Hänsch®

CATALOGUE

ENGLISH

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Article numbers and prices can be found in our price list.

Hänsch®

LED beacons

LED beacons

- efficient
- powerful
- versatile
- long-lasting

Our LED beacons are versatile enough for use in all manner of applications. Various fitting and size versions allow mounting to any vehicle. Our LED beacons feature longevity, low power consumption and high levels of electromagnetic compatibility.

Sizes comparison

COMET S / SR | COMET | SATURN | NOVA | MOVIA - SL

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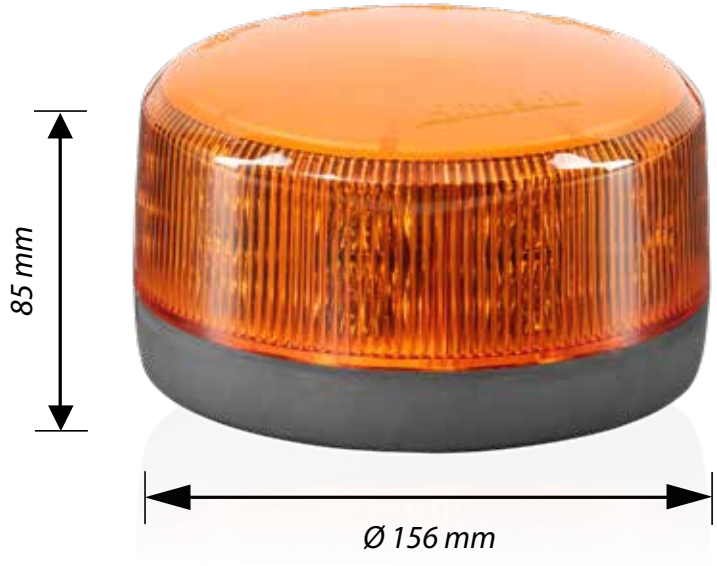
COMET SR

The very best equipment with conspicuous warning systems is very important for ensuring safety and protection at work, particularly for local authority vehicles used by highway depots, maintenance depots and local authority services. Our COMET SR is impressive, not only because of its modern thin profile, but also because of the highest possible geometric visibility and warning effect from the rotating light (homologated according to ECE-R 65). Whenever rotating lights are required, our COMET SR is the best solution for keeping both site and workers safe.



Technical data:	
Designation:	COMET SR
Voltage:	12 V / 24 V multivoltage
Flash frequency:	> 2 Hz
Average power consumption:	12 V: 1.3 A / 24 V: 0.7 A
Material:	lamp dome: polycarbonate / socket: ASA
Type of protection:	IP5K4K / IPX9K
Homologation: (Germany and international)	
Light homologated according to ECE-R 65:	TA1(E1) 00 5170 / TA1(E1) 00 5171
EMC according to ECE-R 10:	(E1)10R-06 9004

PRODUCT FEATURES:

- compact plastic housing
- two rows of LEDs provide a high warning effect
- flash pattern: possible to switch between rotating light and strobe light (analogue)
- function monitoring
- compensating wedge available for mounting on sloping surfaces
- options:
  - fix mounting or tube mounting
  - analogue or CiA447 versions
  - also available with clear lamp dome
- colours: also available in blue

Video Comet SR

Versions available

Whether fix mounting, tube mounting or magnetic fixing - the various versions of the COMET S LED beacon offer a solution for any requirement. Our COMET S impresses with its extra low-profile and modern design. Maximum light intensity (Class II homologation) and a fully illuminated lamp dome ensure best possible visibility and warning effect.

Fix mounting

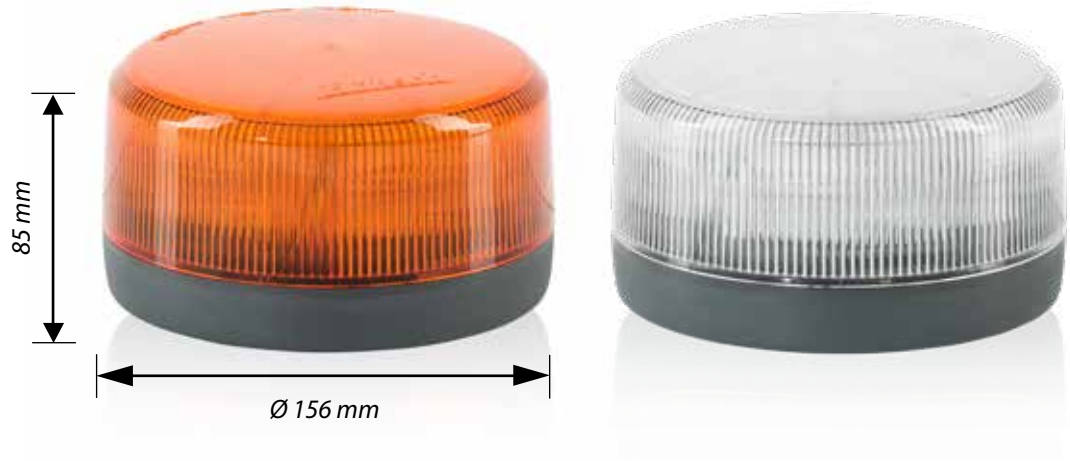
Magnetic fixing

Tube mounting

Hänsch®

COMET S

Fix mounting



Also available with examination in accordance with ICAO type C.
More information about this can be found from page 57.

PRODUCT FEATURES:

- fix mounting in accordance with DIN 14620, form B1
- various approved flash patterns included
- two rows of LEDs ensure full-surface illumination
- class II homologation
- compensating wedge available for mounting on sloping surfaces
- options:
  - day/night switching (via cable) for version with amber lamp dome
  - day/night switching (automatic) for version with amber lamp dome
  - convoy function
  - function monitoring
  - analogue or CiA447 versions
  - also available with clear lamp dome
  - soft light signal (night) option
- colours: also available in blue, red and green

Technical data:	
Designation:	COMET S
Voltage:	12 V / 24 V multivoltage
Flash frequency:	> 2 Hz
Average power consumption:	12 V: 1.3 A / 24 V: 0.7 A
Material:	lamp dome: polycarbonate / socket: ASA
Type of protection:	IP5K4K / IPX9K
Homologations: (Germany and international)	
Light according to ECE-R 65:	TA2 (E1) 00 4426 / TA1 (E1) 00 4591
EMC according to ECE-R 10:	(E1) 10R-05 7965

Magnetic fixing

PRODUCT FEATURES:

- with spiral cable and triple magnetic fixing
- optimum adhesion even on slightly curved vehicle roofs
- rubber-coated magnets to prevent scratches to paintwork
- tested up to 250 km/h
- analogue control
- various approved flash patterns included
- two rows of LEDs ensure full-surface illumination
- options:
  - day/night switching (automatic) for version with amber lamp dome
  - also available with a clear lamp dome
  - soft light signal (night) possible
- colours: also available in blue and red

Tube mounting

PRODUCT FEATURES:

- for attaching to a tube according to DIN 14620
- impact-resistant housing base
- various approved flash patterns included
- two rows of LEDs ensure full-surface illumination
- counterpart available in different versions
- options:
  - day/night switching (automatic) for version with amber lamp dome
  - flexible or fixed tube
  - also available with a clear lamp dome
  - soft light signal (night) possible
- colours: also available in blue and red

Also available with examination in accordance with ICAO type C.
More information about this can be found from page 57.

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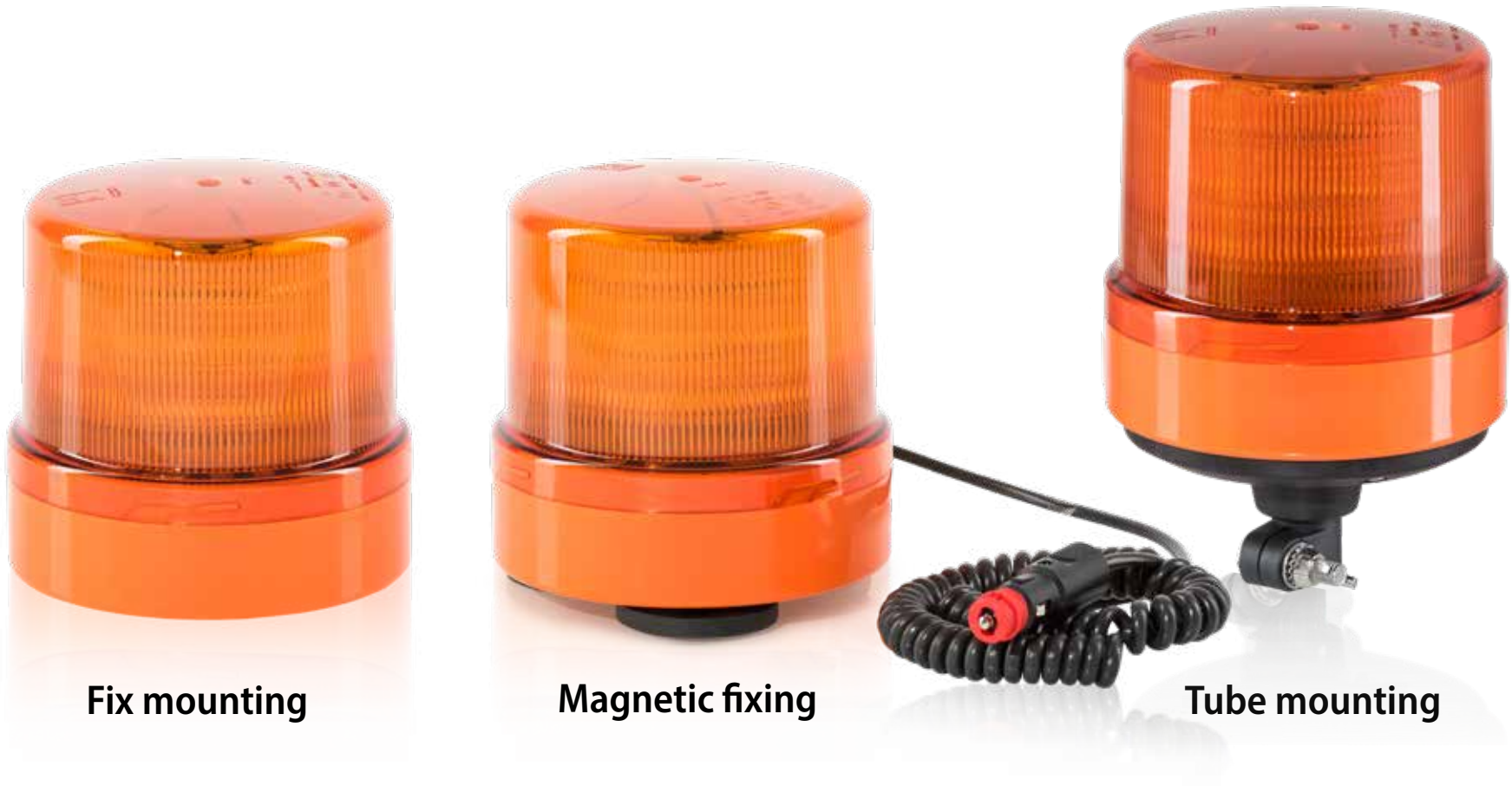
COMET LED

Versions available

Whether fix mounting, tube mounting or magnetic fixing - the various versions of the COMET LED beacon offer a solution for any application. Our COMET LED beacons feature powerful LED technology with excellent warning effect integrated into a compact housing.



Fix mounting **Magnetic fixing** **Tube mounting**

Fix mounting

PRODUCT FEATURES:

- fix mounting in accordance with DIN 14620, form B1
- compensating wedge available for mounting on sloping surfaces
- options:
  - function monitoring (low or high)
  - analogue or CiA447 versions
- colours: also available in blue, red, green and blue/amber

Magnetic fixing

PRODUCT FEATURES:

- with spiral cable and triple magnetic fixing
- optimum adhesion even on curved vehicle roofs
- rubber-coated magnets to prevent scratches to paintwork
- tested up to 250 km/h
- colours: also available in blue, red, green and blue/amber

Both versions available with examination in accordance with ICAO type C. Further information can be found on page 58.
Also available with examination in accordance with ICAO type C.

