable plastic stand tubes, Ø 42 mm (no steel tubes)
- Stable shock-absorbing plastic surface
- No bending or breaking even under extreme strain or force
- Significantly larger surface area for improved visibility, especially for pedestrians with visual impairments
- A high level of safety is achieved for those working on gas and electricity lines as the non-conductive plastic prevents sparking and does not conduct electricity
- Height: 1100 mm, with lamp holder
- Labeling field (210 mm × 100 mm) for embossed company logo

Item No.	Product	ZTV-SA	VE
25119343-10	Sheeting width 2,000 mm, reflectivity class RA 1	✓	1 pack (10 pcs.)
25119343II-10	Sheeting width 2,000 mm, reflectivity class RA 2	✓	1 pack (10 pcs.)
Recommended accessories			
2511905	Lamp holders		1 pack (5 pcs.)

Item no.	Weight approx., kg	Dimensions, L*W*H, mm	Dimensions / sheeting, W, mm	Sheeting reflectivity class	Material
25119343-10	12.8	2,120 * 65 * 1,095	2000	RA 1	Plastic
25119343II-10	12.8	2,120 * 65 * 1095	2000	RA 2	Plastic



NEW

Safety & efficiency – the new ASG Evo from horizont sets new standards in securing construction sites and hazardous areas.

Thanks to its special stacking points, the ASG Evo can be stacked without offsets. This saves space, simplifies transport, and ensures that the safety features are preserved for longer.



Base Plate Adapters

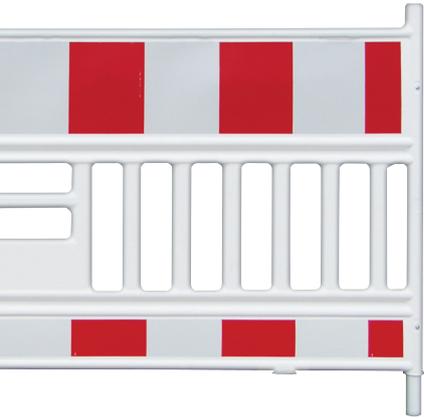
Connecting piece for ASG base plates

Especially when space is limited, base plates cannot always be positioned as "required". Using the adapter, the base plate can be positioned longitudinally to the safety barriers (see images) – particularly suitable for pedestrian emergency walkways. However, twisting the base plate reduces the stability of the barrier – usually by half! In this case, at least one second base plate should be used.

- Helps in confined spaces
- Connection between the ASG and base plate
- Reduced tripping risk
- Sturdy steel adapter

Item No.	Product	PU
68727008	Base plate adapters	1





ASG 2000 Safety Barrier Without Lamp Holders

Plastic safety barrier for longitudinal barriers or the event segment

The ASG 2000 safety barrier with RA1 reflective sheeting is also available from horizon without lamp holders, for use as a longitudinal barrier rail or the event segment. If lamp holders are required at a later stage, horizon also offers a smart solution: retrofit lamp holders.

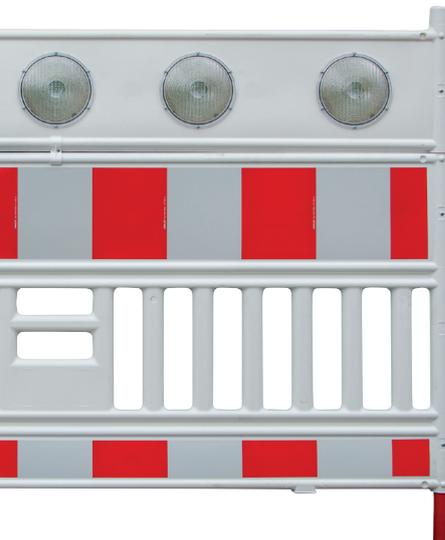
- Complies with the German "TL-Absperreschranken" standard and legal provisions of the German technical regulations for safety and warning systems (ZTV-SA)
- For longitudinal barriers at construction sites and events
- Double-sided application of reflective sheeting possible
- Innovative stacking points for non-slip storage
- Practical, centrally positioned handle for easy handling
- Optimized for use with all K1 base plates
- Two replaceable plastic stand tubes, Ø 42 mm (no steel tubes)
- Lamp holders can be retrofitted later
- Height, 1,050 mm, excl. lamp holder
- Labeling field (210 mm × 100 mm) for embossed company logo

Item No.	Product	ZTV-SA	PU
251193439-10	Sheeting width 2,000 mm, reflectivity class RA 1	✓	1 pack (10 pcs.)

Recommended accessories

2511905	Lamp holders		1 bag (5 pcs.)
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Weight approx., kg	Dimensions, L*W*H, mm	Dimensions / sheeting, W, mm	Sheeting reflectivity class	Material
12.8	2,120 * 65 * 1095	2,000	RA 1	Plastic



Strahlmax

One system for full and partial closures

The first Vario safety barrier that can do both: full and partial closure. The StrahlMax is fitted with state of the art energy-efficient LED warning lights. By means of a central switch, the warning lights can either show amber or red light. Thus, the Strahlmax is suited to show full as well as partial closures. There is no need to exchange the lamps. The basis for the horizon Strahlmax is our tried-and-tested Vario safety barrier pursuant to the "TL-Absperreschranken" standard – stable and robust thanks to plastic tubes. It's especially safe thanks to the closely arranged plastic struts, thereby preventing children from climbing on and stepping through the barrier.

- Optimized for use with all K1 base plates
- The lamps are integrated into a solid, impact-resistant plastic body, significantly reducing the risk of vandalism and theft
- Centralized battery system allows faster and easier battery replacement. Replace just one battery instead of five.
- The switch is inconspicuously mounted
- All lamps are operated via a single central switch
- Amber lamps: bi-directional continuous light and bi-directional flashing light – particularly eye-catching
- Red lamps: uni- and bi-directional continuous light
- Energy-saving thanks to state-of-the-art LED technology
- 2 standpipes 42 mm Ø, interchangeable
- Labeling field (210 mm x 100 mm) for your company logo

Item No.	Product	PU
21152	Sheeting width 2,000 mm, reflectivity class RA 1	1
21152II	Sheeting width 2,000 mm, reflectivity class RA 2	1

Weight approx., kg	Dimensions, L*W*H, mm	Dimensions / sheeting, W, mm	Sheeting reflectivity class	Material
23.5	2,130 * 80 * 1450	2,000	RA 1, RA 2	Plastic

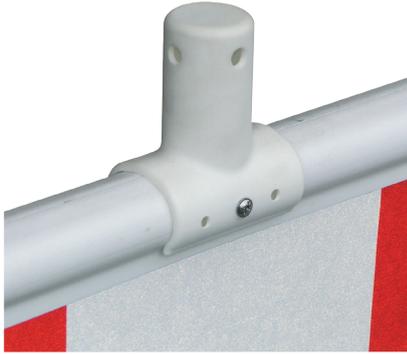
Flash rate / min.	Operation/h (flashing/continuous)		
	2 * 7 Ah	2 * 9 Ah	2 * 20 Ah
60	205 / 32	265 / 42	580 / 90

A man in a dark jacket is operating a tractor inside a warehouse. The tractor is positioned behind a white safety barrier that has a custom advertisement on its rear. The advertisement features the text 'HANSESTADT KORBACH' in white on a blue background, followed by 'SYMPATHISCH. BUNT. GOLDRICHTIG!' in white on a yellow background, and a stylized graphic of a city skyline in green and blue. The scene is lit with natural light from the warehouse opening, and a red semi-transparent graphic is overlaid on the right side of the image.

HANSESTADT KORBACH
SYMPATHISCH. BUNT. GOLDRICHTIG!

**IT'S ALL IN THE COMBINATION:
ADVERTISING WITH A TWIST!**

"The rear of the safety barriers can be customized for advertising purposes."



Lamp Holders

Replaceable or retrofittable to the ASG2000 safety barriers

Turns your ASG 2000 safety barrier WITHOUT lamp holders into a safety barrier WITH lamp holders for complete construction site protection. Suitable for longitudinal barriers or event use, for repair, or to be used in the case of broken lamp holders!

- **Easy to replace if damaged, e.g. by vandalism**
- **Fencing can be used cost-effectively without connecting lamp holders (event barriers)**
- Lamp holders can be retrofitted - depending on requirements and usage type
- Incl. fixing screws
- 5 pieces in a set

Item No.	Product	PU
2511905	Lamp holders	1 bag (5 pcs.)



Warnmax P

Proven during police operations

The horizontal Warnmax displays the sheeting pattern of the proven delineators in a version reduced in size by 50%. The Warnmax P by horizon comes with horizontally-striped sheeting which enables hazardous spots, e.g. an accident site, to be quickly secured, since the setup does not need to account for the detour direction when deploying the Warnmax. Reflection is significantly improved thanks to the use of reflectivity class RA 2 C sheeting.

- **Especially suited for quick safeguarding of hazardous spots**
- **The sheeting size is 50% of a standard delineator.**
- Sturdy folding mechanism with two joints
- Optimal daytime visibility is ensured by a bright red delineator body.
- Collapses particularly flat for space-saving storage
- Reflectivity class RA 2 C, with red/white horizontally-striped sheeting
- Ergonomic carrying handle on the delineator
- With protective film edge
- Anti-skid system

Item No.	Product	PU
25303III1	Warnmax P	1

Recommended Accessories

257741KC	Transport and storage box for up to 6 Warnmax and up to 4 Flashmax units	1
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Weight approx., kg	Dimensions, L*W, mm	Dimensions / sheeting, L*W, mm	Sheeting reflectivity class	Material
5.2	710 * 215	500 * 187.5	RA 2 C	Plastic, recycled



Warnmax

Optimal visibility, collapsible and easy to transport

The horizontal Warnmax displays the sheeting pattern of the proven delineators in a version reduced in size by 50%. For example, to safeguard hazards and accident spots.

- **The sheeting size is 50% of a standard delineator**
- Sturdy folding mechanism with two joints
- Optimal daytime visibility is ensured by a bright red delineator body
- Collapses particularly flat for space-saving storage
- Reflectivity class RA 2
- Ergonomic carrying handle on the delineator
- Lightweight – only around 5 kg
- With protective film edge
- Anti-skid system

Item No.	Product	PU
25303RL	Right/left-pointing, reflectivity class RA 2	1

Recommended Accessories

257741KC	Transport and storage box for up to 6 Warnmax and up to 4 Flashmax units	1
----------	--	---

Weight approx., kg	Dimensions, L*W, mm	Dimensions / sheeting, L*W, mm	Sheeting reflectivity class	Material
5.2	710 * 215	500 * 187.5	RA 2	Plastic, recycled

Transport box Warnmax/FlashMax

For transport and storage of up to 6 Warnmax or 4 FlashMax units

The transport box for the horizont Warnmax was designed by our development engineers such that 2 to 3 'Warnmaxes' can be removed together at one go using the ergonomically shaped carrying handles.

- For all horizont Warnmax family products
- For installation in vehicles
- Plastic-coated
- Supplied empty



Item No.	Product	PU
257741KC	Transport and storage box, up to 6 Warnmax or up to 4 Flashmax units	1

Weight approx., kg	Dimensions, L*W*H, mm	Material
7	560 * 260 * 430	Hot-dip galvanized steel

Safety Barrier Transport and Storage Pallet

For transport and storage of up to 20 ASG 2000 safety barriers

- For 2,000 mm safety barriers
- Safe and gentle transport and storage system for the ASG 2000
- Galvanized steel
- Robust design
- Can be forklifted from all sides
- Using item no. 25389552 stacking bar (4 pcs.) several pallets can be stacked on top of each other
- Supplied without safety barrier



Item No.	Product	PU
2511930031	Transport/storage pallet for 20 pcs. 2,000 mm safety barriers or 10 pcs. Strahlmax	1

Recommended accessories

25389552	Stacking bars (4 pieces required for transport and storage pallet)	1
----------	--	---

Weight approx., kg	Dimensions, L*W*H, mm	Material
60.5	2,250 * 1,130 * 320	Hot-dip galvanized steel

Combination Rack

For transport and storage of up to 20 base plates, 10 safety barriers and 10 delineators

- For all horizont delineator systems, horizont base plates and 2,000 mm safety barriers
- No need to detach the lamps from the delineators during transport/storage
- Galvanized steel
- Can be forklifted from all sides
- With tilt protection during forklift loading
- Supplied empty



Item No.	Product	PU
251193005	Combination rack, for up to 20 base plates, 10 safety barriers and 10 delineators	6

Weight approx., kg	Dimensions, L*W*H, mm	Material
70	2,460 * 1,050 * 810	Hot-dip galvanized steel



horicone Reflective Traffic Cone

Reflective traffic cone pursuant to German-standard (TL) traffic cone, 2-part

- BAST-approved pursuant to German-standard (TL) traffic cone
- Tested according to the European standard for traffic cones DIN EN 13422
- Complies with German Road Traffic Regulations (StVO) § 43, para. 3, no. 2
- Weight category 3 of the TL standard
- Fully reflective traffic cone
- Two-piece design
- Very robust reflective material with especially pronounced wide angle effect
- Break-proof, resistant to cold and heat, flexible
- Special grip recess
- Heavy traffic cone base with optimum stability
- Anti-skid system
- Very good stackability
- Upper part of traffic cone: polyethylene (PE)

Item No.	Product	BAST	PU
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

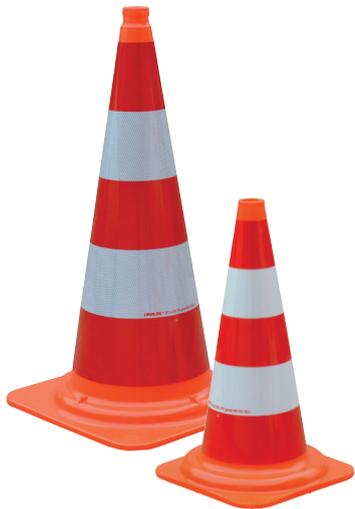
Recommended accessories

27923	Transport trolley for traffic cones	1
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Item No.	Weight approx., kg	Dimensions, H, mm	Sheeting reflectivity class	Material	Weight class (TL)
251941	2.6	500	Type A	Recycled polyethylene	III
251931	5.8	750	Type A	Recycled polyethylene	III
251941B	2.6	500	Type B	Recycled polyethylene	III
251931B	5.8	750	Type B	Recycled polyethylene	III

With the "X-Cone® traffic cone management system", the deployment and collection of traffic cones is fully automatic.

MORE ON PAGE 142



horicone Reflective Traffic Cone

Reflective cone pursuant to the German-standard (TL) traffic cone, 1-part

- BAST-approved pursuant to the German-standard (TL) traffic cone
- Tested according to the European standard for traffic cones DIN EN 13422
- Complies with German Road Traffic Regulations (StVO) § 43, para. 3, no. 2
- Weight category 2 of the TL standard
- Fully reflective traffic cone
- Single-piece design
- Very robust reflective material with especially pronounced wide angle effect
- Break-proof, resistant to cold and heat, flexible
- Very good stability
- Very good stackability
- Traffic cone: made of strong PVC material

Item No.	Product	BAST	PU
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 accessories

27923	Transport trolley for traffic cones	1
-------	-------------------------------------	---

Item No.	Weight approx., kg	Dimensions, H, mm	Sheeting reflectivity class	Material	Weight class (TL)
251911	2.3	500	Type A	Polyethylene	II
251921	4.2	750	Type A	Polyethylene	II
251911B	2.3	500	Type B	Polyethylene	II
251921B	4.2	750	Type B	Polyethylene	II

With the "X-Cone® traffic cone management system", the deployment and collection of traffic cones is fully automatic.

MORE ON PAGE 142

Traffic Cones

Daylight reflector cone, 1-piece

- Daylight reflector cone
- Single-piece design
- White stripes
- Good stability
- Stackable
- Traffic cone: made of strong PVC material



Item No.	Product	PU
251851	350 mm	10
251901	500 mm	20
251841	750 mm	5

Recommended accessories

27923	Transport trolley for traffic cones	1
-------	-------------------------------------	---

Item No.	Weight approx., kg	Dimensions, H, mm	White stripes	Material
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 For rapidly safeguarding accident spots and danger areas.

- **Folding triangle 700 mm for use on urban and rural streets**
- **Folding triangle 900 mm for use on expressways and highways**
- Stable galvanized steel frame
- Firm tightening due to umbrella-like clamping mechanism
- Covering material made of PVC-coated synthetic woven material, white
- Imprinted with red warning triangle and black symbol
- All traffic signs according to German StVO and StVZO available and freely selectable (for an additional charge)
- Further symbols, combinations and signs on request
- Supplied with protective case made of PVC coated woven fabric



Item No.	Product	PU
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

Recommended accessories

256982	Central weight 1.8 kg incl. fastening pin for 700 and 900 mm folding signs	1
256992	Central weight 2.5 kg incl. fastening pin for 900 mm folding signs	1

Item No.	Weight approx., kg	Dimensions, shank length, mm	Dimensions, H, mm	Reflection type	Traffic sign (German)	Material
256872	2.9	700	720	fluorescent	Traffic sign 101	Plastic
256882	2.9	700	720	fluorescent	Traffic sign 123	Plastic
256892	2.9	700	720	retro-reflective	Traffic sign 101	Plastic
256902	2.9	700	720	retro-reflective	Traffic sign 123	Plastic
256912	3.8	900	950	fluorescent	Traffic sign 101	Plastic
256922	3.8	900	950	fluorescent	Traffic sign 123	Plastic
256932	3.8	900	950	retro-reflective	Traffic sign 101	Plastic
256942	3.8	900	950	retro-reflective	Traffic sign 123	Plastic

SALES GERMANY

THOMAS VAHL

Thomas has been a member of the Traffic Safety team for many years. In his leisure time, he enjoys spending time with his family and gets involved in everything to do with football.



WINNER

AWARD 2023



GERMAN
DESIGN
AWARD
WINNER
2024

03

Guide Curb, Mini-Leitboys and Speed Bumps

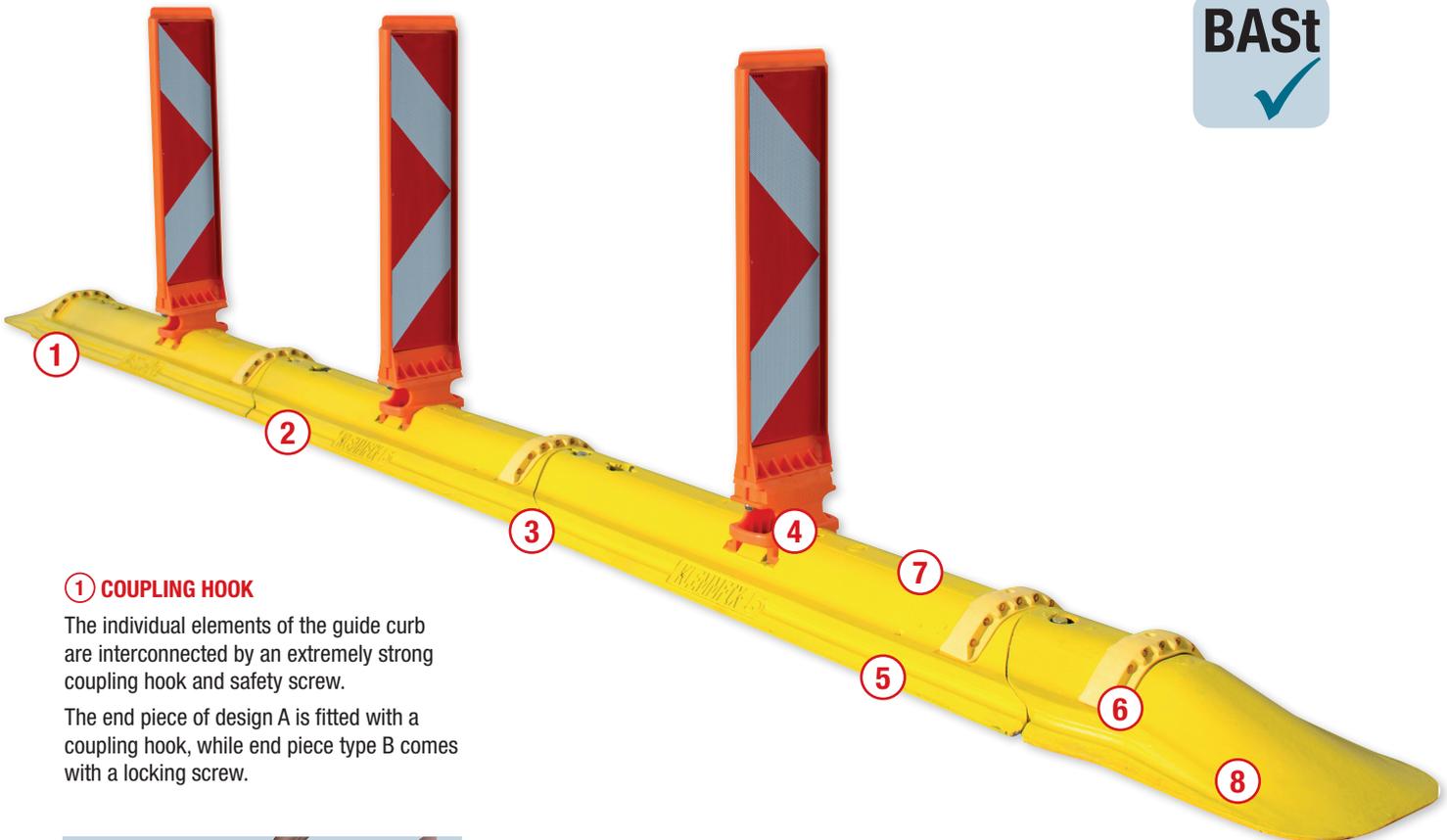
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Guide Curb in Detail

GUIDE CURB

The horizontal guide curb, including the Leitboy III, is BAST-approved. Despite lateral tire contact at an impact speed of 80 km/h, the guide curb was never overrun in the test.



1 COUPLING HOOK

The individual elements of the guide curb are interconnected by an extremely strong coupling hook and safety screw.

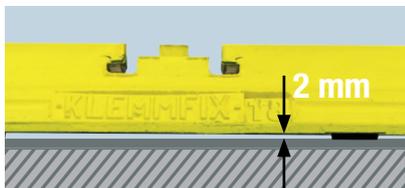
The end piece of design A is fitted with a coupling hook, while end piece type B comes with a locking screw.



2 GAP TO PREVENT WATERLOGGING

The anti-skid system on the bottom side of the guide curb provides excellent grip on the road, while also allowing surface water (rain) to drain off.

Traffic flow disruptions due to standing water are thereby minimized.



3 ANTI-SKID SYSTEM

The eight 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.

horizontal guide curbs do not require adhesive bonding to the roadway, and no additional anchoring with ground screws is required.

Unlike road studs or marking films, no adhesive residue remains on the roadway. This eliminates the danger of "ghost markings".



4 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 hit or run over by a vehicle it will bounce back into its original position independently (see BAST test report). This means that the warning and traffic guidance effects always remain active.

The recessed protective film edge reduces the risk of film damage to a minimum. Flat film surfaces achieve the best reflection values.



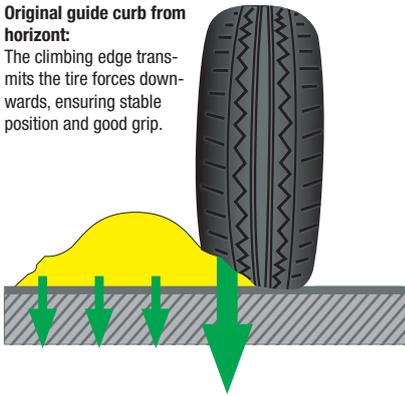


5 ORIGINAL HORIZONTAL CLIMBING EDGE

The lateral guide grooves – climbing edges – ensure that the guide curb is firmly pressed onto the road surface by the weight of the vehicle when it comes into contact with a car tire.

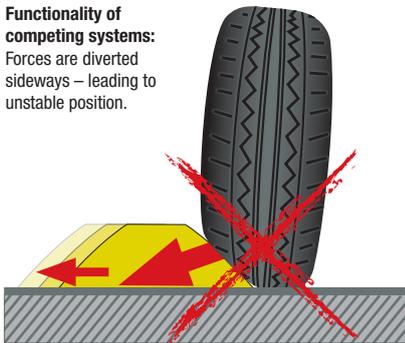
Original guide curb from horizon:

The climbing edge transmits the tire forces downwards, ensuring stable position and good grip.



Functionality of competing systems:

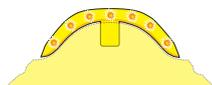
Forces are diverted sideways – leading to unstable position.



6 CONTOUR-GIVING REFLECTIVE ARCHES

The horizontal reflective arch with 14 reflectors is designed to trace the shape of the guide curb over its entire radius with its extremely long side guide.

This clearly indicates the contour of the speed bump. This is particularly important for motorcyclists at night, enabling them to recognize raised elements on the roadway.

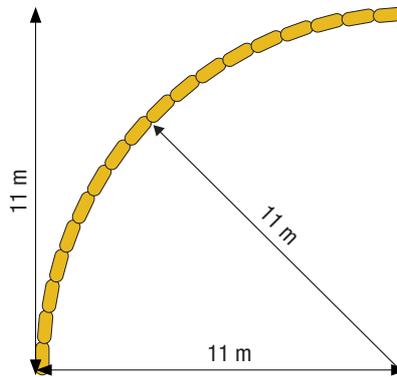


7 SUSTAINABILITY

The horizontal guide curb is made of 100% recycled material and is itself fully recyclable.

8 DEFINE CURVES AND GUIDE TRAFFIC

The stable, yet flexible, connection ensures sufficient leeway to lay the guide curbs in various curve radii (90° angle over approx. 11 x 11 m). This makes guiding the flow of traffic easy.



LEITBOY BASE PLATE



A REFLECTORS

The attached reflectors increase the visibility of the Leitboy base plate at night.

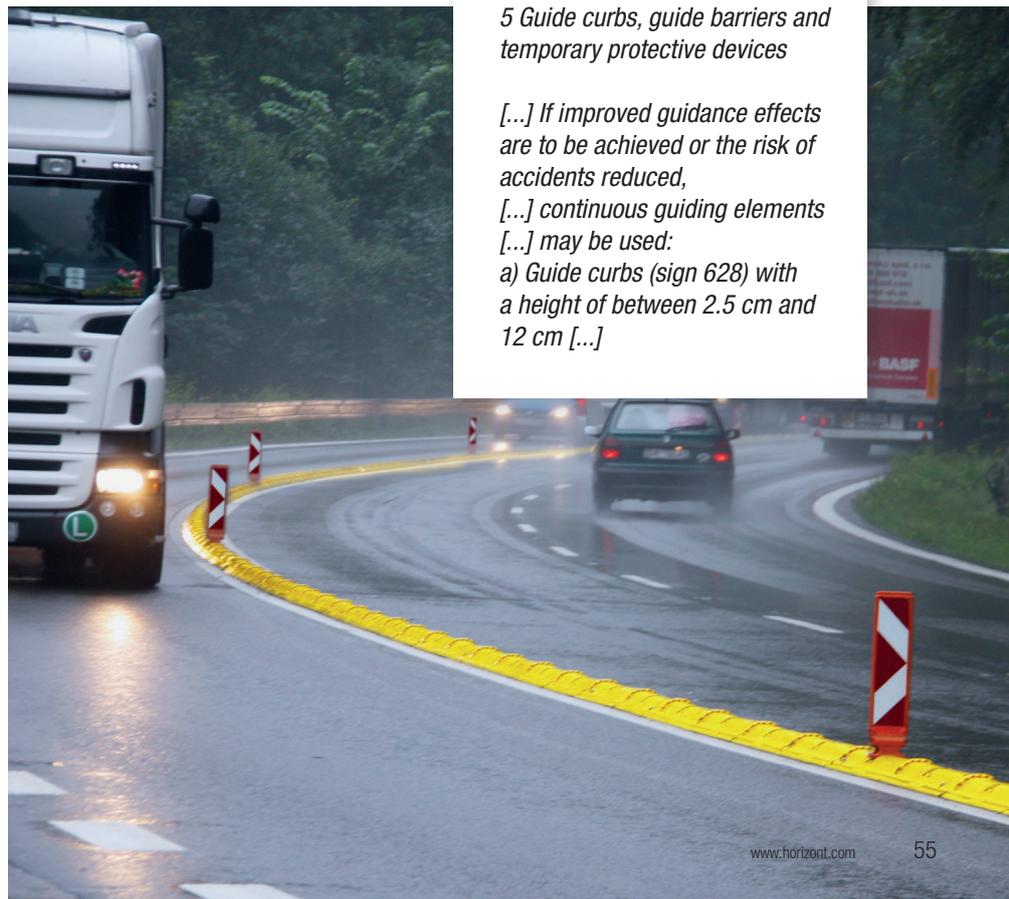
B BOLTING OR GLUING

The Leitboy base plate can be either screwed or glued to the ground. Both variants ensure perfect hold – even when the mounted Leitboys are driven over in an emergency.



5 Guide curbs, guide barriers and temporary protective devices

*[...] If improved guidance effects are to be achieved or the risk of accidents reduced, [...] continuous guiding elements [...] may be used:
a) Guide curbs (sign 628) with a height of between 2.5 cm and 12 cm [...]*





Two Solutions – One System

The Bike Lane for Sustainable Cycling

From temporary to permanent bike lane systems

Bike lane systems are differentiated according to the duration for which they are used in a specific traffic area. Accordingly, there are temporary bike lanes, in which case the so-called “pop-up bike lane” is recommended, and permanent bike lanes, in which case the “protected bike lane” should be used. Depending on the application and duration of use, the decision between pop-up or protected bike lane must always be made individually.

Why is there a yellow and a white bike lane? What is the difference?

According to the 2013 amendment to the German Road Traffic Regulations (StVO) the following applies: All yellow road markings override white markings in traffic, temporarily rendering them inactive. The new RSA21 also explicitly refers to the possibility of using the guide curb as a temporary marking (RSA21 Section 5, Paragraph 2). This must be taken into consideration when installing or setting up the bike lane!



POP-UP BIKE LANE: Flexible and stable

The pop-up bike lane is delineated by yellow guide curbs or Leitboy bases. When implementing new bike lanes, pop-up bike lanes are often selected in order to test their effectiveness as well as public acceptance of the new installation system. If this version of the new bike lane has proven to be successful over a limited period of time, the permanent system – the protected bike lane – can be installed. Temporary traffic interventions must be carried out in the signal color yellow. Once public acceptance has been established and a decision has been made in favor of a permanent solution, the yellow guide curb is replaced with a white guide curb.



PROTECTED BIKE LANE: Safe and robust

The protected bike lane can be recognized by its white guide curbs or white Leitboy bases.

A permanently established bike lane blends in perfectly with the streetscape by using the white guide curb or white Leitboy bases. The use of white bike lanes is most appropriate once the newly installed lane has been accepted by all road users, thereby proving the bike lane system effective.

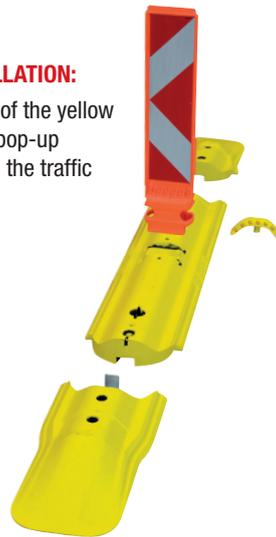
The Flexible System: Modular and Safe

According to the National Cycling Plan 3.0 of the Federal Ministry of Transport and Digital Infrastructure (BMDV), Germany should aim to become a cycling nation by 2030.

With our bike lane system we support municipalities in the planning and implementation of their bike lanes in a safe and attractive way.

① INSTALLATION:

Installation of the yellow temporary pop-up bike lane in the traffic system.



② TEST PHASE:

Observe how road users accept the new bike lane.



⑤ PLANNING NEW BIKE LANES:

Once the transition to a permanently installed protected bike lane has been completed, the yellow guide curb can be reused immediately for the pilot phase of a new pop-up bike lane.

④ MODULAR SYSTEM:

Should a Leitboy be damaged in a traffic accident or by vandalism, it can simply be replaced. The labeling of individual Leitboys with the white bicycle icon (cf. traffic sign 237) on a blue background is easily supplemented.



③ PERMANENT INSTALLATION:

After a successful test phase the pop-up can be converted into a protected bike lane. The Leitboys of the pop-up bike lane can be used directly with the protected version.

