



LIGHTING SYSTEM 12V

Solutions for Agriculture

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ERMAX® – YOUR PARTNER FOR COMPLETE LIGHTING SYSTEMS

ERMAX A/S

- develops, manufactures and distributes a wide range of products within lighting, junction boxes and cable systems for commercial vehicles and industrial applications.

A unique set-up with a combination of our factory in Denmark and licensed production with our own tools at a number of selected and exclusively certified partners worldwide, offers an extensive, highly competitive and qualitative range of products.

The Brand - ERMAX®

Founded in 1948 the Ermax® lighting technology has been manufactured for the automotive industry for almost 7 decades.

Ermax is the partner, when it comes to understanding and fulfilling the needs of lighting; with tail lights, warning lights, beacons, side markers or work lights – nowadays bulb, LED as well as in hybrid technologies. These lighting components are being offered within a complete solution concept of ADR approved

cables and, where required, junction boxes as well as mounting hardware. All cable sets are configured with multiple connector types to ensure the best lifetime service ability.

Why Ermax® Lighting Systems ?

Partnership through quality, reliability and competence.

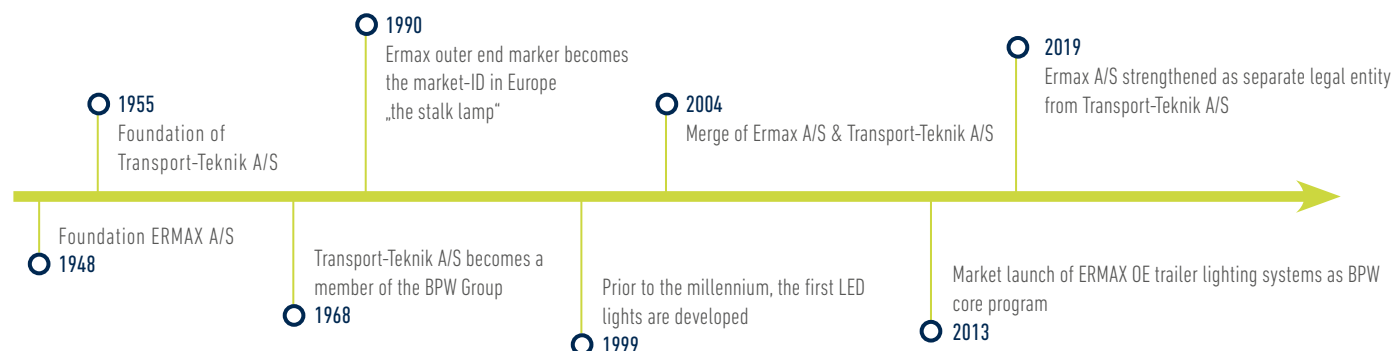
Our competence in partnering with you, is our extensive experience in being an OEM partner with quality and on time delivery as daily focus to ensure expectations and execution match entirely with your requirements.

All our products hold the necessary certifications for E-marking, IP-protection, ADR-approval and design predictions to ensure exclusive design and durability as well as non-violation of patents.

With reliable and planned processes you will reach your goal safely with us as partner.



ERMAX A/S, Kolding, Denmark



DISTRIBUTION NETWORK WORLDWIDE

Always close to you

As a member of the BPW Group, which operates worldwide, we have an unique sales and distribution network with local offices and support for the benefit of all our business partners.



SOLUTIONS – AS INDIVIDUAL AS YOUR TASKS AND REQUIREMENTS

As ERMAX customer you will achieve the following

- High quality for every area
- Vehicle-customised solutions
- Focus at the newest technology and innovative products with recognisable design
- Production companies with development competence under one roof
- Europe-wide after-sales-servicenet

ERMAX lighting systems

- Wide palette including cables, plugs and lights – all built according to customer requirements
- LED and SIMAC control unit built-in tail light
- ADR approved cable kits with 7 poled AMP 1.5 and Super Seal plugs
- Unbeatable, impact resistant and long life solutions

ERMAX AGRAR cable system- Premium, Standard and Economy Programme

Overview and introduction to connections

Ermac[®] plug connections consist of 2, 5 and 7 poled plugs and sockets. Plug connections all of high quality, making it easy and simple to mount and maintain. Ermac plug connection are used in all our lighting systems.

All plug connections in our Premium programme are casted with ensures high quality and long lifetime. Cables and plug connections are ADR-approved and have IP-rating IP69K.

2 poled Super Seal



2 poled Super Seal plug and socket make mounting of position lights, side marker lights, outer end marker lights, work lights and other 2 poled components easy and simple.

- Easy and fast mounting
- Easy replacement when damaging the light

2 poled Click-In



2 poled Click-In makes mounting of position lights, side marker lights, outer end marker lights and other 2 poled components easy and simple.

- Easy and flexible mounting
- Fast positioning
- Time-consuming parts replacement

2 poled Deutsch plug (DT2)



2 poled Deutsch plug is widely used and well-known as a secure and robust connector for secondary lighting - as well as reverse- and work lights, warning lights and/or other lighting.

- Easy and simple mounting
- Robust and well-known in the market

5 poled bayonet



5 poled bayonet plugs and sockets are as standard plug well-known within the 12V segment - used for many 12V tail lights as well as for as for the smallest tail lights .

- As alternative to open end solutions for fast mounting
- Easy replacement when damaging the light
- Standard plug connection - well-known in the market

7 poled AMP 1.5



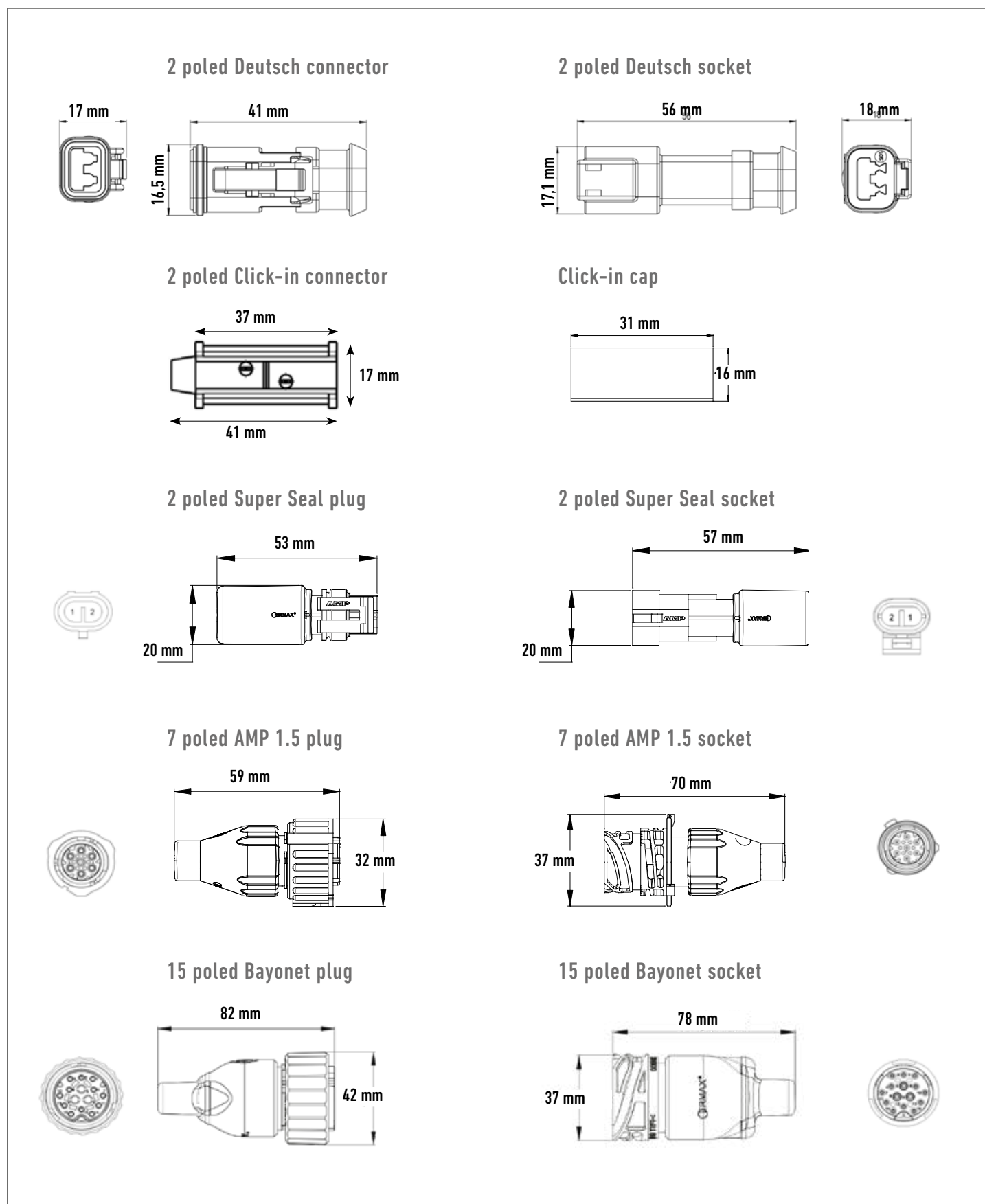
7 poled AMP 1.5 is used to connect ERMAX tail light to the cable systems. The plug can also be used as connection to other extra equipment.

- Rounded off pin-legs
- Extremely durable connection
- Standard plug connection - usual in the market

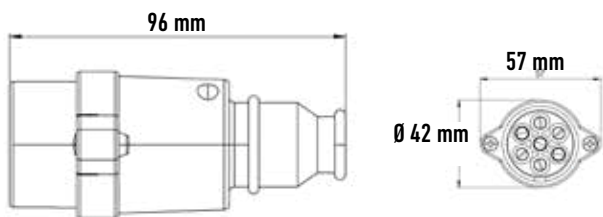
	Outlet for main cable	side marker light	Position light	License plate light	Outer end marker light	Work light	Reverse light	Interior light	Tail light	Junction box	Rear cable
2 poled Super Seal		✓	✓	✓	✓	✓		✓		✓	✓
2 poled Click-In		✓	✓	✓	✓						
7 poled AMP 1.5	✓						✓		✓	✓	✓