Hänsch®

COMET LED

Tube mounting

PRODUCT FEATURES:

- for attaching to a tube according to DIN 14620
- impact-resistant housing base
- counterpart available in different versions
- options:
  - flexible or fixed tube
- colours: also available in blue, red and green

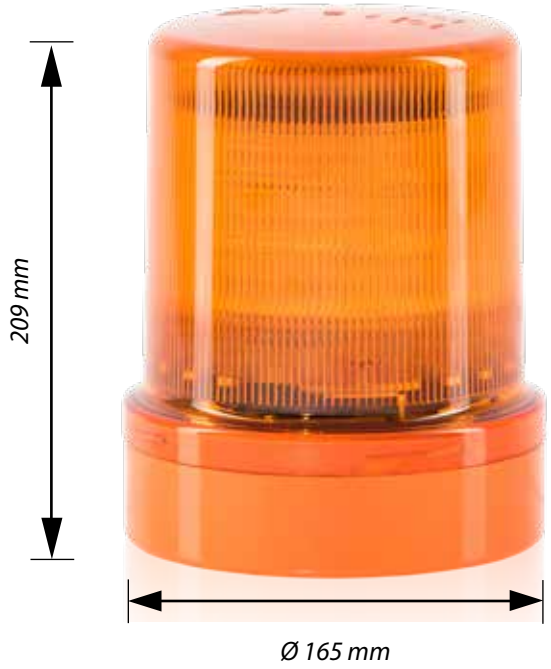
Technical data:	
Designation:	COMET LED
Voltage:	12 V / 24 V multivoltage
Flash frequency:	> 2 Hz
Average power consumption:	12 V: 1.5 A / 24 V: 0.75 A
Material:	lamp dome: polycarbonate / socket: ASA
Type of protection:	IP5K4K / IPX9K
Homologations: (Germany and international)	
Light according to ECE-R 65:	TA1 (E1) 00 2872
EMC according to ECE-R 10:	(E1) 10R-06 5669

Also available with examination in accordance with ICAO type C.
More information about this can be found from page 57.

SATURN LED

The SATURN LED beacon is available with fix mounting or tube mounting and can thus be used in a wide variety of applications.
Our LED beacons feature powerful LED technology with excellent warning effect packed into a robust housing.

Fix mounting



PRODUCT FEATURES:

- fix mounting in accordance with DIN 14620, form B1
- function monitoring (low or high)
- colours: also available in blue and red

Tube mounting

PRODUCT FEATURES:

- for attaching to a tube according to DIN 14620
- impact-resistant housing base
- counterpart available in different versions
- optional:
  - flexible or fixed tube
- colours: also available in blue and red

Technical data:	
Designation:	SATURN LED
Voltage:	12 V / 24 V multivoltage
Flash frequency:	> 2 Hz
Average power consumption:	12 V: 1.5 A / 24 V: 0.75 A
Material:	lamp dome: polycarbonate / socket: ASA
Type of protection:	IP5K4K / IPX9K
Homologations: (Germany and international)	
Light according to ECE-R 65:	TA1 (E1) 00 3000
EMC according to ECE-R 10:	(E1) 10R-06 5669

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NOVA in LED technology

The NOVA in LED technology is the "big sister" of our beacons. Here, too, optimum light distribution is achieved through the use of high-performance LEDs. The NOVA in LED technology is mainly used for large vehicles.

Fix mounting

PRODUCT FEATURES:

- fix mounting in accordance with DIN 14620, form B2
- analogue control
- compensating wedge available for mounting on sloping surfaces
- options:
  - function monitoring (Low or High)
- colours: also available in blue and red

Technical data:	
Designation:	NOVA-L
Voltage:	12 V / 24 V multivoltage
Flash frequency:	> 2 Hz
Average power consumption:	12 V: 1.5 A / 24 V: 0.75 A
Material:	lamp dome: polycarbonate / socket: ASA
Type of protection:	IP5K4K / IPX9K
Homologations: (Germany and international)	
Light according to ECE-R 65:	TA1 (E1) 00 2916
EMC according to ECE-R 10:	(E1) 10R-06 5669

MOVIA - SL

Whether fix mounting, tube mounting or magnetic fixing - the various versions of the MOVIA - SL LED beacon offer a solution for any application. Our MOVIA - SL LED beacons feature powerful LED technology with excellent warning signals, packed into a compact housing.

Magnetic fixing

Tube mounting

Fix mounting

Hänsch®

MOVIA - SL

Fix mounting

PRODUCT FEATURES:

- options:
  - function monitoring
  - analogue or CiA447 versions
- colours: also available in red, blue and blue/amber

Tube mounting

PRODUCT FEATURES:

- for attaching to a tube according to DIN 14620
- adjustable tube mounting
- counterpart available in different versions
- option:
  - telescopic tube also available
- colours: also available in red and blue

Magnetic fixing

Metal elbow plug

Universal plug

Protective cover

Car plug

PRODUCT FEATURES:

- LED beacon with spiral cable and triple magnetic fixing
- optimum adhesion even on slightly curved vehicle roofs
- rubber-coated magnets to prevent scratches to paintwork
- various connector options
- tested up to 270 km/h
- analogue
- colours: also available in blue, blue/amber and red
- protective cover option
- built-in socket for metal elbow plug available

Technical data:	
Designation:	MOVIA - SL
Voltage:	12 V / 24 V multivoltage
Flash frequency:	> 2 Hz
Average power consumption:	12 V: 1.6 A / 24 V: 0.9 A
Material:	housing: aluminium / lamp dome: polycarbonate
Type of protection:	IP5K4K / IPX9K
Homologations: (Germany and international)	
Light according to ECE-R 65:	TA1 (E1) 00 3139
EMC according to ECE-R 10:	(E1) 10R-06 5669

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Bicoloured LED beacons

can switch between blue and amber

The bicoloured beacons MOVIA-SL and COMET LED can switch between blue and amber. The blue warning signal is used to indicate the right of way on the way to the scene. Once at the scene, the beacon can be switched to amber and thus serves as a warning signal for safety.

Illustration: MOVIA - SL

Technical data:		
Designation:	MOVIA - SL	COMET LED
Voltage:	12 V / 24 V multivoltage	12 V / 24 V multivoltage
Flash frequency:	> 2 Hz	> 2 Hz
Average power consumption:	12 V: 1.5 A / 24 V: 0.8 A	12 V: 1.5 A / 24 V: 0.75 A
Material:	housing: aluminium / lamp dome: polycarbonate	lamp dome: polycarbonate / socket: ASA
Type of protection:	IP5K4K / IPX9K	IP5K4K / IPX9K
Homologations: (Germany and international)		
Light according to ECE-R 65:	TB1/TA1 (E1) 00 3139 / TB2 (E1) 00 3140	TB1/TA1 (E1) 00 2872 / TB2 (E1) 00 2814
EMC according to ECE-R 10:	(E1) 10R-06 5669	(E1) 10R-06 5669

MOVIA-SL and COMET LED OPTIONS

- fix mounting: colour switching via signal cable
- magnetic fixing: colour switching via a switch on the universal plug

Bicoloured LED beacons

can switch between blue and amber

MOVIA - SL

PRODUCT FEATURES:

- fix mounting or magnetic fixing versions available
- fix mounting/CiA447: colour switching via signal cable
- magnetic fixing: colour switching via a switch on the universal plug
- clear lamp dome
- protective cover option

COMET LED

PRODUCT FEATURES:

- fix mounting or magnetic fixing versions available
- fix mounting/CiA447: colour switching via signal cable
- magnetic fixing: colour switching via a switch on the universal plug
- clear lamp dome

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COMET (S) on support bracket

This fixing method for the COMET and COMET S beacons has been specially developed for escort vehicles. The beacon is attached to the vehicle's roof using a lockable plug-in hinge and a magnetic rubber suction cup. The universal electrical plug-in hinge attachement part (ESA part) serve both to guarantee a secure grip and to supply voltage to the beacon.

COMET S PRODUCT FEATURES:

- various approved flash patterns included
- two rows of LEDs
- class II homologation
- analogue
- height: 85 mm (not including support bracket)
- colours: also available in red and blue
- also available with clear lamp dome

Illustration: COMET S on support bracket with ESA part

Illustration:
COMET on support bracket without ESA part

COMET PRODUCT FEATURES:

- three rows of LEDs
- class I homologation
- analogue
- height: 158 mm (not including support bracket)
- colours: also available in red and blue

SUPPORT BRACKET PRODUCT FEATURES:

- lockable bracket
- automatic connection through multiple contact fins in the fixings
- double-secured by plug-in hinge and magnetic suction cup
- universal ESA part required

HT-solutions

With the Hänsch HT solutions, you can provide the legally required geometric visibility even if the mounting of conventional beacons is not possible due to the structural conditions.

The HT solution, also referred to as a half beacon or semi-continuous bar, can be mounted on the front or rear of the vehicle or can be integrated into the vehicle body.

The various solutions from Hänsch, consisting of 2 to 6 lamp bodies, provide maximum flexibility in vehicle design. Through the HT solutions Sputnik mini and Sputnik SL the earliest possible warning effect when mounted at the front of the vehicle can be ensured e.g. in intersections or at exits.

INTEGRO Universal LED module

Sputnik mini HTA

Sputnik SL HTA

Additional information about HT-solutions can be found here:

Integro Universal LED module

As a vehicle safety feature, this versatile LED module can be integrated into the roof structure at the front and rear. All four amber LED modules together create one all-round beacon. One module - two mounting versions - the compact solution provides an additional warning effect and increased safety in road traffic.

Homologations (Germany and international):	
Light according to ECE-R 65:	HTA1 (E1) 00 3850
EMC according to ECE-R 10:	(E1) 10R-06 4465

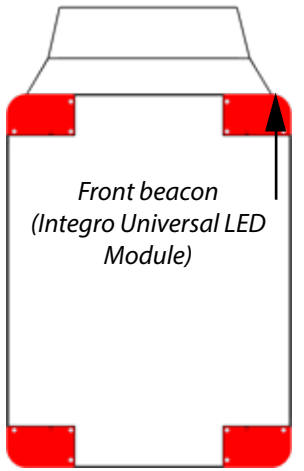
This product's certification is only valid if used pairwise in the front and/or the rear of the vehicle.

PRODUCT FEATURES:

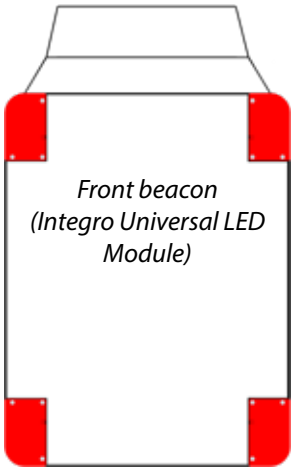
- each system consists of two identical lamp bodies
- 8 high-performance LEDS with wide angled optics
- integrated control electronics
- voltage: 12 V / 24 V multivoltage
- connection for function monitoring
- 270° angle of radiation
- multiple modules can be synchronised together
- homologated as half beacon
- colours: also available in blue and red

INTEGRATION OPTIONS:

- the LED modules can be attached to the front and/or rear of the vehicle or integrated into the roof structure of the vehicle
- each pair of Integro LED modules (front or rear) can be replaced by an all-round beacon or a roof bar system



Integro Universal LED Module (long module side)



Integro Universal LED Module (short module side)

Sputnik mini HTA

The new Sputnik mini LED warning system impresses with its compact dimensions and simple installation in a round drilled hole. One HT-solution consists of 4 Sputnik mini Lamp bodies and 2 Sputnik SL mini lamp bodies. Being an HT-solution, the beacon consists of several lens systems, so it is not a directional beacon (front flasher).

Lamp body dimensions:
27 mm x 28 mm
(diameter x height)

PRODUCT FEATURES:

- highly compact design for universal use
- housing: aluminium
- external electronics for 2 lamp bodies
- vehicle-specific HT-solution available: MB Sprinter, VW Crafter, MAN TGE, other models or projects on request

The use of HT systems is regulated differently in different federal states. We recommend contacting your admissions office beforehand.