Option B:
Leitboys III with
white Leitboy base



Option A:
Leitboys III with
white guide curb





BAST
✓

TL
Leit-
elemente ✓

NCHRP
350 ✓



Guide Curb Individual Element - LN 60

Optimum 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 grip on the road. Horizontal guide curbs do not require adhesive bonding or anchoring to the road-way with ground screws. The lateral guide grooves – climbing edges – ensure that the guide curb is firmly pressed onto the road surface by the weight of the vehicle when it comes into contact with a car tire. Guide curbs can be equipped with Leitboys/Mini-Leitboys of various sizes and hatchings or Leitboy bollards.

- Approved by German BAST (Federal Highway Research Institute) according to the "TL-Leitelemente" standard, in combination with Leitboy III
- Certified according to NCHRP 350 by the U.S. FHWA
- White or yellow
- With coupling hook and locking screw
- Lateral climbing edges
- Can be laid in bends: 90° over approx. 11 x 11 m
- Break-proof
- Resistant against frost, salt, exhaust fumes and oil, etc.
- Anti-skid system
- 8 interchangeable anti-skid studs

Item No.	Product	BAST	PU
25581GE	Guide curb, yellow	✓	50
25581WS	Guide curb, white	✓	50

Weight approx., kg	Dimensions, L*W*H, mm	Material
18.0	1000 * 270 * 90	Recycled



Zwei Lösungen – ein System
Die Wahl der richtigen Bike Lane

Checkliste:
Pop Up Bike Lane
Protected Bike Lane

Bike Lane-Service-Center
+49 (0) 9631 / 509
trafficsafety@horizont.com

Pop Up Bike Lane
Flexibel und stabil

Protected Bike Lane
Sicher und robust

Bike Lane System
MOBILE UND FLEXIBLE RADWEGE



REQUEST A FREE BROCHURE:
trafficsafety.horizont.com/bikelane

Guide Curb End Piece A - LN 61

with coupling hook

The chamfered end piece A for guide curbs comes with a coupling hook. Like the guide curb itself, it is made of recycled material and is fitted with the ARS anti-skid-system.

- **BAST-approved according to the “TL-Leitelemente” standard**
- White or yellow
- with coupling hook
- Lateral climbing edges
- Break-proof
- Resistant against frost, salt, exhaust fumes and oil, etc.
- Anti-skid system

Item No.	Product	BAST	PU
255821GE	Guide curb end piece A, with yellow coupling hook	✓	1
255821WS	Guide curb end piece A, with white coupling hook	✓	1

Weight approx., kg	Dimensions, L*W*H, mm	Material
6.0	440 * 270 * 90	Recycled



Guide Curb End Piece B - LN 62

with locking screw

The chamfered end piece B for guide curbs contains a locking screw. Like the guide curb itself, it is made of recycled material and is fitted with the ARS anti-skid-system.

- **BAST-approved according to the “TL-Leitelemente” standard**
- White or yellow
- with locking screw
- Lateral climbing edges
- Break-proof
- Resistant against frost, salt, exhaust fumes and oil, etc.
- Anti-skid system

Item No.	Product	BAST	PU
255831GE	Guide curb end piece B, with yellow locking screw	✓	1
255831WS	Guide curb end piece B, with white coupling hook	✓	1

Weight approx., kg	Dimensions, L*W*H, mm	Material
5.7	480 * 270 * 90	Recycled



Reflective Arch - L 65

for guide curb and Leitboy base L 54

One reflective arch must be used per guide curb in order to ensure greater safety. The reflective arch, available in yellow or white, with 14 reflectors is designed to trace the contour of the guide curb in its entirety with its extremely long side guide.

This clearly indicates the contour of the guide curve. This is particularly important for motorcyclists at night, enabling them to recognize raised elements on the roadway.

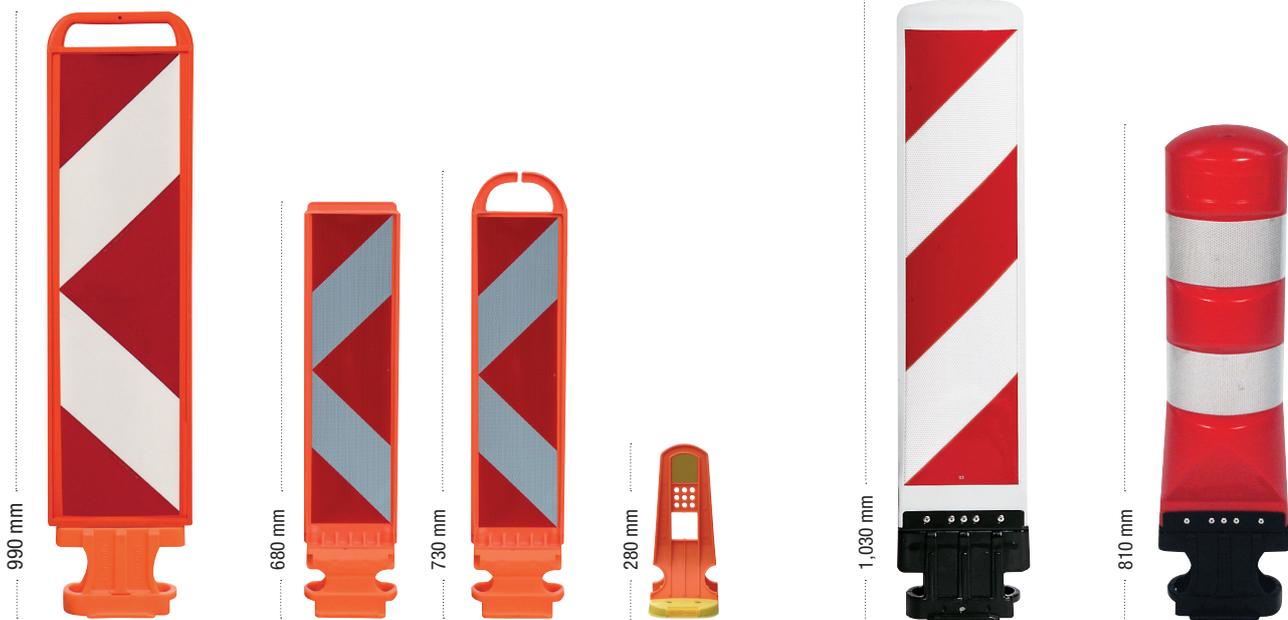
- **BAST-approved according to the “TL-Leitelemente” standard**
- **One reflective arch per guide curb element**
- White or yellow
- With 14 white or yellow reflectors
- Snap-in reflective arch
- Break-proof
- Resistant against frost, salt, exhaust fumes and oil, etc.

Item No.	Product	BAST	PU
25584	Reflective arch, yellow	✓	100
25584WEISS	Reflective arch, white	✓	100

Weight approx., kg	Dimensions, L*W*H, mm	Material
0.133	180 * 56 * 60	Plastic



Leitboys, Leitboy Bollards and Mini-Leitboys with Flexible Adapters



Leitboy IV

The Leitboy IV, in combination with the Leitboy base L 54, is approved for use on highways.



MORE ON PAGE 62

Leitboy III

The Leitboy III, in combination with the guide curb, is certified for use on highways.



MORE ON PAGE 62

Mini-Leitboy

The Mini-Leitboy is certified with the Leitboy base L49.



MORE ON PAGE 65

Leitboy V

The Leitboy V is perfectly suited for individual solutions where certification is not required, e.g. abroad.

MORE ON PAGE 61

Leitboy bollard

The Leitboy bollard is ideal for use in multi-storey car parks, on parking lots and urban spaces as an orientation and guidance aid.

MORE ON PAGE 61

Leitboy V - L102

- Extra large (1,030 mm)
- With flexible rubber adapter
- Screw-on, interchangeable base
- Reflectivity class RA 2
- Curved surface, for better visibility even in curves
- Also available with chevron sheeting

Item No.	Product	PU
25L102RL	Right/left-pointing, reflectivity class RA 2	10
25102RRL	Right/right-pointing, reflectivity class RA 2	10
256228	Left-pointing, reflectivity class RA 2	10
256229	Right-pointing, reflectivity class RA 2	10
25102ABWL	Deflector, reflectivity class RA 2	10

Weight approx., kg	Dimensions, L*W, mm	Dimensions / sheeting, L*W, mm	Material
2.2	1,030 * 220	750 * 187.5	Plastic



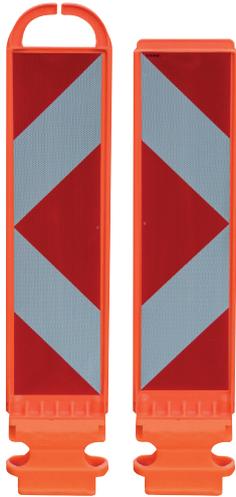
Leitboy Bollard - L120

- With flexible rubber adapter
- Screw-on, interchangeable base
- Reflectivity class RA 2
- 2 white or red sheeting strips

Item No.	Product	PU
251203L	Red, white sheeting, reflectivity class RA 2	5
251205L	Black, white sheeting, reflectivity class RA 2	5
251207L	Yellow, white sheeting, reflectivity class RA 2	5
251209L	Blue, white sheeting, reflectivity class RA 2	5

Weight approx., kg	Dimensions, L*Ø, mm	Dimensions / sheeting, H, mm	Material
2.2	810 * 190	100 wraparound	Plastic





Leitboy III, L82

Mini delineator, recommended for use on the guide curb

The Leitboy III from horizont exhibits a sheeting size that is 50% of a standard delineator. The very pronounced protective film edge of the horizont Leitboy reduces sheeting damage to a minimum. A flat sheeting surface area achieves the best retro-reflectivity values and ensures optimum day and night visibility. Used with the horizont guide curb, the Leitboy III has been BAST-approved. 2 guide slots and snap-in cams in the insertion device of the guide curb secure the Leitboy firmly in position. Even if hit or run over by a vehicle it will bounce back into its original position independently, thanks to its flexible rubber adapter (see BAST test report). This means that the warning and traffic guidance effects always remain active.

- When used on guide curbs a Leitboy must be placed every 10 m, however it is highly recommended that a Leitboy is placed every 5 m.
- Sheeting size is 50% of a standard delineator
- With flexible rubber adapter
- Screw-on exchangeable rubber adapter
- reflectivity class RA 2
- With protective film edge
- High-impact special plastic
- Also available with sloped sheeting

Item No.	Product	BAST	PU
25619RLP	Right/left-pointing, with handle, reflectivity class RA 2	✓	10
25619RRP	Right/right-pointing, with handle, reflectivity class RA 2	✓	10
25608LP	Left-pointing, with handle, reflectivity class RA 2	✓	10
25608RP	Right-pointing, with handle, reflectivity class RA 2	✓	10
25619ABW	Deflector, with handle, reflectivity class RA 2	✓	10
25608RLPOG	Right/left-pointing, without handle, reflectivity class RA 2	✓	10
25608RRPOG	Right/right-pointing, without handle, reflectivity class RA 2	✓	10
25608LPOG	Left-pointing, without handle, reflectivity class RA 2	✓	10
25608RPOG	Right-pointing, without handle, reflectivity class RA 2	✓	10
25082ABWOGL	Deflector, without handle, reflectivity class RA 2	✓	10

Handle	Weight approx., kg	Dimensions / delineator, L*W, mm	Dimensions / sheeting, L*W, mm	Material
With handle	1.0	730 * 155	500 * 125	Plastic
Without handle	1.0	680 * 155	500 * 125	Plastic



Leitboy IV, L92

Recommended for use with the Leitboy L54 base

- Also certified for use on highways when used with base plate L 54
- Sheeting size is 75% of a standard delineator
- With flexible rubber adapter
- Screw-on exchangeable rubber adapter
- Reflectivity class RA 2
- With protective film edge
- High-impact special plastic
- Also available with sloped sheeting
- Also available with white Leitboy body

Item No.	Product	BAST	PU
25LN92RLP	Right/left-pointing, with handle, reflectivity class RA 2	✓	10
25609RRP	Right/right-pointing, with handle, reflectivity class RA 2	✓	10
25LN92LP	Left-pointing, with handle, reflectivity class RA 2	✓	10
25LN92RP	Right-pointing, with handle, reflectivity class RA 2	✓	10
25LN92ABW	Deflector, with handle, reflectivity class RA 2	✓	10

Recommended accessories

25594	Leitboy base plate L54	40
-------	------------------------	----

Weight approx., kg	Dimensions / delineator, L*W, mm	Dimensions / sheeting, L*W, mm	Material
2.1	990 * 235	750 * 187.5	Plastic



GREATER SAFETY FOR CYCLISTS!

“A system with a future. Structurally separated bike lanes allow safer cycling on main roads.”



Leitboy Base Plate, L49

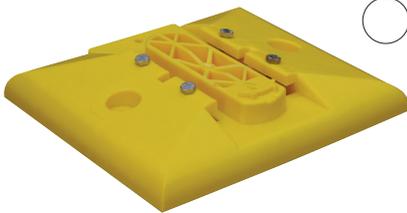
For Leitboys I to III and Mini-Leitboys

Leitboy L49 base plates are suitable for the horizontal Leitboy I to Leitboy III as well as for Mini-Leitboys. Reflectors on the base plate sides improve visibility. They are fastened to the road using either screws or hot glue mats.

- For Leitboys I to III and Mini-Leitboys
- Yellow or black
- With clamping jaws with reflectors
- For glue or screw fastening
- Floor fixing screws (766205) and hot glue mats (767200) not included, see page 69

Item No.	Product	PU
25497RL	yellow	10
25495RL	black	10

Weight approx., kg	Dimensions, L*W*H, mm	Material
0.2	174 * 120 * 24	Plastic



Leitboy Base Plate, L50

Suitable for all Leitboys and bollards

The Leitboy L 50 and L50.II base plates from horizontal are particularly suitable for long-term installation, as the Leitboy or bollard is fixed to the base with four clamping screws. These Leitboy base plates are designed to accept all horizontal Leitboys and bollards.

- Suitable for all Leitboys and bollards
- White or yellow
- With four clamping screws
- For screw fastening
- Ground mounting screws (766202) not included, see page 69

Item No.	Product	PU
2562221	yellow	7
25589	white	7

Weight approx., kg	Dimensions, L*W*H, mm	Material
1.3	300 * 250 * 50	Plastic



Leitboy Base Plate, L54

Certified for use in combination with Leitboy IV

The Leitboy base plate L54 from horizont impresses with its robust design. In combination with the Leitboy IV, use on highways is also permitted.

The anti-skid system ensures a high level of stability and makes bonding to the roadway or anchoring with ground screws unnecessary. Other Leitboy models and bollard variants with flexible rubber adapter can also be inserted into this base plate.

This Leitboy base plate should always be fitted with two reflective arches.

- Suitable for all Leitboys and bollards
- Also certified for use on highways when used with the Leitboy IV
- Anti-skid system

Item No.	Product	PU
255941GE	yellow	40

Recommended accessories

25584	Reflective arch	100
-------	-----------------	-----

Weight approx., kg	Dimensions, L*W*H, mm	Material
14.0	1000 * 270 * 90	Recycled



Mini-Leitboys

horizont Mini-Leitboys are multifunctional. 2 additional reflectors and reflective sheeting on both sides increase night-time visibility.

- BAST-approved Mini-Leitboy - temporary markings
- Orange Mini-Leitboy
- Yellow base plate with reflectors
- 40/40 mm sheeting, reflectivity class 2
- Highly flexible plastic
- For glue or screw fastening
- Supplied without ground mounting screws (item no.: 766205), see page 69

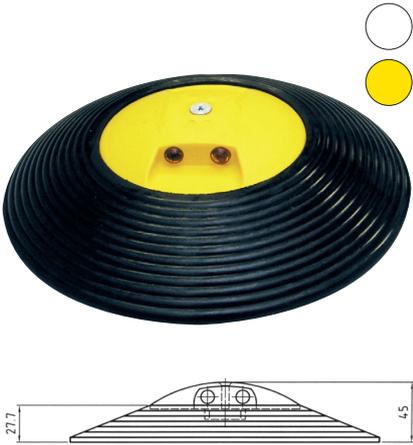
Item No.	Product	PU
25L30	Orange Mini-Leitboy, yellow base plate	10

Recommended accessories

766205	Fastening set	1
767200	Hot glue mat	1

Weight approx., kg	Dimensions, L*W*H, mm	Material
0.45	174 * 120 * 280	Plastic





Speed Stop

Significant speed reduction

The 40 mm-high Speed Stop noticeably slows the maximum speed of traffic when crossed, making it an effective measure to control speed in multi-storey car parks, streets, and urban areas. The Speed Stop is available in eye-catching yellow (or white) and black. It is clearly visible from a distance and therefore also has a warning character. At night, reflectors ensure good visibility. A pre-drilled hole simplifies installation, enabling easy anchoring of the product to the ground.

- **Installation in rows of 3 is recommended**
- **CAUTION: This product is unsuitable for use with heavy traffic volumes!**
- Black
- Upper insert either white or yellow
- Upper insert has 4 yellow cat's eyes reflectors
- Installation with 1 ground mounting screw per element
- Supplied without ground mounting screws (item no.: 766202, 766209), see page 69

Item No.	Product	PU
259382	White upper insert	10
2562321	Yellow upper insert	10

Weight approx., kg	Dimensions, L*W*H, mm	Material
1.2	230 * 45	Recycled



Car Stop

Approach threshold for car parks

The Car Stop is an approach threshold for for frontal boundary control in car parks or multi-storey car parks. In addition, it can also be used as a lateral parking space divider. Car Stop is available in eye-catching yellow or black. In yellow it is clearly visible from a distance and therefore also has a warning character.

- **For use in car parks**
- **Assists precise parking and optimizes the use of the available space**
- **Protects buildings and vehicles from maneuvering damage**
- Black or yellow
- Installation with 2 ground mounting screws per element
- Supplied without ground mounting screws (item no.: 766206, see page 69)

Item No.	Product	PU
25623111	black	1
2593471R	yellow	1

Weight approx., kg	Dimensions, L*W*H, mm	Material
6.4	1000 * 120 * 60	Recycled

Speed Bump

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

Modular system for 50 or 60 mm-high speed bumps, in various color combinations. It noticeably slows the maximum speed of traffic to 10 or 20 km/h when crossed, making it an effective measure to control speed in multi-storey car parks, streets, and urban areas. The speed bump is available in eye-catching yellow and black. It is clearly visible from a distance and therefore also has a warning character.

- 50 mm height for 20 km/h
 - 60 mm height for 10 km/h
 - **CAUTION: This product is unsuitable for use with heavy traffic volumes!**
 - Black or yellow
 - With four reflectors
- Elements can be lined up in any order to form the desired width
 - Installation with 4 ground mounting screws per element
 - Supplied without ground mounting screws (item no.: 766206, 766209), see page 69

Item No.	Product	PU
25931N	black, 60 mm high	1
25931N7	yellow, 60 mm high	1
25931N50	black, 50 mm high	1
25931N750	yellow, 50 mm high	1

Item No.	Weight approx., kg	Dimensions, L*W*H, mm	Material
25931N	11.1	500 * 430 * 60	Recycled
25931N7	11.1	500 * 430 * 60	Recycled
25931N50	10.4	500 * 430 * 50	Recycled
25931N750	10.4	500 * 430 * 50	Recycled



Speed Bump End Piece

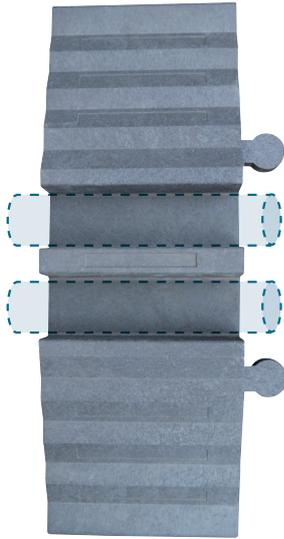
Speed reduction to 10 km/h or 20 km/h

- 50 mm height for 20 km/h
 - 60 mm height for 10 km/h
 - **CAUTION: This product is unsuitable for use with heavy traffic volumes!**
 - Black or yellow
- With two reflectors
 - Installation with 2 ground mounting screws per element
 - Supplied without ground mounting screws (item no.: 766206, 766209), see page 69

Item No.	Product	PU
25932N	black, 60 mm high	1
25932N7	yellow, 60 mm high	1
25932N50	black, 50 mm high	1
25932N750	yellow, 50 mm high	1

Item No.	Weight approx., kg	Dimensions, L*W*H, mm	Material
25932N	3.5	215 * 430 * 60	Recycled
25932N7	3.5	215 * 430 * 60	Recycled
25932N50	3.0	215 * 430 * 50	Recycled
25932N750	3.0	215 * 430 * 50	Recycled





Hose Protection Bridge

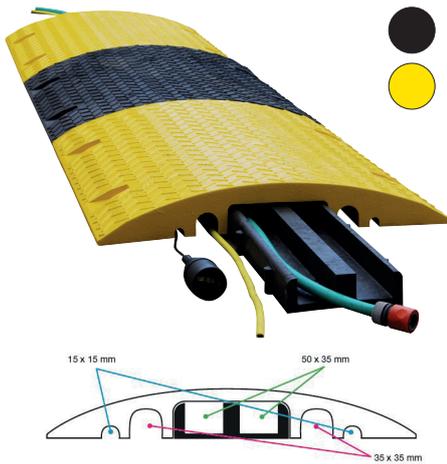
for hoses up to 3" (B-hose)

Modular system for protecting exposed cables, hoses, or pipes that must be crossed at construction sites or during operations.

- Max. crossing speed of 10 km/h
- Suitable for hoses up to 3" (B hose)
- **CAUTION: This product is unsuitable for use with heavy traffic volumes!**
- Black
- Two channels of the same size
- Cable bridge is secured against slipping during use by lateral locking lugs
- Elements can be lined up in any order to form the desired width
- No fastening required

Item No.	Product	PU
25931N12	Hose protection bridge	60

Weight approx., kg	Dimensions, L*W*H, mm	Material	Cable conduits, quantity, W*H
15.0	835 * 300 * 80	Recycled	2 x 92 * 70



Cable Bridge

with 6 different sized channels

Modular system for protecting exposed cables and smaller hoses or pipes that must be crossed at construction sites.

- Up to a max. crossing speed of 10 km/h
- Max. feedthrough size 50 x 35 mm
- **CAUTION: This product is unsuitable for use with heavy traffic volumes!**
- Black or yellow
- With insert
- 6 different sized channels
- Anti-slip effect due to structured surface
- Elements can be lined up in any order to form the desired width
- Fastening unnecessary due it's high intrinsic weight

Item No.	Product	PU
25931N11	black	20
25931N11GELB	yellow	20

Weight approx., kg	Dimensions, L*W*H, mm	Material	Cable conduits, quantity, W*H
29.4	800 * 600 * 80	Recycled	2 x 15 * 15 2 x 35 * 35 2 x 50 * 35



Our Service for You!

Accessories and Spare Parts

Please select the appropriate accessories and spare parts from the table below for the products in the previous chapter.
The accessories recommended by horizon are always stated next to the corresponding product in our catalog.

Fastening material			for guide curbs, speed bumps and ground sills						
Picture	Item no., description	PU	Guide curb, page 58	Leitboy base, L49 Page 64	Leitboy base L50, page 64	Leitboy base L54, page 65	Speed bump, page 67	Speed Stop, Page 66	Car Stop Page 66
	766202 2 screws 10*140 mm, washers/dowels width across flats 17	1 bag	✓		✓	✓		✓	
	766205 2 screws 8*140 mm, washers/dowels width across flats 13	1 bag		✓					
	766206 2 screws 10*110 mm, washers/dowels width across flats 17	1 bag					✓		✓
	766209 2 screws 10*160 mm, washers (no dowels required) width across flats 18	1 bag	✓			✓	✓	✓	
	767200 Hot glue mat	1		✓					



SALES MANAGER, TRAFFIC SAFETY

KAI OBERLIES

In his leisure time, Kai spends as much time as possible with his family and friends. He also regularly goes running, cycling, and motorcycling.



04

Traffic Guiding Light, Sequential Light Systems, Flash & Warning Lamp Systems

SEQUENTIAL LIGHT SYSTEMS 72

TopLED Synchro 72

LED sequential light system RS 2000 PLUS 72

HORIZONT FLASH LAMPS AT A GLANCE 74-75

FLASH LAMPS 76-88

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StreetFlash 88

CHARGING AND TRANSPORT BOXES 90

ACCESSORIES FOR FLASH LAMPS 91



TopLED Synchro

Wireless 5-piece traffic guidance lighting system

The TopLED Synchro is a high-performance, radio-controlled warning light featuring automatic self-synchronization. When positioned in a line, the lights create a dynamic running-light or progressive light pattern that safely directs vehicles past hazardous areas.

- Can be used as a sequential light
- Can be mounted on delineators as a warning light
- Infinitely expandable
- Self-synchronizing
- Sequential light, progressive light (guidance) or synchronous light (closure)
- Automatic night dimming
- Permanent background light
- Alternating flashing light: 2-3-2
- Night or day-night operation
- Working range from transmitter (D-Frankfurt), approx. 2,000 km
- Secura-Uni 52 universal barrier bracket
- Remote control included (98268P)
- Supplied without delineators and base plates

Item No.	Product	PU
21132	TopLED Synchro, set of 5 lamps, comprising: 5 TopLED Synchro individual lamps, 1 allen key, 1 pin key, 1 remote control	1 set

Weight, kg	Flash rate / min.	Operating time in days (5 pcs. sequential light system), each 1 * 50 Ah
4.0	60	58



TopLED Synchro

Single lamp

- Deployable as an extension for existing TopLED Synchro traffic guidance lighting systems
- Infinitely expandable
- Self-synchronizing
- Sequential or synchronous light (closure)
- Automatic night dimming
- Permanent background light
- Alternating flashing light: 2-3-2
- Night or day-night operation
- Working range from transmitter (D-Frankfurt), approx. 2,000 km
- Secura-Uni 52 universal barrier bracket
- Supplied without delineators and base plates

Item No.	Product	PU
21131	TopLED Synchro single lamps comprising: 1 TopLED Synchro single lamp, 1 allen key, 1 pin key	1

Weight, kg	Flash rate / min.	Operating time in days (5 pcs. sequential light system), each 1 * 50 Ah
0.8	60	58



RS 2000 PLUS LED Sequential Light System

Directional spotlight with additional battery cable!

RS 2000 LED directional spotlight for sequential light system with 5 m battery cable and 15 m connecting cable.

- To be combined as required, from 1 to 10 lamps
- You need 1 master lamp and 1 to 9 supplementary lamps
- Night or day-night operation
- Power supply via a 12 V rechargeable battery (accessory), to be connected to the master lamp
- The programs are changed via DIL switch 2 inside the lamp

Item No.	Product	PU
20900	Master lamp, with 5 m power cord and battery clamps	1
20901	Supplementary lamp, with 15 m control/connecting cable	1

Weight per spotlight, kg	Flash rate / min.	Operating time in days (5 pcs. sequential light system), 1 * 180 Ah
1.5	60	16

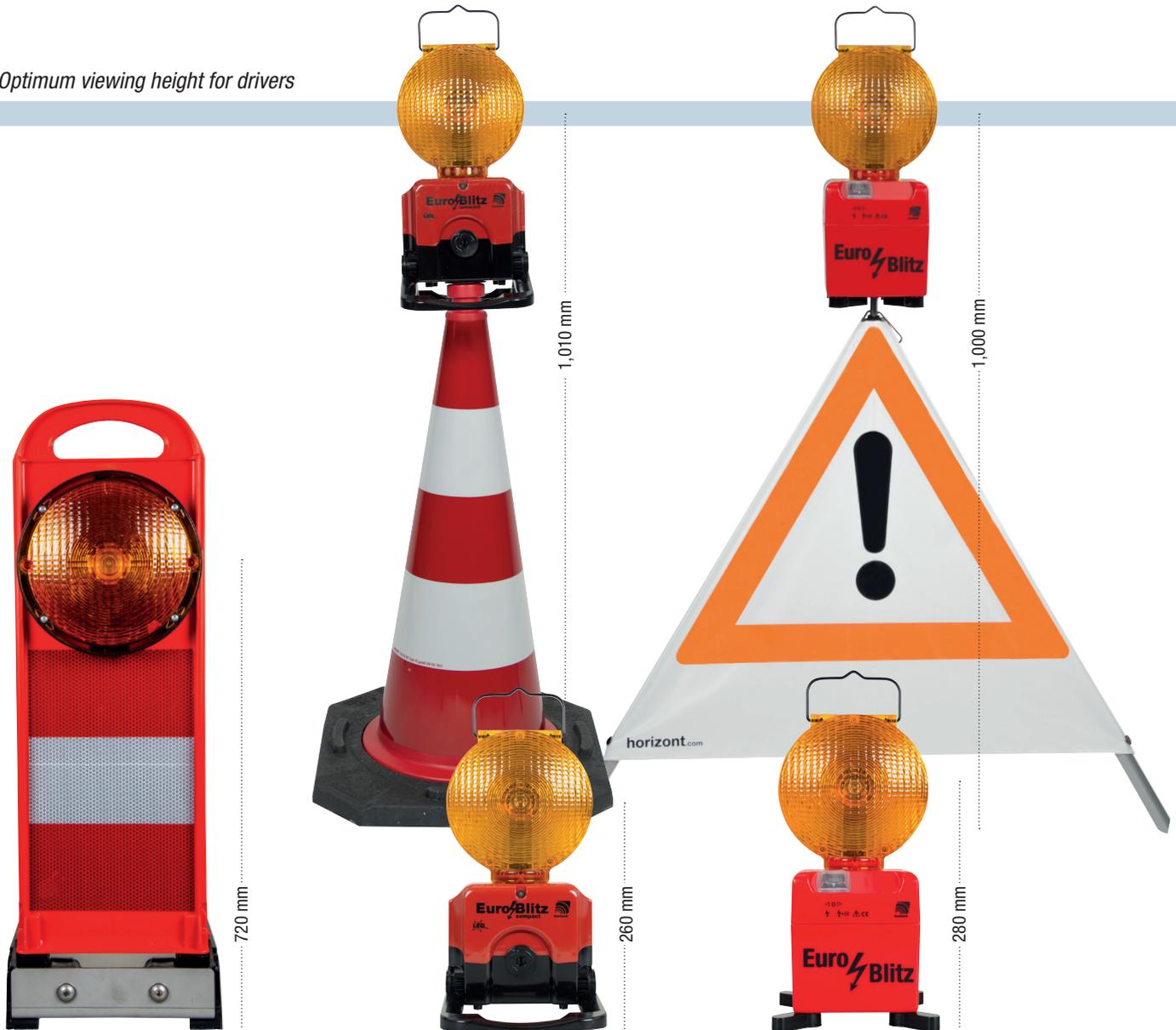
SEQUENTIAL LIGHT SYSTEMS

*“Energy-efficient thanks to the latest LED technology.
Radio-controlled or hard-wired options.”*



horizont flash lamps at a glance

Optimum viewing height for drivers



FlashMax Stack

The ideal solution for securing emergency scenes for police and fire service. Its stackable design makes it a practical assistant.



MORE ON PAGE 76

Euro-Blitz compact LED

For situations where speed is of the essence. No need to flick a switch – simply flip open and the unit flashes. Job done!



MORE ON PAGE 78

Euro-Blitz LED

Offers particularly high stability and is ideally suited for use on traffic cones. Many fire services in Germany are already using it.



MORE ON PAGE 80



Tele-Blitz LED

It combines Euro-Blitz reliability with the optimum viewing height for drivers. With a flash height of one meter, the Tele-Blitz cannot be overlooked.



MORE ON PAGE 82

Optima-Blitz LED

The Optima-Blitz LED comes in a tried and tested compact housing and is a practical assistant at the site of operation.

MORE ON PAGE 84



FlashMax Stack

Small collapsible delineator with integrated stackable base

Version with sturdy stainless steel base and plastic stacking rails. The new base means that several FlashMax lamps can be stacked safely on top of each other. Additional anti-skid feet provide a secure, firm footing even on slippery surfaces and further improve safety for passing vehicles. Reflectors on the side of the base provide added visibility at night.