OVERVIEW - PLUG CONNECTIONS FOR ERMAX OE LIGHTING SYSTEMS

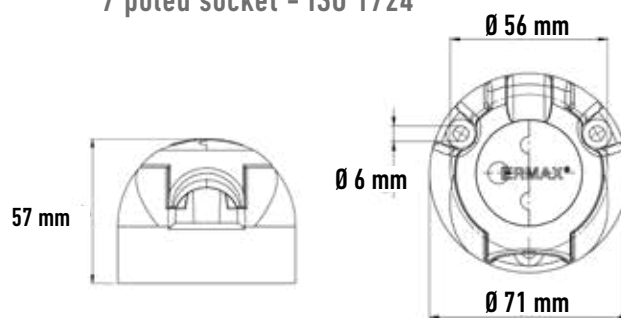
Plug type, designation and dimension



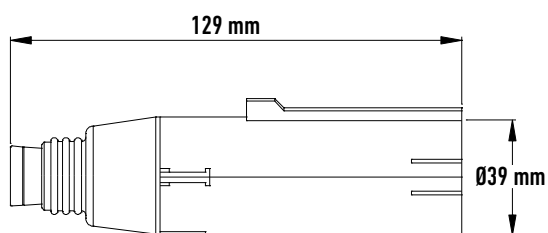
7 poled plug - ISO 1724



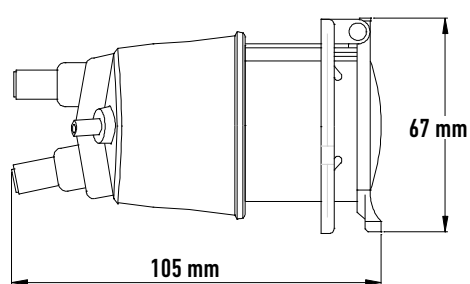
7 poled socket - ISO 1724



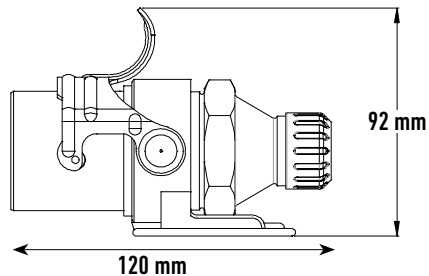
7 poled plug - ISO 3731 / ISO 1185



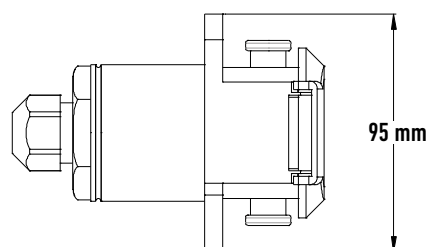
7 poled socket - ISO 3731 / ISO 1185



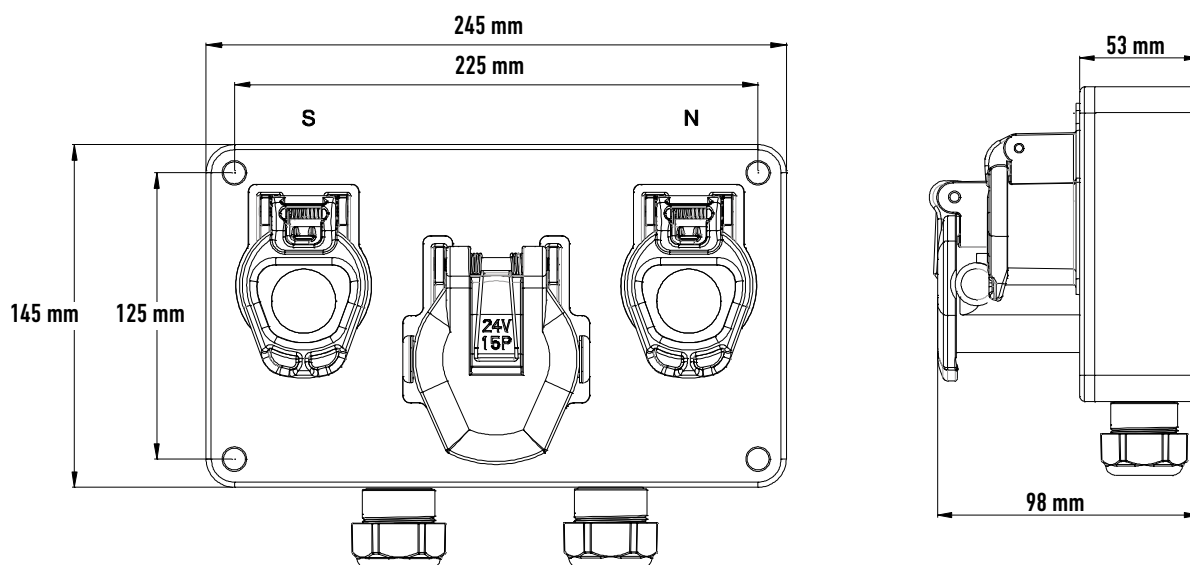
15 poled ADR plug - ISO 12098



15 poled ADR socket - ISO 12098




Frontboks




CONTACT ALLOCATION



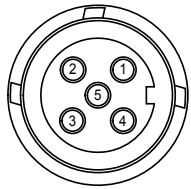
Pin configuration Deutsch (DT2) plug 2 poled

	Color	Description
	1	Blue Permanent power supply (+)
	2	Brown Ground

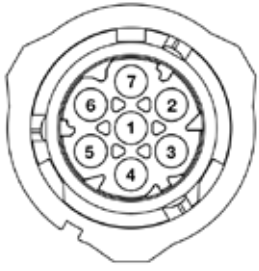
Pin configuration Super Seal plug 2 poled

	Color	Description
	1	Brown Ground
	2	Blue Permanent power supply (+)

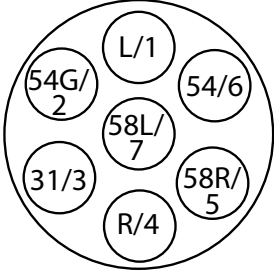
Pin configuration 12V, 5 poled bayonet plug

	Color	Description
	1	Yellow Direction indicator light
	2	Brown Stop light
	3	Blue Rear fog light
	4	Green Position light
	5	Black Ground

Pin configuration 7 poled AMP plug

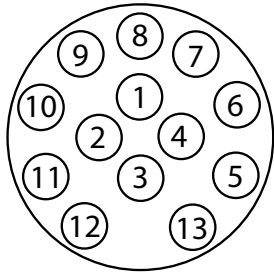
	Color	Description
	1	White Ground
	2	Green Position light
	3	Brown Reverse light
	4	Yellow Direction indicator light
	5	Red Stop light
	6	Blue Rear fog light
	7	- -

Pin configuration N-Type 12V, 7 poled ISO 1724

	Color	Description	
	L / 1	Yellow	Direction indicator light, left
	54G / 2	Blue	Rear fog light
	31 / 3	White	Ground
	R / 4	Green	Direction indicator light, right
	58R / 5	Brown	Position right, marker light, and license plate light 1)
	54 / 6	Red	Stop light
	58L / 7	Black	Rear position, left, marker light, and license plate light 1)

1) The license plate must be connected so that no lights of this illumination have common connection with contact 2 and 6

Pin configuration 12V, 13 poled ISO 11446







	Color	Description	
	1	Yellow	Direction indicator light, left
	2	Blue	Rear fog light
	3	White	Ground for contact Nr. 1-8. 1)
	4	Green	Direction indicator light, Right
	5	Brown	Tail light, right, position light, marker light, and license plate light. 2)
	6	Red	Stop light
	7	Black	Tail light, left, position light, marker light, and license plate light.. 2)
	8	Pink	Reverse light
	9	Amber	Power supply, permanent (+)
	10	Grey	Power supply, controlled by switch
	11	White-Black	Ground for contact Nr. 10. 1)
	12		Trailer connection identification. Pin no. 12 is connected with pin no. 3 to signal to the truck whether a trailer is being pulled.
	13	White-Red	Ground for contact Nr. 9. 1)

1) All three cables (ground) must not be electrically connected.

2) License plate light must be connected so that no light in the system is connected with both pin no. 5 and 7.

Material- and symbol explanation ERMALighting

Material explanation	
PMMA	Acrylic plastic (polymethylmethacrylate) The maximum working temperature is 70-110 °C. Melting point 160°
PP	Polypropylene. The maximum working temperature is 80-90°C. Melting point 165°
PC	Impact resistant polycarbonate. The maximum working temperature is 135°C Melting point 300°C
ABS	Thermoplast - Black plastic The maximum working temperature is 80-105°C

Symbol explanation	
	ECE Approved
	ECE Approved R65
	Electromagnetic test according to R10
	CE Approved
	ADR/GGVS - Approved for use on vehicles carrying dangerous goods
	Meets guidelines for the use of retro reflective safety markings on heavy vehicles

LIGHTING SYSTEMS

FOR AGRICULTURE

- Premium
- Economy



COMPLETE LIGHTING SYSTEMS FOR AGRICULTURE MACHINES

Solutions - as individual as your tasks and demands

ERMAX produces and sells a wide range of products within lighting, junction boxes and cable systems for agriculture machines.

A unique set-up with 2 programme lines, characterized by a modular and flexible cable system built from standard components. Individual parts can be exchanged for repairs.

Premium Programme - When the lifespan of the product is more important than the possibility of repair



- Wide lighting programme both LED and bulb
 - Cable with 7 poled front adapter and with 7 poled AMP plug connection for tail lights.
 - Casted plug connections with high quality Twist lock. Can be used in an environment with aggressive liquids, dust and high humidity.
 - Super Seal connection for side marker light - cleaner mounting and higher density
-

Economy Programme - Easy to customize individual solutions and needs



- Wide lighting programme both LED and bulb
 - Cable with 7 poled front adapter and with 7 poled AMP plug connection for tail lights.
 - Connection with rubber grommet
 - Side cable with 0,75 mm² flat cable for side marker lights with click-in.
-

TM11 LED Tail lights 12/24V

TAIL LIGHT FOR STANDARD VEHICLES

Modern light- and LED-Technology

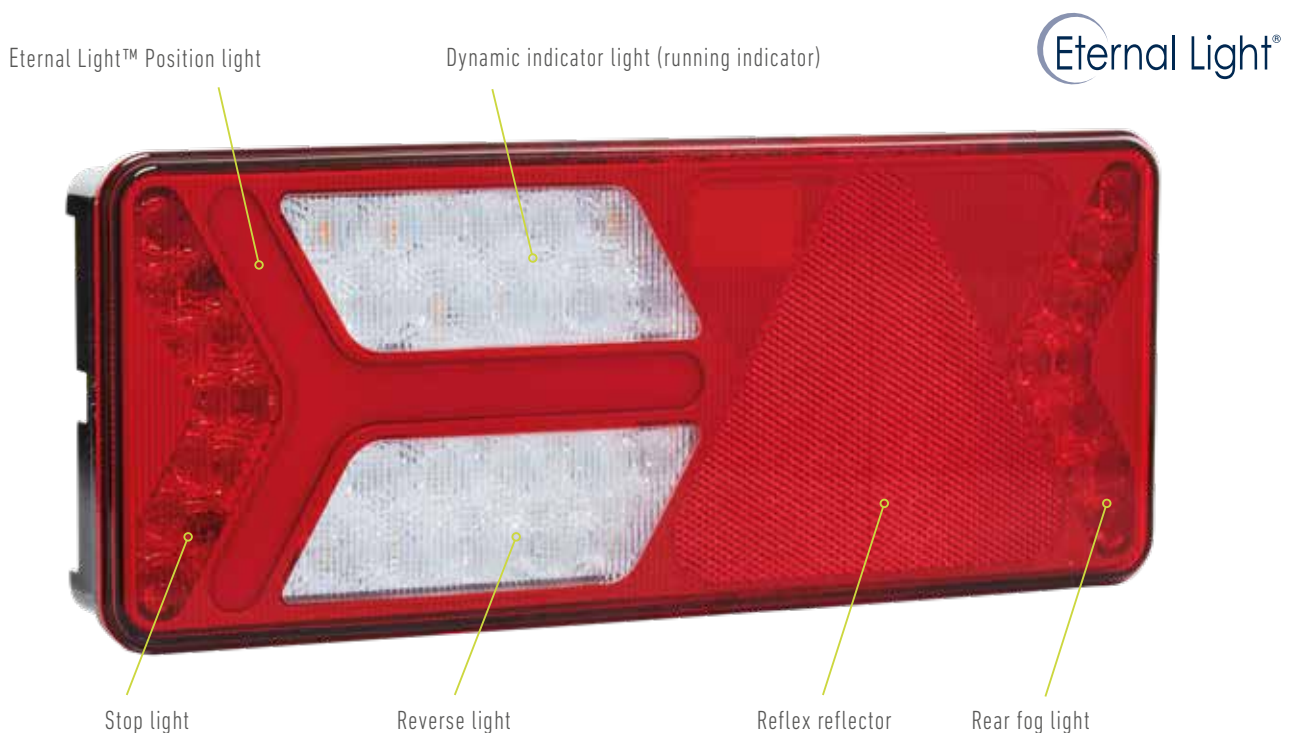
The compact and modern 7-function tail light from ERMAX

As highlights the full-LED tail light from Ermax offers a thin design, modern dynamic indicator light, impact-resistant lens and integration of all legal control units.