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Sputnik mini HTA

Illustration: similar (photomontage)

Technical data:		
Material	Housing:	aluminium, anodised black
	Cover glass:	polycarbonate
	Electronics:	polyamide
Dimensions:	Lamp body:	Ø 27 mm, 28 mm deep
	Electronics:	95.5 x 26 x 13 mm (w x h x d)
Weight:	Lamp body:	25 g
	Electronics:	245 g
Type of protection:	IP6K7 / IPX9K	
Temperature range :	-40 °C to +60 °C	
Average power consumption*:	0.8 A at 12 V 0.5 A at 24 V	
Peak*:	2.3 A at 12 V 1.1 A at 24 V	
*Electronics with 2 lamp bodies		
Flash patterns:	Synchronous strobe light (configurable)	
Homologations: (Germany and international)		
Light according to ECE-R 65:	HTA1 (E5) 00 0072	
EMC according to ECE-R 10:	(E1) 10R-05 8617	

System includes:

- 2 Sputnik SL lamp bodies
- 4 Sputnik mini lamp bodies with mounting tray 2 10°

- voltage: 12 V / 24 V multivoltage
- flashing mode: synchronous, alternating
- optional: activation control
- cable harness available for simpler electrical connection

Sputnik SL HTA

The directional flasher Sputnik SL features state-of-the-art lighting technology. The cover glass and the integrated optics of the LEDs guarantee maximum light output and a large angle of radiation (horizontal > 70°). At intersections in particular, the light's wide beam considerably improves other road users' awareness, which reduces the risk of accidents.

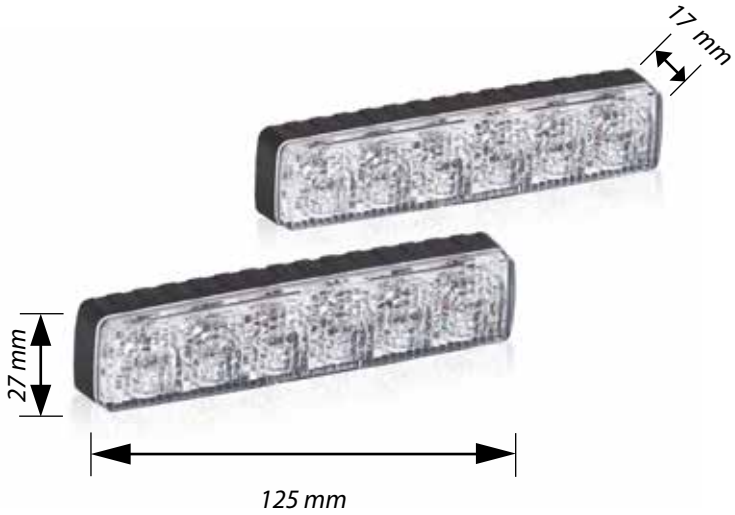

Illustration: similar (photomontage)

PRODUCT FEATURES:

- maximum warning effect >500 candela
- can be adapted to the contour of the radiator grille
- complete sealing of the lamp bodies provides protection against high pressure or steam jet cleaning
- universal holder and various vehicle-specific brackets are available for perfect orientation and ease of installation to the front of the vehicle
- cable harness available for simplified electrical connection

Technical data:	
Designation:	Sputnik SL
Voltage:	12 V / 24 V multivoltage
Average power consumption:	12 V: 0.8 A (per unit) 24 V: 0.6 A (per unit)
Type of protection:	IP6K7 / IPX9K
Homologation:	
Light according to ECE-R 65:	HTA1 (E1) 00 4125
EMC according to ECE-R 10:	(E1) 10R-05 6845

Hänsch®

Lightbars


ADAC
J.BAUEREIß
ADAC
OELSPURBESEITIGUNG
J.BAUEREIß
4/82/1
Umweltschutz
MAN

Greatest safety through perfection

Today, Hänsch lightbar systems are an essential piece of equipment for the highway depots, maintenance depots, local authority services and other local facilities. By using the most up to date lighting technology, maximum warning effect is achieved, improving safety for all road users. All lightbars come in various lengths and versions. They are modular in design and have a wide range of functions.

reddot award 2017
winner

DBW 5000

reddot design award
winner 2013

DBW 4000

Hänsch®

DBW 5000

The DBW 5000 warning system combines modern design, a wide range of functions and powerful LED lighting technology. Maximum warning effect improves road user awareness and ensures additional safety when working on the roads. The low profile not only ensures low air resistance and lower noise levels, but also means locations with low clearance heights are not a problem.

reddot award 2017
winner

Can be configured to customer requirement

- installation uses a modular system
- flexibly adaptable to individual requirements

Aerodynamic housing

- low air resistance and reduced noise levels
- low profile

Various mounting options

- quick and easy mounting options for flat or convex vehicle roofs
- special vehicle-specific brackets offer additional mounting options

Maximum warning effect

- very latest lighting technology
- automatic day/night switching

Simple control concept

- electronic control via the CANBus protocol, based on the CANopen Standard 447
- converter for analogue control available

Various length variants

- lengths: 700, 1100, 1200, 1400, 1600 or 1800 mm

DBW 5000

RANGE OF FUNCTIONS AVAILABLE

- working lights
- ambient light sensor for night-time reduction
- alley lights: angled 0° or 20°
- loudspeaker in base unit for public address
- additional flashers
- direction indicators*
- traffic advisor (special approval required)
- also available with clear lamp dome

* with CiA447, an I/O box is required to read analogue signals.

Also available with examination in accordance with ICAO type C.
More information about this can be found from page 61.

Technical data:	
Designation:	DBW 5000
Voltage:	12 V / 24 V
Flash frequency:	> 2 Hz (beacon)
Average power consumption:	From 4A (for 12 V)
Lengths:	700, 1100, 1200, 1400, 1600, 1800 mm
Depth:	285 mm
Height:	63 mm
Weight:	from 5.1 kg
Material:	lamp dome: polycarbonate / lens: acrylic housing: aluminium
Type of protection:	IP5K4K / IPX9K
Homologations: (Germany and international)	
Light according to ECE-R 65:	TA2 (E1) 00 4426 / TA1 (E1) 00 4591
EMC according to ECE-R 10:	(E1) 10R-05 7981
Direction indicators: light according to ECE-R 6	01 1 (E1) 4453 (front) / 01 2a (E1) 4453 (rear)

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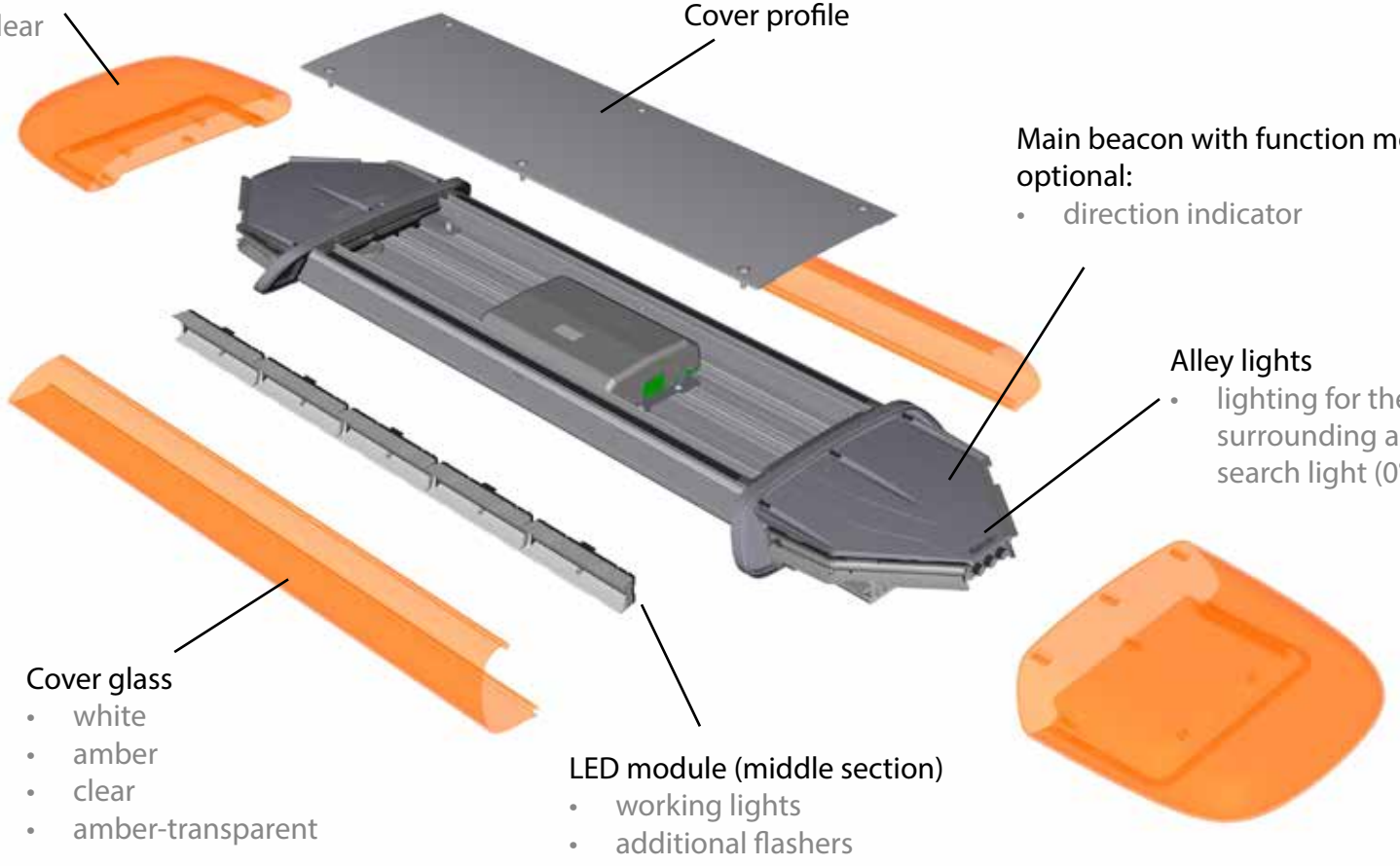
DBW 5000


Lamp dome
• amber
• clear
Cover profile
Main beacon with function monitoring
optional:
• direction indicator
Alley lights
• lighting for the surrounding area (20°) or search light (0°)
Cover glass
• white
• amber
• clear
• amber-transparent
LED module (middle section)
• working lights
• additional flashers

Lightbar base

Length variants available
700, 1100, 1200, 1400, 1600, 1800 mm

Main beacon	
Function	
Main beacon (amber)	• high-performance LEDS with wide angled optics • K2 homologation with automatic day/night switching • built-in function monitoring • fash pattern: strobe light • optional: direction indicators, front and/or rear, in the main beacons*

Control module	
Function	
Digital control	• serial control via 2-wire cable • for CiA447 control units (such as BE 300, HBE 300, BE 304) • compatibility with other control units on request
Analogue control	• converter for analogue control available • analogue control via signal cable for limited functionality (compatibility on request)

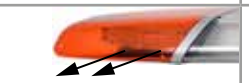
Roof mounting		
Function		
	Rubber mouldings	• for flat or curved vehicle roofs
	Mounting brackets	• universal and various vehicle-specific versions available

* with CiA447, an I/O box is required to read analogue signals.