- BAST-approved according to the German "TL-Warnleuchten" standard (WL4) corresponds to EN12352, Class L8M/L8L
- Extremely sturdy folding mechanism with two joints
- Optimum night visibility thanks to red/white horizontal RA 2C sheeting on both sides.
- Additional "emergency battery compartment" for 9 V 6LR61 block battery
- Side reflectors on the stackable base

- Permanent background light
- With protective film edge
- Very good stability thanks to the anti-skid system – despite low weight of only 6 kg!
- Ergonomic carrying handle on the delineator
- Operation with four LR14 batteries (baby cell)
- Batteries not included



Item No.	Product	BAST	PU
2562242QUER	FlashMax Stack	✓	1
2562245	FlashMax Stack "Police Design"	✓	1

Weight approx., kg	Dimensions, L*W, mm	Dimensions / sheeting, L*W, mm	Sheeting reflection class	Material	Flash rate/ min.	Operating time (hours) (flash) 4 * Baby LR 14
6.0	710 * 215	300 * 187.5	RA 2 C	Plastic, Recycled	69	160

Version with recycled base remains available:
FlashMax (2562241QUER), FlashMax "Police Design" (2562246)



FlashMax Stack Synchro

Sequential light system, self-synchronizing, stackable

Design as FlashMax Stack, but with self-synchronizing sequential light system when switched on (within 10 seconds) for safe traffic guidance at roadwork sites. Traffic guidance by fire services is not permitted in all German Federal States.

- Synchronization via integrated radio modules
- Unlike traditional infrared systems, the units can be placed anywhere for synchronization, making them immediately ready for use
- Each FlashMax Synchro can also be used as a stand-alone unit

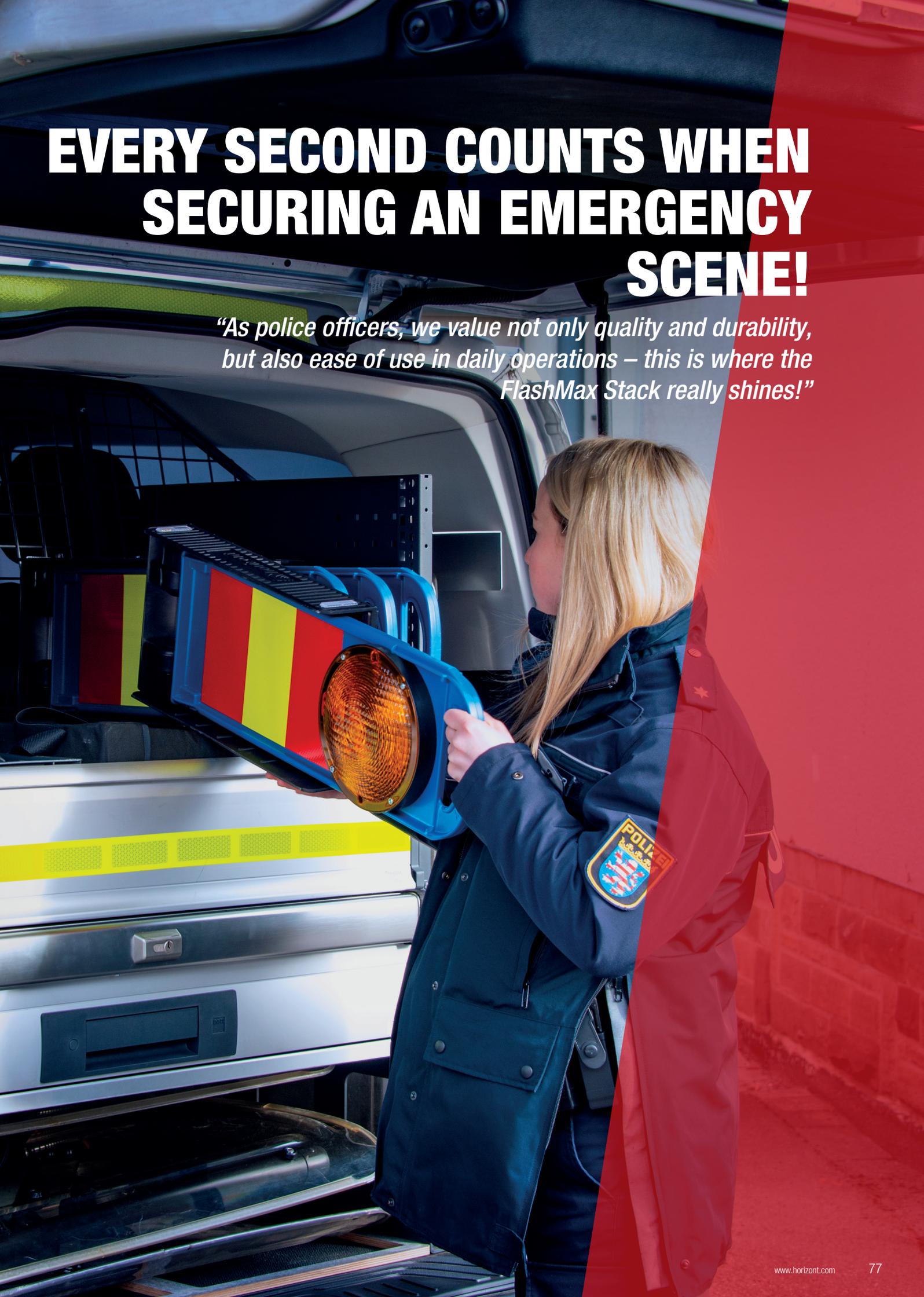
Item No.	Product	BAST	PU
2562242SYNCHRON	FlashMax Stack Synchro	✓	1
2562245SYNCHRON	FlashMax Stack Synchro "Police Design"	✓	1

Weight approx., kg	Dimensions, L*W, mm	Dimensions / sheeting, L*W, mm	Sheeting reflection class	Material	Flash rate/ min.	Operating time (hours) (flash) 4 * Baby LR 14
6.0	710 * 215	300 * 187.5	RA 2 C	Plastic, Recycled	69	160

Version with recycled base remains available:
FlashMax Synchro (2562241SYNCHRON), FlashMax Synchro "Police Design" (2562246SYNCHRON)

EVERY SECOND COUNTS WHEN SECURING AN EMERGENCY SCENE!

“As police officers, we value not only quality and durability, but also ease of use in daily operations – this is where the FlashMax Stack really shines!”





Euro-Blitz compact LED

The compact class

The horizont Euro-Blitz compact is the perfect solution for securing roadwork sites quickly and safely using LED technology.

- BAST-approved according to the German "TL-Warnleuchten" standard
- EMC-approved by the KBA (German Federal Motor Transport Authority)
- L8M/L8L, WL 4
- Automatic switching ON and OFF by folding the feet up or down
- Stable and skid resistant due to large footprint
- Impact resistant and weatherproof enclosure
- Permanent background light
- Incl. adapter for plugging onto folding signs
- Rechargeable battery version; automatic charge limitation and deep discharge protection
- Rechargeable battery version; recharging/trickle charging possible in the vehicle with charging cable connected to the vehicle power supply
- Rechargeable battery version; automatic charging in the vehicle charger box via external contacts at the lamp's housing
- Rechargeable battery version; incl. lead-gel battery 6 V / 4.5 Ah
- Batteries not included



Item No.	Product	BAST	PU
21212NEU	Bi-directional amber, battery version	✓	1
21222NEU	Bi-directional amber, rechargeable version for vehicle charger box or mains adapter (not incl.)	✓	1

Recommended Accessories

21225	Vehicle charger box with supply cable, to be used as single charger or to be connected with extension charger boxes (21226)	1
21226	Single vehicle charger box with connection cable, to be used as single charging box or as extension box for 2-6 units	1
21227	Transport box, without charging function	1
84706	Handle, for securing single vehicle charger boxes during transport	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
94402	Traffic cone adapter for 500 and 750 mm traffic cones	1

Item No.	Weight, kg	Dimensions, L*W*H, mm	Flash rate / min.	Operating time (hours) (flash)				1 * 4.5 Ah rechargeable battery
				1 * 7 Ah	1 * 9 Ah	1 * 20 Ah	1 * 50 Ah	
21212NEU	1.5	185 * 90 * 345	60	74	96	200	265	–
21222NEU	2.8	185 * 90 * 345	60	–	–	–	–	50



Charging and/or Transport Box

For up to 6 Euro-Blitz compact units

- For transporting 1 to 6 lamps of all Euro-Blitz compact versions
- For charging 1 to 6 rechargeable lamps; Euro-Blitz compact LED/Euro-Blitz compact LED Synchron
- Recharging/trickle charging possible in the vehicle with charging cable connected to the vehicle power supply
- Charges rechargeable lamps via the contacts on the upper part of the enclosure
- Combine the charging and transport boxes as you wish, in order to adapt them to your individual space requirements
- From one box to 2, 3, 4 up to max. 6 laterally, crosswise or in an L-shape – it's all possible!
- The space requirement of a 4-bay box is less than 0.09 m²!
- Lamps not included

Item No.	Product	PU
21225	Vehicle charger box with supply cable, to be used as single charger or connected with extension charger boxes (21226)	1
21226	Single vehicle charger box with connection cable, to be used as single charging box or as extension box for 2-6 units	1
21227	Transport box, without charging function	1
84706	Handle, for securing single vehicle charger boxes during transport	1

Euro-Blitz compact Synchron LED

Compact, LED mobile guiding light system

The horizontal Euro-Blitz compact Synchron uses LED technology for securing roadwork sites in a particularly fast and safe manner. This development by horizont allows you to install a ready-to-use guiding light system in a flash. Cutting edge radio technology is used to synchronize the flash lamps.

- **BAST-approved according to the German "TL-Warnleuchten" standard**
- **EMC-approved by the KBA (German Federal Motor Transport Authority)**
- **L8M/L8L, WL 4**
- **With latest radio technology**
- Guiding light system, self-synchronizing when switched on, via integrated radio modules
- Unlike traditional infrared systems, the units can be placed anywhere for synchronization.
- Automatic switching ON and OFF by folding the feet up or down
- Stable and skid resistant due to large footprint
- Impact resistant and weatherproof enclosure
- Permanent background light
- Incl. adapter for plugging onto folding signs
- Rechargeable battery version; automatic charge limitation and deep discharge protection
- Rechargeable battery version; recharging and trickle charging possible in the vehicle with charging cable connected to the vehicle power supply
- Rechargeable battery version; automatic charging in the vehicle charger box via external contacts at the lamp's housing
- Each Euro-Blitz compact Synchro can also be used as a stand-alone unit
- Rechargeable battery version; incl. lead-gel battery 6 V / 4.5 Ah
- Batteries not included



Item No.	Product	BAST	PU
21223NEU	Uni-directional, amber, battery version	✓	1
21224NEU	Uni-directional, amber, rechargeable battery version for vehicle charger box or mains adapter (not incl.)	✓	1

Recommended Accessories

21225	Vehicle charger box with supply cable, to be used as single charger or connected with extension charger boxes (21226)	1
21226	Single vehicle charger box with connection cable, to be used as single charging box or as extension box for 2-6 units	1
21227	Transport box, without charging function	1
84706	Handle, for securing single vehicle charger boxes during transport	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
94402	Traffic cone adapter for 500 and 750 mm traffic cones	1

Item No.	Weight, kg	Dimensions, L*W*H, mm	Flash rate / min.	Operating time (hours) (flash)				
				1 * 7 Ah	1 * 9 Ah	1 * 20 Ah	1 * 50 Ah	1 * 4.5 Ah rechargeable battery
21223NEU	1.5	185 * 90 * 345	69	100	150	250	480	-
21224NEU	2.8	185 * 90 * 345	69	-	-	-	-	90

 **IN USE:** The Synchro Collapsible Delineator

www.horizont.com/ytEuroblitzCompact

www.horizont.com/ytSynchroFamilie



Euro-Blitz compact LED securely stowed in the emergency vehicle



Euro-Blitz LED

Euro-Blitz with LED technology

The horizon Euro-Blitz LED uses LED technology to provide highly visible and safe securing of roadwork sites.

- BAST-approved according to the German "TL-Warnleuchten" standard
- EMC-approved by the KBA (German Federal Motor Transport Authority)
- L8M/L8L, WL 4
- Membrane-sealed rocker switch
- Stable and skid-resistant thanks to fold-out feet
- Impact resistant and weatherproof enclosure
- Steady backlight can be selected if required
- Incl. adapter for plugging onto folding signs
- Rechargeable battery version; automatic charge limitation and deep discharge protection
- Rechargeable battery version; recharging and trickle charging possible in the vehicle with charging cable connected to the vehicle power supply
- Rechargeable battery version; automatic charging in the vehicle charger box via external contacts at the lamp's housing
- Incl. lead-gel battery 6 V / 4.5 Ah
- Batteries not included

Item No.	Product	BAST	PU
208802LED	Bi-directional amber, battery version	✓	1
209742ALED	Bi-directional amber, rechargeable battery version for vehicle charger box or mains adapter (not incl.)	✓	1

Recommended Accessories

84265	Mains adapter 230 V / 1.5 A	1
926033VP	Vehicle charger cable 12 / 24 V	1
20975	Vehicle charger box for Euro-Blitz/Euro-Synchron rechargeable variants	1
211074	Transport and charging box for up to 4 Euro-Blitz LED/Euro-Synchron LED units	1
94402	Traffic cone adapter for 500 and 750 mm traffic cones	1

Item No.	Weight, kg	Dimensions, L*W*H, mm	Flash rate / min.	Operating time (hours) (flash)				1 * 4.5 Ah rechargeable battery
				4 * 7 Ah	4 * 9 Ah	4 * 20 Ah	4 * 50 Ah	
208802LED	1.5	140 * 150 * 380	60	200	250	700	1,250	–
209742ALED	2.8	140 * 150 * 380	60	–	–	–	–	50



The Euro-Blitz LED is supplied with an adapter for mounting on folding signs.

Euro-Synchron LED

Mobile LED guiding light system

The horizon Euro-Synchron LED uses LED technology to provide highly visible and safe securing of road-work sites, allowing you to install a ready-to use guiding light system in a flash.

- **BAST-approved according to the German "TL-Warnleuchten" standard**
- **EMC-approved by the KBA (German Federal Motor Transport Authority)**
- **L8M/L8L, WL 4**
- Membrane-sealed rocker switch
- Stable and skid-resistant thanks to fold-out feet
- Impact resistant and weatherproof enclosure
- Steady backlight can be selected if required
- Incl. adapter for plugging onto folding signs
- Automatic overcharging and deep discharge protection
- Recharging and trickle charging can be performed in the vehicle via a cable connected to the vehicle power supply.
- Automatic charging in the vehicle charger box via external contacts at the lamp's housing
- Each Euro-Synchron LED can also be used as a stand-alone unit
- Incl. lead-gel battery 6 V / 4.5 Ah



Item No.	Product	BAST	PU
208831ATLED	Uni-directional, amber, rechargeable battery version for vehicle charger box or mains adapter (not incl.)	✓	1

Recommended Accessories

84265	Mains adapter 230 V / 1.5 A		1
926033VP	Vehicle charger cable 12 / 24 V		1
20975	Vehicle charger box for Euro-Blitz/Euro-Synchron rechargeable variants		1
211074	Transport and charging box for up to 4 Euro-Blitz LED/Euro-Synchron LED units		1
94402	Traffic cone adapter for 500 and 750 mm traffic cones		1

Weight, kg	Dimensions, L*W*H, mm	Flash rate / min.	Operating time - flash mode (hours) - 1 * 4.5 Ah rechargeable battery
2.8	140 * 150 * 380	69	90





BAST
✓

**KBA
EMV**
✓

**L8M /
L8L**
✓
EN 12352

WL4
✓
TL-Warn-
leuchten

Tele-Blitz LED

LED flash lamps at eye level

The horizon Tele-Blitz LED uses LED technology to ensure that roadwork sites are visible, even from afar. The Tele-Blitz LED flashes either at ground level or at particularly visible eye level at a height of 1 m.

- BAST-approved according to the German "TL-Warnleuchten" standard
- EMC-approved by the KBA (German Federal Motor Transport Authority)
- L8M/L8L, WL 4
- Extendable to 1 m flash height
- Sturdy telescopic pole
- Red/white coloring of the telescopic pole creates additional warning effect
- Membrane-sealed rocker switch
- Stable and skid-resistant thanks to fold-out and extendable feet
- Impact resistant and weatherproof enclosure
- Steady backlight can be selected if required
- Rechargeable battery version; automatic charge limitation and deep discharge protection
- Rechargeable battery version; recharging and trickle charging possible in the vehicle with charging cable connected to the vehicle power supply
- Rechargeable battery version; automatic charging in the vehicle charger box via external contacts at the lamp's housing
- Rechargeable batteries included in delivery (2x lead gel batteries 6V/4.5 Ah), with rechargeable version of TeleBlitz
- Non-rechargeable batteries not included in delivery (208502LED).

Item No.	Product	BAST	PU
208502LED	Bi-directional amber, battery version	✓	1
208512ATLED	Bi-directional amber, rechargeable battery version for vehicle charger box or mains adapter (not incl.)	✓	1

Recommended Accessories

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

Item No.	Weight, kg	Dimensions, L*W*H, mm	Dimensions, telescopic, H, mm	Flash rate / min.	Operating time (hours) (flash)				2 * 4.5 Ah rechargeable battery
					4 * 7 Ah	4 * 9 Ah	4 * 20 Ah	4 * 50 Ah	
208502LED	2.1	210 * 150 * 465	1,100	60	250	300	700	1,250	-
208512ATLED	3.8	210 * 150 * 465	1,100	60	-	-	-	-	100



Tele-Synchron LED

Mobile LED guiding light system at eye level

The horizon Tele-Synchron LED uses LED technology to ensure that roadwork sites are visible, even from afar. The Tele-Synchron flashes either at ground level or at particularly visible eye level at a height of 1 m. This development by horizon allows you to install a ready-to-use guiding light system in a flash.

- **BAST-approved according to the German "TL-Warnleuchten" standard**
- **EMC-approved by the KBA (German Federal Motor Transport Authority)**
- **L8M/L8L, WL 4**
- **With latest radio technology**
- Guiding light system, self-synchronizing when switched on, via integrated radio modules
- Unlike traditional infrared systems, the units can be placed anywhere for synchronization.
- Extendable to 1 m flash height
- Sturdy telescopic pole
- Red/white coloring of the telescopic pole creates additional warning effect
- Membrane-sealed rocker switch
- Stable and non-skid thanks to fold-out and extendable feet
- Impact resistant and weatherproof enclosure
- Steady backlight can be selected if required
- Rechargeable battery version; automatic charge limitation and deep discharge protection
- Rechargeable battery version; recharging and trickle charging possible in the vehicle with charging cable connected to the vehicle power supply
- Rechargeable battery version; automatic charging in the vehicle charger box via external contacts at the lamp's housing
- Each Tele-Synchron LED can also be used as a stand-alone unit
- Rechargeable batteries included in delivery (2x lead gel batteries 6V/4.5 Ah), with rechargeable version of TeleBlitz
- Non-rechargeable batteries not included in delivery (208502LED).



Item No.	Product	BAST	PU
20852LED	Uni-directional, amber, battery version	✓	1
20853ATLED	Uni-directional, amber, rechargeable battery version for vehicle charger box or mains adapter (not incl.)	✓	1

Recommended Accessories

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

Item No.	Weight, kg	Dimensions, L*W*H, mm	Dimensions, telescopic, H, mm	Flash rate / min.	Operating time (hours) (flash)				
					4 * 7 Ah	4 * 9 Ah	4 * 20 Ah	4 * 50 Ah	2 * 4.5 Ah rechargeable battery
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



IN USE: The Synchro collapsible delineator

- 🔗 www.horizont.com/ytTeleSynchro
- 🔗 www.horizont.com/ytSynchroFamilie



Optima-Blitz LED

Cutting edge LED technology for day and night operation

The new Optima-Blitz LED features the proven impact-resistant housing of our legendary Optima warning light, inheriting its robust, stable and tried-and-tested 'Made in Germany' quality.

- Low current consumption
- Rocker switch at the front or internal switch
- Automatic twilight control and twilight control
- Operation possible by day and night
- Permanent background light at night
- Incl. adapter for plugging onto folding signs
- Batteries not included

Item No.	Product	PU
20752KLED	Uni-directional, amber, with rocker switch, battery version	1
207522KLED	Bi-directional, amber, with rocker switch, battery version	1
20886LEDOH	Uni-directional, amber, with internal switch (operation with a Secura-key), battery version	1

Recommended Accessories

20104-10VP	Secura key (bag of 10 units)	1 bag
20147	Secura 52 barrier bracket	1 bag
94402	Traffic cone adapter for 500 and 750 mm traffic cones	1

Weight, kg	Dimensions, L*W*H, mm	Flash rate / min.	Operating time (hours) (flash), 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 securing areas in poor visibility or at night, this lamp increases visibility and thus your safety.

By simply placing it onto the traffic cone the lamp is activated on contact. Its uniformly flashing LED lamp will then warn approaching vehicles about hazardous spots ahead. This LED lamp is powered by a standard 4R25 6-volt block battery.

- **Automatic switching on/off by simply attaching or removing the lamp**
- Operates using a 1 x 4 R25 6-V monobloc battery
- Lens diameter: 180 mm
- Housing color: red
- LED and lens color: amber

Item No.	Product	PU
20892	ConeFix, LED traffic cone lamp	10

Weight, kg	Dimensions, L*W*H, mm	Flash rate / min.	Operating time (hours) (flash)		
			1 * 7 Ah	1 * 9 Ah	1 * 20 Ah
0.46	225 * 190 * 190	60	340	430	970



ConeFix, LED Traffic Cone Lamp Synchro

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

These lamps synchronize automatically via radio! No additional switch or numbering necessary! The lamp that is switched on/placed on the cone first is automatically assigned number one, etc.

- **Automatic switching on/off by simply attaching or removing the lamp**
- Operates using a 1 x 4 R25 6-V monobloc battery
- Lens diameter: 180 mm
- Housing color: red
- LED and lens color: amber

Item No.	Product	PU
20892SYN	ConeFix, LED traffic cone lamp SYNCHRO	10

Weight, kg	Dimensions, L*W*H, mm	Flash rate / min.	Operating time (hours) (flash)		
			1 * 7 Ah	1 * 9 Ah	1 * 20 Ah
0.62	225 * 190 * 190	60	340	430	970



VISIBILITY IN POOR CONDITIONS

“In poor visibility, the working site must be secured with particular care”.



WL4
TL-Warn-
leuchten

in preparation

Traffic Cone LED Flashing Directional Warning Lamp, Including Power Supply Unit

For 750 mm traffic cones, directional warning lamp according to WL4

New, high-performance LED traffic cone flashing directional warning lamp according to WL4, BAST certification in progress. Designed for easy and quick installation on standard 750 mm German-standard (TL) traffic cones. Power supply unit located inside the traffic cone accommodates 4 monobloc batteries (4R25) or 2 × 6V 4.5Ah rechargeable batteries, connected to the lamp body via a sturdy support tube. Rapid mounting using a wing nut. High stability. Easy battery replacement via the “clip opener.” Display on the lamp body: Green; switches to red when light output can no longer be maintained due to low charge/capacity. Remaining runtime after switching to red: approx. 16 hours. Charging port and charge indicator located on the power supply unit.

- For use with 750 mm traffic cones
- Easy installation via a plug-in system.
- High stability, as the battery box rests on the ground inside the traffic cone.
- Runtime indicator on the directional warning lamp (green/red).
- Toggle switch
- Charge indicator (for rechargeable version) on the power supply unit.
- Available in uni-directional and bi-directional versions.
- Traffic cone NOT included.
- Batteries NOT included.

Item No.	Product	PU
21317LED	Traffic cone LED flashing directional warning lamp, uni-directional, comprising: - LED flashing directional warning lamp Ø 180mm (21953LED) - Power supply unit 250mm for 4 monobloc batteries (21947)	1
213172LED	as 21317LED, but with bi-directional light output	1
21319ALED	Traffic cone LED flashing directional warning lamp comprising: - LED flashing directional warning lamp Ø 180mm (21953LED) - Power supply unit 750mm incl. 2 rechargeable batteries 6V 4.5Ah (21971A)	
213192ALED	as 21319ALED, but with bi-directional light output	

Recommended Accessories

84265 Mains adapter 230V / 1.5 Ah

Available soon!



WL4
TL-Warn-
leuchten

in preparation

Cone Flash Lamp

For traffic cones min. 500 mm height

LED cone flash lamp Can be quickly and easily mounted on standard traffic cones, minimum height 500 mm. Battery tube for 5 mono-cells LR 20, or 5 NiMH rechargeable batteries 5 Ah / 1.2 V. Easy battery replacement thanks to plug-system.

- **For use with traffic cones of min. 500 mm in height**
- **Plug system allows quick and easy mounting on the traffic cone**
- **Easy battery exchange thanks to plug system**
- Benefits of LED technology: long-life light emitting diodes and low power consumption
- Press switch
- Traffic cones not included
- Batteries not included

Item No.	Product	PU
20893LED	Uni-directional, LED, for 5x LR 20 mono-cells	1
208932LED	Bi-directional, LED, for 5x LR 20 mono-cells	1

Item No.	Weight, kg	Dimensions, L*W*H, mm	Flash rate / min.	Operating time (hours) (flash)	
				5 * LR 20 5 Ah	5 * 5 Ah rechargeable battery
20893LED	1.3	100 * 180 * 630	60	90	—
208932LED	1.3	100 * 180 * 630	60	45	—

Available soon!

Collapsible Delineator LED-Flash

Delineator with additional warning effect thanks to LED flash lamp

Collapsible delineator, sheeting type RA2, with integrated, BAST-approved flash lamps for efficiently securing roadwork sites/accident spots. With an operating time of up to 160 hours, four high-power LEDs provide a strong warning effect, with luminous intensity according to EN 12352, class L8M/L8L (WL4). Body and base plate connected with two robust pivot joints. Replaceable rubber studs under the base plate provide non-slip footing.

Item No.	Product	PU
25407KSNQLED2	With horizontally striped sheeting, reflectivity class RA 2, amber LED flash lamp	10

Weight, kg	Dimensions, delineator, L*W, mm	Dimensions, sheeting, L*W, mm	Flash rate / min.	Operating time (hours) (flash)
12.5	970 × 315	500 × 188	69	160 (4×Baby LR 14)





StreetFlash Amber

Rapid-deployment flashing light kit

Rapid-deployment flashing light kit containing 6 compact flash lamps in a sturdy charging and transport case complete with handle. Compact and handy, ideal for transport, e.g. on a motorbike.



- **20 LEDs: 16 LEDs provide 360° warning in a horizontal position, plus 4 LEDs on top for alternative vertical placement**
- **Visibility 1 km**
- Lithium polymer battery, ECE-R10 approved
- Battery life 20 hours on average
- Charging time 6 hours on average
- Includes carrying cradle, 12 V and 220 V charging adapter
- Easy storage on motorbikes, e.g. beneath the seat
- Weight: 2.5 kg
- Dimensions (L*W*H, mm): 235 * 200 * 75

Item No.	Product	PU
25260	StreetFlash amber, 6-piece set	1

Recommended Accessories

25261B	Traffic cone adapter	1
--------	----------------------	---



StreetFlash Blue

Emergency flash kit

Rapid-deployment flashing light kit containing 6 compact flash lamps in a sturdy charging and transport cradle complete with handle. Compact and handy, ideal for transport, e.g. on a motorbike.

Blue LED flashing light - NOT permitted in Germany! BLUE light ONLY directly on the vehicle.



- **20 LEDs: 16 LEDs provide 360° warning in a horizontal position, plus 4 LEDs on top for alternative vertical placement**
- **Visibility 1 km**
- Lithium polymer battery, ECE-R10 approved
- Battery life 20 hours on average
- Charging time 6 hours on average
- Includes carrying cradle, 12 V and 220 V charging adapter
- Easy storage on motorbikes, e.g. beneath the seat
- Weight: 2.5 kg
- Dimensions (L*W*H, mm): 235 * 200 * 75

Item No.	Product	PU
25260BL	StreetFlash blue, 6-piece set	1

Recommended Accessories

25261B	Traffic cone adapter for StreetFlash	
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Traffic Cone Adapter for StreetFlash

Adapter for rapid deployment kit

The traffic cone adapter allows you to quickly and easily mount the StreetFlash on all standard traffic cones, min. 500 mm in height.



- Adapter suitable for all traffic cones, min. 500 mm
- 3 magnets: 1 on top, 2 on side
- Supplied with one traffic cone adapter for StreetFlash rapid-deployment lights

Item No.	Product	PU
25261B	Traffic cone adapter for StreetFlash	1



ALWAYS ON HAND FOR IMMEDIATE DEPLOYMENT!

“Carrying the StreetFlash hugely upgrades police motorcycle capabilities. In critical situations, fast scene securing is guaranteed.”



Vehicle Charger Box

For charging Euro-Blitz, Euro-Blitz LED, Euro-Synchron, Euro-Synchron LED units

- Charges rechargeable lamps via the contacts on the upper part of the enclosure

Item No.	Product	PU
20975	Vehicle Charger Box	1

Weight, kg	Dimensions, L*W*H, mm	Material
0.7	185 * 210 * 173	Plastic



Transport and Charging Box for Euro-Blitz LED

For charging and transporting up to 4 Euro-Blitz LED / Euro-Synchron LED units

- For up to 4 rechargeable lamps; Euro-Blitz / Euro-Synchron (LED and Xenon-Blitz)
- Also available with 2, 3 or 5 charging points
- Charges rechargeable lamps via the contacts on the upper part of the enclosure
- The Euro-Blitz LED / Euro-Synchron LED can be charged at 12 or 24 V
- Lamps not included

Item No.	Product	PU	PU
211074	Transport and charging box for up to 4 Euro-Blitz LED/Euro-Synchron LED units	1	1

Weight, kg	Dimensions, L*W*H, mm	Material
5.5	740 * 180 * 190	Stainless steel/plastic



Transport and charging box for Tele-Blitz LED

For charging and transporting up to 2 or 4 Tele-Blitz LED / Tele-Synchron LED units

- For up to 2 or 4 rechargeable lamps; Tele-Blitz / Tele-Synchron (LED and Xenon-Blitz)
- Charges rechargeable lamps via the contacts on the upper part of the enclosure
- The Tele-Blitz / Tele-Synchron (LED and Xenon-Blitz) can be charged at 12 or 24 V
- Lamps not included

Item No.	Product	PU
21135	Transport and charging box for up to 2 Tele-Blitz LED/Tele-Synchron LED units	1
21128	Transport and charging box for up to 4 Tele-Blitz LED/Tele-Synchron LED units	1

Item No.	Weight, kg	Dimensions, L*W*H, mm	Material
21135	3.0	350 * 235 * 190	Stainless steel/plastic
21128	6.5	696 * 235 * 190	Stainless steel/plastic



Transport Box for Warnmax/FlashMax

For transport and storage of up to 6 Warnmax or up to 4 FlashMax units

Our development engineers designed the transport box for the horizontal Warnmax so that 2 to 3 units can be removed at once using ergonomically shaped handles.

- For the whole horizontal Warnmax family
- For installation in vehicles
- Plastic-coated
- Supplied empty

Item No.	Product	PU
257741KC	Transport and storage box for up to 6 Warnmax or up to 4 Flashmax units	1

Weight, kg	Dimensions, L*W*H, mm	Material
7	560 * 260 * 430	Hot-dip galvanized steel

Our service for you!

Accessories and Spare Parts

Please select the appropriate accessories and spare parts from the table below for the products in the previous chapter. The accessories recommended by horizon are always stated next to the corresponding product in our catalog.

Chargers/charging cables			for rechargeable flash lamp variants				
Picture	Item no., description	PU	Euro-Blitz compact LED, Euro-Blitz compact LED Synchron, page 78-79	Euro-Blitz LED, Euro-Synchron LED page 82-80	Tele-Blitz LED, Tele-Synchron LED page 82-83	TRI-Blitz	Cone flash lamp, page 84
	Mains adapter 84265 Charger 230 V - 12 V, external charger for rechargeable batteries	1	✓	✓	✓		
	Mains adapter 82203 Charger 230 V - 12 V, external charger for rechargeable batteries	1	✓	For devices built before 06/2015	For devices built before 06/2015		
	Vehicle charger cable with vehicle power supply cable 926033VP Vehicle charger cable 12 / 24 V - 12 V, external charger for rechargeable batteries	1	✓	✓	✓		
	Vehicle charger cable with vehicle power supply cable 92603VP Vehicle charger cable 12 / 24 V - 12 V, external charger for rechargeable batteries	1	✓	For devices built before 06/2015	For devices built before 06/2015		
	Charger 230 V / 12 V 25556TRI Charger 230 V - 12 V, ex- ternal mains adapter for rechargeable batteries	1				✓	
	Charger 230 V / 12 V 25556ANS Charger 230 V - 12 V, ex- ternal mains adapter for rechargeable batteries	1				For devices built before 2018	✓
	Vehicle charger cable with vehicle power supply cable 21038 Vehicle charger cable 12 / 24 V - 12 V, external charger for rechargeable batteries	1				✓	✓

EXPORT SALES

KARIN DINGLER-RITTE

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



EXPORT SALES

JUTTA NOLTEN

Jutta loves to be creative. Besides looking after her children, she has a passion for foreign languages and loves gardening and reading in her leisure time.