The intelligent and up to date control unit of the Ermax TM11 makes the universal connection of the tail light to any truck wanted possible – without failure warnings. This is also valid for the indicator failure control – and the brake light control.

The indicator light function in the side markers, lights simultaneously with the tail light according to ECE 48. This function is fully integrated in the TM11 tail light.

Superior durability, modern functionality and a modern design, come together in the Ermax TM11 tail light and making it a real highlight.

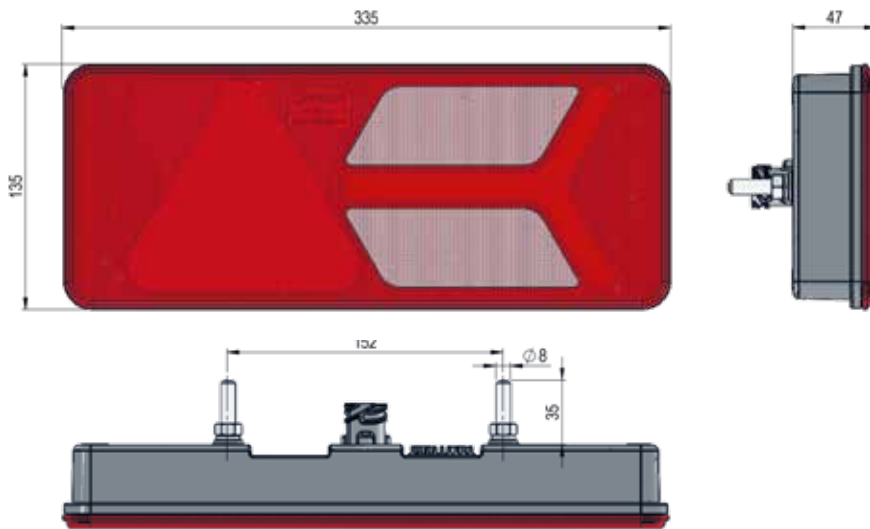


Highlights

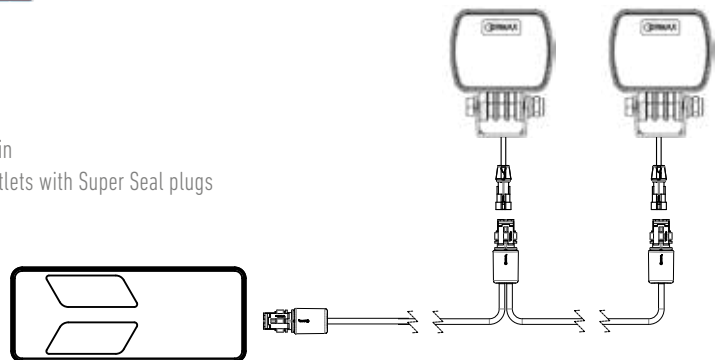
- Unbreakable - Impact resistant lens of polycarbonat
- Multi voltage 12/24V
- Modern dynamic indicator light (running indicator)
- Built-in indicator failure control according to ECE 48 - compatibel with all brands and year of EU Trucks*
- Built-in stop light failure control according to ECE 48 - compatibel with all brands and year of EU Trucks*
- Built-in control of flashing side marker lights (SIMAC®) according to ECE 48 supp. 06 (Since nov. 2017)
- Certified in accordance with all relevant standards and regulations in Europe

* Stand 2018

TM11 Tail lights 12/24V - Full-LED for trailer



Reverse light connected as a chain
- side cable with 1 inlet and 2 outlets with Super Seal plugs



2 pieces of Ermax reverse lights or work lights are allowed to be connected to an Ermax tail light (Max 52W)

Description

Lens:	Impact resistant polycarbonate
Direction indicator:	Progressive direction indicator light (running indicator)
Housing:	Impact resistant polycarbonate
Dimension:	335 x 135 X 47 mm
Bolt distance:	152 mm / M8
IP Rating:	IP69K

*) Super Seal Functions for 3 x position light incl. SIMAC, 1 x Stop (L) & Reverse (R)

TM11 Tail lights 12/24V - Full-LED for trailer



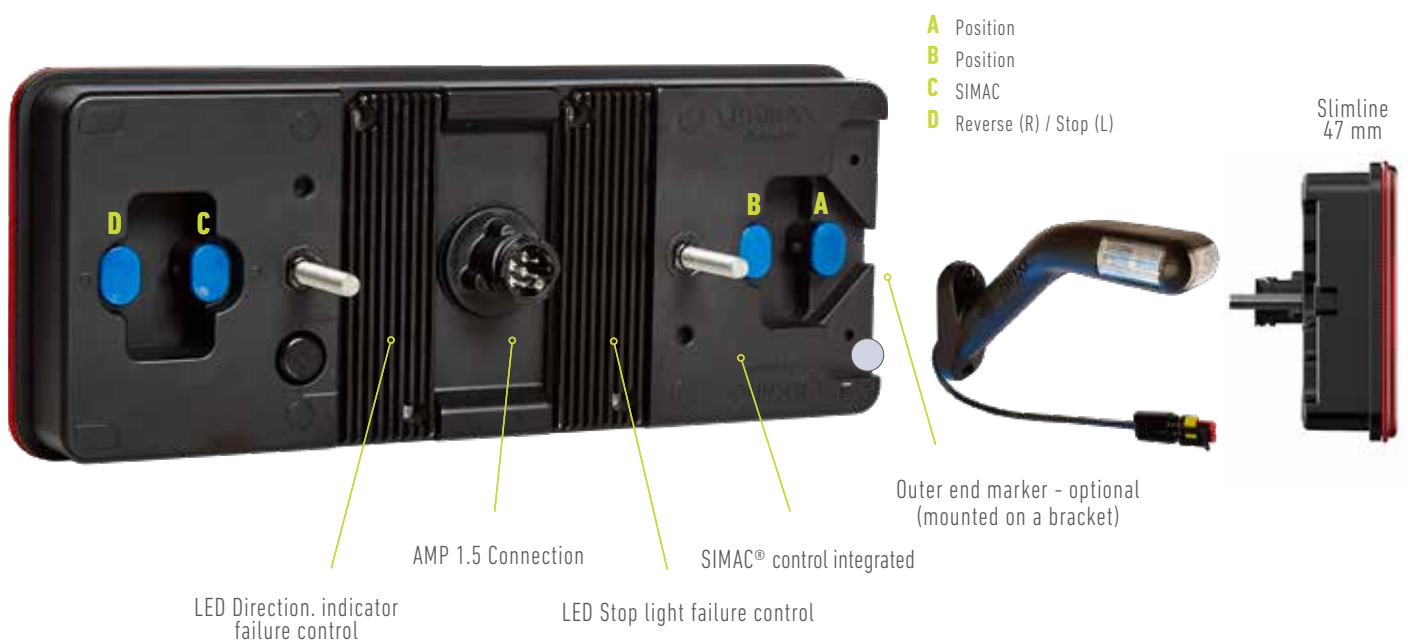
Type	Right → Left ←	Position Stop Dir. indicator Reverse Rear fog Reflex reflector	Outer end- marker	Connection 7 poled AMP socket Direction:	2x2 Super Seal Placed at the back*	SIMAC control integrated	LED control integrated	Article No.
Full-LED	→	✓	Optional	Rear	✓	✓	--	098 216 550
Full-LED	←	✓	Optional	Rear	✓	✓	--	098 216 551
Full-LED	→	✓	Optional	Rear	✓	✓	Dir. indicator light	098 216 552
Full-LED	←	✓	Optional	Rear	✓	✓	Dir. indicator light	098 216 553
Full-LED	←	✓	Optional	Rear	✓	✓	Dir. indicator- & Stop light	098 216 555
Full-LED	→	✓	300 mm		✓	✓		098 216 558
Full-LED	←	✓	300 mm		✓	✓		098 216 559

PREMIUM: 098 216 552 (R) & 098 216 555 (L) SIMAC, LED

Outer end marker are optional

and can be mounted at any version afterwards

Article no. suitable for outer end marker is 098 241 448 / 098 241 449 (R/L). The outer end marker is mounted at a holder and the Super Seal plug at the outer end marker is mounted at the back of the tail light in the Super Seal socket



Spare parts & Accessories TM11 Tail lights 12/24V



Pos. 1



Pos. 2



Pos. 3



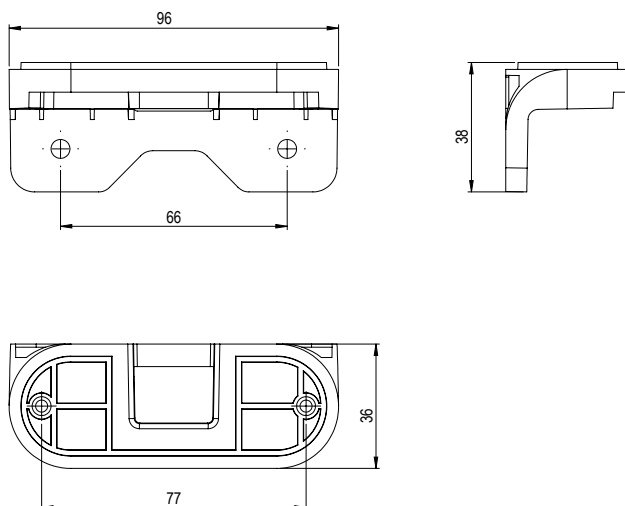
Pos. 4



Pos. 5

Holder of plastic, angled, for outer end marker Delivered with 4 pcs. stainless torx screws. Mounting hole distance: 77 mm	1	098 292 610
LED outer end marker 12/24V, Right - 300 mm connection cable with Super Seal plug	2	098 241 448
LED outer end marker 12/24V, Left - 300 mm connection cable with Super Seal plug	2	098 241 449
Protection cover for tail light	3	098 296 710
Cover of LED control - For covering of SLD connection at TM11 Tightens and protects contacts for SLD-unit	4	098 296 700
LED-Control unit 12/24V for TM11 Tail light built-in For monitoring direction indicator or stop light. One unit per function is needed For mounting at the back of the housing light. Connection with 3 x spring-loaded contacts	5	098 298 149