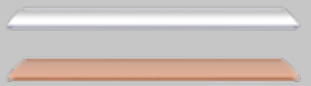
Electrical connection	
Function	
Cable outlet	• cable outlet passenger side: standard • cable outlet driver side • separate cable outlets (supply and signal lines are laid separately) • electrical connections for specific vehicles available on request

Options

Accoustic (loudspeaker in base unit for public address		
Function		possible with
Loudspeaker in base unit	• loudspeaker in base unit to rear and/or front for public address • external amplifier and wiring harness required	• 12 V • 24 V

Alley Lights (side lights)*			
Function			possible with
	Lighting for surrounding area	• angle of inclination: 20° • installed in pairs (left and right)	• 12 V • 24 V
	Search light	• not angled • installed in pairs (left and right)	• 12 V • 24 V

*clear lamp dome recommended

Lens		
Description		
	Fully tinted lens: • white (RAL 9010) • amber (RAL 2004)	
	Transparent lens: • clear • amber/transparent	• clear or tinted transparent lens • required when middle modules are mounted

Middle module

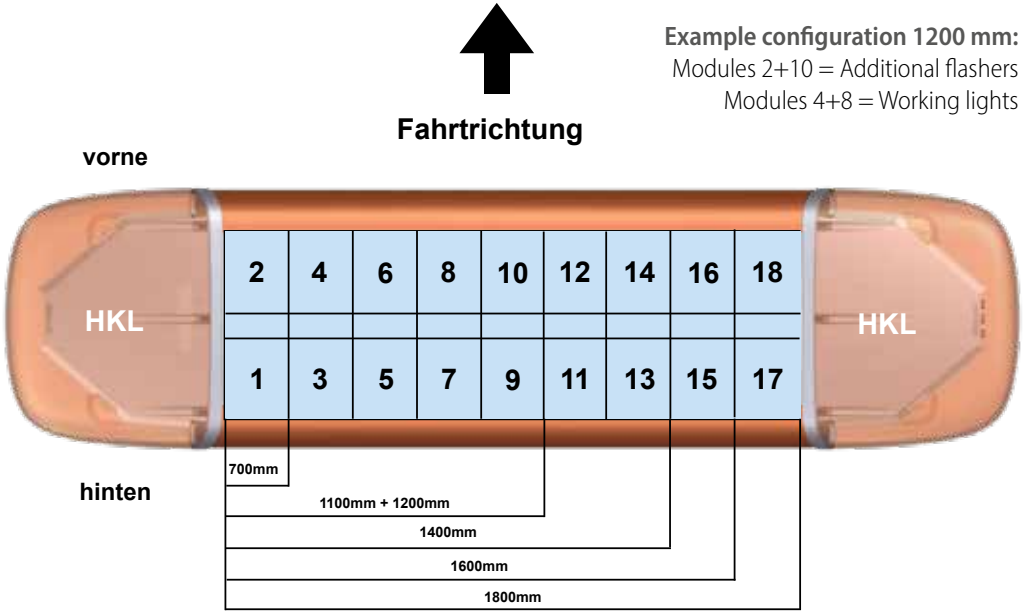
Options - front mounting

Configuration example

Additional flashers and working lights*	
Function	
Additional flashers (pair)* max. 3 pairs depending on length	• consisting of 9 amber LEDs in reflector housing • in a row • synchronisation with appropriate main flasher unit • dimmed in night mode
Working lights (0°) max. 4 units per lightbar	• 9 white LEDs in reflector housing • various mounting positions • 1.500 lumen
* 2, 4 or 6 modules permitted	

Overview of module slots

Example configuration 1200 mm:
Modules 2+10 = Additional flashers
Modules 4+8 = Working lights



Hänsch®

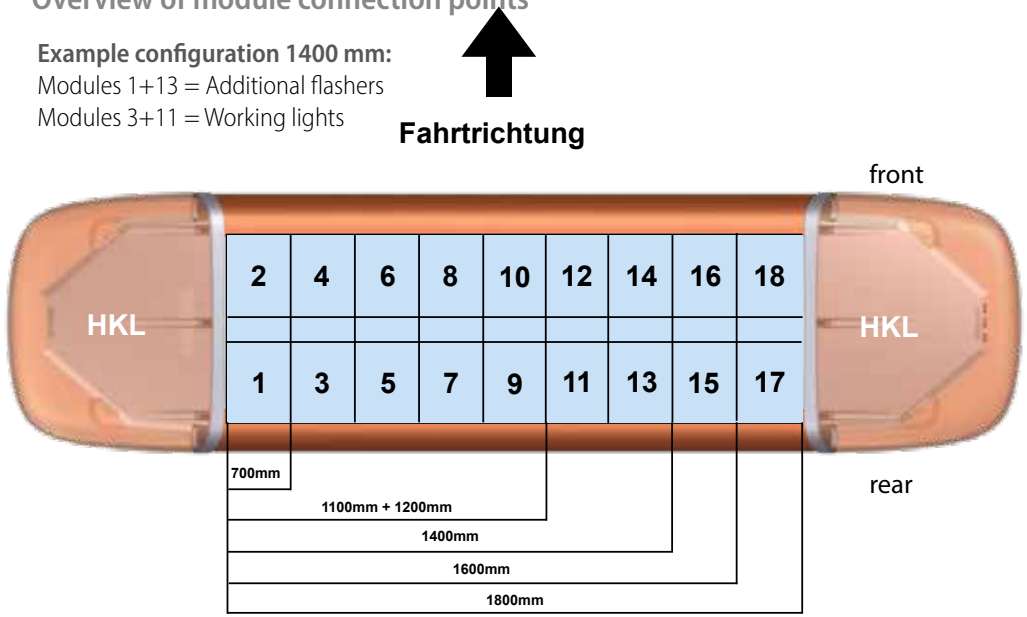
Middle modules

Options - rear mounting

Configuration example

Overview of module connection points

Example configuration 1400 mm:
Modules 1+13 = Additional flashers
Modules 3+11 = Working lights



Additional flashers, working lights and traffic advisor*	
Function	
Additional flashers (pair)* max. 3 pairs depending on length	• consisting of 9 amber LEDs in reflector housing • in a row • synchronisation with appropriate main flasher unit • dimmed in night mode
Working lights (0°) max. 4 units per lightbar	• 9 white LEDs in reflector housing • various mounting positions • 1,500 lumen
Traffic advisor (special approval required)	• consisting of 5 or 6 middle sections each with 9 amber LEDs • directional flashing sequences available
* 2, 4 or 6 modules are permitted	

DBW 5000

can switch between blue and amber

The bicoloured DBS 5000 lightbar system can switch between blue and amber
The blue warning signal is used to indicate the right of way on the way to the site.
Once at the scene, the beacon can be switched to amber and thus serves as a warning signal to secure the area.

PRODUCT FEATURES:

- can switch between blue and amber
- both colours approved according to ECE-R 65

RANGE OF FUNCTIONS AVAILABLE

- blue: can be used to mark the right of way while driving
- amber: can be used as a warning light at the destination
- blue additional flashers
- amber additional flashers
- direction indicator*
- working lights
- alley lights
- rear warning system (amber)
- power flash (blue)
- day/night switching

* with CiA447, an I/O box is required to feed in the analogue signals.

Also available with examination in accordance with ICAO type C.
More information about this can be found from page 61 onwards.

Technical data:	
Designation:	DBS 5000
Voltage:	12 V / 24 V
Flash frequency:	> 2 Hz (beacon)
Average power consumption:	from 4A (for 12 V)
Lengths:	700, 1100, 1200, 1400, 1600, 1800 mm
Depth:	285 mm
Height:	63 mm
Weight:	from 5.1 kg
Material:	lamp dome: polycarbonate / lens: acrylic housing: aluminium
Type of protection:	IP5K4K / IPX9K
Homologations: (Germany and international)	
Light according to ECE-R 65:	TB2 (E1) 00 4446 / TA2 (E1) 00 4447
EMC according to ECE-R 10:	(E1) 10R-05 7981
Direction indicators: light according to ECE-R 65:	01 1 (E1) 4453 (front) / 01 2a (E1) 4453 (rear)
Rear warning system: light according to ECE-R 65:	XA1 (E1) 00 4471
Power flash***: light according to TA 13a:	∿∿ K 1427

**according to § 52 (11) StVZO (Germany) only authorised for blue lightbars.
*** authorised for blue lightbars only.

Hänsch®

DBW 4000

The DBW 4000 warning system combines modern design, a wide range of functions and powerful LED lighting technology. Maximum warning effect improves road user awareness and ensures additional safety when working on the roads. Thanks to the numerous functions available, the DBW 4000 can be adapted individually for any situation.

reddot design award
winner 2013

Can be configured to customer requirement

- installation uses a modular system
- flexibly adaptable to individual requirements

Aerodynamic housing

- low air resistance and reduced noise levels

Various mounting options

- quick and easy mounting options for flat or curved vehicle roofs
- special vehicle-specific brackets offer additional mounting options

Maximum warning effect

- very latest lighting technology
- automatic day/night switching

Simple control concept

- analogue or electronic control via the CANBus protocol, based on the CANopen Standard 447 or fireCAN

Various length variants

- lengths: 1100, 1200, 1400, 1600, 1800 or 2000 mm

DBW 4000

RANGE OF FUNCTIONS AVAILABLE

- traffic advisor
- direction indicators*
- working lights
- additional flashers
- alley lights: angled 0° or 20°
- loudspeaker in base unit for public address
- display (special approval required under §70)
- rear warning system
- printing on the cover glass
- day/night switching (automatic)

* with CiA447, an I/O box is required to feed in analogue signals.

Also available as a CiA447 version with examination in accordance with ICAO type C.
More information about this can be found from page 59 onwards.

Technical data:	
Designation:	DBW 4000
Voltage:	12 V / 24 V
Flash frequency:	> 2 Hz (beacon)
Average power consumption:	From 4A (for 12 V)
Lengths:	1100, 1200, 1400, 1600, 1800, 2000 mm
Depth:	300 mm
Height:	140 mm
Weight:	from 9 kg
Material:	lamp dome: polycarbonate / lens: acrylic housing: aluminium
Type of protection:	IP5K4K / IPX9K
Homologations: (Germany and international)	
Light according to ECE-R 65:	TA2 (E1) 00 3111
EMC according to ECE-R 10:	(E1) 10R-05 6209
Direction indicators: light according to ECE-R 6	01 1 (E1) 3822 (front) / 01 2a (E1) 3800 (rear)
Rear warning system: light according to TA 20:	K 810

Hänsch®

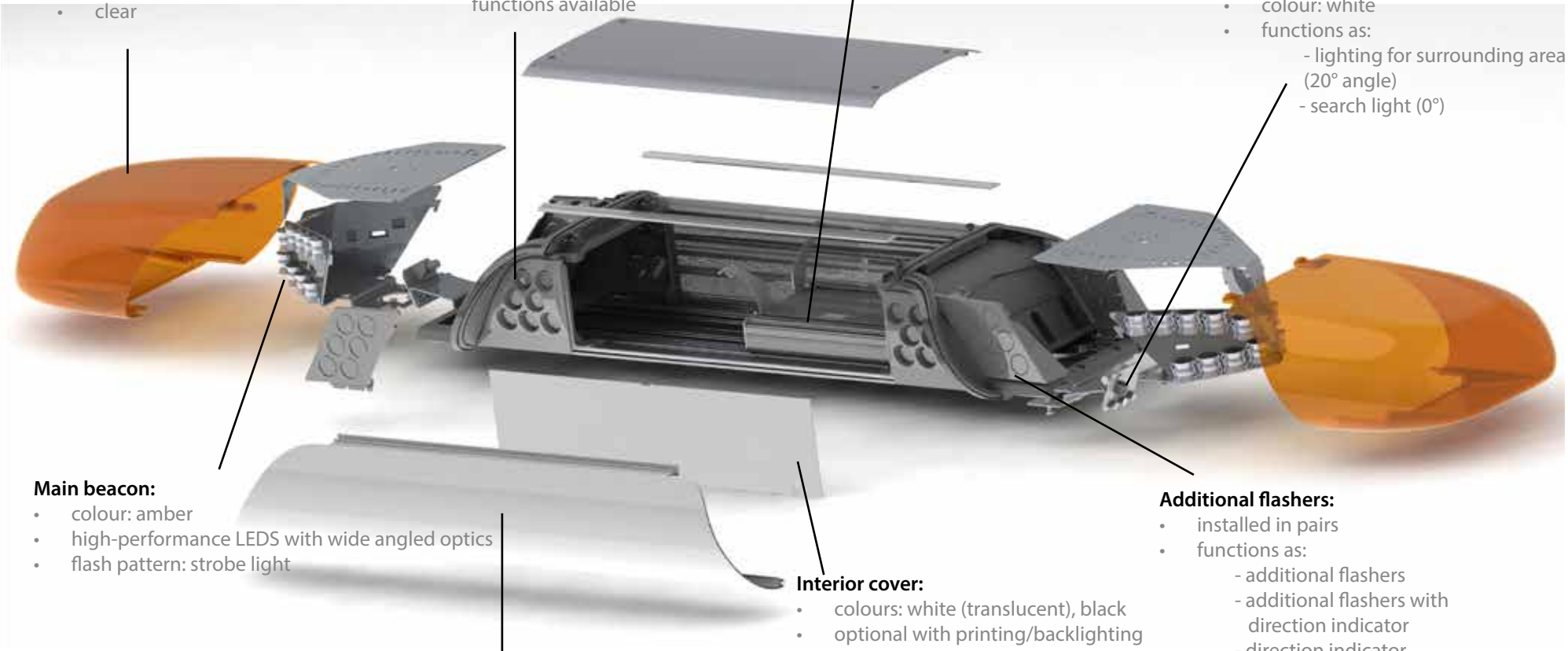
DBW 4000

Lamp dome of the main beacon:
- amber
- clear

Optional
lamp module (OLM):
- various functions available

Control module:
- analogue control
- digital control CiA447

Alley Light (side lights)
- colour: white
- functions as:
  - lighting for surrounding area (20° angle)
  - search light (0°)



Main beacon:
- colour: amber
- high-performance LEDS with wide angled optics
- flash pattern: strobe light