05

Traffic signs, Installation Devices

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RAL Quality Mark and CE Mark



RAL quality mark, code number 79 for Müller Verkehrstechnik GmbH

MANDATED CHARACTERISTICS

- Image carrier design
- Image carrier dimensions
- Image content/symbols
- Luminous factor
- Colors
- Lettering
- Positioning of image content
- Positioning of lettering
- Design of reverse
- Quality assurance

RAL QUALITY MARK

- Manufacturer's code
- Quarter of manufacture
- Year of manufacture

ADDITIONAL SPECIFICATIONS

- Reflectivity class
- Service life

Reflectivity class	RA1	RA2	RA3
Assumed service life	2029	2032	2032
Punch here			

This information assists the user in performing the necessary road safety inspection and traffic sign maintenance tasks.

In 1960, the Federal Minister of Transport at the time introduced the RAL quality mark for traffic signs. The necessary requirements are specified in nationally recognized quality and test regulations (currently dated May 2010). Traffic sign manufacturers are required to undergo processing tests; the rights of use obtained in this way authorize them to apply the RAL quality mark.



CE mark

MANDATED CHARACTERISTICS

- Stability
- Deformation
- Specific retro-reflectivity value
- Luminous factor
- Color space
- Permanence

NECESSARY INFORMATION

- Year of manufacture
- Number of the notified body
- Referenced standard
- Product group

PERFORMANCE DATA

- (e.g. on the delivery note)
- Product designation
 - Specific retro-reflectivity class
 - Image carrier design
 - Signal aspect version

Further verifications to be provided by the manufacturer:

DECLARATION OF PERFORMANCE

CONTENTS

- Product type
- Intended use
- System for evaluating the
 - constancy of performance
 - Statement of the notified body
 - Essential product characteristics with
 - the declared performance
 - Manufacturer's declaration

PUBLICATION

Website of Müller Verkehrstechnik GmbH

In Germany, CE certification is carried out by the BAST or the Certification Association of Road Equipment Manufacturers (StrAus-Zert).

Fixed vertical traffic signs must carry the CE mark pursuant to DIN EN 12899-1. The marking must be applied to retro-reflective sheeting, installation devices as well as the traffic sign, either as a single sign or complete kit (including fastening sets and installation device).

The German Technical Terms of Delivery and Testing for Vertical Traffic Signs (TLP VZ) implement the requirements of the European standard as well as the German specifications (VwV-StVO, VzKat). Only the application of the RAL quality mark and the CE mark provides proof of compliance with the requirements of the TLP VZ. This ensures compliance with European and national requirements.



Fixed, vertical traffic signs must carry a manufacturer's label. This contains the name, logo and full address of the manufacturer.



Certified welding company in accordance with DIN EN 1090

Traffic Sign Sizes

INDIVIDUAL REQUIREMENTS

The design of traffic signs and traffic facilities shall be limited to the specific, individual requirements. **Traffic signs which are unnecessarily large should be avoided.**

DETERMINATION OF TRAFFIC SIGN SIZE

If the size of a traffic sign is not already determined by the German Road Traffic Regulations (StVO), General Administrative Directive on Traffic Regulations (VwV-StVO) or other official regulations, the choice of the required traffic sign size is

determined **after careful consideration, based on the of the following table.**

TRAFFIC SIGN SIZES FOR MOTORWAYS

On highways and highway-like roads without speed limits, prohibitions and related directives are initially displayed on signs of **size 3 (140%)**, repetitions usually are displayed on signs of size 2.

	Size 1 (70%)	Size 2 (100%)	Size 3 (125% or 140%)
--	-----------------	------------------	--------------------------

Fixed content traffic sign sizes: Circles, triangles, and squares/rectangles

Circle, diameter (mm)	420	600	750 (125%)
Triangle, side length (mm)	630	900	1260 (140%)
Square, side length (mm)	420	600	840 (140%)
Rectangle, H x W (mm)	630 x 420	900 x 600	1,260 x 840 (140%)

Traffic sign sizes with additional symbols

Height 1, H x W (mm)	231 x 420	330 x 600	412 x 750
Height 2, H x W (mm)	315 x 420	450 x 600	562 x 750
Height 3, H x W (mm)	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)	20 < 50	50 to 100	> 100 (140%)
------------------	---------	-----------	--------------

Traffic sign sizes for circles, dependent on speed (in general)

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

Traffic sign examples

Regulatory			
------------	---	---	---

Choice of performance class in terms of retro-reflection and/or luminance (traffic signs in darkness)

Signs pursuant to § 39 to § 43 German Road Traffic Regulations (StVO)		Normal environment			Brightly lit environment and/or many external light sources		
		Highway	Non-urban	Urban	Highway	Non-urban	Urban
All signs except those listed below ¹⁾	Installation location: right	RA2	RA1 / RA2	RA2	RA2 / RA3	RA2	RA3 / ill.
	Installation location: high / left	RA2	RA2	RA2	RA3	RA2 / RA3	RA3 / ill.
Waiting and stopping signs at level crossings		-	RA2 / RA3	RA2 / RA3	-	RA3	RA3
Waiting and stopping signs at intersections, junctions and when the roadway is narrowed; signs for prescribed direction of travel and prescribed passing direction		RA2 / RA3	RA2	RA2 / RA3	RA3	RA3	RA3 / ill.
Roadwork signs		RA2	RA2	RA2 ²⁾	RA2 / RA3	RA2	RA2
Special roads, no stopping or parking; tourist information signs pursuant to Z386 StVO and VwV-StVO to sign 386 ³⁾		RA1					

Explanations to the table:

RA1: Retro-reflectivity class 1 (formerly "type 1"), RA2: Retro-reflectivity class 2 (formerly "type 2"), RA3: Retro-reflectivity class 3 (formerly "type 3"), "ill.", internally or externally illuminated, "/": Selection according to boundary conditions, "left": if the sign is only on the left, a higher performance class is recommended compared to installation on the right ("right").

¹ Unless specifications are stipulated for these in separate sets of rules (e.g. sign 350 in the Guidelines for the Design and Equipment of Pedestrian Crossings (R-FGÜ)) / ² Existing stocks of materials of retro-reflectivity class 1 (RA1) may be used up. / ³ Unless integrated in the form of a brown color insert in a signpost according to RWB.

Overview of Traffic Sign Designs



Side view

FLAT SIGN:

FLAT SHAPE

2 or 3 mm aluminum sheet.

For permanent installation, fasten with hot-dip galvanized pipe clamps.

For temporary installation, use clamps, fastening clamps or Vario adapters.



Side view

PROFILE-REINFORCED IMAGE CARRIER:

ALFORM

2 mm thick aluminum sheet with circumferential aluminum frame for edge reinforcement.

Permanent installation with ALFORM aluminum clamps. For temporary installation, the signs can be mounted using Vario adapters.



Side view

FLANGED-EDGE IMAGE CARRIER:

CIRCULAR

2 mm thick aluminum sheet with flanged-edge.

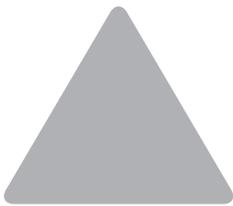
Permanent installation by means of stainless steel clamps.



OUR SERVICE FOR YOU: An overview of sheeting reflectivity classes

The sheeting types are differentiated by classes RA1 and RA2 as well as separate structural types. An overview of the different sheeting can be found on page 13.

Traffic Signs Pursuant to the German Road Traffic Regulations (StVO)



Size	SL in mm	Flat shape		Alform	
		RA1	RA2	RA1	RA2
1	630		✓		✓
2	900		✓		✓
3	1260		✓ *		✓ *

Selected traffic signs from the full product range:



205



101



101-52



112



114



120



123



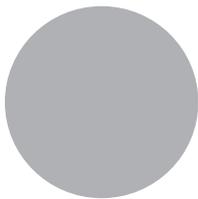
125



131



133-10



Size	ø in mm	Flat shape		Alform	
		RA1	RA2	RA1	RA2
1	420	✓	✓	✓	✓
2	600	✓	✓	✓	✓
3	750		✓		✓

Selected traffic signs from the full product range:



250



208



209



222



237



267



276



280



274-50



283



Size	H*W in mm	Flat shape		Alform	
		RA1	RA2	RA1	RA2
1	600 * 600		✓		✓
2	900 * 900		✓		✓
3	1,050 * 1,050		✓ *		✓ *

MORE INFORMATION AT:



YOU CAN FIND A COMPLETE OVERVIEW OF OUR TRAFFIC SIGNS AT:
trafficsafety.horizont.com/verkehrszeichen

* = 3 mm instead of 2 mm aluminum



Size	H*W in mm	Flat shape		Alform	
		RA1	RA2	RA1	RA2
1	420 * 420	✓	✓	✓	✓
2	600 * 600	✓	✓	✓	✓
3	750 * 750	✓	✓	✓	✓

Selected traffic signs from the full product range:



306



308



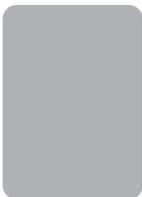
314



350-20



357



Size	H*W in mm	Flat shape		Alform	
		RA1	RA2	RA1	RA2
1	630 * 420	✓	✓	✓	✓
2	900 * 600	✓	✓	✓	✓
3	1,260 * 840		✓		✓

Selected traffic signs from the full product range:



357-50



422-10



442-10



455.1-10



455.1-50



455.2



460-10



460-30



Blank white/black



Blank yellow/black



457.1

H*W in mm	Flat shape		Alform	
	RA1	RA2	RA1	RA2
350 * 1050		✓		✓



457.2



454-10

H*W in mm	Flat shape		Alform	
	RA1	RA2	RA1	RA2
350 * 1250		✓		✓



454-20

MORE INFORMATION AT:



YOU CAN FIND A COMPLETE OVERVIEW OF OUR TRAFFIC SIGNS AT:
trafficsafety.horizont.com/verkehrszeichen

Additional Signs

Size	H*W in mm	Flat shape		Alform	
		RA1	RA2	RA1	RA2
1.1	231 * 420	✓	✓	✓	✓
2.1	330 * 600	✓	✓	✓	✓
3.1	412 * 750		✓		✓

Selected traffic signs from the full product range:



1000-10



1000-12



1000-30



1001-30



1004-30



1007-33



1007-38



1007-53



1008-34



Blank white/black

Size	H*W in mm	Flat shape		Alform	
		RA1	RA2	RA1	RA2
1.2	315 * 420	✓	✓	✓	✓
2.2	450 * 600	✓	✓	✓	✓
3.2	562 * 750		✓		✓

Selected traffic signs from the full product range:



1000-32



1007-59



1007-60



1008-31



1022-10



1026-33



1026-34



1026-35



1028-30



Blank white/black

Size	H*W in mm	Flat shape		Alform	
		RA1	RA2	RA1	RA2
1.3	420 * 420	✓	✓	✓	✓
2.3	600 * 600	✓	✓	✓	✓
3.3	750 * 750		✓		✓

Selected traffic signs from the full product range:



1010-72



1060-32



Blank white/black

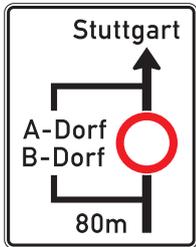
MORE INFORMATION AT:



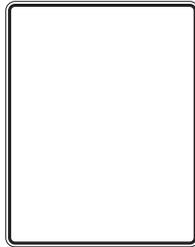
YOU CAN FIND A COMPLETE OVERVIEW OF OUR TRAFFIC SIGNS AT:
trafficsafety.horizont.com/verkehrszeichen

Road Layout and Lane Shift Signs

Road layout (plan signs)



458
to individual specification

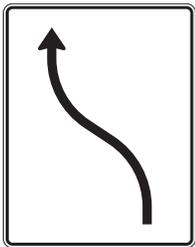


Blank white/black

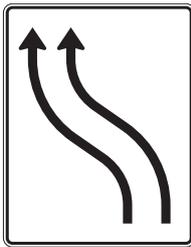
HxW in mm	Flat shape, RA2		Alform, RA2
	2 mm	3 mm	
900 x 600 *	✓		✓
1,260 x 840 *		✓	✓
1,600 x 1,250		✓	✓
2,000 x 1,250		✓	✓

* In Germany, the minimum dimensions of 1,600 x 1,250 mm are required pursuant to the new Guidelines for Diversion Signs (Richtlinien für Umleitungsbeschilderung – RUB). According to the Guideline for the Use of Temporary Detour Signage (MTU), the 900 x 600 mm following sign can be used for pedestrian traffic (MTU 3.7).

Lane shift signs (lane guidance boards)

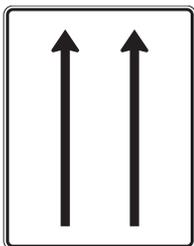


511-10

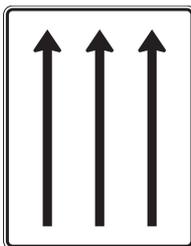


511-11

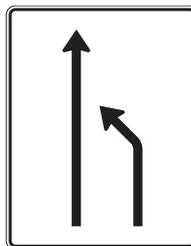
HxW in mm	Flat shape, RA2		Alform, RA2
	2 mm	3 mm	
500 x 1,250	✓	✓	✓
1,600 x 1,250	✓	✓	✓



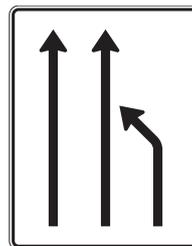
521-30



521-31



531-10



531-11



1001-34
for ... m (verbal)
(in conjunction with
traffic lane sign 521 et seq.)



1001-35
for ... m (verbal)
(in conjunction with
traffic lane sign 521 et seq.)

MORE INFORMATION AT:



NEW: All road layout signs are also available with a visual image on transparent, removable sheeting or in Alform as a tray.

Tray form = The circumferential Alform frame is mounted with the protrusion to the front. This offers better protection for the visible image during storage and transport.

YOU CAN FIND A COMPLETE OVERVIEW OF OUR TRAFFIC SIGNS AT:

trafficsafety.horizont.com/verkehrszeichen

Night-Time Construction Site Warning Sign

- Reinforced profile, Alform II, RA2
- Background: white
- Edge: black
- 2 LED warning lights, ø 340mm
- Incl. 5 m connection cable with terminals
- Available in different versions



Item No.	Product	PU
6859022-0	NB0 – traffic sign 123 with additional symbol, blank (without text)	1
6859022-1	NB1 / traffic sign 123 "Roadworks" night-time construction site (Nachtbaustelle)	1
6859022-2	NB2 – traffic sign 123 "Roadworks"	1
6859022-3	NB3 – traffic sign 123 "Roadworks" with individual kilometer indication	1
6859022-4	NB4 – traffic sign 123 "Roadworks" with individual lettering	1

Weight approx., kg	Dimensions, W*H, mm	Material
29	1,600 * 1,250	Aluminum

Various versions:



NB0



NB1



NB2



NB3



NB4

OUR SERVICE FOR YOU: Large selection of rechargeable batteries and batteries

You will find an overview of our entire range of accumulators and batteries from page 169 onwards.

Rechargeable Battery and Battery Holder

- For theft-proof mounting to crash barriers
- For 1 x accumulator 180 Ah (see page 181)
- Lock is not included

Item No.	Product	PU
68721008	Rechargeable battery and battery holder	1

Weight approx., kg	External dimensions, L*W*H, mm	Material
4	555 * 315 * 280 mm	Steel, galvanized

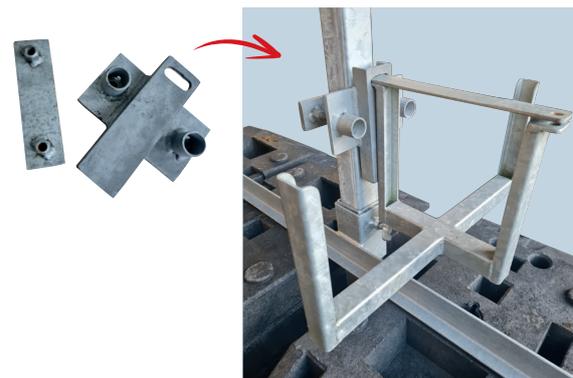


Adapter for Rechargeable Battery and Battery Holder

- For attaching the holder to posts and masts up to 100 x 100 mm
- e.g. on guard-rail posts, tubes and signposts

Item No.	Product	PU
687210081	Adapters for rechargeable batteries and battery holders	1

Weight approx., kg	External dimensions, L*W*H, mm	Material
1.5	180 * 125 * 200 mm	Steel, galvanized



OUR SERVICE FOR YOU: Large selection of rechargeable batteries and batteries

You will find an overview of our entire range of batteries and rechargeable batteries from page 178 onwards.

Using the Installation Devices

Categorization of installation devices in urban areas (0.25 kN/m²)

Designation	Traffic sign		Size 2 Installation height, mm	
			2.2	1.5
Circle		Ø 600 mm	K2	K1
Triangle		SL 900 mm	K2	K2
One-way street		800 x 300 mm	K2	K1
Traffic guidance sign		1,250 x 1,600 mm	K9	K9
2 circles		Ø 600 mm	K4	K3
Circle with additional symbol, single line		Ø 600 mm 330 x 600 mm	K3	K3
2 triangles		SL 900 mm	K4	K3
Triangle with additional symbol, three lines		SL 900 mm 600 x 600 mm	K5	K4
Triangle with circle		SL 900 mm Ø 600 mm	K5	K4
Numbered diversion		900 x 600 mm	K2	K2
End of diversion		350 x 1,050 mm	K2	K2
Triangle with additional symbol, single-line and circle		SL 900 mm 330 x 600 mm Ø 600 mm	K5	K4

Categorization of installation devices in non-urban areas (0.42 kN/m²)

Designation	Traffic sign		Size 2 Installation height, mm	
			2.2	1.5
Circle		Ø 600 mm		K2
Triangle		SL 900 mm		K2
Traffic guidance sign		1,250 x 1,600 mm		2 x K8
2 circles		Ø 600 mm		K5
Circle with additional symbol, two lines		Ø 600 mm 450 x 600 mm		K4
2 triangles		SL 900 mm		K5
Triangle with additional symbol, three lines		SL 900 mm 600 x 600 mm		K6
Triangle with circle		SL 900 mm Ø 600 mm		K5
Triangle with additional symbol, single-line and circle		SL 900 mm 330 x 600 mm Ø 600 mm		K7

This table was created on the basis of the German regulation “TL- Aufstellvorrichtungen” and constitutes a recommendation. The actual local conditions (subsurface, wind conditions, installation area,...) must be

taken into consideration during installation. The recommended values are only valid when using an installation device from horizont.

NOTE! An installation height of one meter can be used for directional and additional symbols.

MORE INFORMATION AT:





Categorization of installation devices in non-urban areas to BAB (0.42 kN/m²)

Designation	Traffic sign	Size 3 Installation height, mm	
			1.5
Circle	 Ø 750 mm		K3
Triangle	 SL 1,260 mm		K5
Traffic guidance sign	 1,250 x 1,600 mm		2 x K8
2 circles	 Ø 750 mm		K7
Circle with additional symbol, two lines	 Ø 750 mm 562 x 750 mm		K7
2 triangles	 SL 1,260 mm		
Triangle with additional symbol, three lines	 SL 1,260 mm 750 x 750 mm		K8
Triangle with circle	 SL 1,260 mm Ø 750 mm		K8
Triangle with additional symbol, single-line and circle	 SL 1,260 mm 412 x 750 mm Ø 750 mm		2xK6



RECOMMENDATION

Use of the **size 3** installation device:

- Installation of the base plates

- one behind the other
- Guaranteed exceptionally

stable support

- Only four base plates are required to meet wind load class K8 requirements



- TL** ✓
Aufstellvorrichtungen
- K2** ✓
Kennung
- K3** ✓
Kennung
- K4** ✓
Kennung

Aluminum Installation Device, Size 2

- Tested in accordance with the German "TL-Aufstellvorrichtungen" standard:
 - Up to K2 with two K1 base plates
 - Up to K3 with three K1 base plates
 - Up to K4 with four K1 base plates
- Ideal for urban use where space is limited
- For square posts 40 x 40 mm
- Takes base plates type K1
- Supplied without base plates

Item No.	Product	PU
252922	For square posts 40 x 40 mm	1

Weight approx., kg	Dimensions, L*W*H, mm	Material
4.5	830 * 460 * 670	Aluminum



- TL** ✓
Aufstellvorrichtungen
- K3** ✓
Kennung
- K6** ✓
Kennung
- K8** ✓
Kennung

Installation Device, Size 3

- Tested in accordance with the German "TL-Aufstellvorrichtungen" standard:
 - Up to K3 with two K1 base plates
 - Up to K6 with four K1 base plates
 - Up to K8 or 2 x K5 with six K1 base plates
 - Up to K8 or 2 x K6 with eight K1 base plates
- Securing bracket (required according to the "TL" standard) for securing the base plates when using installation devices
- For square posts 40 x 40 mm
- Takes base plates type K1
- With circumferential angle border
- Supplied without base plates
- Includes securing bracket

Item No.	Product	PU
68721003	For square posts 40 x 40 mm incl. securing bracket	1

Recommended Accessories

687210031	Securing bracket for 68721003	1
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Weight approx., kg	Dimensions, L*W*H, mm	Material
36	1930 * 460 * 670	Hot-dip galvanized steel



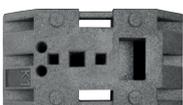
- TL** ✓
Aufstellvorrichtungen
- K5** ✓
Kennung
- K6** ✓
Kennung
- K8** ✓
Kennung

Aluminum Installation Device, Size 4

- Tested in accordance with the German "TL-Aufstellvorrichtungen" standard:
 - Up to K5 with four K1 base plates
 - Up to K6 with six K1 base plates
 - Up to K8 with ten K1 base plates
- Securing bracket (required according to the "TL" standard) for securing the base plates when using installation devices (2529241)
- For square posts 60 x 60 mm
- Takes base plates type K1
- With circumferential angle border
- Supplied without base plates
- Excludes securing bracket

Item No.	Product	PU
252924	For square posts 60 x 60 mm	1
2529241	Securing bracket for 252924	1

Weight approx., kg	Dimensions, L*W*H, mm	Material
20.5	920 * 980 * 1,010	Aluminum



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

Installation Device, Size 5

- Tested in accordance with the German "TL-Aufstellvorrichtungen" standard:
 - Up to K6 with four K1 base plates
 - Up to K9 with eight K1 base plates
 - Up to 2 x K8 with twelve K1 base plates
 - Up to 2 x K9 with sixteen K1 base plates
- Securing bracket (required according to the "TL" standard) for securing the base plates when using installation devices
- For square posts 60 x 60 mm
- Takes base plates type K1
- With circumferential angle border
- Supplied without base plates
- Includes securing bracket

- TL** ✓
Aufstellvorrichtungen
- K6** ✓
Kennung
- K8** ✓
Kennung
- K9** ✓
Kennung

Item No.	Product	PU
68721004	For square posts 60 x 60 mm incl. fixing pin	1

Recommended Accessories

687210041	Securing bracket for 68721004	1
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Weight approx., kg	Dimensions, L*W*H, mm	Material
57	1,960 * 1,100 * 480	Hot-dip galvanized steel



Telescopic Plug-In Mounting Tube

- For Alform signs with an edge width of up to 4 cm

Item No.	Product	PU
68721006	Telescopic plug-in mounting tube	1



CERTIFIED WELDING SPECIALIST

"We rely on qualified personnel for certified quality."



Aluminum Square Post

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

- For use in base plates with a 40 x 40 mm receptacle
- For use with aluminum installation devices, impact sleeves and crash barrier mounting supports
- Square post 40 x 40 mm
- Supplied without traffic sign
- Supplied without base plates

Item No.	Product	Material	PU
252881	Square post 40 x 40 mm, 2,000 mm long, wall thickness 2 mm	Aluminum	1
252912	Square post 40 x 40 mm, 3,000 mm long, wall thickness 2 mm	Aluminum	1
25293	Square post 40 x 40 mm, 3,000 mm long, wall thickness 3 mm	Aluminum	1

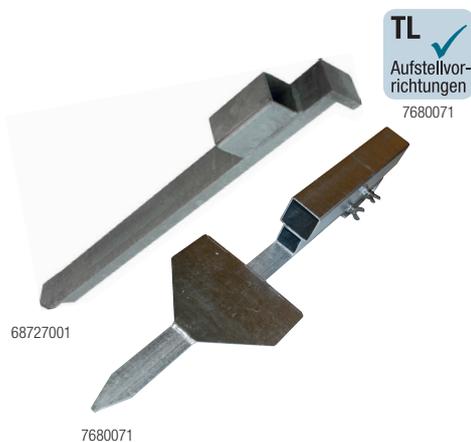


Steel Square Post

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

- For use in base plates with a 40 x 40 mm receptacle
- For use with aluminum installation devices, impact sleeves and crash barrier mounting supports
- Square post 40 x 40 mm
- Supplied without traffic sign
- Supplied without base plates

Item No.	Product	Material	PU
68722004	Square pole, 40 x 40 mm, 2,000 mm long, wall thickness 2.5 mm	Steel	1
68722008	Square pole, 40 x 40 mm, 3,000 mm long, wall thickness 2.5 mm	Steel	1
68722009	Square pole, 40 x 40 mm, 3,500 mm long, 2.5 mm wall thickness	Steel	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 40 x 40 and 60 x 60 mm

Item No.	Product	PU
68727001	Light, for square posts 40 x 40 mm	
7680071	Impact sleeve for square posts 40 x 40 and 60 x 60 mm	1

Weight approx., kg	Dimensions, L*W*H, mm	Material
3.5	610 * 100 * 55	Hot-dip galvanized steel
11.0	898 * 250 * 178	Hot-dip galvanized steel



Crash Barrier Mounting Support

For square posts

- For attaching square posts and traffic sign holders to steel crash barriers
- For square posts up to 40 x 40 or 60 x 60 mm

Item No.	Product	PU
68721001	For square posts up to 40 x 40 or 60 x 60 mm	1

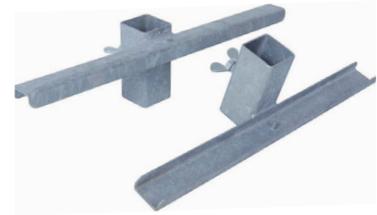
Weight approx., kg	Dimensions, L*W*H, mm	Material
7.2	400 * 200 * 220	Hot-dip galvanized steel

Clamping Support

- For fitting traffic guidance boards of different sizes
- For square posts 60 x 60 mm
- Height can be adjusted as required on the square post
- Incl. protection against lateral displacement
- For Alform signs with an edge width of up to 4 cm

Item No.	Product	PU
25294	Clamping support	1

Weight approx., kg	Dimensions, L*W*H, mm	Material
2.5	660 * 180 * 155	Hot-dip galvanized steel



Metal Clamp

- For clamping traffic signs without mounting holes to square posts and poles
- For square posts 40 x 40 mm
- For round tubes from Ø 38 to 42 mm
- 2 metal clamps per traffic sign required

Item No.	Product	PU
25287	Metal clamp	1

Weight approx., kg	Dimensions, L*W*H, mm	Material
0.1	65 * 60 * 55	Hot-dip galvanized steel

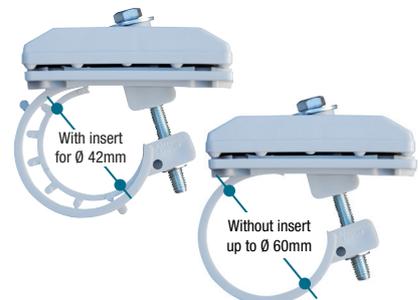


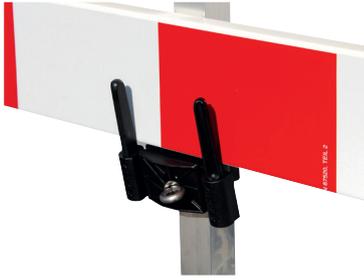
Fastening Clamp 126M0

- For clamping traffic signs without mounting holes to square posts and poles
- For round tubes 38 - 42 mm Ø (with plastic insert)
- For round tubes up to 60 mm Ø (without plastic insert)
- Bendable
- 2 fastening clamps per traffic sign required

Item No.	Product	PU
25324	Fastening clamp 126M0	1

Weight approx., kg	Dimensions, L*W*H, mm	Material
0.1	80 * 90 * 80	Plastic





Fastening Clamps 121

- Holder for clamping planks to square posts and poles
- Incl. plank brackets
- For \varnothing 42 mm poles and 40 x 40 mm square posts

Item No.	Product	PU
251210	Fastening clamps 121	50

Weight approx., kg	Dimensions, L*W*H, mm	Material
0.2	130 * 130 * 90	Plastic

Clamp, Red

- For \varnothing 42 mm poles and 40 x 40 mm square posts



Item No.	Product	PU
66171001	Clamp, red	50

Weight approx., kg	Dimensions, L*W*H, mm	Material
0.2	110 * 60 * 60	Plastic



Fastening Clamp 128 MS or 128 M

- For clamping traffic signs without mounting holes to square posts and poles
- Bendable
- For \varnothing 38 - 42 mm poles and 40 x 40 mm square posts
- Optionally with eye bolt or hexagon head screw, M8
- 2 fastening clamps per traffic sign

Item No.	Product	PU
25308	Fastening clamp 128 MS, with eye bolt	150
25128M	Fastening clamp 128 M, with hexagon head screw (M8, brass)	150

Weight approx., kg	Dimensions, L*W*H, mm	Material
0.12	85 * 80 * 60	Plastic



Circular Plastic Pole 92-95

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

- For use in base plates with a 60 x 60 mm receptacle
- Circular pole, red, Ø 42 mm
- With tube shoe for 60 x 60 mm receptacle
- Also available without tube shoe

Item No.	Product	PU
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

Item No.	Weight approx., kg	Dimensions, L*Ø, mm	Material
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



Tube Shoe

- Adapter for use with circular poles Ø 42 mm in standard base plates with receptacle 60 x 60 mm
- For circular poles up to Ø 42 mm

Item No.	Product	PU
25368	Tube shoe	138

Weight approx., kg	Dimensions, 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

Item No.	Product	PU
7680651	Reducing adapter for square posts 40 x 40 mm	160
768065	Reducing adapter for square posts 50 x 50 mm	147

Weight approx., kg	Dimensions, L*W*H, mm	Material
0.1	60 * 60 * 110	Plastic



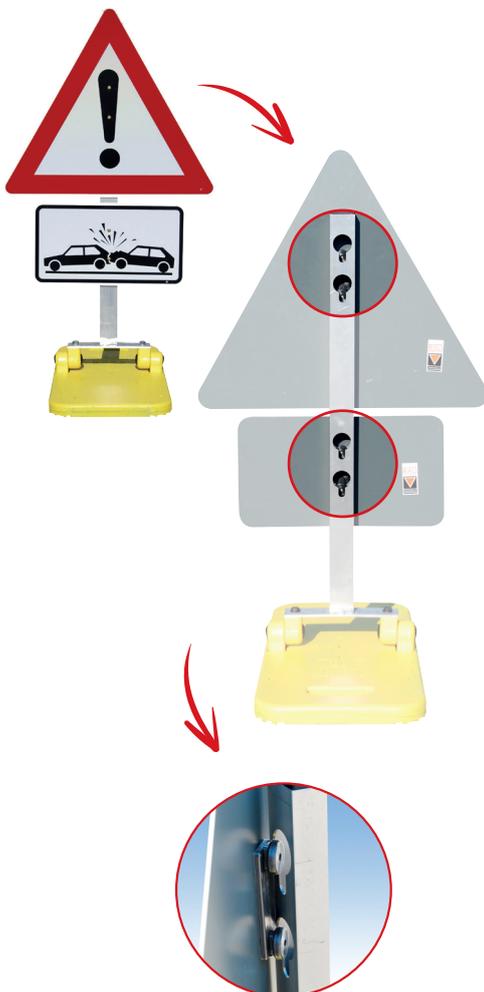
Using the Vario-Adapter

- The horizont Vario-System is perfectly suited for quickly installing traffic signs.
- With the Vario-Adapter, traffic signs can be hooked into the two keyhole-shaped receptacles of the Vario Sign Post or Vario Sign Stand in a flash, without the need for tools. Disassembly is just as quick and easy.
- Our Vario Sign Rack completes the range and ensures even faster handling and safe transport of traffic signs with the Vario-Adapter.