Pos. 1



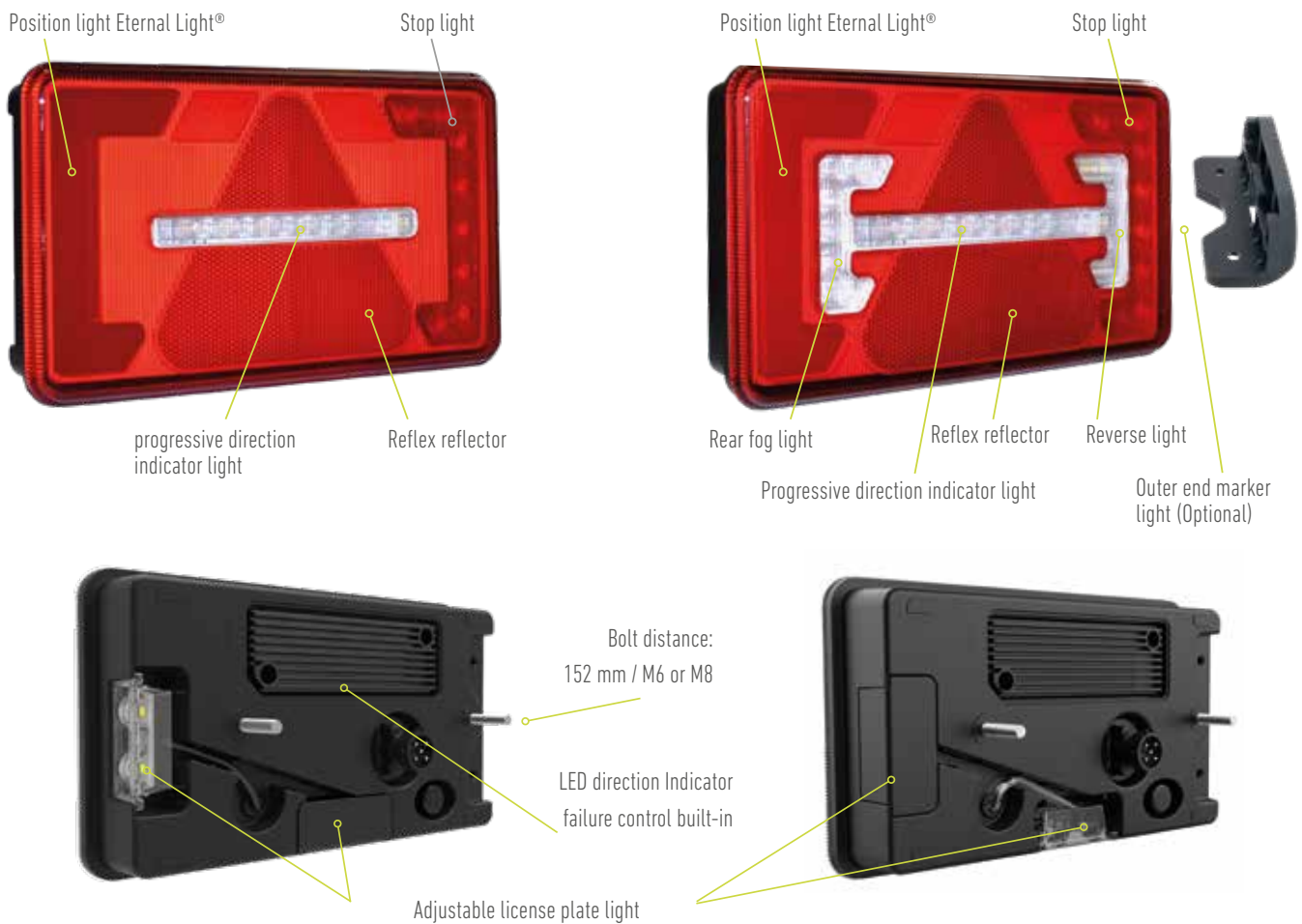


Unique design – and rather cool

4-6 functions in several combinations for the best light in all kinds of weather

ERMAX TM12 agricultural full-LED tail light complies with the highest demands concerning quality, functionality and reliability. As highlights, the tail light has a compact and modern design with various combinations of functions and offers the possibility of an integrated LED control unit of the direction indicator light function.

Unique design, newest light – and LED technology, high durability and quality are united in the ERMAX agricultural tail light – and due to the cost-effectiveness, a real highlight.



Highlights

- Housing and lens of polycarbonate – multi voltage 12 / 24 V
- Adjustable license plate light, double position
- ERMAX patented position light – Eternal Light® – for optimum security
- Modern progressive direction indicator light
- Built-in LED failure control of the indicator light function according to ECE 48 regulation
- Outer end marker light mounted directly at the bracket
- ECE, EMC and ADR certified – with IP69K rating

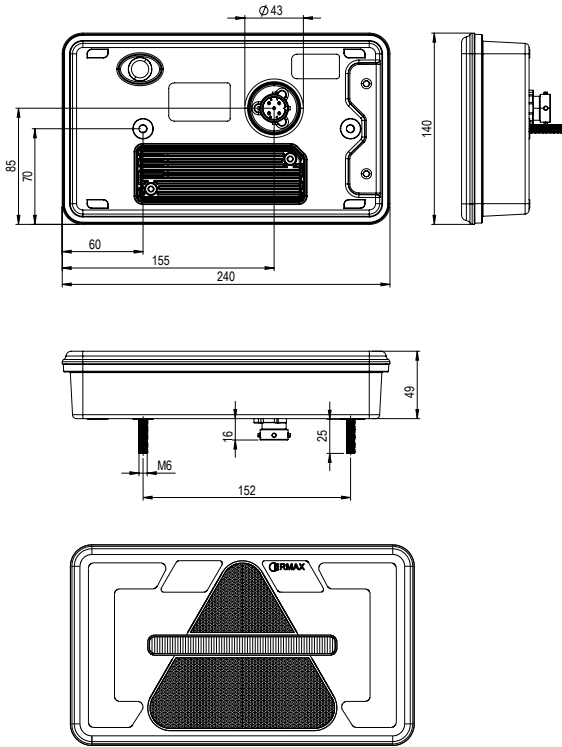
Eternal Light®

TM12 LED Tail lights 12 / 24 V - Types and possible combinations

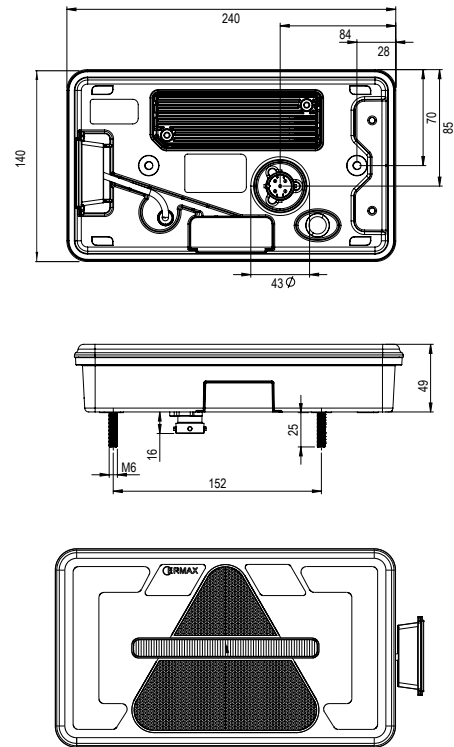
Type Tail light	RH → LH ←	5 poled socket M6 Bolts	7 poled AMP socket M8 Bolts	Position Stop Progressive dir. Indicator	Reverse	Rear fog	Reflex reflector	License plate	LED Indicator- failure control	Article No.
7 poled Front-connection										
	→	✓		✓			△			098 216 600
	←	✓		✓			△			098 216 601
	←	✓		✓			△	✓		098 216 605
	→	✓		✓			△		✓	098 216 602
	←	✓		✓			△		✓	098 216 603
	←	✓		✓			△	✓	✓	098 216 607
	→	✓		✓			△			098 216 610
	←	✓		✓		✓	△	✓		098 216 615
	→		✓	✓			△			098 216 620
	←		✓	✓		✓	△			098 216 621
	→		✓	✓			△		✓	098 216 622
	←		✓	✓		✓	△		✓	098 216 623
13 poled Front-connection										
	→	✓		✓	✓		△			098 216 610
	←	✓		✓		✓	△	✓		098 216 615
	→		✓	✓	✓	✓	△			098 216 620
	←		✓	✓	✓	✓	△			098 216 621
	→		✓	✓	✓	✓	△		✓	098 216 622
	←		✓	✓	✓	✓	△		✓	098 216 623
	→		✓	✓	✓	✓	□			098 216 630
	←		✓	✓	✓	✓	□			098 216 631

TM12 LED Tail lights 12 / 24 V

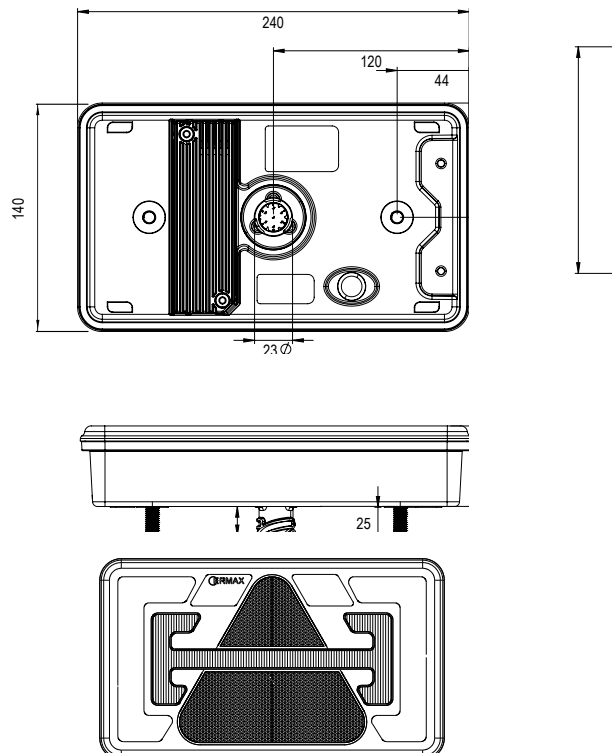
TM12 Tail light with 5 poled socket
- without license plate light



TM12 Tail light with 5 poled socket
- with license plate light



TM12 Tail light with 7 poled socket
- without license plate light



Spare parts and accessories



Spare parts and accessories

Bracket, angled, made of plastic – for mounting of outer end marker light Supplied with 2 pcs. stainless Torx screws – bolt hole distance of 77 mm	1	098 292 610
LED outer end marker light 12/24V, right / left – 300 mm connection cable with Super Seal plug	2	098 241 218
LED outer end marker light 12/24V, right – 300 mm connection cable with Super Seal plug	3	098 241 448
LED outer end marker light 12/24V, left – 300 mm connection cable with Super Seal plug	3	098 241 449
Protection cover, plastic, for tail light – bolt hole distance of 152 mm	4	098 296 705
Protection cover – to be used on the TM12 tail light if the LED control unit is removed Tightens and protects the contacts of the LED control unit	5	098 296 700
LED control unit 12/24V for mounting on TM12 tail light for controlling of the indicator light Connection with 3 spring loaded contacts	6	098 298 149

TM13 LED Tail light 12/24V

Small and slim design

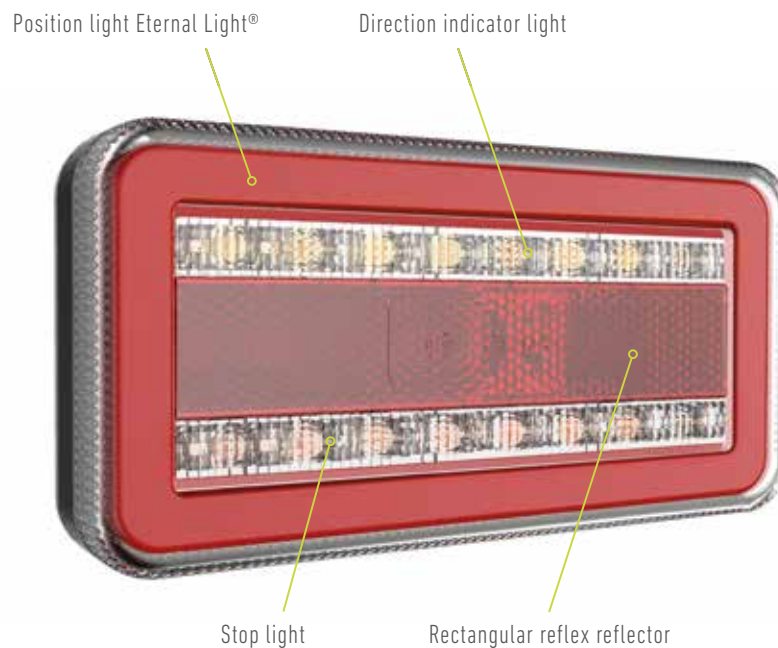
The perfect solution if the installation place is limited

ERMAX TM13 4-functions tail light in full-LED offers highlights as small, slimline and modern design for almost any application – for trailer as well as truck.