Additional flashers:
- installed in pairs
- functions as:
  - additional flashers
  - additional flashers with direction indicator
  - direction indicator

Interior cover:
- colours: white (translucent), black
- optional with printing/backlighting

Cover glass:
- colours: white, clear and grey and black
- optional with printing/backlighting on the white cover glass

alternative

Display:
- full matrix with various messages (CiA447)

Lightbar base

Length variants available
1100, 1200, 1400, 1600, 1800 and 2000 mm

Main beacon	
Function	
Main beacon (amber)	• high-performance LEDS with wide angled optics • K2 homologation with automatic day/night switching • built-in function monitoring • flash pattern: strobe light

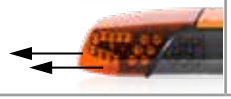
Control module	
Function	
Analogue control	• for individual switch and various common analogue control units (such as BE200 or BE600)
Digital control	• serial interface via 2-wire cable • for CiA447 control units (such as BE 300, HBE 300, BE 304) • compatibility with other control units on request

Roof mounting	
Rubber mouldings	• for flat or curved vehicle roofs
Support brackets	• universal and various vehicle-specific versions available
Flat seal	• for flat vehicle roofs

Electrical connection	
Function	
Cable outlet	• cable outlet passenger side: standard • cable outlet driver side • separate cable outlets (supply and signal lines are laid separately)

Options

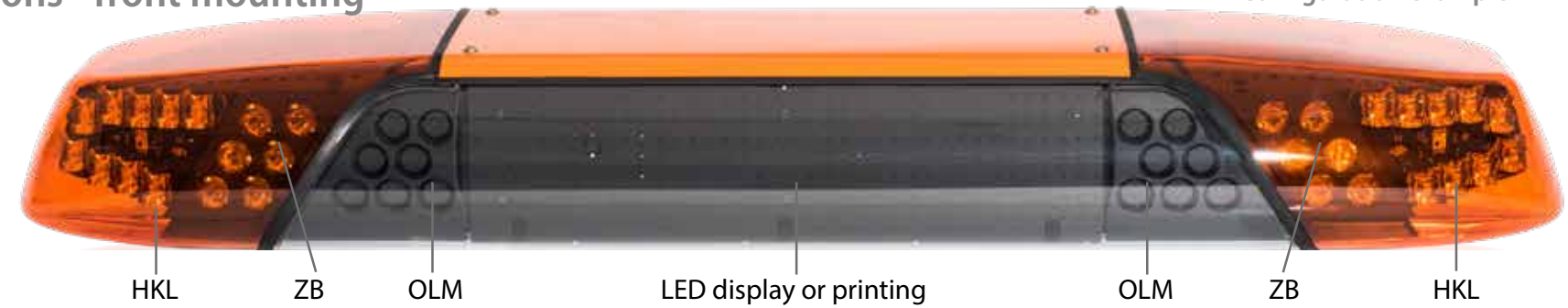
Accoustic		
Function		possible with
Loudspeaker in base unit	• loudspeaker in base unit facing forwards/backwards to enable public address • with built-in or external amplifier (in conjunction with TFA 624 only in CiA447)	• 12 V • 24 V

Alley lights (side lights)			
Function			possible with
	Lighting for surrounding area	• colour: white • angle of inclination: 20° • installed in pairs (left and right)	• 12 V • 24 V
	Search light	• colour: white • not angled • installed in pairs (left and right)	• 12 V • 24 V

Display and printing	
Function	
Cover glass (colours: white, clear and grey)	• standard: white, no printing • optional: white with printing (backlighting also optional) • optional: clear, no printing (interior cover or display required), the clear lens is required when used with OLMs
Interior cover (colours: white and black)	• standard: white, no printing • optional: white with printing • optional: black, no printing • optional: black with printing
Display	• various messages possible with electronic control module

Options - front mounting

Configuration example



Additional flashers			
Function			possible with
ZB	Additional flashers (pair)	• consisting of 12 amber LEDs • directional • synchronisation with corresponding main flasher unit • disabled in night mode	• 12 V • 24 V
ZB	Additional flashers with direction indicator (pair)*	• consisting of 6 amber LEDs (additional flashers) and 8 amber LEDs (direction indicator) • directional • additional flashers: disabled in night mode; Synchronisation with appropriate main beacon • direction indicator: function as direction indicators or hazard warning lights (synchronisation with vehicle indicators required)	• 12 V
Additional flashers	Direction indicator (pair)*	• consisting of 8 amber LEDs • directional • function as direction indicators or hazard warning lights (synchronisation with vehicle indicators required)	• 12 V
Optional light module (OLM)			
Function			possible with
OLM	Working lights	• consisting of up to 9 white LEDs per module • standard: mounted on the right side (passenger side) • additional installation on the left (driver's side) is available as an option • light intensity: - 600 lumen - 1000 lumen - 1500 lumen (each one angled 15° or 0°)	• 12 V • 24 V • 12 V

* with CiA447, an I/O box is required to feed in analogue signals.

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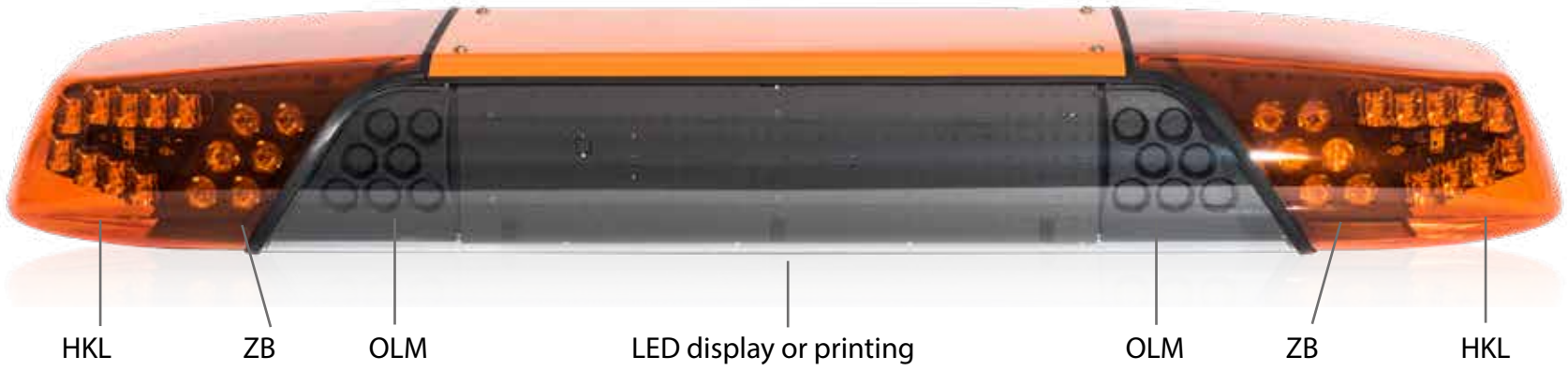
DBW 4000

Options - rear mounting

Configuration example



Additional flashers			
Function			possible with
ZB	Additional flashers (pair)	• consisting of 12 amber LEDs • directional • synchronisation with corresponding main flasher unit • disabled in night mode	• 12 V • 24 V
ZB	Additional flashers with direction indicator (pair)*	• consisting of 6 amber LEDs (additional flashers) and 8 amber LEDs (direction indicator) • directional • additional flashers: disabled in night mode; Synchronisation with appropriate main flasher unit • direction indicator: function as direction indicators or hazard warning lights (synchronisation with vehicle indicators required)	• 12 V
ZB	Direction indicator (pair)*	• consisting of 8 amber LEDs • directional • function as direction indicators or hazard warning lights (synchronisation with vehicle indicators required)	• 12 V

* with CiA447, an I/O box is required to feed in analogue signals.

Options - rear mounting

Optional light module (OLM)			
Function			possible with
OLM	Working lights*	• consisting of up to 9 white LEDs per module • standard: mounted on right (passenger side) • additional installation on the left (driver's side) is available as an option • light intensity: - 600 lumen - 1000 lumen - 1500 lumen (each one angled 15° or 0°)	• 12 V • 24 V • 12 V
OLM	Rear warning system	• consisting of 6 amber LEDs per module • only available as a pair (mounted left and right)	• 12 V • 24 V
* combining the two OLM options is not possible. If required, working lights can be combined with just the type 40 pico LED rear warning system.			

Type 40 pico LED rear warning system		
Function		possible with
Type 40 pico LED rear warning system*	• one lamp body consists of 8 LEDs • lamp body: - 1100 mm: 2 lamp bodies - 1200 mm: 2 lamp bodies - 1400 mm: 3 lamp bodies - 1600 mm: 4 lamp bodies - 1800 mm: 5 lamp bodies - 2000 mm: 5 lamp bodies • in addition, rear-facing spotlights can be integrated as OLMs	• 12 V • 24 V
* cannot be combined with OLM rear warning system		

Special features	
Traffic advisor*	• consisting of 6 amber LED modules each with 3 LEDs • installed facing to the rear • various flashing patterns are available (warning function (rear warning function) or traffic advisor function (arrow stick function))
Convoys	• "convoy front" switches off the main beacon and additional flashers at the rear, in order to not blind the traffic behind • "convoy rear" switches off the main beacon and additional flashers at the front, in order to not blind the traffic in front
* not homologated as a rear warning system. Special approval needed for traffic advisor.	

DBS 4000

can switch between blue and amber

The bicoloured DBS 4000 LED lightbar system can switch between blue and amber
The blue warning signal is used to indicate the right of way on the way to the destination.
Once at the scene, the beacon can be switched to amber and thus serves as a warning signal to secure the area.

PRODUCT FEATURES:

- can switch between blue and amber
- both colours approved according to ECE-R 65
- blue: can be used to mark the right of way while driving
- amber: can be used as a warning light at the destination
- optional: integration of additional flashers to reinforce the relevant warning effect
- optional blue additional flashers at front and/or rear
- optional amber additional flashers at front and/or rear
- loudspeakers can be installed in the base unit

Also available as a CiA447 version with examination in accordance with to ICAO type C. More information about this can be found from page 59 onwards.

Technical data:	
Designation:	DBS 4000
Voltage:	12 V / 24 V
Flash frequency:	> 2 Hz (beacon)
Average power consumption:	from 4A (for 12 V)
Lengths:	1100, 1200, 1400, 1600, 1800, 2000 mm
Depth:	300 mm
Height:	140 mm
Weight:	from 9 kg
Material:	lamp dome: polycarbonate / lens: acrylic housing: aluminium
Type of protection:	IP5K4K / IPX9K
Homologations: (Germany and international)	
Light according to ECE-R 65:	TB2 (E1) 00 3111 / TA2 (E1) 00 3111
EMC according to ECE-R 10:	(E1) 10R - 05 6209

Control units

The various functions of vehicle control units need to be as swift, safe and easy to use as possible. The most important functions are available via fast access buttons. Whether built-in or hand-held control units, we supply a wide variety of versions for a great range of areas of application.

Hand-held control unit
HBE 300

BE304 control unit

Illustration: BE 200 NN

Control units
BE 200/300

Hänsch®

HBE 300

Both CAN-compatible warning systems and analogue add-on items can be controlled using the HBE 300. A special version of the HBE 300 has been developed for amber applications.

PRODUCT FEATURES:

- CANopen Standard 447
- 8 fast access buttons
- 4 menu buttons
- buttons with location and activation lighting
- public address option via built-in microphone
- high-contrast wide-angle display
- simple operation due to large buttons
- convenient menu navigation by self-explanatory symbols
- analogue outputs for additional functions
- can be used in any vehicle (even without a 447 gateway)
- various versions available
- ideal for controlling DBW 4000 and DBW 5000

Homologations: (Germany and international)	
EMC according to ECE-R 10:	E1 10R-05 6932

Examples:

Functions of the fast access button (HBE300 GE1)	
AMBER	Switches on the main beacons and, if necessary, front flasher and 3 beacons together. Night dimming is activated during operation by pressing and holding the button (> 3 sec.).
FRONT	Activates/deactivates the front flasher when the main beacons are activated. (locks with the main beacons).
	Activates/deactivates the built-in front-facing working lights. A condition (approval signal) might be required or configurable.
	Activates/deactivates the built-in rear-facing working lights. A condition (approval signal) might be required or configurable.
DISPLAY	Activates/deactivates the backlighting of the message in the lightbar. A quiet tone sequence cycle is triggered by pressing and holding the button if the main beacons are activated and the ignition is switched on (Kl.15).
RWS	Activates/deactivates the rear warning system. A condition (approval signal) might be required or configurable.
	Activates/deactivates the built-in left-facing working lights. A condition (approval signal) might be required or configurable.
	Activates/deactivates the built-in right-facing working lights. A condition (approval signal) might be required or configurable.