Vario-Adapter
MORE ON PAGE 112

Vario Sign Stand
MORE ON PAGE 113



Vario Sign Rack
MORE ON PAGE 113



Vario Sign Post
MORE ON PAGE 112





MOST CERTAINLY STABLE

“Sign stands ensure order, rapid location and optimal handling.”



Vario-Adapter 8047

The “Vario-Adapter 8047” enables the rapid, tool-free attachment of traffic signs into the two keyhole-shaped receptacles of the matching upright post.

- For traffic signs without edges
- For hooking into Vario Square Sign Posts, Vario Sign Stands, Vario Sign Racks
- Supplied with fixing screws (10 pcs. in bag)

Item No.	Product	PU
2562265-10	Vario-Adapter 8047	1 pack (10 pcs.)

Weight approx., kg	Dimensions, L*W*H, mm	Material
0.05	110 * 35 * 16	Plastic



Vario-Adapter 8048

The “Vario-Adapter 8048” with integrated 20 mm spacer enables the rapid, tool-free attachment of traffic signs with edges (Alform) into the two keyhole-shaped receptacles of the matching upright post.

- For traffic signs with edges and for Alform signs
- For hooking into Vario Square Sign Posts, Vario Sign Stands, Vario Sign Racks
- Supplied with fixing screws

Item No.	Product	PU
2562266	Vario-Adapter 8048	1

Weight approx., kg	Dimensions, L*W*H, mm	Material
0.05	110 * 35 * 39	Plastic



Vario Square Sign Posts

Square plastic posts with Vario holes in various lengths; 2,000, 2,500 and 3,000 mm

- For use in base plates with a 60 x 60 mm receptacle
- Each features three pairs of Vario receptacles at front and back to hook in planks or traffic signs using Vario-Adapters
- Square post 60 x 60 mm

Item No.	Product	PU
259061	Vario Square Sign Posts, 2,000 mm	10
259062	Vario Square Sign Posts, 2,500 mm	10
259060	Vario Square Sign Posts, 3,000 mm	10

Item No.	Weight approx., kg	Dimensions, 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

Vario Sign Stand

Sign post and base plate in one, ideal for fire service and civil protection use

- For up to four traffic signs of all shapes: **Circle, triangle, rectangle, square**
- Mobile sign stands, collapsible
- Robust folding mechanism with two sturdy hinges
- Posts have two pairs of Vario receptacles on both sides
- Post height 800 mm
- Base plate made of dimensionally stable recycled material
- Base plate with anti-skid system

Item No.	Product	PU
257702	Vario Sign Stand	1

Weight approx., kg	Dimensions, L*W*H, mm	Material
12.0	670 * 310 * 930	Stainless steel/recycled



Transport and Storage Box for Collapsible Delineators or Vario Sign Stands

For transport and storage of up to 5 collapsible delineators or Vario Sign Stands

- Particularly fast and easy removal
- Galvanized steel
- Robust design
- Two sturdy carrying handles ensure optimum handling even when fully equipped
- Prepared fixing receptacles allow secure mounting of the transport and storage box, e.g. on a mobile warning trailer
- Supplied empty

Item No.	Product	PU
25KC760	Transport and storage box, up to 5 collapsible delineators or Vario Sign Stands	1

Weight approx., kg	Dimensions, L*W*H, mm	Material
8.6	660 * 320 * 330	Hot-dip galvanized steel



Vario Sign Rack

Rapid handling and secure transportation of frameless traffic signs with Vario-Adapter

- For edgeless traffic signs with Vario Adapter 8047 (item no.: 2562265)
- For up to 11 traffic signs Ø 600 mm or SL 900 mm (traffic signs up to size 2)
- Supplied without traffic sign

Item No.	Product	PU
257701	Vario Sign Rack	1

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



SALES

STEFAN SCHULZE

Stefan has been an integral part of our team for many years now. In his spare time he likes to go skiing and to spend time with his family.



SALES

THOMAS LUBBE

Thomas enjoys camping and sport shooting in his free time. He also spends as much time as possible after work with his wife and two daughters.

06

Advanced Warning, Traffic Information and Vehicle Protection

SOLAR KIT 116-117

ADVANCE WARNING LAMPS 118-119

MS 340 plus and MS 340 LED 118

MS 340 plus, double set 118

RS 2000 plus 119

RS 2000 plus, double set 119

VARIABLE MESSAGE SIGN

AND HOT SYSTEM 120

LED standalone variable message sign 120

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ROTATING BEACONS | FRONT FLASHER |

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horizont light cross HLK 9 126

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POLVIS 130 128

FEUVIS 130 129

Harness Solar Energy in a Sustainable and Innovative Way

AWVMS LED WITH SOLAR KIT

The solar kit now offers additional option of extending the operating hours of the horizon advance warning trailer, rendering it up to 100% autonomous.

No additional motor is needed to set up the solar panel, it deploys automatically when the LED panel is raised.

MORE ON PAGE 137



SOLAR KIT

Combine the horizon solar kit with all products from our advance warning range that are powered by 12 V to significantly extend your operating times or achieve autonomous summer operation under ideal conditions.



IN COMBINATION WITH:

Advance directional warning lamp



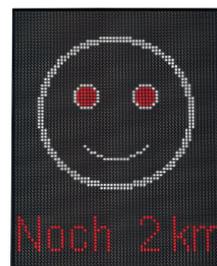
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Light arrow



MORE ON PAGE 124

LED variable message sign



MORE ON PAGE 120

Portable traffic lights



MORE ON PAGE 168

Solar Kit

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

With the solar kit, horizon now also offers an option to extend the operating hours of e.g. a classic MS 340 LED via a solar power supply.

The solar module with charge controller provides an output of 50 watts. Under optimum conditions, the solar kit can produce four times as much power as required, allowing lamps, for instance, to be operated without the need for external battery recharging.

Please note that power output may vary depending on external conditions. The most important factors are the duration and intensity of sunlight.

Seasonal daylight hours and weather-related cloud cover have a significant impact on overall performance.

Even taking weather-related limitations into consideration, this solar power system is an excellent way to support 12 V devices.

For best results, ensure the panel is properly oriented, kept clean and dust-free, and that the battery is well maintained.

Using our installation device – in combination with the corresponding base plates, a support pole, battery, battery box, and the appropriate brackets – horizon provides a practical, energy-efficient solar solution that can be quickly and easily deployed anywhere.

- Includes charge controller
- Solar module with an output of 50 watts
- IP-65



Item No.	Product	PU
21244	Solar kit comprising: 2x solar module bracket (14143), 1x solar module (14873), solar panel alignment tube, (84416), 60 x 60 mm adapter (84417), Stak/Stas connection set and PG-screw fitting	1 set

20972 Solar set for extending the running time of a horizon Multi-Signal or Euro-Signal traffic light systems (telescopic mast only). Complete set comprises 30W solar panel, fixed bracket for telescopic mast, charge controller, battery connection cable

Recommended accessories

252924	Aluminum installation device size 4, for 4 base plates K1	1
2529241	Securing bracket for installation device size 4	1
25293	Aluminum square pole 3,000 mm, wall thickness 3 mm	1
2549904	Universal base plate K1, 830 * 425 * 120 mm	4
21264	Large capacity battery box	1
25014B	Rechargeable battery 12 V / 180 Ah	1
20823PLUS	MS 340 plus flashing directional warning lamp + bracket for MS	1
924641VP	340 LED	1
209291LED	RS 2000 plus flashing directional warning lamp	1

Weight, kg	Dimensions, H*W*H, mm	Supply voltage, V	Solar panel output, W
12 kg	850 * 560 * 760	12	50



BAST
✓

L9M / L9L
✓
EN 12352

WL5
✓
TL-Warnleuchten

WL7
✓
TL-Warnleuchten

MS 340 LED and MS 340 LED, Double Set

The proven advance directional warning lamp

The MS340 advance warning lamp impresses thanks to its robust design, offering higher luminous intensity and energy efficiency than the proven MS340 LED lamps. Built solely with energy-efficient LED technology, it keeps construction sites safe, alerts drivers to hazardous road conditions, and makes mobile warning trailers more visible and easier to notice.

The beam pattern can be set according to WL 5 (flash) or WL 7 (blink).

- Pursuant to EN 12352 - L9M / L9L, WL 5
- Pursuant to EN 12352 - L9H / L9M, WL 7
- Possible applications: Advance warning, vehicle protection, mobile warning trailers, light arrows.
- Durable technology with 4 high-performance LEDs
- Dual circuit LED system
- Low power consumption
- Easy and quick opening thanks to snap locks
- Splash-proof housing
- Incl. Secura 82 bracket
- Incl. 5 m battery cable

Item No.	Product	PU
20825LED	LED single directional warning lamp with Secura 82 bracket, 12 V / 24 V, incl. 5 m battery cable	1
25822LED	Double system, 3.5 m connecting cable, hard-wired together, 5 m supply cable	1

Weight, kg	Dimensions, ø*H, mm	Blink/flash rate/min.	Operating voltage	Power consumption/directional warning lamp, W at 12 V
0.8	340 * 127	40 / 60	12 / 24	1
0.8	340 * 127	40 / 60	12 / 24	1



nach **L9M / L9L**
✓
EN 12352

nach **L9H / L9M**
✓
EN 12352

MS 340 plus and MS 340 plus, Double Set

Double LED advance warning system

The new MS340 plus directional warning lamp impresses thanks to its compact design, offering the same luminous intensity and energy efficiency as the proven MS340 LED lamps. Built solely with energy-efficient LED technology, it keeps construction sites safe, alerts drivers to hazardous road conditions, and makes mobile warning trailers more visible and easier to notice. Also available as double system, consisting of 2 advance warning lamps MS340 plus. The individual long-distance directional warning lamps are permanently wired to each other by means of a 3.5 m connecting cable.

The beam pattern can be set according to WL 5 (flash) or WL 7 (blink)

- Pursuant to EN 12352 - L9M / L9L, WL 5
- Pursuant to EN 12352 - L9H / L9M, WL 7
- Possible applications: Advance warning, vehicle protection
- Durable LED technology with 4 high-performance LEDs
- Dual circuit LED system
- Low power consumption
- Easy and quick opening thanks to twist lock
- Splash-proof housing
- Optional Secura 82 bracket (for double system)
- Incl. 5 m battery cable

Item No.	Product	PU
20825PLUS	Single directional warning lamp with Secura 82 bracket, 12 V / 24 V, incl. 5 m battery cable	1
25822PLUS	Double system, 3.5 m connecting cable, hard-wired together, 5 m supply cable 12/24V, comprising: Master lamp (20823PLUS) and supplementary lamp (20824PLUS)	1

Recommended Accessories

924641VP	Bracket for max. span width 82 mm	1
----------	-----------------------------------	---

Weight, kg	Dimensions, ø*H, mm	Blink/flash rate/min.	Operating voltage	Power consumption/directional warning lamp, W at 12 V
0.8	340 * 127	40 / 60	12 / 24	1
1.6	340 * 127	40 / 60	12 / 24	2

RS 2000 plus

LED advance directional warning lamp pursuant to warning light class WL 6

The horizon RS 2000 plus advance warning lamp combines BAST-approved light intensity with very low power consumption through the exclusive use of LED technology – without compromising on operational safety. As an advance warning lamp, it warns of any roadworks kilometers ahead.

The splash-proof housing is robust and optimally secures the internal electronics. The Secura 52 bracket, which is already fitted, can be used to securely attach the advance warning lamp, thereby offering optimum protection against theft.

- **BAST-approved according to the German "TL-Warnleuchten" standard**
- **TüV-approved**
- **EN 12352 -L8H / L8M, WL 6**
- **Possible applications: Multiple systems, light arrows (with 8, 15 or 24 lamps), mobile warning trailers**
- Optics, 200 mm Ø
- Durable LED technology with 4 high-performance LEDs

- Dual circuit LED system
- Very low power consumption, only 120 mA* (0.12 A) (*in-house measurement)
- Sturdy housing in a flat, compact design with low installation depth
- Screwless assembly and disassembly
- Splash-proof housing
- Incl. Secura 52 bracket (82 mm optional)



Item No.	Product	BAST	PU
209291LED	Single lamp, with Secura 52 bracket, 12/24V, 5 m power supply cable	✓	1

Weight, kg	Dimensions, ø*H, mm	Blink/flash rate/min.	Operating voltage	Power consumption/directional warning lamp, W at 12 V
0.6	210 * 75	40	12 / 24	0.9

RS 2000 Plus, Double Set

LED double advance warning system pursuant to warning light class WL 6

The horizon RS 2000 plus LED directional advance warning lamp is also available as multiple system consisting of 2 (optionally also 3 or 4) advance warning lamps. The individual long-distance advance warning lamps are permanently wired to each other by means of a 3.5 m connecting cable.

In accordance with your needs, you can equip construction site vehicles, municipal vehicles and hazardous areas with a clearly visible warning.

- **BAST-approved according to the German "TL-Warnleuchten" standard**
- **TüV-approved**
- **EN 12352 -L8H / L8M, WL 6**
- **Possible applications: Construction site vehicles, municipal vehicles, hazardous areas**
- Optics, 200 mm Ø
- Durable LED technology with 4 high-performance LEDs
- Dual circuit LED system

- Very low power consumption, only 120 mA* (0.12 A) (*in-house measurement)
- Sturdy housing in a flat, compact design with low installation depth
- Screwless assembly and disassembly
- Splash-proof housing
- Incl. Secura 52 bracket (82 mm optional)



Item No.	Product	BAST	PU
214091LED	Double system, 3.5 m connecting cable, hard-wired together, 5 m supply cable, Secura 52 bracket, 12/24V, comprising: Master lamp (209301LED) and supplementary lamp (209311LED)	✓	1

Weight, kg	Dimensions, ø*H, mm	Blink/flash rate/min.	Operating voltage	Power consumption/directional warning lamp, W at 12 V
0.6	210 * 75	40	12 / 24	1.8



LED Standalone Variable Message Sign

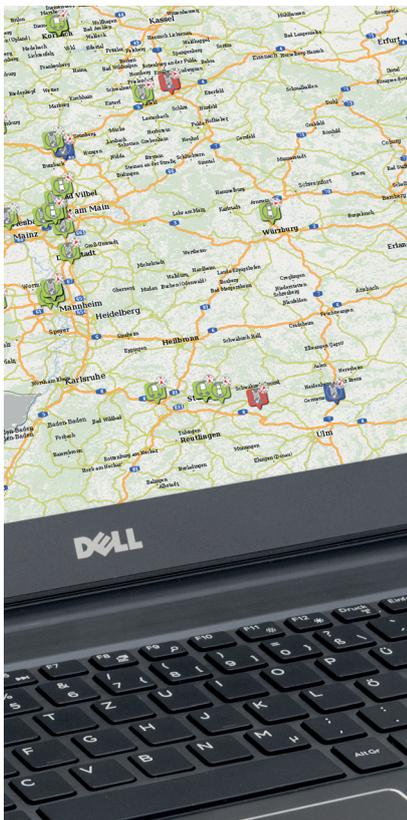
Modern traffic management for greater safety on all roads.

The modern standalone LED variable message signs are permanently installed at the roadside and provide permanent traffic information. The HOT system (horizont Telematik System) allows the information displayed to be quickly and safely adapted to the current traffic situation.

- **Free programming of each LED (the lower field is not limited to text)**
- No reflections caused in front screen
- Individually encapsulated high-performance LEDs
- Equipped with full-color LEDs with up to 16.7 million colors
- Robust powder-coated metal housing
- Controlled via the HOT system
- Anti-phantom light technology
- Display of traffic signs and lane change signs in StVO-compliant size and color
- Alternating flashing light, continuous light, animated images traffic signs/texts
- Easy-to-use software package included
- Long battery life thanks to low power consumption
- Automatic night-time dimming
- Multifunctional mounting and installation options
- Optional equipment from horizon: Crash barrier mounting support, aluminum installation devices, high-capacity batteries
- Optional solar kit (21244) to extend operating time
- Boards are available in two different sizes

Item No.	Product	PU
259289- RGBECO-H	LED variable message sign 64x80 pixels, RGB-LEDs, controlled via the HOT System	1
259288- RGBECO-H	LED variable message sign 48x48 pixels, RGB-LEDs, controlled via the HOT System	1

Weight, kg	Dimensions, L*W*H, mm	Power consumption, W	Pixels, L*W
70	1,645 * 1,330 * 180	60	64 * 80
40	1,010 * 1,010 * 180	12	48 * 48



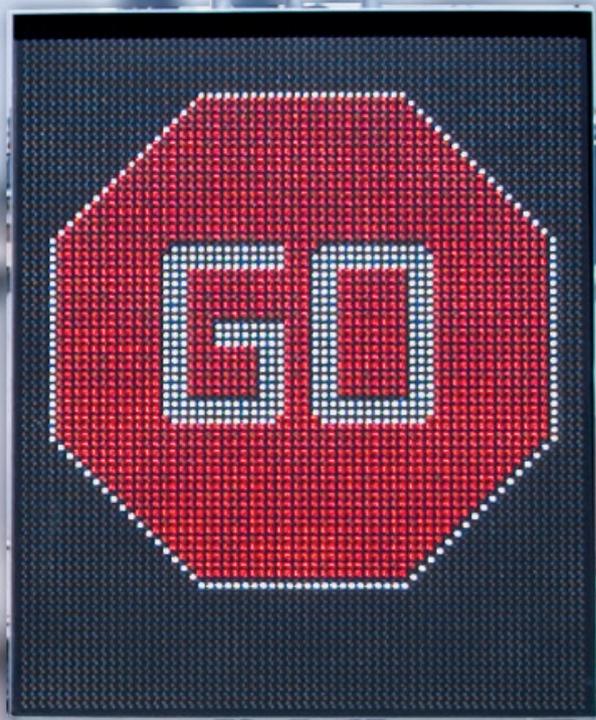
HOT - horizont Telematik System

GPS positioning system for monitoring mobile warning trailers and for monitoring and controlling advance warning signs and standalone signs.



- GPS tracking of your trailers and standalone signs on an overview map
- No additional server is required; login is possible via any internet connection.
- Real-time monitoring of display, battery status and alignment
- Control of LED sign displays
- Automatic data transmission to DORA and ArbIS via additional activation (mandatory for protection on Hessian and Bavarian motorways)
- Fault messages can be sent via SMS

Item No.	Product	PU
26533E	HOT-Box incl. ex-works installation for new purchases incl. demonstration, registration and login of the mobile warning trailer with Hessen Mobil	1
26533ESH	HOT-Box incl. retrofitting for AT93 and FA10 series, registration and login of the mobile warning trailer with Hessen Mobil	1
26550 / 26550M	HOT usage fee incl. DORA interface	1 year / 1 month
26553 / 26553M	horizont tracking system usage fee incl. ArbIS interface	1 year / 1 month
26551 / 26551M	horizont tracking system usage fee incl. DORA and ArbIS interface	1 year / 1 month
26552	ArbIS activation/registration (one-time). Chassis number and registration number as well as HOT access is required for this purpose.	1



DIGITAL SIGNAGE

"VMS LED boards are a real all-rounder. They're perfect for directing traffic, but can also draw attention to special events."

WECHSELWÄHLER
SWINGING VOTER

Richard Tipping XV



EUR A
E2 ✓
0090121

LED Rotating Beacon MRT 2M

MRT 2M LED rotating beacon with magnetic base and plug for cigarette lighter socket or plug-in mounting tube

LED rotating beacon for quick safeguarding of hazardous spots, with magnetic base and cigarette lighter plug or for rod mounting (standard, shape C). The MRT 2M-LED rotating beacon ensures that your vehicle is recognizable from a distance. Even in darkness and difficult visibility conditions it achieves a high warning effect. The MRT 2M-LED rotating beacon is characterized by its high reliability and it contains no mechanical wearing parts.

Note: In Germany, rotating beacons with magnetic bases may only be used on stationary vehicles.



Item No.	Product	PU
25441MLED	MRT2M LED 12/24V rotating beacon for rod mounting, amber, (protection class IP66) pursuant to ISO 4148 (DIN14620)	1
25441MLEDBL	MRT2M LED 12/24V rotating beacon for rod mounting, blue, (protection class IP66) pursuant to ISO 4148 (DIN1 4620)	1
25066	Rod mount with 12V/24V adapter (Ø 24 mm L: 100 mm)	1
25443MLED	MRT2M LED 12/24V rotating beacon with magnetic base, coiled cable and cigarette lighter plug, amber, (protection class IP65) pursuant to ISO 4148 (DIN14620)	1

Item No.	Weight, kg	Dimensions, ø*H, mm	Flash rate / min.	Operating voltage, V
25441MLED	0.8	120 * 121	120	12/24
25441MLEDBL	0.8	120 * 121	120	12/24
25443MLED	0.8	120 * 75	120	12/24

VDE ✓
0875

DIN ✓
14620

LED Rotating Beacon, Rechargeable, With Magnetic Mount

LED rotating beacon, rechargeable, 230V - 12/24V

Rechargeable LED rotating beacon with magnetic plate and suction cup for quickly safeguarding vehicles. Can be operated wirelessly thanks to the latest charging technology. High warning effect thanks to bright, high-performance LEDs, displays double flash and rotating flash patterns. Absolutely secure fixation to the vehicle via the magnetic plate with 6 magnets and suction cup. Simple release of the magnetic light using the attached tab. Both a 230V charging adapter and a 12/24V cigarette lighter charging cable are included in addition to the built-in rechargeable battery.

- Operating time with rechargeable battery approx. 5-6 hours
- Charging time approx. 3-4 hours
- Approved in accordance with ECE R65 (beacons, rotating beacons, front-rear flashers)

Note: In Germany, rotating beacons with magnetic bases may only be used on stationary vehicles.



Item No.	Product	PU
25440LED	Rechargeable LED rotating beacon with magnetic mount 12/24V, amber (protection class IP65)	1

Item No.	Weight, kg	Dimensions, ø*H, mm	Flash rate / min.	Operating voltage, V
25440LED	0.7	130 * 80	120	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. Depending on the version, the front flashers are each available as an amber or blue variant.

- **R10 and R65 approval (amber)**
- **19 different flash modes selectable**
- **via the switch**
- Attached to the windscreen using suction cups
- Cable length: Cable length: 3 m – with cigarette lighter plug and switch
- Sturdy die-cast aluminum housing
- 4 x 3 W LED, horizontally rotatable
- Working temperature range -20°C to + 80°C



Item No.	Product	PU
2527001BL	horizont S4 – LED front flasher / street clearer, blue	1
2527001GE	horizont S4 – LED front flasher / street clearer, amber	1

Weight approx., kg	Dimensions, L*W*H, mm	Power consumption, W	Operating voltage, V
0.3	90 * 35 * 25	12	10 - 33

High-Visibility Vehicle Marking

According to DIN 30710

Vehicles with special rights within the meaning of § 35 (6) of the German Road Traffic Regulations (StVO), i.e. vehicles that are used during construction or the maintenance or cleaning of roads and road traffic installations, or winter road maintenance vehicles, must be equipped – according to DIN 30710 – with safety markings (retro-reflective high-visibility vehicle markings) (§ 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 marking acc. to DIN 30710**
- **Premium kit with squeegee**
- **With edge protector (seals the cut honeycomb edges)**
- Completely removable, especially important for leased vehicles
- Very soft – therefore easy to work with even on curves
- Printed under the top-coat; the color is untouched
- One roll each right showing, one roll each left showing
- Red/white sloped sheeting, fully retro-reflective
- Reflection class RA 2



Item No.	Product	PU
25455	2 rolls each 9,000 x 141 mm (1 right-, 1 left-showing), 1 squeegee, 1 edge protector	1 set

Weight approx., kg	Dimensions, L*W, mm
1.9	9,000 * 141



BAST
✓

L8H / L8M
EN 12352

WL6
TL-Warnleuchten

horizont Light Arrow – HLP 8 LED

Lightweight light arrow for vehicle mounting

The horizont light arrow HLP 8 is the low cost traffic guidance option that allows you to effortlessly draw road users' attention to a lane change ahead. The 8 directional LED warning lamps are energy-saving and highly visible. Mounted on vehicles, it is ideal for mobile use. When fitted onto crash barriers, it is the ideal advance warning device. The direction of the arrow can be changed manually. The integrated photo sensor automatically reduces the light intensity in order to prevent road users against dazzling.

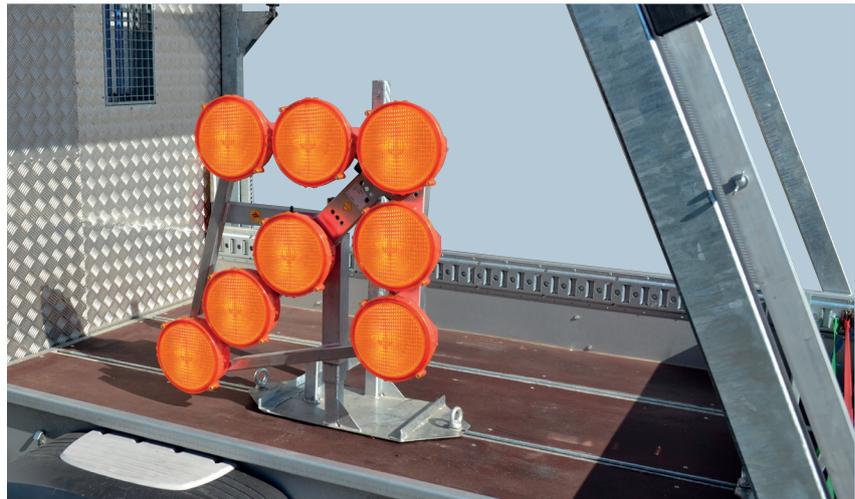
- **BAST-approved pursuant to TL-Warnleuchten**
- **EN 12352 - L8H / L8M, WL 6**
- **Transport on tail lifts of any vehicles and trailers**
- **Mounting on crash barriers using special crash barrier mounting support, item number 251662**
- **Ideal for advance warning and traffic guidance**
- 8 LED directional warning lamps RS 2000 Plus
- Deep discharge protection for rechargeable batteries
- Photo sensor reduces light intensity at night to avoid glare
- Stainless steel frame without vehicle mount
- Incl. 3.5 m connecting cable with alligator clips (suitable for all battery types)



Item No.	Product	BAST	PU
210662LED	HLP 8	✓	1
210662LEDB	HLP 8, with battery box	✓	1
210662LEDF	HLP 8, with radio remote control	✓	1
210662LEDBF	HLP 8, with battery box and radio remote control	✓	1

Item No.	Weight, kg	Dimensions, L*W*H, mm	Operating voltage, V	Power consumption at 12 V, W
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

OUR SERVICE FOR YOU: Cargo modules for safe transportation



horizont Light Arrow – HLP 8 LED

mounted on mobile battery cart

The horizont HLP 8 light arrow can be mounted on a mobile battery cart to greatly increase operating life thanks to the large rechargeable battery. The battery box also serves as an installation device.

Mounted on a mobile battery cart, it is optimally suited for mobile use. The battery box – made of hot-dip galvanized sheet steel – is weatherproof and corrosion-resistant and therefore well suited for continuous outdoor use. The direction of the arrow can be changed manually. The integrated photo sensor automatically reduces the light intensity in order to prevent road users against dazzling.

- **BAST-approved according to the the German "TL-Warnleuchten" standard**
- **EN 12352 - L8H / L8M, WL 6**
- **Ideal for advance warning and traffic guidance**
- 8 LED directional warning lamps RS 2000 Plus
- Mounted on a mobile battery cart
- Deep discharge protection for rechargeable batteries
- Photo sensor reduces light intensity at night to avoid glare
- Guidance in either direction is changed manually
- Battery cart hot-dip galvanized, for rechargeable batteries up to 180 Ah (20 h)
- Incl. 3.5 m connection cable with battery clamps

Item No.	Product	BAST	PU
25156LP8LED	HLP 8, mounted on a mobile battery cart	✓	1

Weight, kg	Dimensions, L*W*H, mm	Operating voltage, V	Power consumption at 12 V, W
35.0	1,500 * 550 * 2,100	12 / 24	8





horizont Light Cross HLK 9

Simple light cross for vehicle mounting

With the HLK 9 light cross, 9 powerful directional warning lamps show the way. Two directional advance warning lamps draw attention to the work or danger area at an early stage.

The supplied remote control allows full operation of the lamps. In addition to switching the advance warning lamps, you can also raise or lower the light cross (optional) via remote control.

The directional warning lamps are BAST-approved pursuant to the "TL-Warnleuchten" standard

- BAST-approved according to the German "TL-Warnleuchten" standard
- EMC-approved by the KBA (German Federal Motor Transport Authority)
- Conforms to German RSA and StVO regulations
- 9 LED directional warning lamps RS 2000 Plus
- 2 LED directional advance warning lamps MS 340 Plus
- Optionally available with motorized lifting/lowering actuator

- All functions can be selected via the supplied cable remote control (10 m) or (optional) radio remote control
- Automatic brightness adjustment
- All metal parts made of stainless steel
- Deep discharge protection for rechargeable batteries
- Incl. 6 m connection cable with battery clamps
- Special versions on request!

Item No.	Product	BAST	PU
210221-0903	HLK 9	✓	1
210502-0901	HLK 9, with motorized lifting/lowering actuator	✓	1

Item No.	Weight, kg	Dimensions, L*W*H, mm	Operating voltage, V	Power consumption at 12 V, W	Lifting/lowering actuator	Additional MS340 lamps
210221-0903	25	1,400 * 1,300 * 260	12 / 24	11	–	Yes
210502-0901	48	1,380 * 1,040 * 295	12 / 24	11	Yes	Port available

OUR SERVICE FOR YOU: Light arrow for vehicle protection



horizont light arrow - HLPK 15

horizont light cross - HLK 9

horizont Light Arrow – HLPK 15

Equipped for all requirements related to vehicle protection

With the HLPK 15 light arrow, 15 powerful directional warning lamps show the way. It is also available with two directional advance warning lamps, which draw drivers' attention to work or hazard spots sufficiently early.

On request, it is also possible to add 2 rotating beacons.

The supplied remote control allows full operation of this light arrow. In addition to switching the advance warning lamps, you can also raise or lower the light arrow (optional) via remote control. The horizont HLPK 15 light arrow allows you to display a light arrow or cross. The directional warning lamp is BAST-approved pursuant to the "TL-Warnleuchten" standard

- **BAST-approved according to the German "TL-Warnleuchten" standard**
 - **EN 12352 - L8H / L8M, WL 6**
 - **Conforms to German RSA and StVO regulations**
 - **EMC-approved by the KBA (German Federal Motor Transport Authority)**
 - 15 LED directional warning lamps RS 2000 Plus
 - 2 MS 340 plus LED directional advance warning lamps (optionally already pre-wired and pre-assembled or as connection option)
 - Optionally available with motorized lifting/lowering actuator
- All functions can be selected via the supplied cable remote control (10 m) or (optional) radio remote control
 - Automatic brightness adjustment
 - All metal parts made of stainless steel
 - Deep discharge protection for rechargeable batteries
 - Incl. 6 m connection cable with battery clamps
 - On request, it is also possible to mount 2 additional rotating beacons.
 - Special versions on request!