The TM13 LED tail light is due to its compact size and its slim design all-round useable and especially suitable for narrow build-in measures.

Recognizable design with Eternal Light®, newest light and LED technology and high quality are united in the ERMAX TM13 tail light – and makes the new TM13 tail light to another ERMAX innovation within lighting for heavy vehicles.

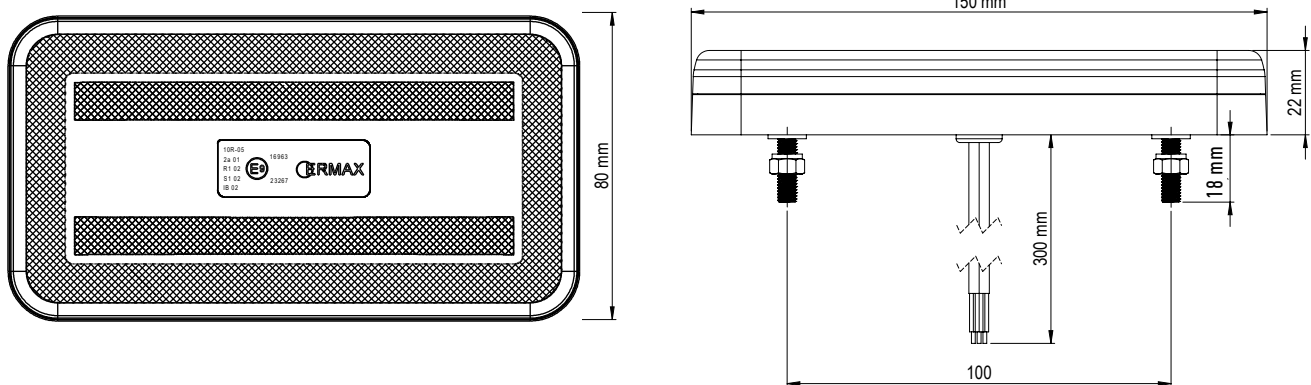
Eternal Light®



Highlights

- Applicable for trailer and truck
- Slimline-design - the perfect solution for limited build-in dimensions
- Suitable for high mounting
- ERMAX patented position light – Eternal Light®
- Compatible with the intelligent ERMAX LED failure control and the SIMAC®-control unit according to ECE 48 regulation
- Certified according to all relevant standards and regulations in Europe

TM13 LED Tail light 12/24V



OBS: If only vertical mounting, a separate legal reflector must be mounted

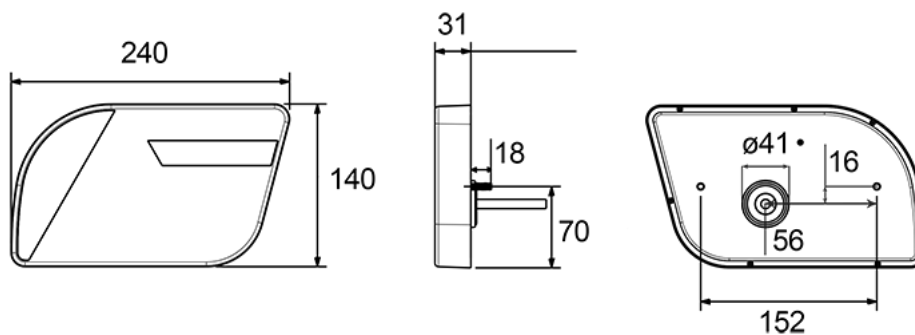
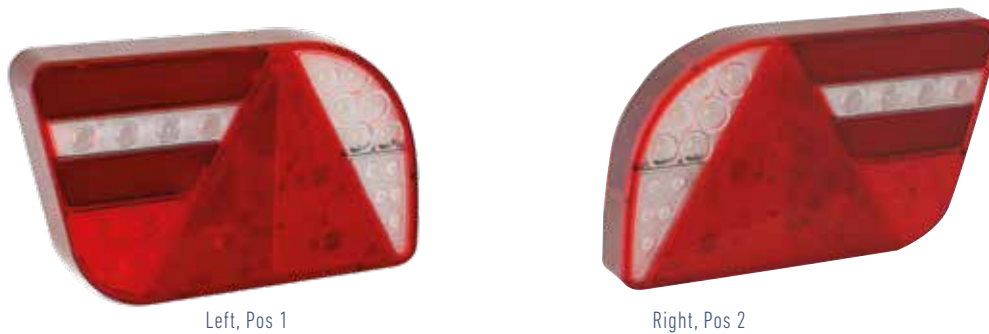


Description

Lens: Polycarbonate
 Housing: Polycarbonate and ABS
 Dimension: 150 x 80 x 22 mm
 Bolt distance: 100 mm / M5
 Working temperature: -40°C - +65°C
 IP Rating: IP69K

Type	Right → Left ◆	Position Stop Dir. indicator Rectangular reflex reflector	Connection	Cable length	Article no.
LED	→ ←	✓	Open end	300 mm cable, 4 core	098 212 170
LED	→ ←	✓	Open end	2.500 mm cable, 4 core	098 212 171
LED	→ ←	✓	7 poled AMP Steckdose	300 mm cable	098 212 172
LED	→ ←	✓	4 poled Deutsch socket (DT4)	300 mm cable	098 212 173

Tail lights TM 3 LED 12/24V



Description

LED Tail lights with "Eternal Light" for the position lights

Lens: Polycarbonate

Consumption total: 16,5W

Dimension: 240 x 140 x 31 mm

Bolt hole distance: 152 mm / M6

*) NB - Design with AMP socket must be used with straight socket and without safety cap



Application	IP Rating	Operation voltage	Left ← Right →	Position Stop Dir. indicator	Reverse Rear fog	Reflex reflector	Connection	Article No.
Universal	IP67	12/24V	→	✓	✓	✓	7 poled AMP 1.5 socket	098 215 235*
Universal	IP67	12/24V	←	✓	✓	✓	7 poled AMP 1.5 socket	098 215 237*

Spare parts / Accessories

Connection cable 4.000 mm with 7 poled AMP plug	494 040 755
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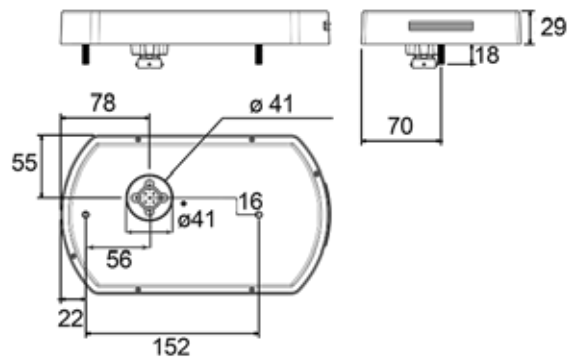
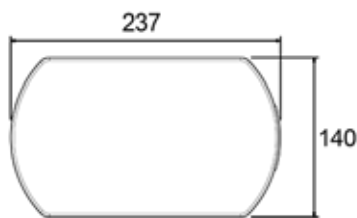
Tail lights TM 9 LED 12/24V



Left, Pos 1



Right, Pos 2



Description

LED Tail lights with "Eternal Light" for the position lights

Lens: Polycarbonate

Consumption total: 16,5W

Dimension: 240 x 140 x 29 mm

Bolt hole distance: 152 mm / M6



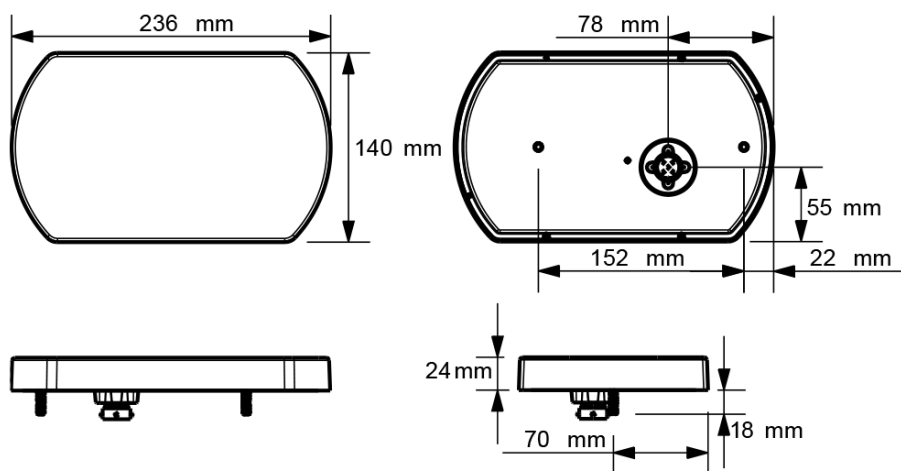
Application	IP Rating	Operation voltage	Left ← Right →	Position Stop Dir. indicator	Reverse	Rear fog	License plate	Reflex reflector	Connection	Article No.
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Universal	IP67	12/24V	←	✓		✓	✓	✓	5 poled socket	098 215 177
Universal	IP67	12/24V	→	✓	✓		✓	✓	5 poled socket	098 215 175
Universal	IP67	12/24V	←	✓		✓	✓	✓	7 poled AMP 1.5	098 215 171
Universal	IP67	12/24V	→	✓	✓		✓	✓	7 poled AMP 1.5	098 215 173

Spare parts / Accessories

Plug 5 poled, yellow, left	098 295 076
Plug 5 poled, green, right	098 295 078

Tail lights LED 12V



Description

Lens: Polycarbonate
 Consumption total: 16,5W
 Dimension: 236 mm x 140 mm x 24 mm
 Bolt hole distance: 152 mm



Application	IP Rating	Operation voltage	Left ← Right →	Position Stop Dir. indicator	Reverse	Rear fog	License plate	Reflex reflector	Connection	Article No.
Universal	IP67	12V	←	✓		✓	✓	✓	5 poled socket	098 215 251
Universal	IP67	12V	→	✓	✓		✓	✓	5 poled socket	098 215 250

Spare parts

5 poled plug for multi function light, yellow	098 295 076
5 poled plug for multi function light, green	098 295 078

TM4 LED Tail lights, 12 / 24 V (Surface mounting)