Functions of the fast access buttons (HBE300)	
	Navigate upwards through menu items and functions.
	Navigate downwards through menu items and functions.
OK	Select and choose menu items/functions.
	Return to the previous menu item level. By holding and pressing this button, you also switch off all active functions.

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BE 304

The new control unit BE 304 impresses with a compact housing and various mounting options. The raised buttons with a clear pressure point provide a very good surface feel. This control unit is optimally suited for undercover police operations as well as for other emergency and work vehicles with a basic set of functions. Due to its versatile functional options the BE 304 can be optimally configurated for any application area.

15 mm height

PRODUCT BENEFITS:

- compact plastic housing
- 4 buttons for controlling CiA447 products
- location and activation lighting
- horizontal or vertical positioning possible (4x1 or 1x4)
- combination of various control units or as an additional keypad for other CiA447 control units
- 4-core connection cable via cable harness to CiA447 components
- surface mounting variation; rack mounting variation on request
- including analogue inputs and outputs

APPLICATION AREAS:

- vehicles with reduced options of warning functions
- undercover police operation
- simple firefighter vehicles
- amber application: construction vehicles, commercial vehicles, airports
- replacement for single switches in CiA447 systems

Approvals: (Germany and international)	
EMC according to ECE-R 10:	(E1) 10R-05 8548

Technical specifications:	
Weight:	45 g
Dimensions:	84 x 26 x 15.5 mm (WxHxD)
Voltage:	12 V / 24 V

BE 200 control unit (analogue)

BE 200 NN

The BE 200 NN control unit is perfect for controlling analogue equipment. A total of 6 buttons are used to operate the warning system functions safely.

PRODUCT FEATURES:

- 6 buttons to control the functions
- all buttons have backlighting and activation control
- three verification lights for function monitoring
- compact housing dimensions
- cover for DIN car radio slot available as an option

Homologations: (Germany and international)	
EMC according to 72/245/EEC:	e1 03 3477

Technical data	
Weight:	180 g
Dimensions:	76 x 41.5 x 32.5 mm (w x h x d)

BE 300 control units (digital)

BE 308 GE Universal 1

The BE 308 GE control unit has both a serial interface meeting the CiA447 standard and additional analogue outputs for controlling non-CAN-enabled equipment. A total of 8 buttons are used to operate the warning system functions safely.

PRODUCT FEATURES:

- 8 buttons for controlling CAN-enabled equipment
- including analogue in- and outputs (4 inputs and 10 outputs)
- compact housing dimensions
- can be used with or without a vehicle gateway
- various button function assignments available
- cover for DIN car radio slot available
- ideal for controlling DBW 4000 and DBW 5000

Homologations: (Germany and international) BE 300 control unit	
EMC according to ECE-R 10:	(E1) 10R-04 6703

BE 300M

PRODUCT FEATURES:

- purely menu-driven control unit
- solely for controlling a CiA447 display
- selection of various texts on the display
- cover for DIN car radio slot available as an option

Technical data (BE 308 & BE 300M)	
Weight:	140 g
Dimensions:	93 x 52 x 24 mm (w x h x d)

● Hänsch - the custom solution specialist

● blue and amber

Hänsch has made a name for itself in Germany and abroad for its special solutions for visual warning systems. All from a single source – from the initial idea, to the designing and testing stages, to the final homologation – the engineers from the Hänsch development centre are responsible for the entire project and are ready to respond to our customers' questions and concerns.

We deal with our customers on an individual basis and develop high-quality solutions to meet their specific requirements. Many years of experience in the area of integrated solutions ensure the creation of a tailor-made vehicle concept, which is given its own identity through its modern design while also complying with European directives.

Hänsch®

INTEGRO - integrated solutions

INTEGRO - Our services - Your benefits

- **from the initial idea to homologation**
- **customised solutions**
- **modern design**

Along with standard products, our customers also receive special, integrated solutions in **blue or amber** perfectly adapted to their requirements (INTEGRO). This might include mounting a beacon in the roof of a special vehicle to suit the customer's needs – the roof becomes the beacon and the vehicle's design gives it a new identity and makes it highly recognisable.
For these projects Hänsch engineers work closely with vehicle manufacturers and special roof manufacturers to develop a concept, create a design and subsequently make these ideas reality. At the end you have a vehicle which conforms to European directives.

OUR SERVICES:

- support from the idea to homologation
- consulting service during the construction phase*:
  - positioning, mounting, processing
- consulting service during the design phase*:
  - customer identity must be unique
- handling the homologation
- providing the adapted lighting technology:
  - highest light intensity with certificate

** we would be happy to advise if required. In addition, Hänsch designers and engineers are also at your disposal.*

BENEFITS:

Great amount of experience with INTEGRO projects worldwide means:

- short implementation time
- expert advice
- certainty with regard to homologation
- flexible mounting
- fully or partially integrated solutions for any budget
- homologation in accordance with ECE-R 65, approval marks with E1 from the KBA
- fast turnaround times for requested changes or additions thanks to our in-house photometric and EMC labs

effekta® rear warning system

The warning systems approved in the effekta® range are also approved as additional warning lights for use in private cars in accordance with section 53a (3) StVZO. For safety and avoiding rear-end collisions on motorways and main roads - additional safety and the best possible warning to following traffic in all weathers and visibilities, with equipment from the effekta® range.

effekta® rear warning systems are the safe supplement to conventional hazard warning lights. Each system consists of at least two lamp bodies. The rear warning system warns following traffic in plenty of time of danger up ahead in all weathers and visibilities. All rear warning systems in the effekta® range come with powerful LED technology.

Sputnik Compact
rear warning system

Sputnik SL
rear warning system

Type 40 pico LED
rear warning system

Sputnik pico LED
rear warning system

Hänsch®

Sputnik Compact effekta®

Sputnik Compact relies on the very latest lighting technology. The lens and integrated LED optics guarantee maximum light output and a wide angle of radiation. The small all-rounder Sputnik Compact provides many variable application options.

Versions available:

Surface mounting

Optional 15° mounting wedge available

Rack mounting

* Depth after installation

VERSIONS:

- available as built-in or surface mounting
- working lights available with 0° or 0° - 24° angle of radiation

FOR MULTIPLE APPLICATIONS:

- rear warning system(§53a(3) StVZO) for safety warning for stationary vehicles from the rear

OTHER VERSIONS:

- direction indicator and hazard warning lights (amber)
- tail and brake light (red)
- rear fog lamp (red)
- lighting (continuous white light)

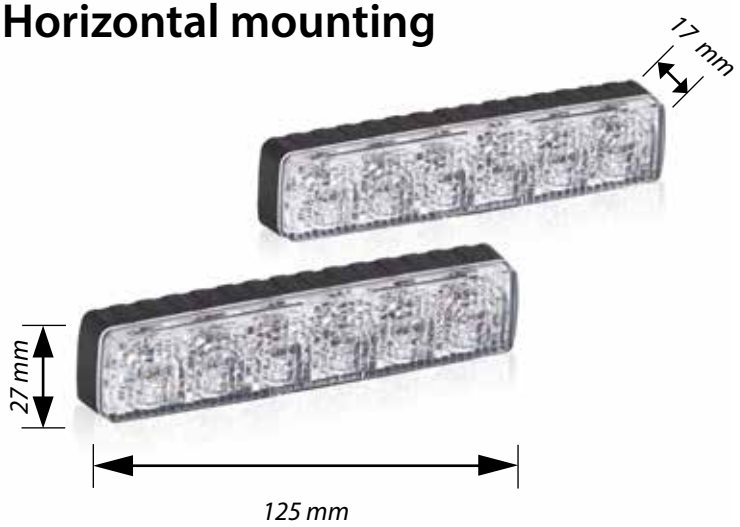
Technical data:		
Housing:	die-cast zinc coated	
Diffuser	polycarbonate (shatterproof)	
Protection rating:	IP6K5	
Voltage:	12 V / 24 V multivoltage	
Average power consumption:	0.5 A at 12 V 0.14 A at 24 V	
Continuous light:	0.3 A at 12 V	
Homologation: (Germany and international)		
Rear warning light*:	TA13a (blue)	∿∿K 1158 / ∿∿K 1159
Directional beacon *:	ECE-R 65 (blue)	XB1 (E1) 00 4111
Rear warning system:	TA20 (amber)	∿∿ K 1160
Indicators/hazard warning lights:	ECE-R 6 (amber)	01 2a (E1) 4109
Tail/brake light:	ECE-R 7 (red)	02 R1-S1 (E1) 4109
Rear fog lamp:	ECE-R 38 (red)	00 F1 (E1) 4109
Rear warning system**:	ECE-R 65 (amber)	XA (E1) 00 4110
EMC:	ECE-R 10	(E1) 10R-04 7591

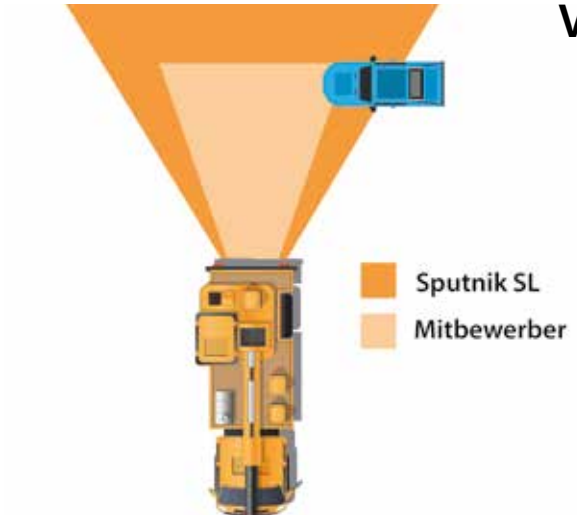
* Only permitted on vehicles with blue lights.
**According to § 52 (11) StVZO, only permitted on vehicles with blue lights (RWS)

Sputnik SL effekta®

Sputnik SL lamp bodies have the very latest lighting technology. The LED optics integrated into the lens ensure maximum light output and a wide angle of radiation (horizontal >70°).

Horizontal mounting





Vertical mounting

Technical data:	
Designation:	Sputnik SL
Voltage:	12 V / 24 V multivoltage
Flash frequency:	> 2 Hz
Average power consumption:	12 V: 0.8 A (per lamp body) 24 V: 0.6 A (per lamp body)
Type of protection:	IP6K7 / IPX9K
Homologations:	
Rear warning system:	TA20 (amber) / K 960
EMC according to ECE-R 10:	(E1) 10R-05 6845
Our amber, directional Sputnik SL beacons are homologated as a rear warning system under §52(11) StVZO (German road traffic permit regulations)	

PRODUCT FEATURES:

- horizontal or vertical mounting versions available
- maximum warning effect >500 candela
- two or more lamp bodies can be synchronised together
- various flash patterns available
- lamp bodies hermetically sealed ensuring resistance to high pressure or steam jet cleaning
- universal cable configurable as control cable, day/night cable or activation cable
- universal holder and various vehicle-specific brackets are available for perfect orientation and ease of installation
- splitter cable available to facilitate electrical connection
- the special horizontal version Sputnik SL-A-T is approved as an HTA1 system
- information on special HT-solution in combination with Sputnik SL can be found on pages 21-23

Rack mounting

Surface mounting

Rear warning system 40 pico LED:

- 8 high-performance LEDS per lamp body
- electronics fully built-in into the lamp body
- special lens for optimum light distribution
- available with and without mounting frame

Rack mounting

Surface mounting

Sputnik pico LED rear warning system:

- 4 high-performance LEDS per lamp body
- electronics fully built-in into the lamp body
- special lens for optimum light distribution
- available with and without mounting frame

Technical data:		
Designation:	Type 40 pico LED rear warning system	Sputnik pico LED rear warning system
Voltage:	12 V / 24 V	12 V / 24 V
Flash frequency:	> 2 Hz	> 2 Hz
Average power consumption:	12 V: 2.5 A / 24 V: 1.25 A	12 V: 1.5 A / 24 V: 0.75 A
Dimensions (w x h x d):	169.5 x 85 x 61 mm	80 x 80 x 60 mm
Material:	ASA/polycarbonate	ASA/polycarbonate
Type of protection:	IP5K4K	IP5K4K
Homologations: (Germany)		
Light according to TA 20:	D: ∿∿∿ K538	D: ∿∿∿K 544
EMC according to ECE-R 10 and 72/245/EEC:	(E1) 10R-06 4465	e1 03 5635

Hänsch®

Sputnik mini

The new Sputnik mini LED warning system impresses with its compact dimensions and simple installation in a round drilled hole.