Item No.	Product	BAST	PU
210201-1509	with 15 x RS 2000 Plus	✓	1
210501-1501-MS-0	with 15 x RS 2000 Plus, lifting/lowering actuator and top-mounted MS 340	✓	1
210501-1513-MS	with 15 x RS 2000 Plus, lifting/lowering actuator and fixed, bottom-mounted MS 340 on the frame	✓	1

Recommended Accessories

20245	Bracket for MS right + left	✓	1
20828	MS 340 - please note that 2 units must be ordered!	✓	1

Item No.	Weight, kg	Dimensions, L*W*H, mm	Operating voltage, V	Power consumption at 12 V, W	Lifting/lowering actuator	MS 340
210201-1509	26	1,090 * 1,040 * 140	12 / 24	15	–	–
210211-1509	36	1,450 * 1,400 * 245	12 / 24	17	–	Yes
210501-1501	50	1,380 * 1,040 * 295	12 / 24	15	Yes	–



PolVis 130

Traffic information system - LED variable message sign system, RGB full matrix version with tablet remote control

The new LED variable message sign PolVis 130 from horizont combines proven functionality with innovative enhancements, now allowing the device to be operated in an upright position at speeds of up to **130 km/h!** This means that emergency vehicles no longer need to significantly slow down when deploying the system while traveling at high speed to an incident scene. It is designed for mounting on all standard roof racks with square-section bars. The overall design has been streamlined; among other improvements, a lighter motor with a gas pressure spring is used. Wind deflectors improve aerodynamics when the unit is folded down, significantly reducing wind noise. As before, the VMS is controlled via a rugged tablet remote control. It can display all common traffic signs and render 16.7 million colors, with each individual pixel freely programmable.

- **Approved for operation in the upright position at speeds up to 130 km/h**
- **Housing spoiler reduces wind noise**
- **Photometric type approval by BAST in accordance with EN 12966**
 - EMC-approved by the KBA (German Federal Motor Transport Authority)
 - High-performance RGB LEDs, 40 × 40 matrix (1,600 LEDs)
 - Displays up to 16.7 million colors
 - LED variable message sign for vehicle roof mounting
 - Compatible with all standard roof racks with square-section bars
 - Optional cable connection to improve operational reliability
 - Reduced lifting motor assembly height
- All functions are controlled via the tablet PC (8-inch touchscreen display)
- Displays standard traffic signs up to Ø 750 mm or side length up to 770 mm
- Graphic and/or text display
- Each pixel is freely programmable
- Display modes: Static and animated images
- Blink rate selectable between 15 and 60 per minute, image refresh rate 1,000 Hz
- Automatic brightness adjustment plus 9 selectable brightness levels
- No phantom light effects
- Electric lift/lower mechanism, conveniently operated from the driver's cab via remote control
- Traffic-gray powder-coated aluminum housing

Item No.	Product	BAST	PU
28930028593	PolVis 130 RGB full matrix traffic information system	✓	1

Weight, kg	Dimensions, L*W*H, mm	Pixels LED field, L*W, pcs.	Operating voltage, V	Average power consumption approx., W
50	920 * 1,050 * 290	40 * 40	12	6

MOTORIZED LIFTING/LOWERING ACTUATOR

Conveniently operated from the driver's cab via remote control.
 Drivable in the upright position at speeds of up to 130 km/h.



FeuVis 130

LED variable message sign for vehicle roof mounting

The new LED variable message sign FeuVis 130 from horizon combines proven functionality with innovative enhancements, now allowing the device to be operated in an upright position at speeds of up to **130 km/h!** This means that emergency vehicles no longer need to significantly slow down when deploying the system while traveling at high speed to an incident scene. It is designed for mounting on all standard roof racks with square-section bars. The overall design has been streamlined; among other improvements, a lighter motor with a gas pressure spring is used. The wind deflector improves aerodynamics when the unit is folded down, significantly reducing wind noise. As before, the VMS is controlled via a rugged tablet remote control. It can display all common traffic signs and render 16.7 million colors, with each individual pixel freely programmable.

TECHNICAL DETAILS

- **Approved for operation in the upright position at speeds up to 130 km/h and up to 160 km/h when lowered**
- Housing spoiler reduces wind noise
- Photometric type approval in accordance with EN 12966
- EMC-approved
- Compatible with all standard roof racks with square-section bars
- Optional cable connection to improve operational reliability
- Reduced lifting motor assembly height
- Graphic and/or text display
- Each pixel is freely programmable
- Display modes: Static, alternating, and animated images
- Displays standard traffic signs up to Ø 750 mm or side length up to 770 mm
- Flashing images in various colors and shapes can be activated for any traffic sign
- Powder-coated aluminum housing in traffic gray; black frame

DISPLAY

- Display size: 800 mm × 800 mm
- High-performance RGB LEDs, 40 × 40 matrix (1,600 LEDs)
- Displays up to 16.7 million colors
- Selectable blink rate: 15-60 per minute
- Image refresh rate: 1,000 Hz
- Automatic brightness adjustment plus 9 selectable brightness levels
- No phantom light effects

CONTROL UNIT

- All functions are controlled via the tablet PC (8-inch touchscreen display)
- Electric lift/lower mechanism, conveniently operated from the driver's cab via remote control

Item No.	Product	BAST	PU
28930028593F	FeuVis 130 RGB full matrix traffic information system	✓	1

Weight, kg	Dimensions, L*W*H, mm	Pixels LED field, L*W, pcs.	Operating voltage, V	Average power consumption approx., W
48	920 * 1,050 * 290	40 * 40	12	6



A photograph of two men standing on a metal platform in front of a structure with many yellow lights. The man on the left is wearing a pink shirt and blue jeans. The man on the right is wearing a checkered shirt and blue jeans, and is holding a tablet. The structure behind them has a red and white striped pattern and is covered with numerous yellow lights.

FIELD SALES

ALEXANDER SCHWEIGERT

In his spare time, Alexander enjoys sports and riding his motorcycle – anything that's fun really!

PRODUCT MANAGEMENT

SEBASTIAN WIECK

Sebastian likes to go hunting and hiking in his free time. He also spends a lot of time with his family and friends.

07

Mobile Warning Trailers/ Warning Trailers

LED VARIABLE MESSAGE SIGNS 132-136

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VMS SingleBoard

Mobile variable message sign SingleBoard VMS according to RSA (German guidelines for securing work zones on roads) and ZTV-SA (German technical regulations for safety and warning systems)

- Photometric type approved according to EN 12966
- With MS 340 double set BAST-approved according to the German "TL-Warnleuchten" standard

Continuous active LED variable message sign with lens technology

- Full-matrix design
- Full-color RGB, displays up to 16.7 million colors
- Frequency of image alternation speed selectable from 15 - 60 per minute
- Automatic brightness adjustment
- Additional 9 selectable brightness levels
- Graphic and/or text display
- 56x144 pixels
- Can be visually configured as upper and lower panels with respective supplemental text in the prescribed size in accordance with RSA 21 (German guidelines for securing work zones on roads, 2021 edition) and M-TI (German technical bulletin for temporary traffic information systems).
- Image refresh rate: 1,000 Hz

Electro-mechanical raising and lowering system for complete LED panel

- Includes electro-mechanical locking of the entire panel in both lowered and raised positions
- In the lowered position, the panel is stored with the LED display surface facing downward; the robust, corrosion-resistant rear housing faces upward. This protects the LEDs from exposure to the weather, such as sun, rain, and snow

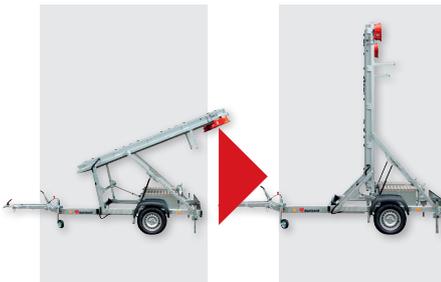
Tablet for full system operation (WLAN)

- 8-inch touchscreen display
- Approx. 20 hours operating time
- Backlit display
- Withstands drops from up to 1.2 m
- (LxWxH) 241 x 128 x 10 mm
- Includes 12V charging cradle
- Protection class IP68
- Includes protective case and stylus for operation while wearing gloves
- Includes traffic sign design software, data transfer software, and traffic sign library via a download link

Chassis

- Maintenance-free AL-KO rubber torsion axle, hot-dip galvanized
- Height-adjustable, hot-dip galvanized towbar connection (350–1,100 mm), AL-KO model
- DIN towing eye and ball head coupling
- 2 rear self-locking drop supports, hot-dip galvanized
- Height-adjustable jockey wheel at front
- Parking brake
- Permissible gross vehicle weight (GVWR): 750 kg
- Rear underride protection with RA2C reflective sheeting

Easy operation via user-friendly tablet remote control



Item No.	Product	BAST	PU
218358-TAAL	VMS SingleBoard	✓	1

GVWR, kg	UVW, kg	Dimensions (LxW) mm, drawbar extended	Dimensions lifted, H mm	Dimensions lowered, H mm
750	approx. 640	4,700 x 1,800	3,900	1,310

Upper panel pixels, LED field (L x W), pcs	Operating voltage, V	Average power consumption approx., W
56 x 144	12	70



ORDER OUR CATALOG

LED TRAFFIC SIGNS

NOW



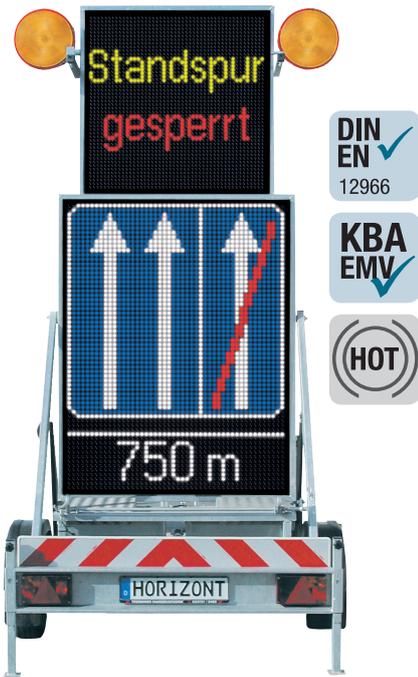
<https://trafficsafety.horizont.com/de/c-service/kataloge>

SELF-SUFFICIENT OPERATION WITH SOLAR POWER

The SingleBoard is also available with a solar upgrade – request more information today!



**SELF-SUFFICIENT
OPERATION THANKS TO
SOLAR ENERGY**



VMS LED Standard RGB

Advance warning sign with RGB full-color technology – with remote control via tablet PC

The advance warning sign from horizon allows you to optimally secure your construction site at all times. Variable message signs warn road users ahead of construction sites that they will soon need to pass through. LED display technology is making inroads here too. The traffic signs that are displayed with so-called “active light”, i.e. with LED variable message signs, achieve a substantially higher attention-grabbing value than conventional traffic signs.

- Texts can be created, stored and uploaded using the remote control
- 16.7 million colors can be displayed
- Full matrix design, freely programmable
- Supplied with touchscreen radio remote control as standard
- Up to 8 quick-select keys can be freely assigned for the most frequent display combinations
- All LED boards feature 1,000 Hz Image refresh rate
- Photometric type approved according to EN 12966
- EMC-approved by the KBA (German Federal Motor Transport Authority)
- Starting and operation can be carried out from the cab while driving
- Display of common traffic signs
- Animated pictures and texts can be shown at the same time
- Static-blinking-alternating-dynamic symbols and signs
- 9 brightness levels and automatic luminosity adjustment via photo sensor
- Memory capacity for an unlimited number of traffic signs and texts
- A large sign set is included on delivery
- Customized signs can be created with the supplied program
- Modular LED design simplifies the replacement

- of defective panel elements
- Upper board (standard version)**
- LED board 1,010 x 1,010 x 180 mm
- Display of various signs up to circular traffic sign size 3 and triangle of size 2 / circular

- or triangles up to max. 1,000 mm diameter or side length!
- Other board sizes available

- Lower board (standard version)**
- LED board 1,245 x 1,645 x 180 mm
- Lane change signs extend over the entire board height. Texts can be overlaid.

- Trailer chassis**
- Fully hot-dip galvanized
- Motorized lifting and lowering of the LED board
- Electric locking device secures board during transport and in upright position
- Sturdy sheet steel boxes with aluminum checker plate lid
- Height adjustable drawbar, 350 – 1,050 mm, hot-dip galvanized
- Two stable rear jacks and a height-adjustable jockey wheel
- Parking brake
- Structurally and dimensionally prepared for transport on an FA1LR mobile warning trailer or Pickup VMS

Item No.	Product	BAST	PU
218055-00-TAAL	Standard configuration: Upper panel 48 × 48, lower panel 56 × 80 Additional panel sizes available upon request.	✓	1

GWWR, kg	UWW, kg	Dimensions, L*W mm	Dimensions lifted, H mm	Dimensions lowered, H mm
750	670	4,320 * 1,780	3,840	1,380

Pixels, upper board LED field, L*W, pcs.	Pixels, lower board LED field, L*W, pcs.	Operating voltage, V	Average power consumption approx., W
48 * 48	56 * 80	12	60

VMS LED with Solar Kit

Operating time extension for up to 100% autonomy

Mobile variable message sign VMS LED with solar panel to extend the operating time for applications in which a prolonged operating time of the VMS must be planned. Our LED full matrix with solar kit VMS is the ideal solution here! The solar kit allows the operating time of the horizontal variable message sign to be extended to deliver up to 100% autonomy. The solar panel raises automatically as the LED panel is raised – no additional motor is needed! The specially designed folding mechanism for the solar panel also deserves special mention as it allows the batteries to be charged even during transport or when parked! The solar kit comprises: 1 x 420-Watt solar panel, 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.

- Photometric type approved according to EN 12966
- EMC E1-approved by the German KBA
- 420 W solar panel, mounted on hot dip galvanized stainless steel frame with articulated joint
- Automatic deployment of the solar module without additional motor
- Battery charging even during transport or when parked
- Up to 100% autonomous operation of the advanced warning sign possible
- Tablet for operating all functions (WLAN), 8-inch touchscreen display
- Up to 8 quick-select keys can be freely assigned for the most frequent display combinations
- Texts can be created, stored and uploaded using the remote control
- 1,000 Hz image refresh rate
- RGB full color, 16.7 million colors can be displayed
- Image refresh rate selectable between 15/30/60 images per minute
- Automatic brightness adjustment
- An additional 9 brightness levels can be manually selected
- Display of common traffic signs
- Animated pictures and texts can be shown at the same time
- Memory capacity for an unlimited number of traffic signs and texts

- Further customized signs can be created using the supplied sign creation program

Upper board

- Dimensions 1,010 x 1,010 x 180 mm
- Signs of up to 1,000 mm Ø or with a side length of 1,000 mm can be displayed

Lower board

- Dimensions 1,245 x 1,645 x 180 mm
- Lane change signs extend over the entire board height.
- Texts can be overlaid

Trailer chassis

- Fully hot-dip galvanized
- Motorized lifting/lowering actuator
- Electro-mechanical locking in transport and deployed positions
- Robust steel storage boxes with aluminum checker plate covers
- Height adjustable drawbar, 350 – 1,050 mm, hot-dip galvanized
- Up to 750 kg and 100 km/h as standard at no extra charge
- Structurally and dimensionally prepared for loading transport on an FA1LR mobile warning trailer



Item No.	Product	BAST	PU
21705-00-TAAL	VMS LED with Solar Kit	✓	1

GVWR, kg	UVW, kg	Dimensions, L*W mm	Dimensions lifted, H mm	Dimensions lowered, H mm
750	740	4,320 * 1,780	3,840	1,500

Pixels, upper board LED field, L*W, pcs.	Pixels, lower board LED field, L*W, pcs.	Operating voltage, V	Average power consumption approx., W
48 * 48	56 * 80	12	60





AWVMS

The flexible LED advance warning sign for mounting on a flatbed

Originally, the AWVMS was designed to be transported on a flatbed vehicle. horizon has further developed this system and it can now be used flexibly thanks to a chassis and a stand-alone frame (optionally available). With the chassis, the AWVMS can be used as a trailer – like a standard advance warning trailer. With the stand-alone frame, it can be set up individually next to the roadway on height-adjustable supports. For easy loading using a forklift, the base frame of the AWVMS is equipped with forklift shoes. The system can be securely attached to the cargo bed using lashing straps via the standard eyelets.

A mobile warning trailer, for example, can now be attached to the flatbed vehicle – and if it is the FA 1 LR from horizon, a further advanced warning trailer could be transported to the work site on the large loading area. The horizon AWVMS enables you to set up a complete construction site with two advance warning signs and a mobile warning trailer using just one vehicle. Simultaneously, you retain the flexibility to use the unit with other vehicles. Of course, you also benefit from all other benefits of horizon's LED advance warning signs.

- Texts can be created, stored and uploaded using the remote control
- 16.7 million colors can be displayed
- Full matrix design, freely programmable
- Supplied with touchscreen radio remote control as standard
- Up to 8 quick-select keys can be freely assigned for the most frequent display combinations
- All LED boards feature a 1,000 Hz image refresh rate
- Photometric type approved according to EN 12966
- EMC-approved by the KBA (German Federal Motor Transport Authority)
- Forklift shoes for lifting with a forklift
- AWVMS can be secured using tie-down straps or bolts
- Universal application thanks to trailer chassis or standalone frame (optionally available)

LED panel equipment identical to the standard VMS (see page 140)



Item No.	Product	BAST	PU
217041-00-TAAL	Auxiliary variable message sign (AWVMS) for transport and operation on a flatbed vehicle	✓	1
259240-FG-AVVTE	Chassis for AWVMS for additional use as trailer		1
2959112801	Stand-alone frame, for stationary operation next to the roadway as a stand-alone sign		1

Item No.	Weight, kg	Dimensions, L*W*H, mm	Dimensions lifted, H mm	Pixels, upper board LED field, L*W, pcs.	Pixels, lower board LED field, L*W, pcs.	Operating voltage, V	Average power consumption approx., W
217041-00-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	–	–	–	–	–

An auxiliary AWVMS – 3 options!

Retain 3 x flexibility



By placing the AWVMS on the cargo bed of your flatbed vehicle, you remain flexible with regard to using the flatbed as a towing vehicle.



Placing your AWVMS on our stand-alone frame, allows you to use it flexibly alongside the road.



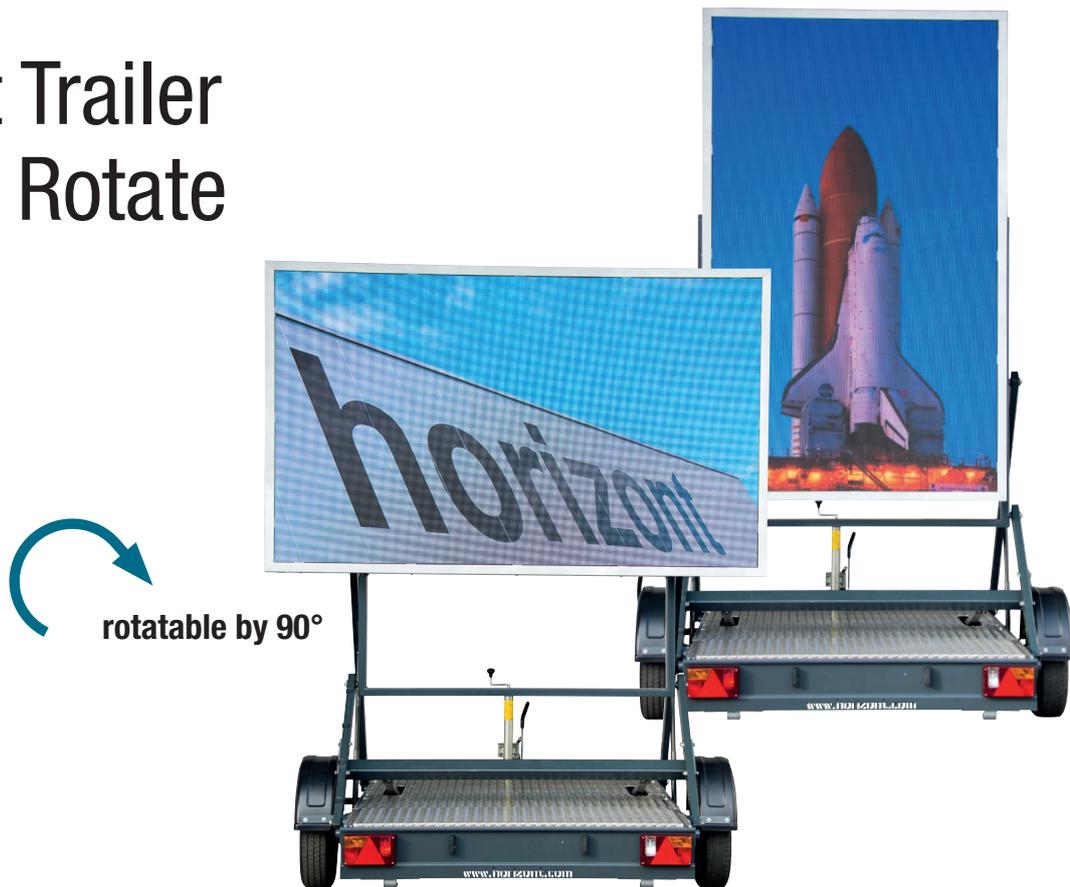
Using our AWVMS on the trailer chassis allows you to use it as you would use a "standard VMS trailer".



IN USE: The flexible AWVMS

www.horizont.com/ytAwA

Event Trailer Lift & Rotate



Lift & Rotate Event Trailer

The eye-catcher among event trailers

Our mobile digital signage solutions are produced in Germany on customer request. You choose the display size, pixel pitch, trailer construction, paint scheme and display control options.

- Full color LED VMS board with freely-programmable full matrix display
- Up to 16.7 million colors can be displayed
- The trailer can be used e.g. for event support, private parties, traffic guidance, and information e.g. for parking management or the display of images and animations
- Chassis: Hot-dip galvanized steel, painted in any RAL color
- Lifting by 2 electric actuators

Control of the VMS

- Multimedia PC, 24/7 with Windows 10 OS
- Controllable via WLAN, UMTS 3G

GVWR, kg	1,000
Transport dimensions, L*W*H, mm	4,150 * 2,210 * 1,370
Dimensions lifted, H mm	3,800
Operating voltage, V	230V AC
Power consumption approx., A	7 - 12
Display dimensions, W*H, mm	1,500 * 2,500
Pixels LED field, L*W, pcs.	640 * 384 / 384 * 640
Pixel pitch (raster), mm	3.9
Luminous intensity, cd/m² (nit)	2,500

Lift & Rotate Event Trailer

Benefit from decades of experience in trailer construction for securing construction sites. We have combined this quality and expertise with a 3.75 m² LED panel featuring a pixel pitch of 3.9 mm.

This has allowed us to develop the ideal road-going product for your advertising use.

3.75 m² advertising space for your use



SEE FOR YOURSELF:

Lift & Rotate Event Trailer

www.horizont.com/ytEventtafelLiftRotate



WE LIFT AND ROTATE

“The full color LED board is a real eye-catcher. It is used for event support, assists with parking management and can display images and animations”



AB 2. JULI IM KINO

www.horizont.com +49 (0) 5631/565-200

www.horizont.com

PickUp VMS LED

Securing construction sites

The PickUp VMS LED was designed for fast, safe and cost-effective securing of construction sites on carriageways without oncoming traffic using two or three advance warning signs.

Cost efficiency and lack of personnel are currently the biggest challenges facing traffic safety. With our PickUp VMS LED, the standard version of a variable message sign from horizon is loaded. This allows a construction site to be equipped with two or even three variable message signs using only one vehicle and one driver.

ADVANTAGES:

- Up to three fully functional LED advance warning signs can be installed by just one person
- Semi-automatic loading and unloading of the advance warning signs by a guided pulling device
- Loading and unloading is carried out using a cable winch with capstan function
- Improved employee safety thanks to control from the side (compared to transport on a mobile warning trailer)
- When loaded, it is possible to raise the advance warning signs to warn the traffic behind
- A towing vehicle is not needed, leading to cost savings and lower environmental impact due to reduced CO² emissions
- Electro-hydraulic unit with integrated emergency hand pump for simple, reliable operation of the lift axle
- Height-adjustable drawbar with DIN towing eye and ball head coupling

TECHNICAL DATA:

- Item No.: 217055-00-TAALZE
- GVWR 1,850 kg
 - UVW: 1,150 kg
 - Overall dimensions of vehicle combination with VMS loaded, L*W*H: 5,995 * 1,930 * 2,050 mm
 - Dimensions lifted, H: 3,700 mm
 - Pixels, upper board LED field, L*W: 48 * 48 pcs.
 - Pixels, lower board LED field, L*W: 48 * 64 pcs.
 - Operating voltage 12V
 - Power consumption approx. 60 W

HEIGHT-ADJUSTABLE DRAWBAR:

- Quick and easy coupling and uncoupling
- Flexible attachment to different vehicle types



DIRECT LINK: Film PickUp VMS LED

www.horizont.com/ytPickupVWT-LED



OPERATION VIA

TOUCHSCREEN RADIO REMOTE CONTROL:

Modern and simple operation via touchscreen

8 freely assignable quick-select keys

Large, full-color display

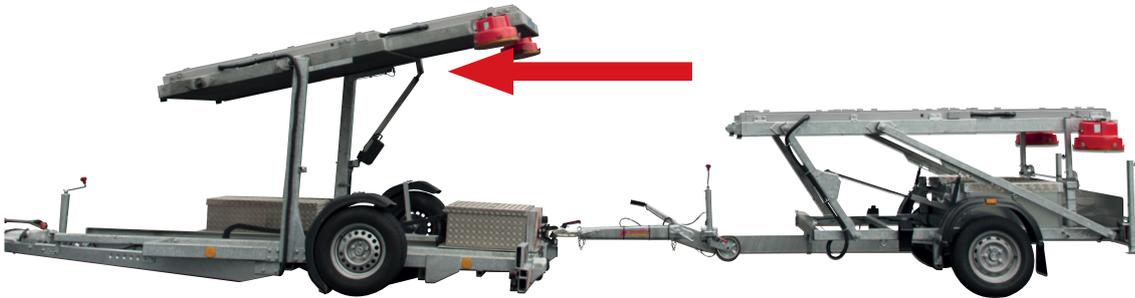
Creation of texts in combination with traffic signs directly on the tablet



PICKUP FUNCTION:

① To load the VMS LED, the Pickup trailer is positioned in front of the VMS trailer to be loaded and connected to the battery box.

② The axle of the Pickup VMS LED is lowered under its own weight at the push of a button.



③ The VMS to be loaded is pulled onto the loading area by the electric capstan winch until the safety bolt automatically engages.

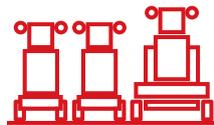
④ The lowered axle of the Pickup VMS LED is raised. The transported VMS hangs firmly under its own weight in two designated pick-up points, the hitching jaw, and is additionally secured by a tensioning strap.



1 vehicle



1 employee



3 LED advanced warning signs



You save time and money

Mobile Warning Trailer for Use on Roads with Oncoming Traffic



- Made to measure and freely configurable
- Made in Germany
- Conforms to German legislation



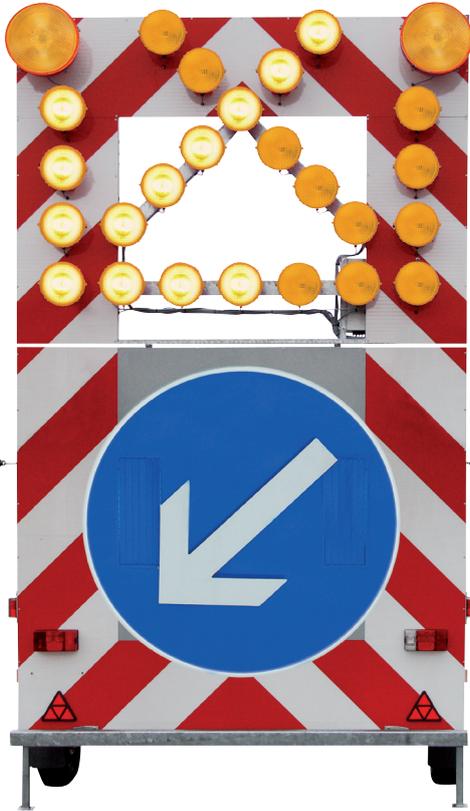
OUR SERVICE FOR YOU:

An overview of the FA2 variants

Select the appropriate FA2 mobile warning trailer for two-way traffic roads to suit your specific requirements. You will find detailed information on pages 150-153.

FA 2 variants	FA 2 page 150	FA 2 L page 151	FA 2 GL page 152	FA 2 LR page 153
GVWR, kg	450	750	1,500	1,500
UWW, kg	360	350	550	700
Dimensions, L*W mm drawbar extended	3,460 * 1,700	3,460 * 1,700	4,900 * 1,700	5,100 * 1,700
Warning board dimensions, H*W mm	2,500 * 1,700	2,500 * 1,700	2,500 * 1,700	2,500 * 1,700
Dimensions lifted, H mm	2,920	2,920	2,920	2,920
Dimensions lowered, H mm	1,930	1,930	1,930	1,930
Cargo bed dimensions, L*W, mm	–	1,150 * 1,320	2,500 * 1,320	2,500 * 1,320
Loading ramp dimensions, L*W, mm	–	–	–	1,700 * 1,250
Clear loading height, mm	–	1,135	1,175	1,175
Dropside height, mm	–	300	300	300
Operating voltage, V	12	12	12	12
Power consumption, W	17	17	17	17

Mobile Warning Trailer for Use on Highways



- Made to measure and freely configurable
- Made in Germany
- Conforms to German legislation

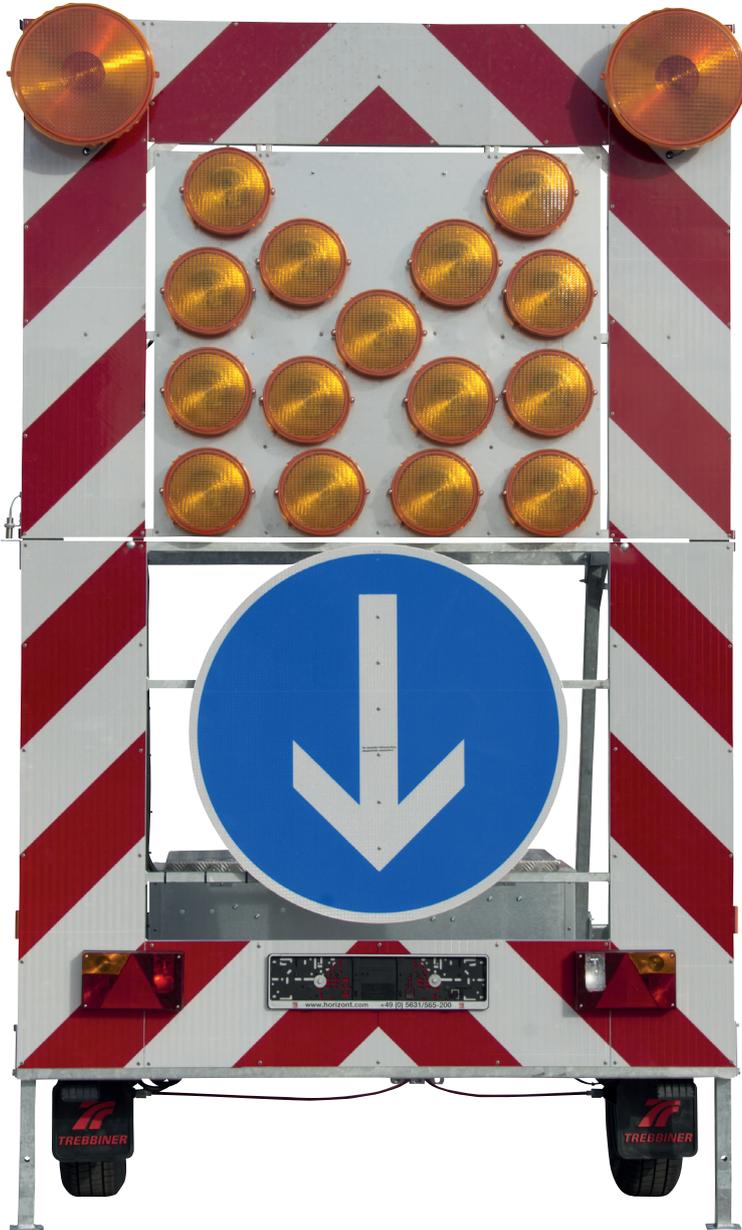


OUR SERVICE FOR YOU:

An overview of the FA1 variants

Select the appropriate FA1 mobile warning trailer for roads without oncoming traffic to suit your specific requirements. You will find detailed information on pages 154-158.