Pos. 1



Pos. 2



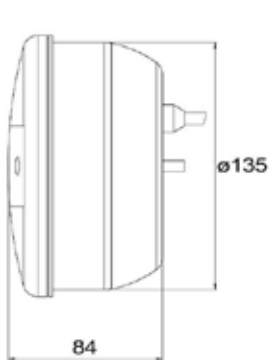
Pos. 3



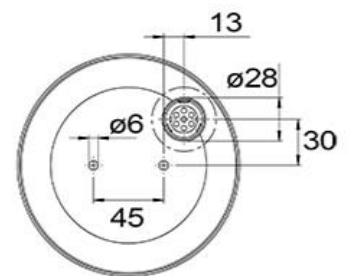
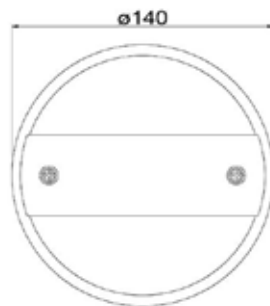
Pos. 4



Pos. 5



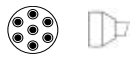
Rubber grommet



7 poled AMP Connection

Description

Lens:	PMMA
Housing:	PP
Dimension:	Ø140 x 80 mm
Bolt distance:	45 mm / M6
Working temperature:	-40°C to +65°C
IP-Rating:	IP54 (LED-unit IP69K)

TM4 LED Tail lights, 12 / 24 V (Surface mounting)


Operating voltage	IP Rating	Position Stop Dir. indicator	Reverse	Rear fog	Connection	Pos.	Article No.
12 / 24 V	IP54	✓			Cable lead through rubber grommet	1	098 212 442
12 / 24 V	IP54	✓			300 mm cable with 7 poled AMP socket	1	098 212 436
12 / 24 V	IP54	✓			Cable lead through rubber grommet	2	098 212 345
12 / 24 V	IP54	✓			300 mm cable with 7 poled AMP socket	2	09802110362
12 / 24 V	IP54		✓		Cable lead through rubber grommet	3	098 256 336
12 / 24 V	IP54			✓	300 mm cable with 7 poled AMP socket	4	098 257 336
12 / 24 V	IP54			✓	Cable lead through rubber grommet	4	098 257 349
12 / 24 V	IP54		✓	✓	Cable lead through rubber grommet	5	098 255 340
12 / 24 V	IP54		✓	✓	300 mm cable with 7 poled AMP socket	5	098 255 342

Spare parts


Pos. 1



Pos. 2

Chrome ring and built-in kit	1	098 292 360
Cover for tail light	2	098 296 720

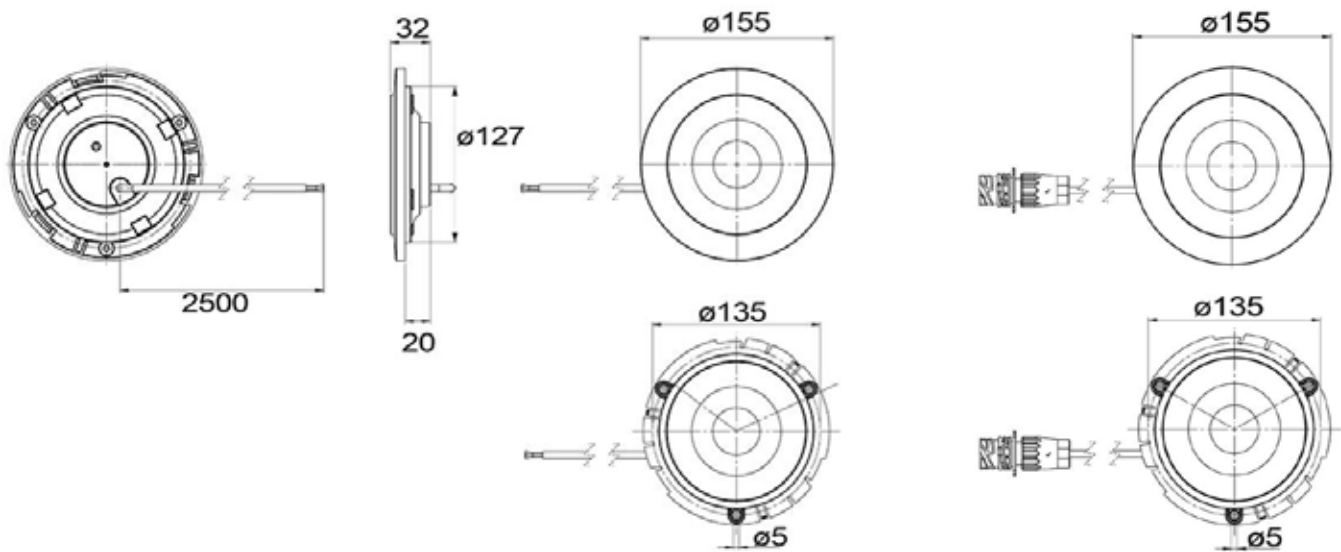
TM5 LED Tail lights Chrome ring, 12 / 24 V (Built-in)



Pos. 1



Pos. 2



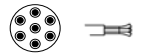
Description

Tail light with Eternal Light™ technology - for Built-in
Ultra thin installation depth



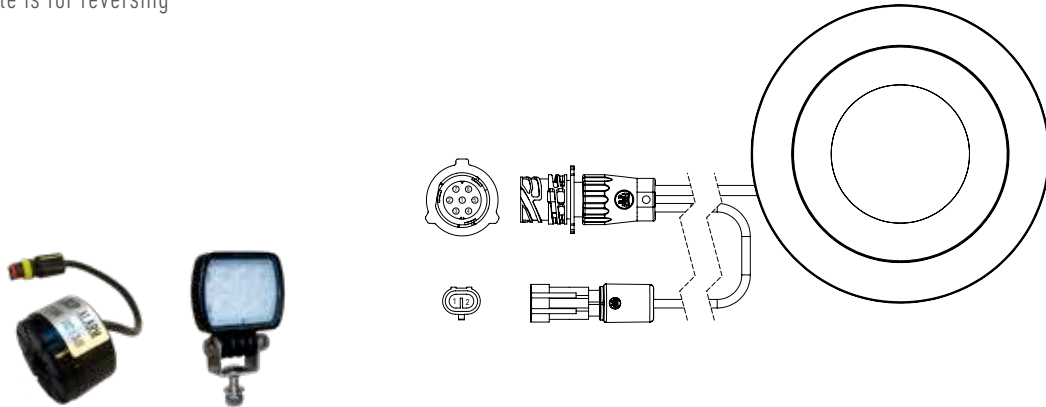
Lens:	Impact resistant polycarbonate
Housing:	Impact resistant polycarbonate
Dimension:	Ø155 x 32 mm
Built-in:	Ø127 mm
Mounting holes:	3 pcs Ø4,5 mm in 120° spread in Ø135 mm
Working temperature:	-40°C - +65°C

TM5 LED Tail lights with Eternal Light™ and Chrome ring 12/24V (Built-in)



Operation voltage	IP Rating	Position Stop Dir. indicator	Reverse Rear fog	Connection	Cable length	Outlet Super Seal	Pos.	Article No.
12/24V	IP69K	✓		Open end	2500 mm		1	098 212 101
12/24V	IP69K	✓		7 poled AMP socket	300 mm		1	098 212 102
12/24V	IP69K		✓	Open end	2500 mm		2	098 255 101
12/24V	IP69K		✓	7 poled AMP socket	300 mm		2	098 255 102
12/24V	IP69K		✓	7 poled AMP 1.5 socket	1.200 mm	200 mm cable with Super Seal socket for Reverse light and Reverse alarm	2	098 255 104

098 255 104
Super Seal socket on cable is for reversing light/-alarm



Spare parts



Chrome ring	098 292 215
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TM6 LED Tail lights 12/24V (Surface mounting)



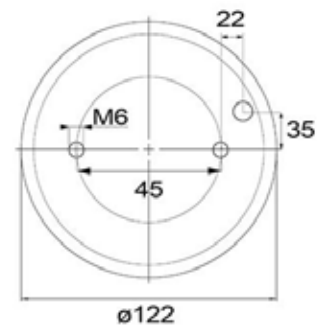
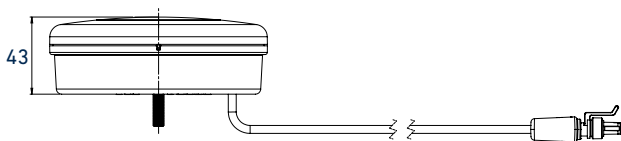
Pos. 1



Pos. 2



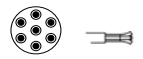
Pos. 3



Description

Lens:	PMMA
Housing:	ABS
Dimension:	Ø122 x 43.2 mm
Bolt distance:	45 mm / M6
Working temperature:	-40°C to +65°C
IP-Rating:	IP54 (LED-unit IP69K)

TM6 LED Tail lights 12/24V (Surface mounting)



Operation voltage	IP Rating	Position Stop	Dir. indicator	Reverse	Rear fog	Cable length	Connection	Pos.	Article No.
12/24V	IP69K	✓	✓			2.500 mm	Open end	1	098 212 022
12/24V	IP69K	✓	✓			2.000 mm	7 poled AMP 1.5 plug	1	098 212 027
12/24V	IP69K	✓	✓			200 mm	7 poled AMP 1.5 socket	1	098 212 028
12/24V	IP69K	✓				2.500 mm	Open end	3	098 212 122
12/24V	IP69K			✓	✓	2.500 mm	Open end	2	098 255 022
12/24V	IP69K			✓	✓	2.000 mm	7 poled AMP 1.5 plug	2	098 255 027
12/24V	IP69K			✓	✓	200 mm	7 poled AMP 1.5 socket	2	098 255 028
12/24V	IP69K				✓	1.000 mm	2 poled Super Seal plug	3	098 257 027