Lamp body dimensions:
27 mm x 28 mm x 29.5 mm
(diameter x height x depth)

PRODUCT FEATURES:

- highly compact design for universal use
- housing: aluminium
- external electronics for 2 lamp bodies
- X-homologation:
- also available in blue

- for use on the company's own operating site
- according to § 52 (11) StVZO, only permitted on vehicles with blue lights (RWS)
- not homologated as additional warning lights in accordance with § 53a (3) StVZO (rear warning system)

Technical data:		
Material	Housing:	aluminium, anodised black
	Cover glass:	polycarbonate
	Electronics:	polyamide
Dimensions:	Lamp body:	Ø 27 mm, 29.5 mm deep
	Electronics:	95.5 x 26 x 13 mm (w x h x d)
Weight:	Lamp body:	25 g
	Electronics:	245 g
Type of protection:	IP6K7 / IPX9K	
Voltage:	12 V / 24 V multivoltage	
Temperature range :	-40 °C to +60 °C	
Average power consumption*:	0.8 A at 12 V 0.5 A at 24 V	
Peak*:	2.3 A at 12 V 1.1 A at 24 V	
*Electronics with 2 Lamp bodies		
Flash patterns:	Synchronous strobe light (configurable)	
Homologations: (Germany and international)		
Light according to ECE-R 65:	XA1(E5) 00 0071	
EMC according to ECE-R 10:	(E1)10R-05 8617	

Highest safety on the runway

We also offer warning systems for airport traffic management and escort vehicles, with functions specially designed for use on the runway. Special Hänsch "FOLLOW ME" features ensure quick and easy operation by the user.

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ICAO beacons

COMET LED

More details regarding beacons can be found on pages 9 and 10.

Fix mounting

PRODUCT FEATURES:

- fix mounting in accordance with DIN 14620, form B1
- colours: also available in blue (with function monitoring)
- also available in version that can switch between blue and amber with alternating flash patterns (ECE/ICAO)

Magnetic fixing

PRODUCT FEATURES:

- with spiral cable and triple magnetic fixing
- perfect grip even on curved vehicle roofs
- rubber-coated magnets to prevent scratches to paintwork
- tested up to 250 km/h

Adjustable tube mounting

PRODUCT FEATURES:

- for attaching to a tube according to DIN 14620
- impact-resistant housing base

COMET S

More details regarding beacons can be found on pages 6 and 7.

Fix mounting

PRODUCT FEATURES:

- fix mounting in accordance with DIN 14620, form B1
- two rows of LEDs ensure full-surface illumination
- colours: also available in blue (with function monitoring)

Adjustable tube mounting

PRODUCT FEATURES:

- for attaching to a tube meeting DIN 14620
- impact-resistant housing base
- two rows of LEDs ensure full-surface illumination

DBF 4000

The DBF 4000 warning system combines the advantages of the DBS 4000 with a range of functions specially developed for use in airports. The system's individually selectable features ensure that traffic control and Follow Me vehicles are optimally equipped for use. The amber DBF 4000 warning system is tested in accordance with ICAO type C.

Configured to customer requirements

- mounted using a modular system
- easily adaptable to individual needs
- switching of flash patterns possible

Aerodynamic housing

- low wind resistance and reduced noise levels

Variety of mounting options

- quick and easy mounting options for flat or curved vehicle roofs
- vehicle-specific carrier systems offer additional mounting options

Maximum warning effect

- state-of-the-art lighting technology
- automatic day/night switching

Easy operation

- digital control using the CANBus protocol, based on the CANopen Standard 447 using the HBE 300 Follow Me hand-held control unit

Variety of lengths

- lengths: 1100, 1200, 1400, 1600, 1800 and 2000 mm

DBF 4000

RANGE OF FUNCTIONS AVAILABLE

- direction indicator turning lights
- working lights
- additional flashers
- alley lights: angled 0° or 20°
- display in amber or red
- printing on front lens
- day/night switching (automatic)
- also available in version that can switch between blue and amber (tested in accordance with ICAO type C).

More details on page 42.

FOLLOW ME FEATURES:

- LED main beacons with amber or red* high-performance LEDs
- full rear-facing display with amber or red high-performance LEDs with "FOLLOW ME", "STOP" and arrows
- option to activate arrows using vehicle's direction indicators
- touching the brakes activates "STOP" text
- lightbar control via CANopen Standard 447 using HBE 300 Follow Me manual control unit
- optional integrated voice amplifier 614/624 with built-in loudspeaker for public address / voice announcements via the HBE 300 Follow Me control unit
- loudspeakers can be installed in the base unit
- optional alternating flash patterns (between ECE-R 65 and ICAO type C)

* if red LEDs are installed, warning system does not comply with the test in accordance with ICAO type C.

Technical data:	
Designation:	DBF 4000
Voltage:	12 V
Flash rate (ECE-R 65):	> 2 Hz (beacon)
Flash rate (ICAO Type C)	1 - 1.5 Hz (beacon)
Average power consumption:	from 4A (for 12 V)
Lengths:	1100, 1200, 1400, 1600, 1800, 2000 mm
Depth:	300 mm
Height:	140 mm
Weight:	from 9.5 kg
Material:	lens: polycarbonate / housing: aluminium
Type of protection:	IP5K4K / IPX9K
Homologations: (Germany and international)	
Light according to ECE-R 65:	TA2 (E1) 00 3111 (amber)
EMC according to ECE-R 10:	(E1) 10R-05 6209

DBW 5000

The DBW 5000 warning system combines modern design, a versatile range of functions and high-performance LED lighting technology. A maximum warning effect ensures increased attention at the airports. The low-profile design not only ensures low air resistance and reduced noise, but also makes it possible to pass sites where clearance height is an issue. The amber DBW 5000 warning system is tested in accordance with ICAO type C.

reddot award 2017
winner

Configured to customer requirements

- mounted using a modular system
- easily adaptable to individual needs
- switching of flash patterns possible

Aerodynamic housing

- low wind resistance and reduced noise levels
- low-profile design height

Variety of mounting options

- fast and easy mounting options for flat or curved vehicle roofs
- vehicle-specific carrier systems offer additional mounting options

Maximum warning effect

- state-of-the-art lighting technology
- automatic day/night switching

Easy operation

- digital control using the CANBus protocol, based on the CANopen Standard 447
- converters for analogue control available

Variety of lengths

- lengths: 700, 1100, 1200, 1400, 1600 or 1800 mm

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DBW 5000

RANGE OF FUNCTIONS AVAILABLE

- working lights
- ambient light sensor for night-time reduction
- alley lights: angled 0° or 20°
- loudspeaker in base unit for public address
- additional flashers
- direction indicators*
- traffic advisor (special approval required)
- also available in version that can switch between blue and amber (testes in accordance with ICAO type C). **More details on page 33**.
- also available in red (no ICAO type C)
- switching of flash patterns (between ECE-R 65 and ICAO type C) possible

* with CiA447, an I/O box is required to read analogue signals.

Technical data:	
Designation:	DBW 5000
Voltage:	12 V / 24 V
Flash rate (ECE-R 65):	> 2 Hz (beacon)
Flash rate (ICAO Type C):	1 - 1.5 Hz (beacon)
Average power consumption:	From 4A (for 12 V)
Lengths:	700, 1100, 1200, 1400, 1600, 1800 mm
Depth:	285 mm
Height:	63 mm
Weight:	from 5.1 kg
Material:	lamp dome: polycarbonate / lens: acrylic housing: aluminium
Type of protection:	IP5K4K / IPX9K
Homologations: (Germany and international)	
Light according to ECE-R 65:	TA2 (E1) 00 4448
EMC according to ECE-R 10:	(E1) 10R-05 7981
Direction indicators: light according to ECE-R 6	01 1 (E1) 4453 (front) / 01 2a (E1) 4453 (rear)

HBE 300 Follow Me

The HBE 300 Follow Me model is specially designed to match the function range of the DBF 4000. It controls all the functions of the visual and acoustic DBF 4000 warning system and can also control non-CAN compatible products.

PRODUCT FEATURES:

- CANopen Standard 447
- 8 fast access buttons
- 4 menu buttons
- buttons with location and activation lighting
- integrated microphone for public address
- high-contrast wide angle lens
- easy to operate thanks to large buttons
- convenient menu navigation with self-explanatory icons
- analogue inputs for vehicle's turn signals
- analogue outputs for additional functions
- can be used in any vehicle (even without a 447 gateway)
- various models available

Fast access buttons (HBE300)	
	Switches on the main beacons, 3rd beacon and IR flasher. Night-time reduction is activated during operation by pressing and holding the button (> 3 secs.).
	Switches the rear-facing take down display over to a follow-me instruction (e.g. "FOLLOW ME"). An audible alert sounds when the text output is active.
	Switches the rear-facing follow-me take down display over to a stop instruction (e.g. "STOP"). An audible alert sounds when the text output is active.
	Switches the working lights installed at the front on/off. It is possible to set and require a condition (release signal).
	Switches the working lights installed on right and left on/off. It is possible to set and require a condition (release signal).

Homologations: (Germany and international)	
EMC according to ECE-R 10:	(E1) 10R-05 6932

Menu navigation buttons (HBE300)	
	Scroll up through menu items and functions.
	Scroll down through menu items and functions.
	Select and activate menu items and functions.
	Go back to previous menu level. Pressing and holding the button also switches off all active functions.

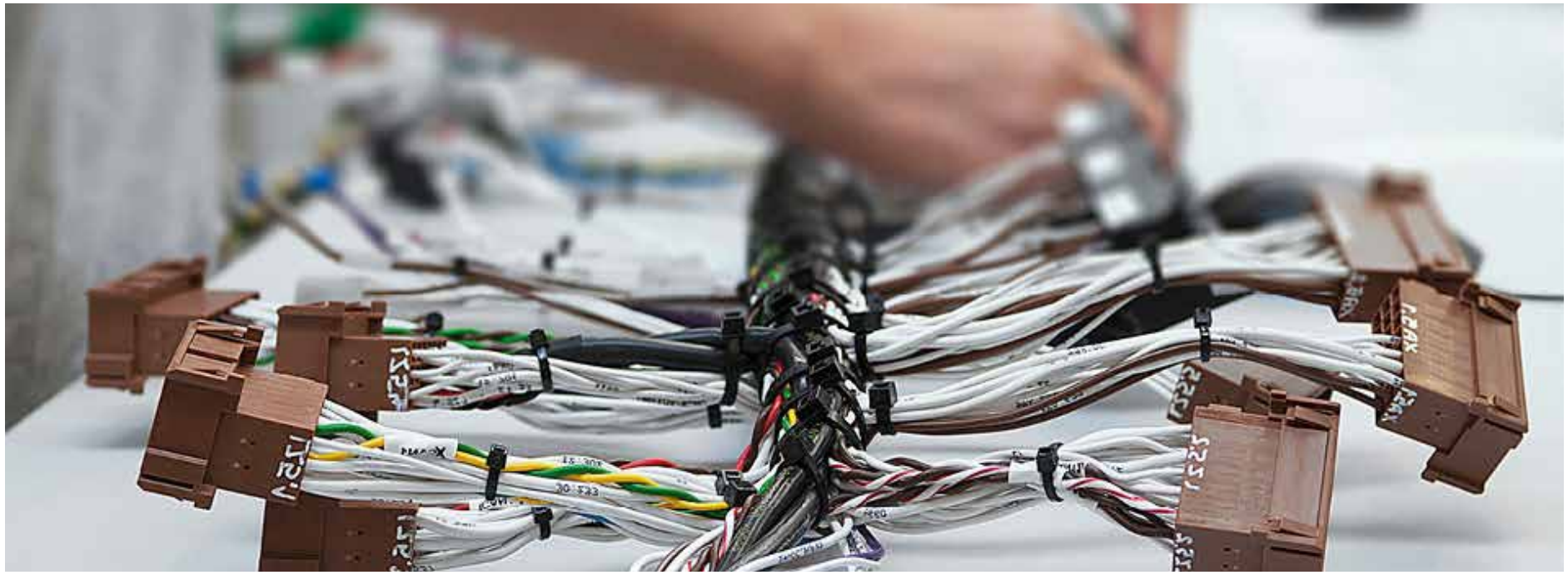
Technical data (not including mounting bracket)	
Weight:	170 g
Dimensions:	66 x 124 x 24 mm (w x h x d)
Voltage:	12 V / 24 V multivoltage

Hänsch®

Cable assembly

We connect your special-purpose vehicle systems

Since 2019, Hänsch also offers complete, customised solutions in the field of system wiring. From development and design to manufacturing and delivery, we support our customers in integrating the specific wiring cable sets for their special-purpose vehicles. The cable harnesses are designed as ready-to-connect segments.
We can look back on many years of experience, primarily in the field of special-purpose vehicle construction. Projects are implemented purposefully and professionally by us. This is always done in close cooperation with the customer. Our team supports you from analysing to the final integration into the vehicle.