FA 1 variants	FA 1 page 154	FA 1 L page 155	FA 1 GL page 156	FA 1 LR page 157
GVWR, kg	750	750	1,500	1,600
UWW, kg	540	590	750	800
Dimensions, L*W mm drawbar extended	3,550 * 2,200	3,550 * 2,200	3,550 * 2,200	3,550 * 2,200
Warning board dimensions, H*W mm	3,600 * 2,200	3,600 * 2,200	3,600 * 2,200	3,600 * 2,200
Dimensions lifted, H mm	4,000	4,000	4,000	4,000
Dimensions lowered, H mm	2,620	2,620	2,620	2,620
Cargo bed dimensions, L*W, mm	–	1,310 * 1,800	2,500 * 1,800	2,500 * 1,800
Loading ramp dimensions, L*W, mm	–	–	–	1,980 * 1,200
Clear loading height, mm	–	1,740	1,770	1,770
Dropside height, mm	–	300	300	300
Operating voltage, V	12	12	12	12
Power consumption, W	26	26	26	26



Mobile Warning Trailer FA 2

without cargo bed, with small light arrow, rotating arrow and sheeting type RA2 C, small variant

- Mobile warning trailer for use on roads with oncoming traffic
- Mobile warning trailer according to the German "TL-Absperrtafeln" standard
- Light arrow board according to the German "TL-Warnleuchten" standard

Vehicle

- Single axle with trailer components made by AL-KO (alternatively KNOTT), maintenance free
- Drawbar: AL-KO, height adjustable from 340 to 1,050 mm (alternatively KNOTT, tool-free, one hand height adjustable from 340 to 1,100 mm)
- Parking brake
- Ball head coupling / DIN towing eye
- Vehicle illumination, 12 V - 13 pins (standard)
- Hot-dip galvanized

Warning board

- Center folding
- Light arrow board according to the German "TL-Warnleuchten" standard
- With electrically adjustable rotating arrow
- 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 aluminum checker-plate, walkable
- Incl. battery holder



Item No.	PU	GVWR, kg	UVW, kg	Dimensions, L*W mm drawbar extended	Warning board dimensions W*H, mm	Dimensions lifted, H mm	Dimensions lowered, H mm
259001-05	1	450	360	3,460 * 1,700	2,500 * 1,700	2,920	1,930

Cargo bed dimensions, L*W, mm	Loading ramp dimensions, L*W, mm	Clear loading height, mm	Dropside height, mm	Operating voltage, V	Power consumption, W
-	-	-	300	12	17

Mobile Warning Trailer FA 2 L

with small cargo bed, with small light arrow, rotating arrow and sheeting type RA2 C, small variant

- Mobile warning trailer for use on roads with oncoming traffic
- Mobile warning trailer according to the German "TL-Absperrtafeln" standard
- Light arrow board according to the German "TL-Warnleuchten" standard

Vehicle

- Single axle with trailer components made by AL-KO (alternatively KNOTT), maintenance free
- Drawbar: AL-KO, height adjustable from 340 to 1,050 mm (alternatively KNOTT, tool-free, one hand height adjustable from 340 to 1,100 mm)
- Parking brake
- Ball head coupling / DIN towing eye
- Vehicle illumination, 12 V - 13 pins (standard)
- Hot-dip galvanized

Warning board

- Center folding
- Light arrow board according to the German "TL-Warnleuchten" standard
- With electrically adjustable rotating arrow
- 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 aluminum checker-plate, walkable
- Incl. battery holder

Cargo bed

- Unrestricted side loading and unloading
- Side walls made of galvanized steel
- Floor: waterproof-bonded, anti-slip film-faced plywood



Item No.	PU	GVWR, kg	UW, kg	Dimensions, L*W mm drawbar extended	Warning board dimensions, H*W, mm	Dimensions lifted, H mm	Dimensions lowered, H mm
259031-07	1	750	350	3,460 * 1,700	2,500 * 1,700	2,920	1,930

Cargo bed dimensions, L*W, mm	Loading ramp dimensions, L*W, mm	Clear loading height, mm	Dropside height, mm	Operating voltage, V	Power consumption, W
1,150 * 1,320	-	1,320	300	12	17



Mobile Warning Trailer FA 2 GL

with large cargo bed, with small light arrow, rotating arrow and sheeting type RA2 C, small variant

- Mobile warning trailer for use on roads with oncoming traffic
- Mobile warning trailer according to the German "TL-Absperrtafeln" standard
- Light arrow board according to the German "TL-Warnleuchten" standard

· Vehicle

- Single axle with trailer components made by AL-KO (alternatively KNOTT), maintenance free
- Drawbar: AL-KO, height adjustable from 340 to 1,050 mm (alternatively KNOTT, tool-free, one hand height adjustable from 340 to 1,100 mm)
- Parking brake and overrun brake with automatic reverse lockout
- Ball head coupling / DIN towing eye
- Vehicle illumination, 12 V - 13 pins (standard)
- Hot-dip galvanized

Warning board

- Center folding
- Light arrow board according to the German "TL-Warnleuchten" standard
- With electrically adjustable rotating arrow
- 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 aluminum checker-plate, walkable
- Incl. battery holder

Cargo bed

- Unrestricted side loading and unloading
- Side walls made of galvanized steel
- Floor: waterproof-bonded, anti-slip film-faced plywood



Item No.	PU	GVWR, kg	UWV, kg	Dimensions, L*W mm drawbar extended	Warning board dimensions, H*W, mm	Dimensions lifted, H mm	Dimensions lowered, H mm
259011-15-13	1	1,500	550	4,900 * 1,700	2,500 * 1,700	2,920	1,930

Cargo bed dimensions, L*W, mm	Loading ramp dimensions, L*W, mm	Clear loading height, mm	Dropside height, mm	Operating voltage, V	Power consumption, W
2,500 * 1,320	-	1,320	300	12	17

Mobile Warning Trailer FA 2 LR

with large cargo bed / and ramp, with small light arrow, rotating arrow and sheeting type RA2 C, small variant

- Mobile warning trailer for use on roads with oncoming traffic
- Mobile warning trailer according to the German "TL-Absperrtafeln" standard
- Light arrow board according to the German "TL-Warnleuchten" standard
- Also suitable for transporting advance warning sign trailers

Vehicle

- Single axle with trailer components made by AL-KO (alternatively KNOTT), maintenance free
- Drawbar: AL-KO, height adjustable from 340 to 1,050 mm (alternatively KNOTT, tool-free, one hand height adjustable from 340 to 1,100 mm)
- Parking brake and overrun brake with automatic reverse lockout
- Ball head coupling / DIN towing eye
- Vehicle illumination, 12 V - 13 pins (standard)
- Hot-dip galvanized

Warning board

- Center folding
- Light arrow board according to the German "TL-Warnleuchten" standard
- With electrically adjustable rotating arrow
- 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 aluminum checker-plate, walkable
- Incl. battery holder

Cargo bed / cargo ramp

- Unrestricted side loading and unloading
- Side walls made of galvanized steel
- Floor: waterproof-bonded, anti-slip film-faced plywood
- Loading ramp sheeted with anti-skid aluminum checker plate



Item No.	PU	GVWR, kg	UWW, kg	Dimensions, L*W mm drawbar extended	Warning board dimensions, H*W, mm	Dimensions lifted, H mm	Dimensions lowered, H mm
259021-15-13	1	1,500	700	5,100 * 1,700	2,500 * 1,700	2,920	1,930

Cargo bed dimensions, L*W, mm	Loading ramp dimensions, L*W, mm	Clear loading height, mm	Dropside height, mm	Operating voltage, V	Power consumption, W
2,500 * 1,320	1,700 * 1,250	1,320	300	12	17

Mobile Warning Trailer FA 1

without cargo bed, with small light arrow, rotating arrow and sheeting type RA2 C

- Mobile warning trailer for use on roads without oncoming traffic
- Mobile warning trailer according to the German "TL-Absperrtafeln" standard
- Light arrow board according to the German "TL-Warnleuchten" standard

Vehicle

- Single axle with trailer components made by AL-KO (alternatively KNOTT), maintenance free
- Drawbar: AL-KO, height adjustable from 340 to 1,050 mm (alternatively KNOTT, tool-free, one hand height adjustable from 340 to 1,100 mm)
- Parking brake
- Ball head coupling / DIN towing eye
- Vehicle illumination, 12 V - 13 pins (standard)
- Hot-dip galvanized
- 2 drop supports at the rear with automatic latching

Warning board

- Center folding
- Light arrow board pursuant to the German RSA and "TL-Absperrtafeln" standards, comprising 24 LED directional warning lamps pursuant to the German "TL-Warnleuchten" standard, class WL 6, and 2 flashing LED directional warning lamps pursuant to "TL-Warnleuchten", class WL 5
- With electrically adjustable rotating arrow
- Sheeting type RA 2 C (micro-prismatic)
- With two open-close 3-segment lamellae viewing windows
- Cable remote control (optional cable/radio remote control)
- Motorized lifting/lowering actuator

Battery box

- WxDxH: 1,870 x 450 x 360 mm
- Walls made of galvanized steel
- Lid made of aluminum checker-plate, walkable
- Incl. battery holder



Item No.	PU	GVWR, kg	UVW, kg	Dimensions, L*W mm drawbar extended	Warning board dimensions, H*W, mm	Dimensions lifted, H mm	Dimensions lowered, H mm
259102	1	750	540	3,550 * 2,200	2,200 * 3,600	4,000	2,620

Cargo bed dimensions, L*W, mm	Loading ramp dimensions, L*W, mm	Clear loading height, mm	Dropside height, mm	Operating voltage, V	Power consumption, W
-	-	-	300	12	26

Mobile Warning Trailer FA 1 L

with small cargo bed, with small light arrow, rotating arrow and sheeting type RA2 C

- Mobile warning trailer for use on roads without oncoming traffic
- Mobile warning trailer according to the German "TL-Absperrtafeln" standard
- Light arrow board according to the German "TL-Warnleuchten" standard

Vehicle

- Single axle with trailer components made by AL-KO (alternatively KNOTT), maintenance free
- Drawbar: AL-KO, height adjustable from 340 to 1,050 mm (alternatively KNOTT, tool-free, one hand height adjustable from 340 to 1,100 mm)
- Parking brake
- Ball head coupling / DIN towing eye
- Vehicle illumination, 12 V - 13 pins (standard)
- Hot-dip galvanized
- 2 drop supports at the rear with automatic latching

Warning board

- Center folding
- Light arrow board pursuant to the German RSA and "TL-Absperrtafeln" standards, comprising 24 LED directional warning lamps pursuant to the German "TL-Warnleuchten" standard, class WL 6, and 2 flashing LED directional warning lamps pursuant to "TL-Warnleuchten", class WL 5
- With electrically adjustable rotating arrow
- Sheeting type RA 2 C (micro-prismatic)
- With two open-close 3-segment lamella viewing windows
- Cable remote control (optional cable/radio remote control)
- Motorized lifting/lowering actuator

Battery box

- WxDxH: 1,870 x 450 x 360 mm
- Walls made of galvanized steel
- Lid made of aluminum checker-plate, walkable
- Incl. battery holder

Cargo bed

- Unrestricted side loading and unloading
- Side walls made of galvanized steel
- Floor: waterproof-bonded, anti-slip film-faced plywood



Item No.	PU	GVWR, kg	UWV, kg	Dimensions, L*W mm drawbar extended	Warning board dimensions, H*W, mm	Dimensions lifted, H mm	Dimensions lowered, H mm
259212	1	750	590	3,550 * 2,200	2,200 * 3,600	4,000	2,620

Cargo bed dimensions, L*W, mm	Loading ramp dimensions, L*W, mm	Clear loading height, mm	Dropside height, mm	Operating voltage, V	Power consumption, W
1,300 * 1,800	-	1,800	300	12	26

Mobile Warning Trailer FA 1 GL

with large cargo bed, with small light arrow, rotating arrow and sheeting type RA2 C



- Mobile warning trailer for use on roads without oncoming traffic
- Mobile warning trailer according to the German "TL-Absperrtafeln" standard
- Light arrow board according to the German "TL-Warnleuchten" standard Vehicle
- Single axle with trailer components made by AL-KO (alternatively KNOTT), maintenance free
- Drawbar: AL-KO, height adjustable from 340 to 1,050 mm (alternatively KNOTT, tool-free, one hand height adjustable from 340 to 1,100 mm)
- Parking brake
- Ball head coupling / DIN towing eye
- Vehicle illumination, 12 V - 13 pins (standard)
- Hot-dip galvanized
- 2 drop supports at the rear with automatic latching

Warning board

- Center folding
- Light arrow board pursuant to the German RSA and "TL-Absperrtafeln" standards, comprising 24 LED directional warning lamps pursuant to the German "TL-Warnleuchten" standard, class WL 6, and 2 flashing LED directional warning lamps pursuant to "TL-Warnleuchten", class WL 5
- With electrically adjustable rotating arrow
- Sheeting type RA 2 C (micro-prismatic)
- With two open-close 3-segment lamella viewing windows
- Cable remote control (optional cable/radio remote control) Motorized lifting/lowering actuator

Battery box

- WxDxH: 1,870 x 450 x 360 mm
- Walls made of galvanized steel
- Lid made of aluminum checker-plate, walkable
- Incl. battery holder

Cargo bed

- Unrestricted side loading and unloading
- Side walls made of galvanized steel
- Floor: waterproof laminated, non-slip plywood board



Item No.	PU	GVWR, kg	UWV, kg	Dimensions, L*W mm drawbar extended	Warning board dimensions, H*W, mm	Dimensions lifted, H mm	Dimensions lowered, H mm
259112	1	1,500	750	5,080 * 2,200	2,200 * 3,600	4,000	2,620

Cargo bed dimensions, L*W, mm	Loading ramp dimensions, L*W, mm	Clear loading height, mm	Dropside height, mm	Operating voltage, V	Power consumption, W
2,500 * 1,800	-	1,800	300	12	26

Mobile Warning Trailer FA 1 LR

with large cargo bed and ramp, with small light arrow, rotating arrow and sheeting type RA2 C

- Mobile warning trailer for use on roads without oncoming traffic
- Mobile warning trailer according to the German "TL-Absperrtafeln" standard
- Light arrow board according to the German "TL-Warnleuchten" standard

Vehicle

- Single axle with trailer components made by AL-KO (alternatively KNOTT), maintenance free
- Drawbar: AL-KO, height adjustable from 340 to 1,050 mm (alternatively KNOTT, tool-free, one hand height adjustable from 340 to 1,100 mm)
- Parking brake
- Ball head coupling / DIN towing eye
- Vehicle illumination, 12 V - 13 pins (standard)
- Hot-dip galvanized
- 2 drop supports at the rear with automatic latching

Warning board

- Center folding
- Light arrow board pursuant to the German RSA and "TL-Absperrtafeln" standards, comprising 24 LED directional warning lamps pursuant to the German "TL-Warnleuchten" standard, class WL 6, and 2 flashing LED directional warning lamps pursuant to "TL-Warnleuchten", class WL 5
- With electrically adjustable rotating arrow
- Sheeting type RA 2 C (micro-prismatic)
- With two open-close 3-segment lamella viewing windows
- Cable remote control (optional cable/radio remote control)
- Motorized lifting/lowering actuator

Battery box

- WxDxH: 1,870 x 450 x 360 mm
- Walls made of galvanized steel
- Lid made of aluminum checker-plate, walkable
- Incl. battery holder

Cargo bed

- Unrestricted side loading and unloading
- Side walls made of galvanized steel
- Floor: waterproof-bonded, anti-slip film-faced plywood
- Loading ramp sheeted with anti-skid aluminum checker plate



Item No.	PU	GVWR, kg	UVW, kg	Dimensions, L*W mm drawbar extended	Warning board dimensions, H*W, mm	Dimensions lifted, H mm	Dimensions lowered, H mm
259122	1	1,600	795	5,080 * 2,200	2,200 * 3,600	4,000	2,620

Cargo bed dimensions, L*W, mm	Loading ramp dimensions, L*W, mm	Clear loading height, mm	Dropside height, mm	Operating voltage, V	Power 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 and ramp, double axle, with small light arrow, rotating arrow and sheeting type RA2 C

- Mobile warning trailer for use on roads without oncoming traffic
- Mobile warning trailer according to the German "TL-Absperrtafeln" standard
- Light arrow board according to the German "TL-Warnleuchten" standard

Vehicle

- Tandem axle with trailer components made by AL-KO (alternatively KNOTT), maintenance free
- Drawbar: AL-KO, height adjustable from 340 to 1,050 mm (alternatively KNOTT, tool-free, one hand height adjustable from 340 to 1,100 mm)
- Parking brake
- Ball head coupling / DIN towing eye
- Vehicle illumination, 12 V - 13 pins (standard)
- Hot-dip galvanized
- 2 drop supports at the rear with automatic latching

Warning board, battery box, cargo bed - see FA 1 LR single axle



Item No.	PU	GVWR, kg	UVW, kg	Dimensions, L*W mm drawbar extended	Warning board dimensions, H*W, mm	Dimensions lifted, H mm	Dimensions lowered, H mm
259122-25-35	1	1,500	750	5,080 * 2,200	2,200 * 3,600	4,000	2,620

Cargo bed dimensions, L*W, mm	Loading ramp dimensions, L*W, mm	Clear loading height, mm	Dropside height, mm	Operating voltage, V	Power consumption, W
2,500 * 1,800	-	1,800	300	12	26

Our Service for You!

Accessories and Spare Parts

Please select the appropriate accessories and spare parts from the table below for the products in the previous chapter. The accessories recommended by horizon are always stated next to the corresponding product in our catalog.

For mobile warning trailers and variable message signs						
Item no., description	PU	FA 1, pages 154-157	FA 2, pages 150-153	VMS LED, pages 136-139	PickUp VMS LED, pages 146-147	City-Trailer, pages 140-141
26533 HOT-device for GPS 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 Manual cable winch for loading an advance warning sign or similar onto the cargo bed	1	✓	✓			
27960ELEKTR-KPL Electric cable winch for loading an advance warning sign or similar onto the cargo bed	1 set	✓	✓		✓	
25014B Rechargeable battery for drive and illumination, 180 Ah	1	✓	✓			
25012B Rechargeable battery for drive and illumination, 230 Ah	1	✓	✓	✓	✓	✓
2949412811 Bumper for protecting the vehicle illumination	1	✓	✓			✓
2957301002 Lashing eye for load securing, different versions	4-piece set	✓	✓			✓
2959263451 Lashing rails for flexible transport	3-piece set	✓	✓			✓
27965TFF Supply socket for easy battery charging	1	✓	✓	✓	✓	✓
2914072102 Generator to extend the running time	1	✓	✓	✓		✓
2959701501 Dropside bracket for HLP 8	1	✓	✓			
2959701691 Bracket for 3 warning ramps	1	✓				
2956400301 Additional step	1	✓	✓			
2955402200E Charging cable for charging the battery from the towing vehicle	1	✓	✓	✓	✓	✓
2959320820 Additional set of rear lights above the loading ramp	1	✓	✓			

Mobile Warning Trailers for Fire Departments

FA 1 KLF with small cargo bed and traffic sign 616-40

- Corresponds to the German technical construction specifications for mobile warning

trailers issued by the Bavarian State Ministry of the Interior, issued 07/2021, and the German German Road Traffic Regulations (StVO), German technical regulations for safety and warning systems (ZTV-SA) and German guidelines for securing work zones on roads (RSA) regulations, together with the German work equipment usage regulations and "TL-Absperrtafeln" standard

- Mobile warning trailer for use on roads without oncoming traffic

- Mobile warning trailer according to the German "TL-Absperrtafeln" standard

- Light arrow board according to the German "TL-Warnleuchten" standard Vehicle

- Single axle with trailer components made by AL-KO (alternatively KNOTT), maintenance free

- Drawbar: AL-KO, height adjustable from 340 to 1,050 mm (alternatively KNOTT, tool-free, one hand height adjustable from 340 to 1,100 mm)

- Parking brake, ball head coupling / DIN towing eye

- Vehicle illumination, 12 V - 13 pins (standard)

- Hot-dip galvanized

- 2 drop supports at the rear with automatic latching

Warning board

- Center folding

- Light arrow board pursuant to the German RSA and "TL-Absperrtafeln" standards, comprising 24 LED directional warning lamps pursuant to the German "TL-Warnleuchten" standard, class WL 6, and 2 flashing LED directional warning lamps pursuant to "TL-Warnleuchten", class WL 5

- With electrically adjustable traffic sign 222

- Sheeting type RA 2 C (micro-prismatic)

- With two open-close 3-segment lamella viewing windows, operable from both sides

- Traffic sign 101 with text "Fire department" in the light arrow triangle

- Cable remote control

- (optional cable/radio remote control)

- Manual lifting/lowering

- (optional motorized lifting/lowering actuator)

Battery box and tool box

- Battery box (LxWxH): 1,870 x 450 x 350 mm

- Rechargeable battery for drive and illumination 12 V - / 180 Ah (20h), including bracket, degassing system and separate protective box

- Charging connectors 12 / 24 V at the battery box

- Walls made of galvanized steel

- Lid made of aluminum checker-plate, walkable

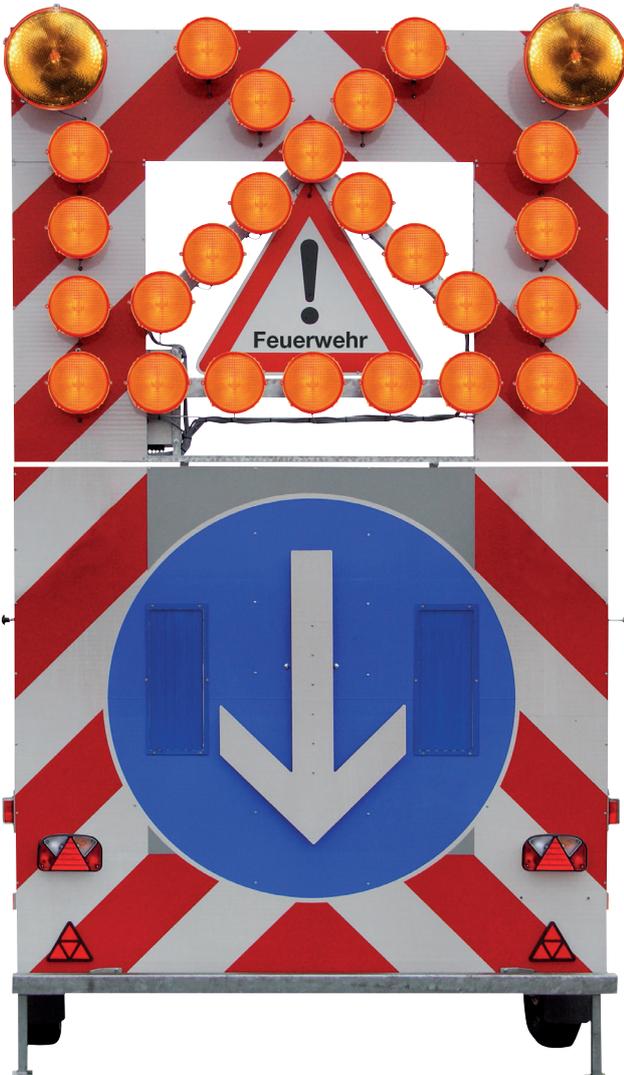
- Lid can be opened using just one hand

Cargo bed

- Unrestricted side loading and unloading

- Side walls made of galvanized steel

- Floor: waterproof-bonded, anti-slip film-faced plywood, 18 mm



Item No.	PU	GVWR, kg	UWW, kg	Dimensions, L*W mm drawbar extended	Warning board dimensions, H*W, mm	Dimensions lifted, H mm	Dimensions lowered, H mm
259112	1	1,500	750	5,080 * 2,200	2,200 * 3,600	4,000	2,620

Cargo bed dimensions, L*W, mm	Loading ramp dimensions, L*W, mm	Clear loading height, mm	Dropside height, mm	Operating voltage, V	Power consumption, W
2,500 * 1,800	-	1,800	300	12	26

Our Service for You!

Further fire department accessories
incl. brackets on the vehicle

Please see the table on the right for material especially suited
for the fire department

Fire department accessories		
Picture	Item no., description	Pcs.
	256912FEUE Folding sign 900 mm, traffic sign 101 · 3-sided sturdy steel profile frame · Umbrella-style tensioning mechanism ensures tight, secure tension. · Cover made of PVC-coated synthetic woven material, white, with red warning triangle, text printed in black · Supplied with protective case made of PVC-coated woven fabric	3
	251931B 12 traffic cones 750 cm, incl. 2 brackets bolted to the cargo bed · Two-piece design · Base made of 100% recycled material · Grip recess on top, stackable · Weight category 3 of the German TL standard · BAST-approved	12
	27923 Transport trolley for traffic cones · Transport bed made of aluminum checker plate · Pneumatic tires · With roller bearings · Safety handles · Solid steel pipe	1
	21307 4x E1/2 xenon flashing directional warning lamps for traffic cones, alternatively RS 2000 LED incl. battery · Scope of delivery (item no. = 1 pc.) · 20953 1x flashing directional warning lamp 180 mm Ø · 20947 1x 750 mm supply box for 4 block batteries 4 R 25	4
	21224 Euro-Blitz compact synchro for folding signs, incl. charging cradle · Sequential light system, self-synchronizing when switched on, via integrated radio modules · Automatic switching ON and OFF by folding the feet up or down · Contrary to fire department requirements, we recommend 6 units for configuring a sequential light system	3
	LED worklight 12 V, 1,350 lumen, incl. remote control	1
	Tool box with insert and tools optional	1
	Angular socket pipe for a beacon, remote controlled	1
	Brake shoe, plastic, with fastening clamp	1
	Adapter for vehicle connection cable - from 13 to 7 pins	1
	Warning triangle optional	1

- 3 folding triangles 900 mm, traffic sign 101 and text "Fire department"
- 3x Euro-Blitz for folding signs, incl. charging cradle
- 12 traffic cones 750 cm, incl. 2 brackets bolted to the cargo bed
- Transport trolley for traffic cones
- 4x E1/2 xenon flashing directional warning lamps for traffic cones, alternatively RS 2000 LED incl. battery
- LED worklight 12 V, 1,350 lumen, incl. remote control
- Tool box with insert and tools optional
- Brake shoe, plastic, with fastening clamp
- Adapter for vehicle connection cable - from 13 to 7 pins
- Warning triangle optional

Better safe than sorry! Cargo security by horizont



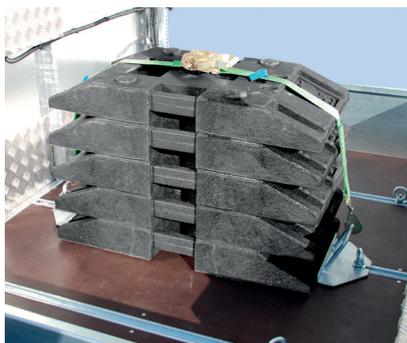
The responsibility for securing the load is in the hands of the driver, the owner, and the loader of the vehicle.

The various devices, tools and road safety materials required for road maintenance must be stowed so securely that they don't become life-threatening 'projectiles', even during emergency braking and sudden collision avoidance maneuvers.



horizont has developed a cargo securing system for mobile warning trailers. Work materials, machines, tools and traffic safety materials require a flexible, permanently stable and quickly manageable cargo securing system.

Using special Vario lashing rails recessed into the cargo bed, lashing points with a load-bearing capacity 400 daN (!) each can be set at any point on the rails with the help of sliding blocks and eye bolts. The special horizont modules are perfectly matched to this rail system. Modules for e.g. traffic signs with posts, base plates, traffic cones, delineators and signaling systems. Many modules are designed to tilt so that materials such as traffic cones and folding delineators can be removed more easily from the side via the drop sides.



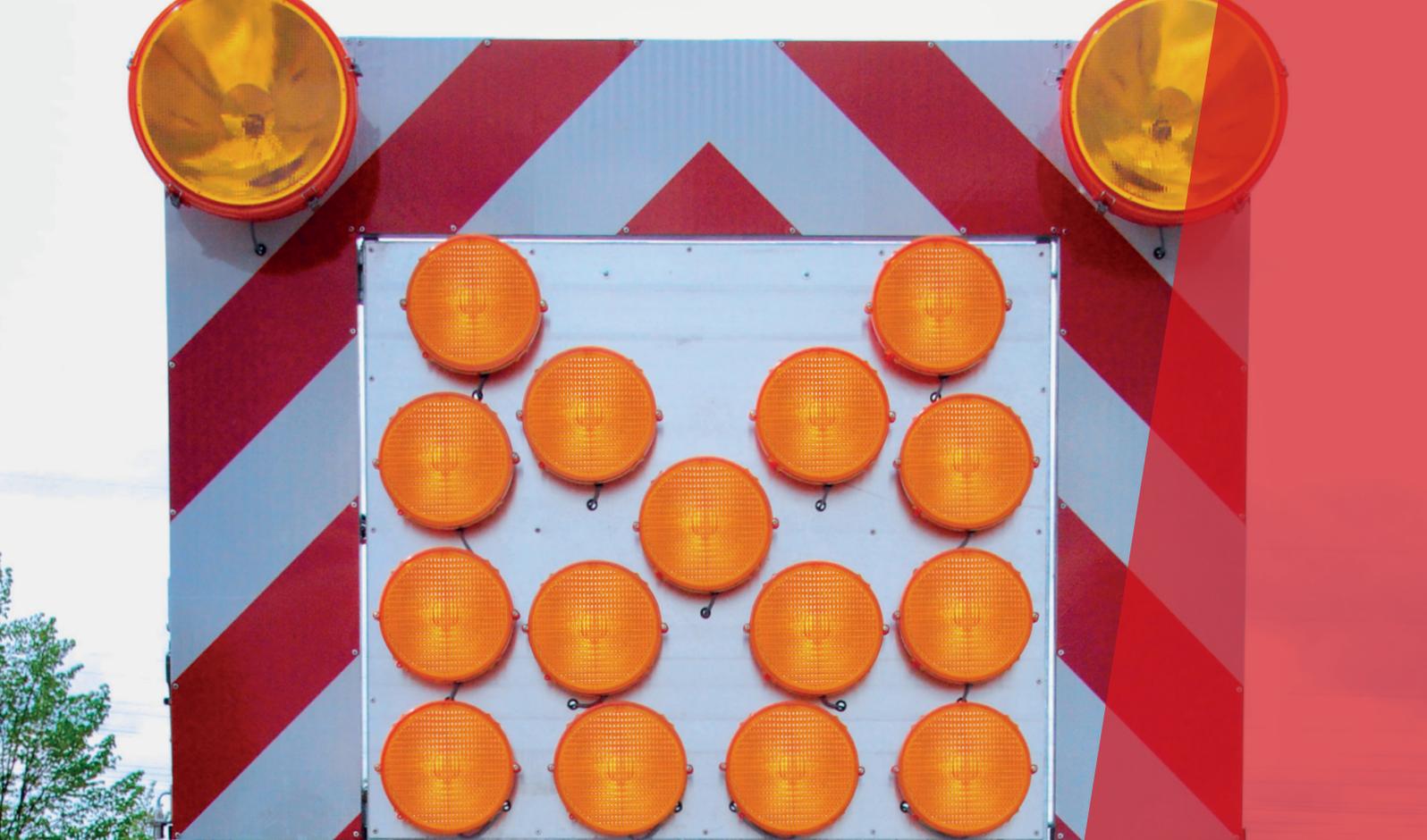
The modules can be individually attached, removed, repositioned, and combined. Mobile road barriers from horizont therefore become a transport trailer for every road maintenance application.

Insufficient cargo security

- ... 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.
- ... is the cause of 20% of all truck accidents involving personal injury.
- ... is the reason for thousands of accidents involving personal injury and fatalities every year.

OUR SERVICE FOR YOU:
Overview – cargo security

Choose the right 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.



PLEASE BUCKLE UP!

“Delivery delays, fines, and transport damage can be easily avoided thanks to the load securing system from horizont.”

Individual Trailer Construction – Tailor-Made to Your Requirements



LED (directional) arrow - no down arrow 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 traffic sign. A LEFT arrow and RIGHT arrow can be switched, eliminating a confusing or inadmissible neutral position (down arrow). Traffic is safely guided past the construction site.