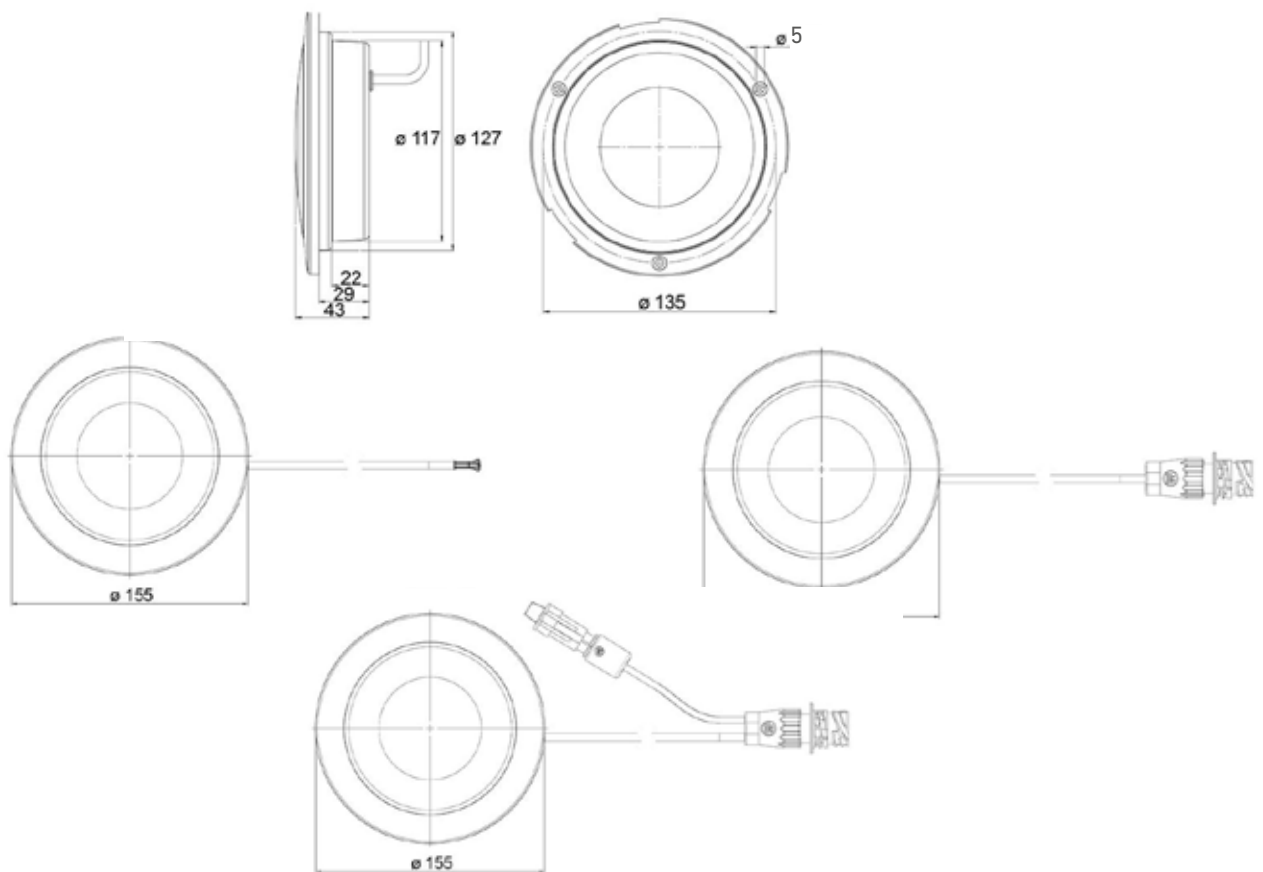
TM7 LED Tail lights, 12 / 24 V (Built-in)



Pos. 1



Pos. 2

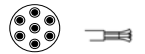


070 200 014

Description

Lens:	PMMA
Housing:	ABS
Dimension:	$\varnothing 155 \times 43$ mm
Bolt distance:	45 mm / M6
Built-in:	$\varnothing 127$ mm
Mounting holes:	3 pcs $\varnothing 4,5$ mm in 120° spread in $\varnothing 135$ mm
Working temperature:	$-40^\circ\text{C} - +65^\circ\text{C}$
Chrome ring:	Max Temperatur 80°C

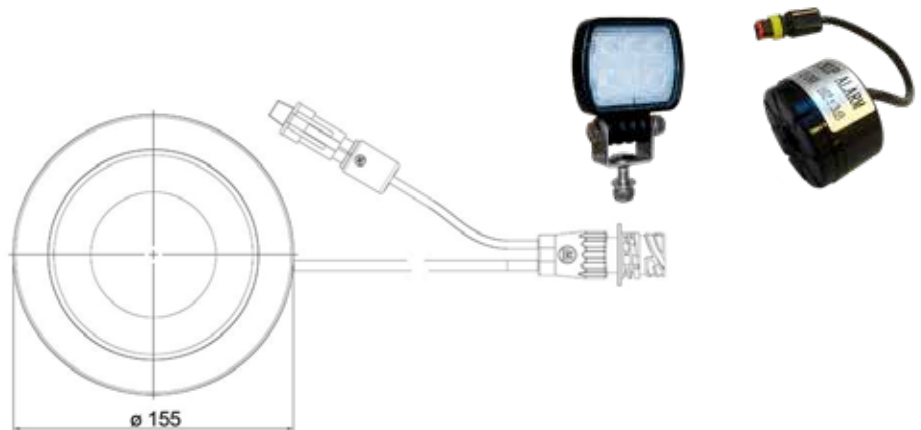
TM7 LED Tail lights 12/24V (Built-in)



Operation voltage	IP Rating	Position Stop Dir. indicator	Reverse Rear fog	Cable length	Connection	Outlet Super Seal	Pos.	Article No.
12/24V	IP69K	✓		2.500mm	Open end		1	098 212 002
12/24V	IP69K	✓		300 mm	7 poled AMP 1.5 socket		1	098 212 008
12/24V	IP69K	✓		2.000 mm	7 poled AMP 1.5 plug		1	098 212 017
12/24V	IP69K		✓	2.000 mm	7 poled AMP 1.5 plug		2	098 255 017
12/24V	IP69K		✓	200 mm	7 poled AMP 1.5 socket		2	098 255 018
12/24V	IP69K		✓	2.500 mm	Open end		2	098 255 002
12/24V	IP69K		✓	1.000 mm	7 poled AMP 1.5 socket	200 mm cable with Super Seal socket for Reverse alarm / - Reverse light	2	098 255 014

098 255 104

- with outlet Super Seal socket on the cable for reversing light or reverse gear alarm



Spare parts



Chrome ring Ø155 mm	098 292 216
Black ring Ø155 mm	098 292 217

TM8 LED Tail lights, 12 / 24 V



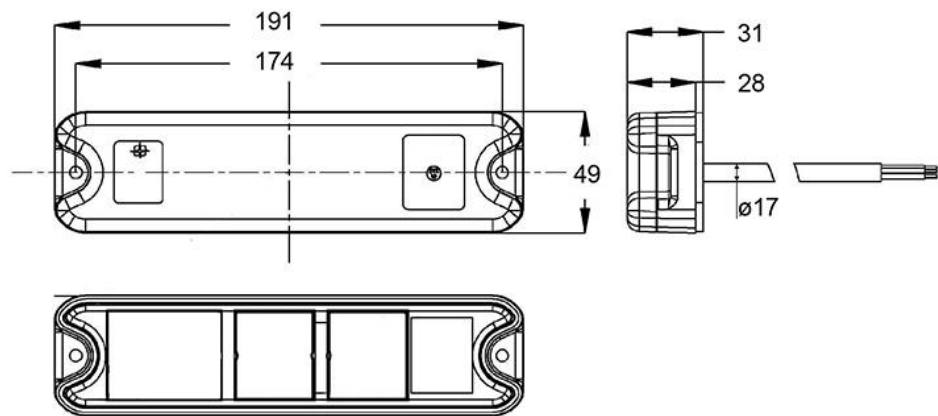
Pos. 1

With 8 red and 6 yellow LED's



Pos. 2

With 8 red and 9 white LED's



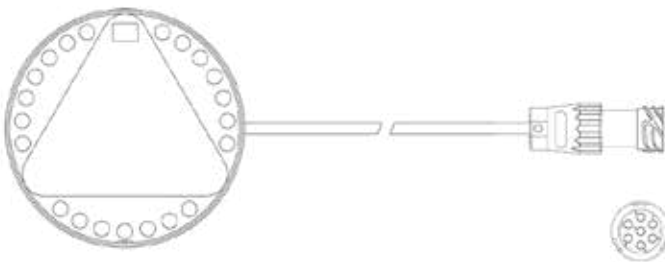
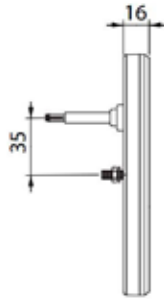
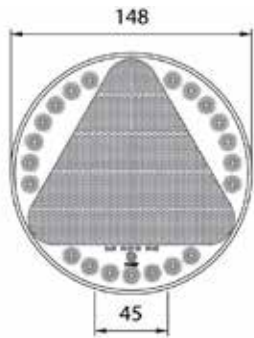
Description

Lens: PMMA
 Housing: ABS
 Dimension: 191 x 49 x 30 mm
 Bolt distance: 174 mm / M5



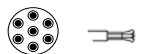
Operation voltage	IP Rating	Position Stop Indicator	Reverse	Rear fog	Reflex reflector	Cable length	Connection	Pos.	Article No.
12 / 24 V	IP69K	✓			✓	200 mm	7 poled AMP 1.5 socket	1	098 212 274
12 / 24 V	IP69K		✓	✓	✓	200 mm	7 poled AMP 1.5 socket	2	098 255 274

LED Tail light, 12 / 24 V



Description

Lens: PMMA
 Housing: ABS
 Dimension: Ø 148 mm
 Bolt distance: 45 mm / M5



Operating voltage	IP Rating	Position Stop Dir. indicator	Reflex reflector	Cable length	Connection	Article No.
12 / 24 V	IP67	✓	✓	400 mm	Open End	098 212 160
12 / 24 V	IP67	✓	✓	400 mm	5 poled plug	098 212 163
12 / 24 V	IP67	✓	✓	950 mm	7 poled AMP 1.5 socket	098 212 162

TM13 LED Tail light 12/24V

Small and slim design

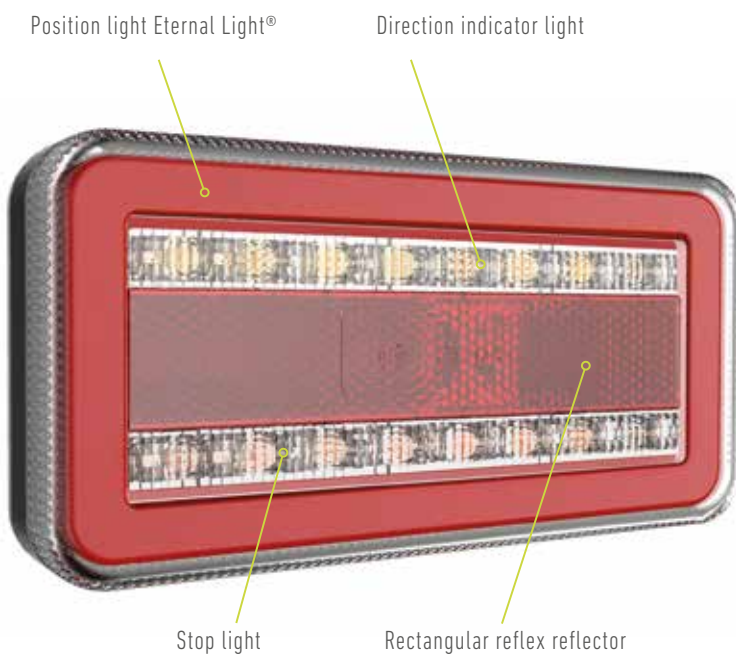
The perfect solution if the installation place is limited

The new ERMAX TM13 4-functions tail light in full-LED offers highlights as small, slimline and modern design for almost any application – for trailer as well as truck.

The TM13 LED tail light is due to its compact size and its slim design all-round useable and especially suitable for narrow build-in measures.

Recognizable design with Eternal Light®, newest light and LED technology and high quality are united in the ERMAX TM13 tail light – and makes the new TM13 tail light to another ERMAX innovation within lighting for heavy vehicles.