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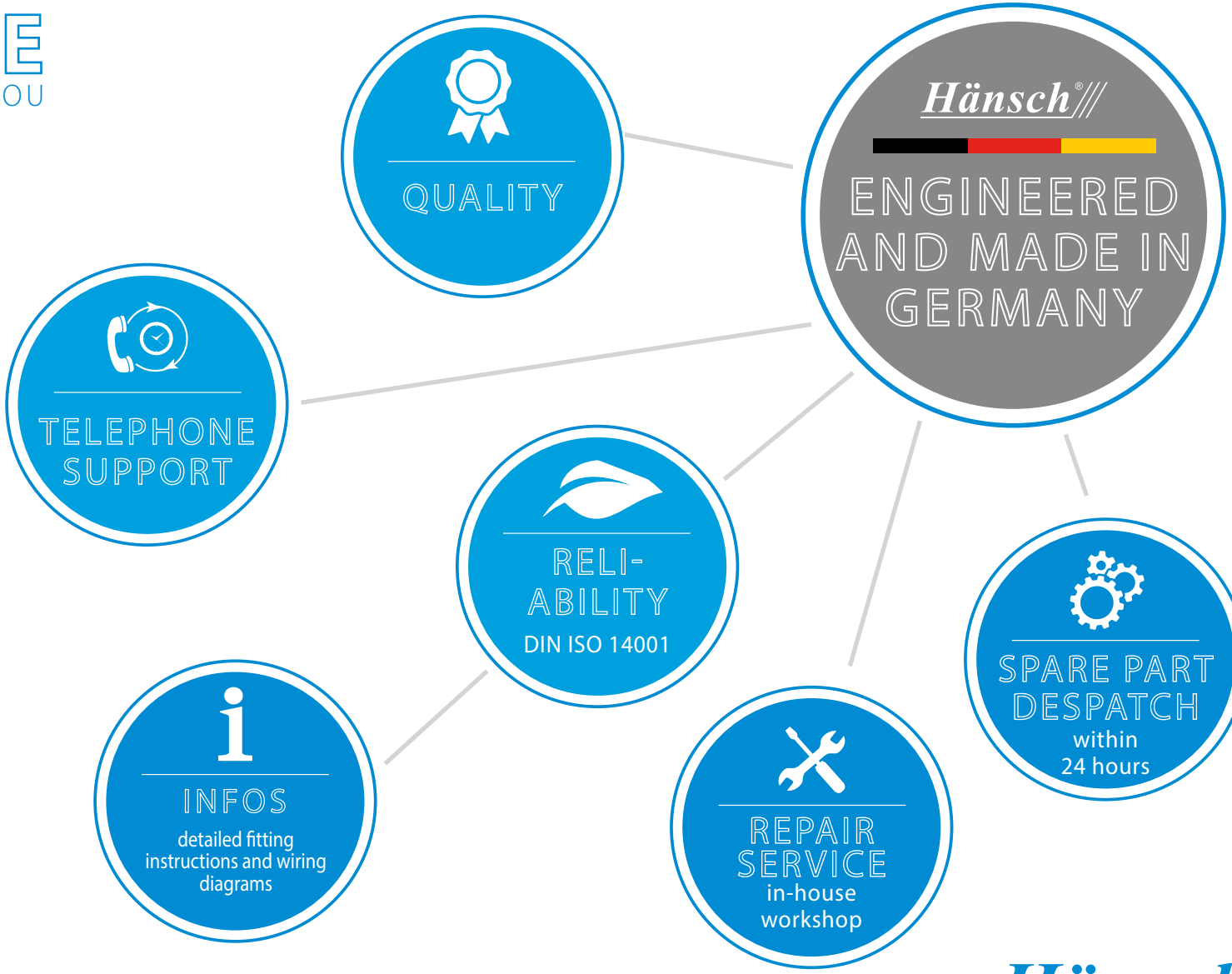
Hänsch®

OUR SERVICE FOR YOU

AT YOUR SIDE. WITH SAFETY.



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Glossary

ICAO:

The ICAO or EASA standards (European equivalent) are international regulations for technical equipment and equipment for use at airports.

The products listed here have been tested for compliance with the Type C standard. Light values are specified over a range of angles between -3.5° and + 8.5°, along with a flash rate in the range 1 to 1.5 Hz and maximum intensity 400 cd. The beacons or lightbars may not have day/night switching.

Hänsch products:

The Hänsch company has tested the following product families in the beacons range according to ICAO type C, and declares conformity to the following standard:

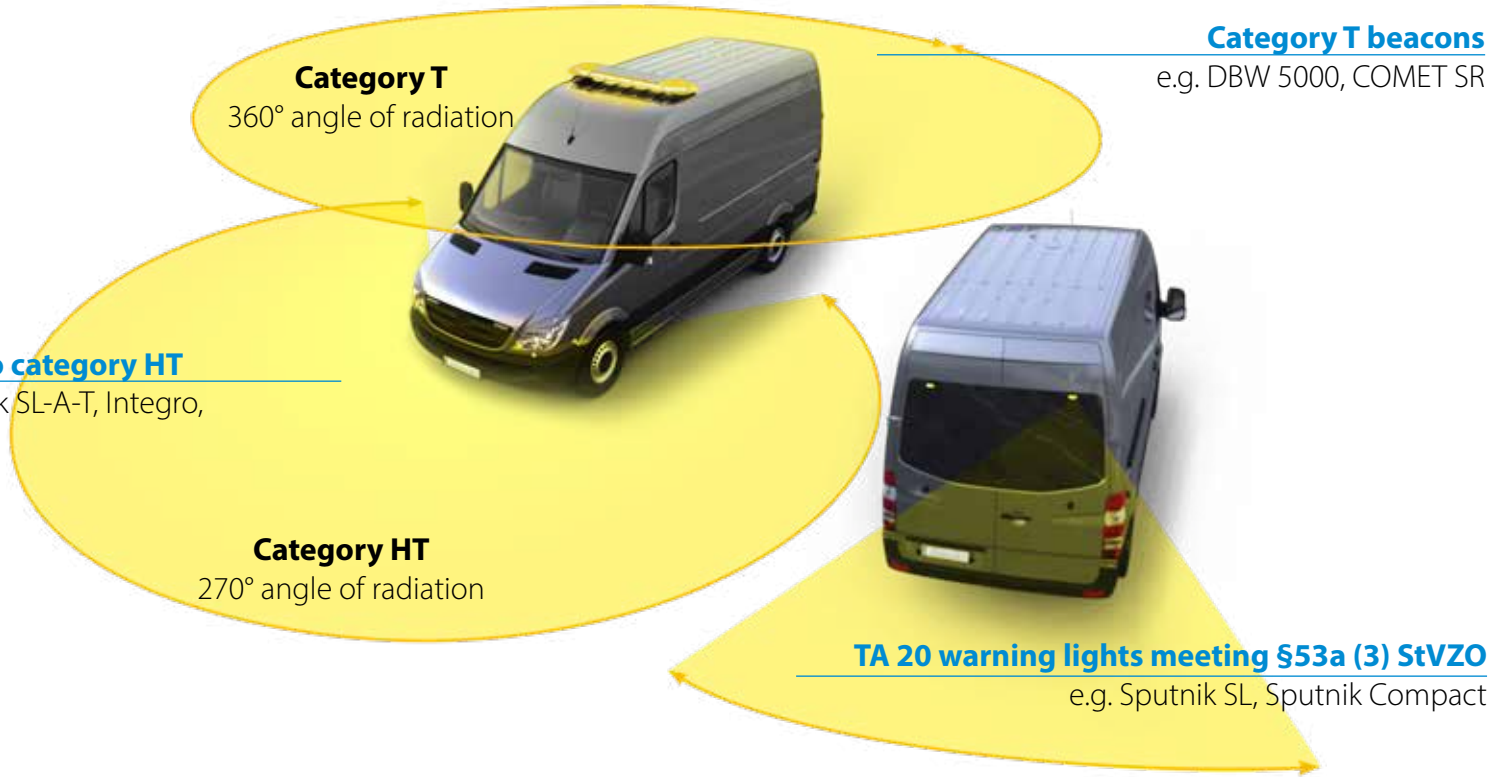
- Comet LED: amber and blue, can switch between blue and amber
- Comet S: amber and blue
- DBS/F 4000: amber and blue, can switch between blue and amber
- DBS/W 5000: amber and blue, can switch between blue and amber

The Comet LED and Comet S single beacons are available as analogue versions certified to ICAO type C. The DBS/F 4000 and DBS/F 5000 lightbars are only available with CAN control. Control units programmed according to ICAO are required for CAN control. It is therefore possible to alternate between flash patterns meeting ICAO type C and ECE-R 65.

Please don't hesitate to contact our sales department!

When are HT-solutions used?

If the installation of conventional beacons on the vehicle is not possible due to constructional conditions, the legally required geometric visibility of 360° can still be achieved by using an HT-solution. The HT-solution, also known as a half beacon or a half lightbar, can be mounted on the vehicle to the front or to the rear, or it can be integrated into the vehicle body. The various Hänsch systems, consisting of 2 to 6 HT lamp bodies, give you total flexibility when constructing a vehicle. With the Sputnik mini and Sputnik SL HT-solution, mounting towards the front of the vehicle also gives the earliest possible warning effect, such as at intersections or when leaving the depot.



Further information
can be found here:

Glossary

Property	Explanation
Function monitoring	Function monitoring allows the operating state of the unit to be tested. The respective operating state can be transmitted by analogue signal line or over the CiA447 bus.
Class II homologation (K2)	The product has a homologation with 2 light intensity levels. The light value can be reduced for night time. This is done to prevent a glare from excessive light values at night, in case of fog/snow/bad vision.
Day/night switching	Night reduction allows products with a class II homologation to reduce the maximum light value either automatically when a defined twi-light value is reached, or manually by control unit (e.g. by HBE 300).
Convoy function	The convoy function deactivates the front or rear-facing beacons. Some products can also be switched off on one side (e.g. DBS 4000/5000, COMET S). (This prevents convoy drivers ahead or behind from being blinded by the bright lights.)
Soft light signal (night)	Special flash pattern with ECE homologation recreating a rotating beacon, but with simultaneous 360° radiation. Recommended application especially for work vehicles so that users can work more relaxed and for longer time with less aggressive light.
Rear warning system according to § 52 (11) StVZO	The system consist of 2, 4 or 6 directional, amber flash lights of the category X (homologation: XA ...). They are mounted on top of the rear of the vehicle and are used to secure vehicles with blue light when stationary or at walking pace.
12 V	This product has a rated voltage of 12 volt.
12 V / 24 V	This product is available with a rated voltage of 12 V and with a rated voltage of 24 volt.
12 V / 24 V multi voltage	This product is multi-voltage compatible and can be operated at 12 volts as well as at 24 volts.

Picture credits:

- Product photos on title page and pages 3-15, 17-21, 23, 25, 27, 31-33, 35, 39-40, 42-48, 51-52, 54-56, 58-63: **Timo Lutz Werbefotografie**
- Photos on pages 4, 16, 26: **MOVIADLED**
- Pages 2, 24, 34: **Michael Rauch Photographie**
- Page 53: **Aluca Partner Mainz**
- Page 49, 50: upper: **Terex**, p. 50 lower: **Rosenbauer**
- Pages 22, 23: **Photomontage**
- Pages 57, 64, 65: **Hänsch**

Abbreviation	Explanation
A	fixed tube
AF	flexible tube
B	fix mounting
BF	fix mounting with function monitoring
M	magnetic fixing

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Catalogue for amber applications

Subject to modifications
Issue: November 2021

www.fg-haensch.com