- Supply voltage 9-36 V DC
- Left arrow, right arrow, OFF
- Photometric type approved according to EN 12966
- Housing approx., 830 x 830 x 110 mm
- Front with blue sheeting type II (HIP)
- Automatic brightness adjustment via photocell
- Incl. 5 m connecting cable, 7 core with MTA plug
- Weight approx., 21 kg



Mobile Warning Trailer FA 1 mounted on the rear of a box trailer

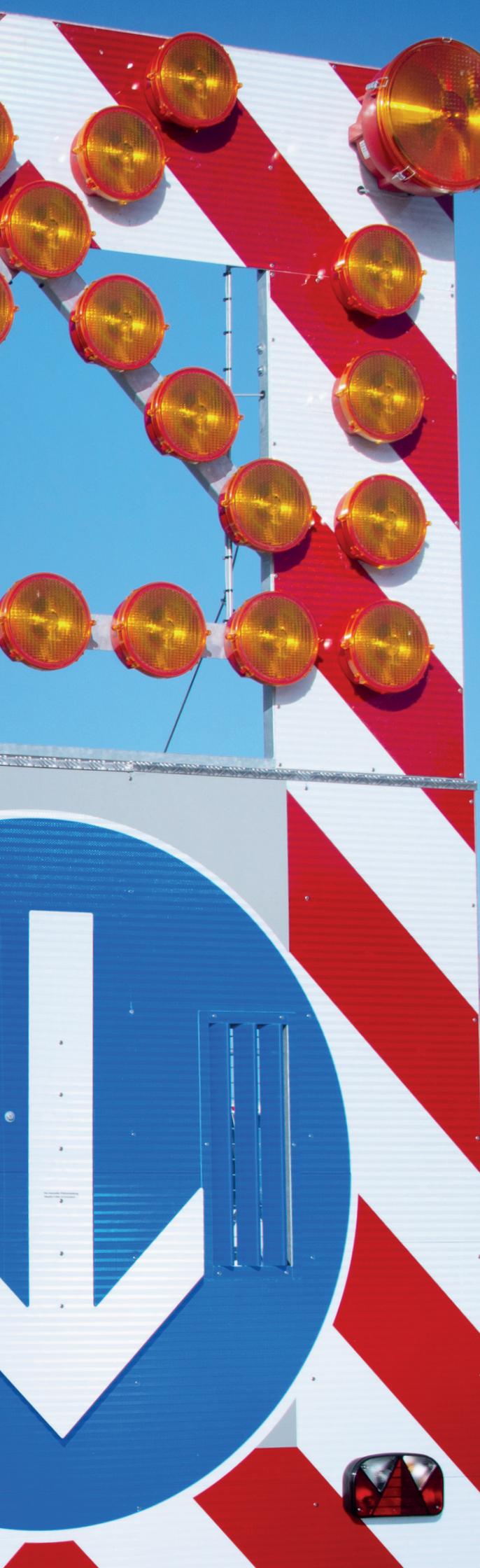
For protection against theft and the effects of the weather, you can transport your material in a container trailer for optimum protection. With the attached warning board, the trailer can also be used for safeguarding construction sites.

- Supply voltage 12 V
- Traffic sign 616 pursuant to the German "TL Absperretafeln 97" standard
- Container designed to the customer's requirements
- Height-adjustable drawbar
- Lower board optionally available as a ramp



Mobile Warning Trailer FA 1 for transporting crash barriers

- For transporting crash barriers
- Side walls can be hinged laterally
- Pneumatic brake system
- Cargo bed (WxL) 1,800 x 6,100 mm
- GVWR 6,500 kg
- Warning board: (WxL) 2,200 x 3,600 mm



VERSATILE AND FLEXIBLE

“horizont custom-builds mobile warning trailers to meet customer requirements – ensuring maximum safety on the road.”



EXPORT SALES

KATHARINA DIERCKS

Katharina can no longer imagine life without her daily visit to the gym or participating in outdoor activities. In winter she enjoys cross-country and downhill skiing. Game nights with family and friends are not to be forgotten.



REGIONAL EXPORT MANAGER

JOSE BENGOCHEA

Jose is a Spanish citizen, but was born and raised in Korbach. In his leisure time, he likes to spend time with his family and is interested in classic cars and motor sports.



08

Portable Traffic Lights, Traffic Lights

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Multi-Signal System 2.0

Portable Traffic Light

The Multi-Signal 2.0 comes with a new design and new control unit! We have completely redesigned the Multi-Signal system. Externally, the system has been given a slimmer design and new LED optics. These optics conform to the highest phantom light class, rendering sun shades unnecessary. The radar sensor is protected from vandalism or similar influences thanks to its location inside the upper half chamber. The radar sensor is installed as standard in all systems.

The system offers the highest phantom light class, eliminating the need for additional sun shades.

- The new design of the control unit offers improved range, a combination of up to 8 signal heads, 6 different frequencies, pre-programmed quick-select buttons for bottlenecks or junctions.
- Memory for recurring signal timing plans in the new remote control
- Large, backlit LCD display on the remote control: Clearly displays all information relating to the set program.
- Additional upgrades: Red phase countdown display and appropriate solar module
- The use of a solar kit extends operating times and enables autonomous operation under ideal conditions.
- Pre-programmed standard system (bottleneck, junction, intersection) or individual programming
- Program memory for custom configurations, allowing rapid setup of recurring work sites
- Automatic light intensity adjustment saves energy and extends battery life
- Interlock against green/green conflict (cable/radio mode)
- Time of day and day of week dependent programming
- Feedback (cable/radio mode)
- Deep discharge protection for rechargeable batteries
- Optional sun shades

Still using our previous model? No problem – the Multi-Signal 2.0 communicates 100% with its predecessor, the Multi-Signal 1.0 and its operating terminal.

Item no.	Product	Total weight, kg	Dimensions, L*W mm	Dimensions, telescopic, H, mm
2643111	Multi-Signal 2.0 WITHOUT red phase countdown display 2 x 2643111C signal heads 2 x 26204ROT battery trolley with telescopic pole 1 x 26315 controller	100	950 * 550	2,950
2643121	Multi-Signal 2.0 WITHOUT red phase countdown display 2 x 2643121C signal heads incl. battery trolley with special pole 1x 26315 controller	180	1,400 * 800	3,200
2643111R	Multi-Signal 2.0 WITH red phase countdown display 2 x 2643111CR signal heads 2 x 26204ROT battery trolley with telescopic pole 1 x 26315 controller	100	950 * 550	2,950
2643121R	Multi-Signal 2.0 WITH red phase countdown display 2x 2643121CR signal heads incl. battery trolley with special pole 1x 26315 controller	180	1,400 * 800	3,200

Recommended Accessories

20972 Solar panel (30 W)



Telescopic pole with red phase countdown display



Special pole with red phase countdown display.

OUR SERVICE FOR YOU:

Do you need spares? No problem – the new Multi-Signal 2.0 and the new control unit are 100% compatible and can be interchanged in either direction.

Features of the New Multi-Signal 2.0

RED PHASE COUNTDOWN DISPLAY

2 functions:

“Quartz mode” as well as “traffic-actuated mode” (radio or cable)

Functions:

Automatic, manual, amber flashing, steady red, lamps off

Quartz fall-back mode

In the event that the radio connection, is interrupted, the system automatically switches to quartz fall-back mode (if activated) until the radio connection becomes stable again.

Safety function:

Simultaneous green signal indications in a traffic light system are monitored and prevented by the program. Furthermore, the red signal indications are monitored and, in case of failure, the system switches to flashing amber. This improves safety for road users and workplace personnel.

RED AND GREEN TIMES

- Automatic calculation of the logical red time by entering the clearance speed and distance
- Traffic-dependent control by means of a radar sensor in the upper chamber of the traffic light housing
- Complicated main and secondary road controls are made much simpler by prioritizing individual traffic lights and setting the phase length

SOLAR MODULE

- Upgradeable: appropriate solar module
- To extend the operating times

AUTOMATIC LUMINOUS INTENSITY ADJUSTMENT

- Saves energy and extends the battery life of the Multi-Signal 2.0

REMOTE CONTROL

- Many preset programs
- Traffic light systems at bottlenecks and intersections can be programmed with just a few clicks
- Individual programming and memory enables optimal traffic flow at workplaces



Simple portable traffic light system for use on county and state roads, for example during vegetation clearance work – suitable for short-term full road closures or temporary lane reductions. Because your crew's safety always comes first.





The system offers the highest phantom light class, eliminating the need for additional sun shades.



Euro-Signal System 2.0

Portable traffic light, quartz

The Euro-Signal-Quartz is the little brother of the Multi-Signal 2.0. It is a bottleneck signaling system that combines the simplest programming with comprehensive safety electronics. Each program can be stored, overwritten, and even adjusted while the program

is running.

All important information is clearly displayed in color on the new TFT controller.

The safety electronics constantly monitor the individual signals, the operating voltage, and ambient light conditions - the required adjustments are performed automatically by the system. Potential errors, e.g. under-voltage conditions or lamp failure, are immediately displayed on the screen and the system switches automatically to amber flashing.

The "lamps off" operating mode preserves the battery capacity, e.g. during the

weekend, without pausing the program.

User-friendly – even when changing batteries: System operation can be interrupted for up to approx. 20 hours without having to reprogram it. The set program remains stored for this time.

- Synchronization via a high precision quartz-timer
- Traffic control is not vehicle-actuated
- Pre-programmed standard system (bottleneck) or individual programming
- Program memory, time of day and day of week dependent programming
- Hot-dip galvanized battery trolley
- Optional sun shades

Operating modes

- Quartz: Automatic, steady red, amber flashing, lamps off, manual mode
- Red lamp monitoring
- Automatic light intensity adjustment
- Deep-discharge protection for the batteries

Controller

- Illuminated full color TFT controller
- Red and green signal timings are automatically calculated by entering the construction site length and vehicle speeds
- Protection class IP 65
- Internal battery for program storage (operation time approx. 5 years)

Item no.	Product	Total weight, kg	Dimensions, L*W mm	Dimensions, de-ployed, H, mm
2643211	Euro-Signal 2.0 WITHOUT red phase countdown display 2 x 2643211C signal heads 2 x 26204ROT battery trolley with telescopic pole 1 x 26214 controller	100	950 * 550	2,950
2643211R	Euro-Signal 2.0 WITH red phase countdown display 2 x 2643211CR signal heads 2 x 26204ROT battery trolley with telescopic pole 1 x 26214 controller	100	950 * 550	2,950

Recommended Accessories

- 20972** Solar panel (30 W)



0:02

3, 2, 1, GO-GO-GO!

“The display showing how long you have to wait at the traffic light is just one of the new traffic light system's many features.”

horizont

Our Service for You!

Accessories and Spare Parts

Please select the appropriate accessories and spare parts from the table below for the products in the previous chapter. The accessories recommended by horizon are always stated next to the corresponding product in our catalog.

Accessory or spare part			Portable traffic lights	
Picture	Item no., description	PU	Multi-Signal 2.0, p. 170	Euro-Signal 2.0, p. 172
	93991 Sun shade	1	✓	✓
	20972 Solar panel	1	✓	✓
	98086 Radar sensor, with bracket and approx. 80 cm cable	1	✓	
	262314 Programming device Euro-Signal 2.0	1		✓
	26315 Programming device Multi-Signal 2.0	1	✓	
	26204ROT Battery trolley, metal, standard (supplied without rechargeable battery or pole)	1	✓	✓
	2620414 Battery trolley, metal, large, with special folding pole (supplied without rechargeable battery or pole)	1	✓	
	82243 Plug-connector, approx. 700 mm	1	✓	✓
	26309 Receiver for radio remote control	1	✓	
	26308 Remote control	1	✓	



ARE YOU LOOKING FOR SPARES?

*“Sun shade, solar panel or programming device?
We provide all the accessories and spare parts you
need to keep your portable traffic light system fully
equipped and operational.”*



PROJECT MANAGEMENT

JULIA SCHRÖDER

Julia's leisure time activities are varied: Meeting friends, traveling, swimming, cooking. She places great importance on good food.

09

Batteries and Rechargeable Batteries

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Block Battery

6 V / 7 Ah, type IEC 4 R 25

- **To be used for: Battery-powered warning lamps, safety delineator lamps, 2 batteries in battery box (25213)**
 - **Long life battery, long shelf life when new**
 - Zinc-carbon battery without mercury,
- or cadmium, medium energy density
 - High load rating

Item No.	Product	PU
253967	Block battery 6 V / 7 Ah, type IEC 4 R 25	24

Weight approx., kg	Dimensions, L*W*H, mm	Operating voltage, V	Capacity, Ah	Battery/rechargeable battery type
0.6	65 * 65 * 110	6	7	Zinc-carbon



Block Battery

6 V / 9 Ah, type IEC 4 R 25

- **To be used for: Battery-powered warning lamps, safety delineator lamps, 2 batteries in battery box (25213)**
 - **Long life battery, long shelf life when new**
 - Zinc-carbon battery without mercury,
- or cadmium
 - Particularly high load rating

Item No.	Product	PU
250011	Block battery 6 V / 9 Ah, type IEC 4 R 25	24

Weight approx., kg	Dimensions, L*W*H, mm	Operating voltage, V	Capacity, Ah	Battery/rechargeable battery type
0.6	65 * 65 * 110	6	9	Zinc-carbon



ALKALINE 20, High Performance Battery

6 V / 20 Ah, type IEC 4 R 25

- **To be used for: Battery-powered warning lamps, 2 batteries in battery box (25213), flash lights**
- **Very long life battery, very long shelf life when new**
 - Alkaline-manganese battery
 - Very high load rating

Item No.	Product	PU
23020	Block battery 6 V / 20 Ah, type IEC 4 R 25	20

Weight approx., kg	Dimensions, L*W*H, mm	Operating voltage, V	Capacity, Ah	Battery/rechargeable battery type
0.7	65 * 65 * 110	6	20	Alkaline-manganese



Battery Box

6 V for 2 batt. 4R25 (block batteries)

- With connector for operation with two 4R25 batteries (e.g. 6 V, 7 Ah or higher). Designed for warning lamps without integrated battery compartments; cable routed to the delineator base.
- Supplied WITHOUT batteries
 - Weight approx., kg 0.29
 - Dimensions, L*W*H, mm 165 * 75 * 13

Item No.	Product	PU
25213	Block battery 6 V / 20 Ah, type IEC 4 R 25	1

KOMPAKT 50, Air-Alkaline Battery

6 V / 50 Ah, type IEC 4 R 25

· **To be used for: Battery-powered warning lamps, safety delineator lamps, 2 batteries in battery box (25213)**

· The battery is activated by the supply of air via an automatically opening valve



Item No.	Product	PU
230502	KOMPAKT 50, 6 V / 50 Ah	20

Weight approx., kg	Dimensions, L*W*H, mm	Operating voltage, V	Capacity, Ah	Battery/rechargeable battery type
0.7	65 * 65 * 110	6	50	Air-oxygen

KOMPAKT 120, Air-Alkaline Battery

6 V / 120 Ah

· **To be used for: Safety delineator lamps (RS 2001/2002)**

· **For all common delineator base plates with battery compartment**

· **High operating hour capacity**

· The battery is activated by the supply of air via an automatically opening valve



Item No.	Product	PU
231202	KOMPAKT 120, 6 V / 120 Ah	5

Weight approx., kg	Dimensions, L*W*H, mm	Operating voltage, V	Capacity, Ah	Battery/rechargeable battery type
2.0	160 * 75 * 130	6	120	Air-oxygen

SLIMLINE ALKALINE Battery

6 V / 12 Ah

· **For use in the OptiLED**



Item No.	Product	PU
230121	Block battery, 6 V / 12 Ah	24

Weight approx., kg	Dimensions, L*W*H, mm	Operating voltage, V	Capacity, Ah	Battery/rechargeable battery type
0.25	80 * 32.5 * 110	6	12	Alkaline



LEGAL NOTICE REGARDING THE GERMAN BATTERY ACT

In connection with the sale of batteries and rechargeable batteries as well as devices containing batteries or rechargeable batteries, we would like to draw your attention to the following in accordance with § 18 of the German Battery Act (BattG). Batteries and rechargeable batteries must not be disposed of in household waste. End users are legally obliged to return used batteries and rechargeable batteries. After use, these can either be returned to your municipal collection points or to retailers for disposal free of charge.

Used batteries may contain pollutants or heavy metals that can harm the environment and human health. Batteries can be recycled because they contain important raw materials such as iron, zinc, manganese and nickel. Batteries and rechargeable batteries containing pollutants are marked with the symbol of a crossed-out dustbin and the chemical name of the pollutant.



Rechargeable Battery for Euro-Blitz Compact, Euro-Blitz, Tele-Blitz

6 V / 4.5 Ah

- To be used for:
Euro-Blitz compact
Euro-Blitz (manufactured from 2020)
Tele-Blitz (manufactured from 2020)
- Specially customized lead-gel-battery
- No memory effect

Item No.	Product	PU
251031	Rechargeable battery for Euro-Blitz compact, 6 V / 4,5 Ah	1

Weight approx., kg	Dimensions, L*W*H, mm	Operating voltage, V	Capacity, Ah	Battery/rechargeable battery type
0.85	70 * 48 * 102	6	4.5	Lead-gel rechargeable battery



Rechargeable Battery for Euro-Blitz, Tele-Blitz and TRI-Blitz

6 V / 7 Ah

- To be used for:
Euro-Blitz / Euro-Synchron (manufactured up to 2019)
Tele-Blitz / Tele-Synchron (manufactured up to 2019)
TRI-Blitz 1 (manufactured from 2007)
- Suited for long operating times
- Specially customized lead-gel-battery
- No memory effect

Item No.	Product	PU
250252	Rechargeable battery for Euro-Blitz, Tele-Blitz and TRI-Blitz, 6 V / 7 Ah	1

Weight approx., kg	Dimensions, L*W*H, mm	Operating voltage, V	Capacity, Ah	Battery/rechargeable battery type
1.25	116 * 50 * 92	6	7	Lead-gel rechargeable battery



LEGAL NOTICE REGARDING THE GERMAN BATTERY ACT

In connection with the sale of batteries and rechargeable batteries as well as devices containing batteries or rechargeable batteries, we would like to draw your attention to the following in accordance with § 18 of the German Battery Act (BattG). Batteries and rechargeable batteries must not be disposed of in household waste. End users are legally obliged to return used batteries and rechargeable batteries. After use, these can either be returned to your municipal collection points or to retailers for disposal free of charge.

Used batteries may contain pollutants or heavy metals that can harm the environment and human health. Batteries can be recycled because they contain important raw materials such as iron, zinc, manganese and nickel. Batteries and rechargeable batteries containing pollutants are marked with the symbol of a crossed-out dustbin and the chemical name of the pollutant.

Rechargeable Gel Battery for Drive and Illumination

12 V / 220 Ah

- **To be used for:**
 - Construction site signaling systems, sequential light systems and advance warning signs
 - Energy source for long operating times
- No need to re-fill water
- No acid leaks in the event of an accident
- Low self-discharge rate
- Long service life
- High cycle stability



Item No.	Product	PU
250131S	12 V / 220 Ah	5

Weight approx., kg	Dimensions, L*W*H, mm	Operating voltage, V	Capacity, Ah	Battery/rechargeable battery type
70	518 * 291 * 242	12	210	Rechargeable gel battery

Rechargeable Battery for Drive and Illumination

12 V / 180 Ah or 12 V / 230 Ah

- **To be used for:**
 - Mobile warning trailers
 - Advance warning devices
 - Construction site signaling systems
 - Flashing sequential light systems
- Pursuant to DIN 43539/Part 3
- Energy source for long operating times
- Low self-discharge rate
- Long service life
- High cycle stability



Item No.	Product	PU
25014B	12 V / 180 Ah	1
25012B	12 V / 230 Ah	1

Item no.	Weight approx., kg	Dimensions, L*W*H, mm	Operating voltage, V	Capacity, Ah (20h)	Battery/rechargeable battery type
25014B	51	513 * 223 * 223	12	180	Wet-cell battery
25012B	63	518 * 291 * 242	12	230	Wet-cell battery

OUR SERVICE FOR YOU: Anti-theft mounting bracket

For high-security mounting of rechargeable batteries and batteries, use the appropriate bracket incl. matching adapter from our range. For use e.g. on guard-rail posts, support tubes and sign stands (see page 101).



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Divisional Management

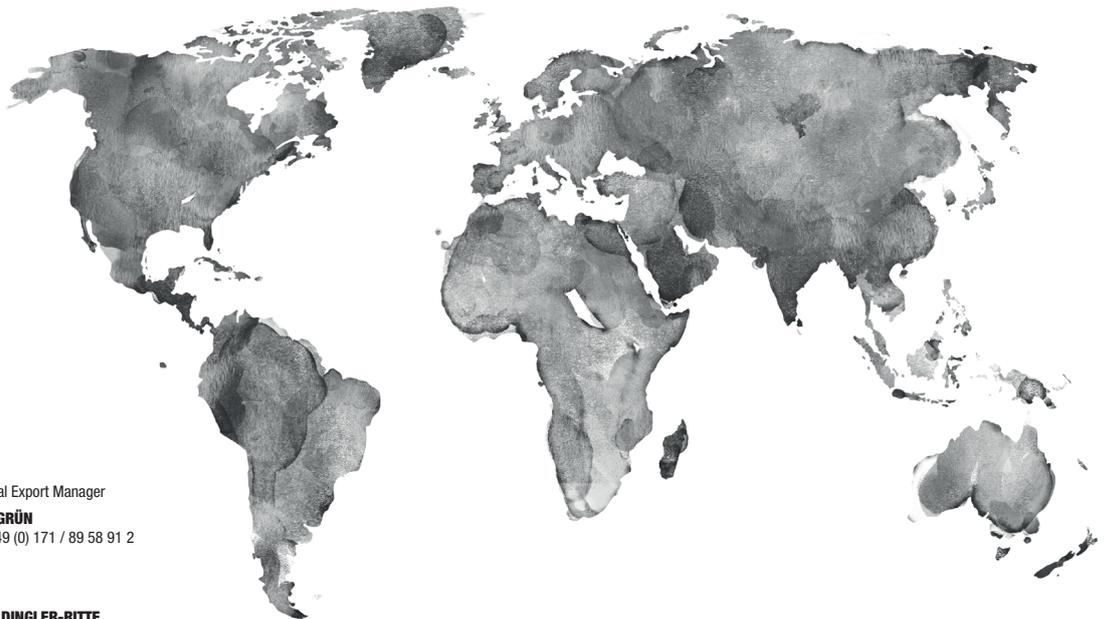
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WE'RE AT YOUR SERVICE!

“The entire team would be pleased to answer your questions regarding road safety!”



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MATTER OF THE HEART

"We are deeply committed to providing the fire department, the Federal Agency for Technical Relief (THW), the police, and security and road construction company employees with the highest quality, most technically advanced products to ensure maximum safety and protection during their work."

The following Terms and Conditions of Sale, Delivery and Payment shall apply with immediate effect.

horizont group gmbh - Korbach, 01 January 2011

All previous conditions of sale, delivery and payment shall hereby cease to be effective.

1. General Terms and Conditions

- 1.1. The following terms and conditions apply exclusively and form an integral part of our offers and 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. Our terms and conditions shall also apply exclusively, even if we deliver goods to the buyer without reservation and in full knowledge of any conflicting 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, "Prokuristen" (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. Our offers are always subject to change and are non-binding. A contract shall only be concluded once we confirm the buyer's order in writing or deliver the 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 ancillary agreements.
- 2.3. Drawings, illustrations, weights and measurements or other specifications are only binding if this is expressly agreed upon in writing.

3. Prices and Terms of Payment

- 3.1. Unless otherwise agreed, our prices shall be effective, without insurance, ex-warehouse or ex-works, exclusive of packaging and with the addition of the respective statutory sales tax.
- 3.2. Specifications and information contained in brochures, advertisements, price lists, and catalogs are provided for general guidance only and shall not be binding unless expressly stated otherwise.
- 3.3. We shall make every effort to maintain the prices we quote. In the case of unforeseeable and exceptional circumstances, including but not limited to manufacturer price increases or currency fluctuations, we reserve the right to adjust prices accordingly and pass such increases on to the purchaser. 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. Our invoices become due for payment within 10 days of the invoice date.
- 3.5. We shall be entitled to demand that delivery shall be concurrent with payment, without stating the reasons therefor. If, after the contract has been concluded, it becomes evident that our entitlement to payment is at risk due to the buyer's insufficient financial standing, we reserve the right to require advance payment or adequate 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. Acceptance shall always be 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 be entitled to demand interest on arrears amounting to 7% above the current base interest rate in accordance with section 247 of the German Civil Code (Bürgerliches Gesetzbuch - BGB). The buyer shall be entitled to furnish proof we have not suffered damages or that the extent of the damages sustained is much less compared to the damages claimed as a result of the default. We reserve the right to assert a claim for higher damages.
- 3.8. An additional EURO 5.00 will be charged for each reminder issued after the claim has become due. In the event of default, any granted payment extensions or agreed payment terms shall become void.

4. Delivery

- 4.1. The delivery of goods will be made by carrier. The choice of shipping company or freight forwarder shall be at our discretion.
- 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 reserve the right to make partial deliveries or provide partial performance to a reasonable extent at any time.
- 4.4. Insofar as the purchasers are not merchants, they may 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 been notified of the grace period. However, the latter shall only be permissible if we or our vicarious agents acted with intent or gross negligence in performing an obligation. Extended liability pursuant to section 287 of the German Civil Code (BGB) shall be excluded.
- 4.5. The following shall additionally apply to merchants:
- 4.6. Delivery shall be subject to correct and timely delivery to ourselves as well as

the successful arrival of the goods. We shall not be liable for any delays in delivery or performance resulting from force majeure or similar circumstances which arise after conclusion of the contract and which are beyond our control, such as industrial disputes and official directives, irrespective of whether these delays occur at our suppliers or at their subcontractors. In these cases, the delivery period shall be extended by the duration of the hindrance plus a reasonable start-up period; the maximum extension however, shall be three months. In this respect, both parties shall be entitled to withdraw from the contract following 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, all claims 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 deadline which was stipulated to us for the delivery of goods. This shall not apply if mandatory liability accrues in the event of intent and gross negligence or as a result of loss of life, personal injury or damage to health. The buyer shall be entitled to withdraw from the contract within the framework of the statutory provisions, only if we are 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. Transfer of Risk

- 5.1. Deliveries are made at our discretion by post, rail, freight forwarder or our own truck.
- 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 freight forwarder. This shall also apply if partial deliveries are made or if we have assumed the performance of other obligations such as transportation charges, carriage and installation. If the forwarding of goods is carried out on 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 reserve the proprietary rights to the object sold until payment of all existing and accruing receivables arising from the business relationship. 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 be entitled to process and sell the goods subject to reservation of ownership (reserved goods) in the course of regular business activity, provided that he is not in default and 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 only be permissible 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 reserved goods shall not expire. The processing or transformation shall be carried out for us as manufacturer, without any subsequent obligations being incurred by us as a result thereof. 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 us (invoice value including value-added tax) to the other processed goods at the time of processing. If the reserved goods are combined or mixed with a principal item owned by the buyer, then it shall already be agreed that the buyer shall transfer joint ownership of the uniform goods to us on a pro-rata basis. The buyer undertakes to preserve our joint ownership for us without any remuneration. The same shall apply if the reserved goods are combined or mixed with other goods.
- 6.4. In the event of resale, the buyer shall assign to us the receivables arising from the resale as well as all ancillary rights pertaining thereto, in order to provide security for our claims. If we are 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 be entitled to revoke the authorization to collect, if the buyer fails to fulfill his contractual obligations, especially in the event of delayed performance. At our request, the buyer undertakes 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 be entitled to disclose the assignment to the debtors at any time.
- 6.5. The buyer undertakes to carefully store the goods which we (jointly) own at his own expense, to insure the said goods against the risk of fire and theft and to provide evidence of the conclusion of an insurance policy upon request.
- 6.6. The buyer undertakes to inform us immediately after becoming aware of any third-party access to the reserved goods and to provide us with all the information and documents needed for an intervention. The buyer shall be liable for all costs incurred for preventing unauthorized access, particularly by filing a third-party action, if these costs cannot be recovered from the petitioning creditor.
- 6.7. In the event of conduct by the buyer that breaches the contract, in particular in the event of payment default, we shall be entitled to withdraw from the contract and take back the goods. The buyer undertakes to surrender the goods and shall bear the costs of returning them. After the issuance of a warning, we shall have the right to liquidate or sell the reserved goods which were taken back. The proceeds of liquidation minus the appropriate liquidation costs will be charged to the liabilities of the buyer.

7. Material Defects

- 7.1. We undertake, at our discretion and without charge, to repair, redeliver or provide all parts or services that exhibit a material defect within the limitation period (Art. 7.7.), provided that the cause of the defect already existed at the time of the transfer of risk.
- 7.2. Claims for defects shall be excluded in the event there is only insignificant deviation from the agreed quality, in the event of only insignificant impairment of usability, in the event of natural wear and tear or damage arising after the transfer of risk as a result of incorrect or negligent handling, excessive strain, unsuitable operating materials, defective construction work, unsuitable building ground or as a result of special external influences which are not assumed under the contract. If the buyer or third parties carry out improper modifications or repair work, claims for defects shall also be excluded for these and the resulting consequences.
- 7.3. The buyer shall immediately notify us in writing of any material defects.
- 7.4. We shall initially be given the opportunity to remedy the defect within a reasonable period of time.
- 7.5. Claims by the buyer for expenses incurred for the purpose of subsequent performance, in particular transport, travel, labor, and material costs, shall be excluded insofar as the expenses increase because the object of the delivery has subsequently been moved to a place other than the buyer's place of business, unless the move was made in accordance with its intended use.
- 7.6. Should supplementary performance fail to provide a remedy, the buyer may - without prejudice to any claims for damages pursuant to Art. 8 - withdraw from the contract or reduce the remuneration. Further claims - or claims other than those regulated in Art. 8 - by the buyer against us or our vicarious agents due to a material defect shall be excluded.
- 7.7. Claims for material defects shall become statute-barred after 12 months. This shall not apply insofar as longer periods are prescribed by law in accordance with the German Civil Code (BGB) - section 438 para. 1 no. 2, section 479 and section 634a para. 1 no. 2 - as well as in cases of loss of life, personal injury or damage to health in the event of an intentional or grossly negligent breach of duty by us and in the event of fraudulent concealment of a defect. The statutory provisions relating to suspension of expiry, suspension and commencement of the limitation periods shall remain unaffected.
- 7.8. In the event that notices of defects are made, the buyer may withhold payment to an extent that is in reasonable proportion to the material defects that have occurred. The buyer may only withhold payments if a notice of defect is asserted about whose justification there can be no doubt. If the notice of defect is unjustified, we shall be entitled to demand reimbursement of the expenses incurred by us from the buyer.

8. Damages

- 8.1. Any claim for damages and reimbursement of expenses (hereinafter: claims for damages) by the buyer, particularly as a result of a breach of duties arising from the contractual obligation and from a tortious act, shall be excluded, irrespective of the legal reason.
- 8.2. This shall not apply insofar as mandatory liability exists, e.g. in cases of intent and gross negligence, as a result of loss of life, personal injury or damage to health, as a result of any breach of major contractual obligations and in accordance with product liability law. However, claims for damages arising from a breach of material contractual obligations shall be limited to the standard contractual, foreseeable damages, unless an intentional or grossly negligent act has been committed, or mandatory liability exists as a result of loss of life, personal injury or damage to health. A change in the burden of proof to the disadvantage of the buyer shall have no connection with the preceding provisions.
- 8.3. Insofar as the buyer is entitled to claims for damages pursuant to this Art. 8, these shall become statute-barred upon expiry of the limitation period applicable to claims for material defects pursuant to Art. 7.7. In the case of claims for damages under the Product Liability Act, the statutory limitation period shall apply.

9. Concluding Provisions

- 9.1. The law of the Federal Republic of Germany shall apply. The uniform UN Convention on Contracts for the International Sale of Goods (CISG) shall not be applicable.
- 9.2. The place of performance for all obligations arising from this contract shall be Korbach.
- 9.3. 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 exclusive for all legal proceedings instituted against us. We hereby reserve the right to also sue the customer at a legally established place of jurisdiction.
- 9.4. Alterations of the contract, supplements and ancillary agreements must be made in writing in order to be valid.
- 9.5. If compliance with the written form is required under these terms, transmission per telefax or e-mail shall also be sufficient.
- 9.6. Should any of the provisions of these Terms and Conditions of Sale, Delivery and Payment be or become invalid or should the contract contain a loophole, the validity of the remaining provisions shall not be affected thereby. The invalid or incomplete provision shall be replaced by a provision which comes closest to the commercial essence and purpose of the desired provision.



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Any questions about how to create safer roads? Don't hesitate to contact us; we are glad to help. horizon's friendly and experienced contact persons are waiting for your call.

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