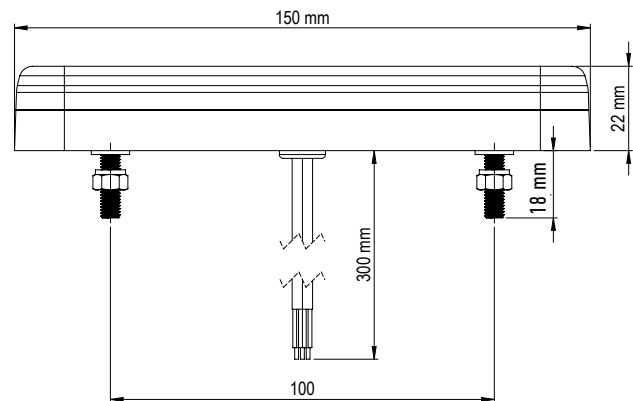
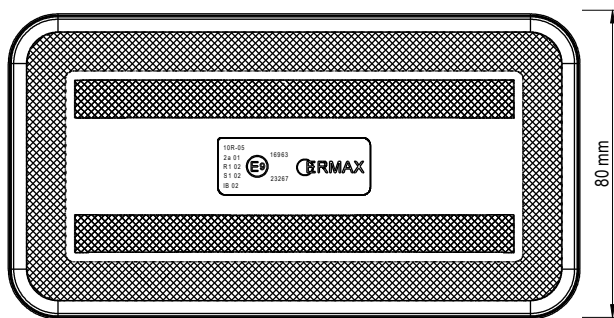
Eternal Light®



Highlights

- Applicable for trailer and truck
- Slimline-design - the perfect solution for limited build-in dimensions
- Suitable for high mounting
- ERMAX patented position light – Eternal Light®
- Compatible with the intelligent ERMAX LED failure control and the SIMAC®-control unit according to ECE 48 regulation
- Certified according to all relevant standards and regulations in Europe

TM13 LED Tail light 12/24V



OBS: IF ONLY VERTICAL MOUNTING, A SEPARATE LEGAL REFLECTOR MUST BE MOUNTED



Description

Lens: Polycarbonate
 Housing: Polycarbonate and ABS
 Dimension: 150 x 80 x 22 mm
 Bolt distance: 100 mm / M5
 Working temperature: -40°C - +65°C
 IP Rating: IP69K

Type	Right → Left ◆	Position Stop Dir. indicator Rectangular reflex reflector	Connection	Cable length	Article no.
LED	→ ←	✓	Open end	300 mm cable, 4 core	098 212 170
LED	→ ←	✓	Open end	2.500 mm cable, 4 core	098 212 171
LED	→ ←	✓	7 poled AMP Steckdose	300 mm cable	098 212 172
LED	→ ←	✓	4 poled Deutsch socket (DT4)	300 mm cable	098 212 173

TM14 LED Slim-Line Tail light 12/24V

Individual styling with TM14 Slim-line

The perfect solution for limited space

The ERMAX TM14 Slim-Line lighting series is ideal for individual modern styling of a vehicle and can be used for both surface mounting and built-in. The TM14 Slim-Line series is in full LED and offers highlights as a narrow, slim-line and modern design suitable for almost all applications – on the trailer as well as on the truck.

Due to the size and the slim design, there are many applications possibilities – especially where there are limited and narrow mounting surfaces.

The TM14 Slim-Line light can be mounted vertically, horizontally, and as high-mounted light – and fits with the various connection possibilities optimally with ERMAX' present cable system.

The stop light can also with advantage be use as high-mounted 3. stop light.



Position and / or stop light



Direct indicator light as standard or with dynamic direct indicator light

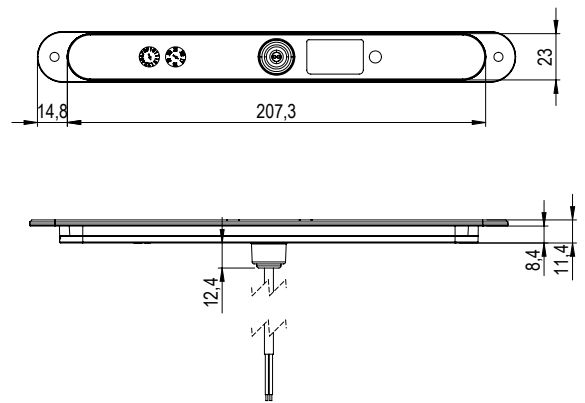
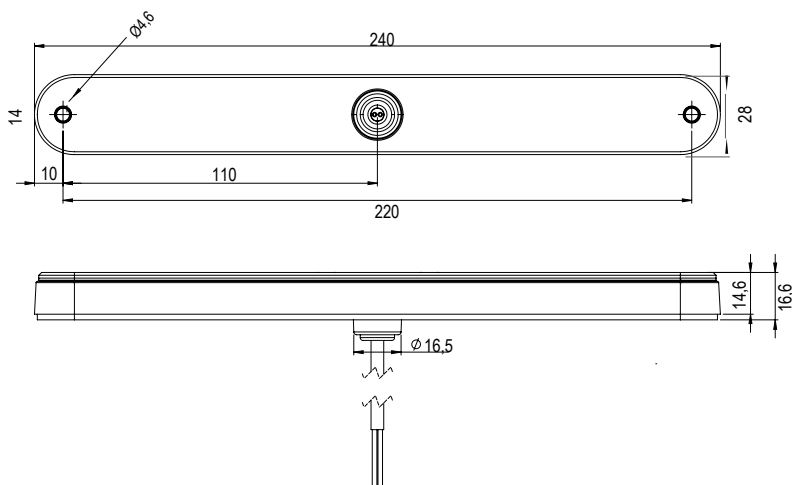
Highlights

- Slim and modern design for practically any application
- Applicable for trailer and truck
- Time saving mounting with 2 poled or 3 poled Super Seal connection
- 5 m Open end versions for long wiring
- Especially suitable for vehicles with limited mounting space
- Various applications – surface mounting, built-in, horizontal and vertical mounting and as high-mounted light
- Ideal as high-mounted 3. stop light.
- Certified according to all relevant standards and regulations in Europe

TM14 LED Slim-line - Flexible and individual styling possibilities

Design the "rear end" according to needs and demands

Position of more lights underneath each other means more effect of the nice, modern and dynamic direction indicator light



TM14 LED Tail light 12/24V - Slim-line



Description

Lens:	Impact resistant polycarbonate
Housing:	Impact resistant polycarbonate
Dimension	
Surface mounting:	240 x 28 x 16,6 mm
Built-in:	208 x 23 x 8,4 mm
Bolt distance:	220 mm / Ø4,6
Working temperature:	-40°C til +65°C°
IP Rating:	IP69K

Consumption per lighting function

Positions light:	0,6W
Stop light:	2,0W
Direction indicator light:	0,9W
Dynamic direction indicator light :	4,0W

* Bi-polar connection

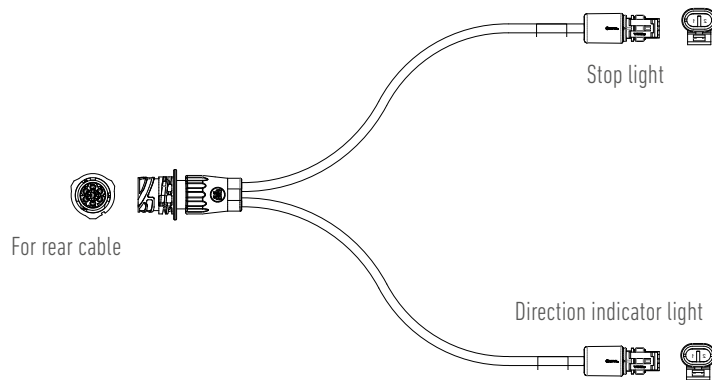
Operating-voltage	Right → Left ←	Position	Stop	Dir. indica- tor	Dynamic dir. indicator "NEW"	Connection	Cable length	Pin-configuration / wire color pr. function	Article no.
12/24V	→ ←	✓	✓			3 poled Super Seal socket	300 mm	1 = Ground 2 = Position light 3 = Stop light	098 212 250
12/24V	→ ←	✓	✓			Open end	5.000 mm - 3 core	Brown = Ground Blue = Position Yellow/green= Stop	098 212 252
12/24V	→ ←	✓				2 poled Super Seal socket	300 mm		098 200 250
12/24V	→ ←	✓				Open end	5.000 mm - 2 core	Brown = Ground Blue= Position light	098 200 252
12/24V	→ ←		✓			2 poled Super Seal socket	300 mm		098 203 250
12/24V	→ ←		✓			Open end	5.000 mm - 2 core	Brown = Ground Blue = Stop	098 203 252
12/24V	→ ←			✓		2 poled Super Seal socket	300 mm		098 222 250
12/24V	→ ←			✓		Open end	5.000 mm - 2 core	Brown = Ground Blue = Dir. indicatir	* 098 222 252
12/24V	→ ←				✓	2 poled Super Seal socket	300 mm		* 098 222 260
12/24V	→ ←				✓	Open end	5.000 mm - 2 core	Brown = Ground Blue = Dir. indicator	* 098 222 262

TM14 LED Tail light 12/24V - Slim-line

Accessories - Adapter cable for installation of TM14 Slim-Line to rear cable (see detailed description in the section "cables universal")

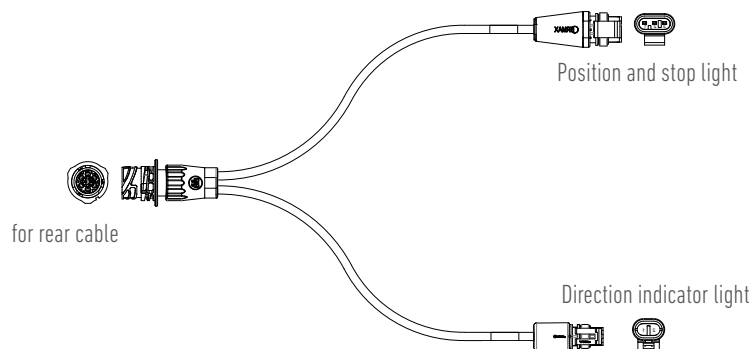
994 003 282 - Adapter cable 300 mm,

7 poled AMP socket > 2 x Super Seal plug with outlet for stop- and direction indicator light



994 003 285 - Adapter cable 300 mm,

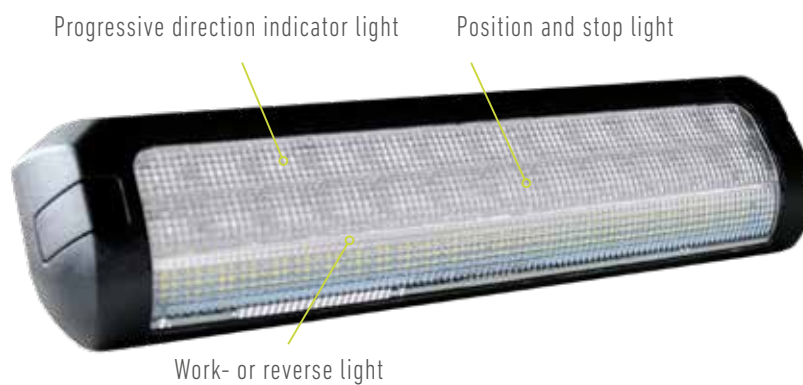
7 poled AMP socket > 1 x 3 poled Super Seal plug with outlet for position and stop light + 1 x 2 poled super seal plug with outlet for direction indicator light



Compact and Slim Design - Integrated work- or reverse light

The Ermax Top light 4 functions tail light in LED and with intergrated work- or reverse light, offers as high light a small, slim and modern design for almost all application - on the trailer as well as on the truck.

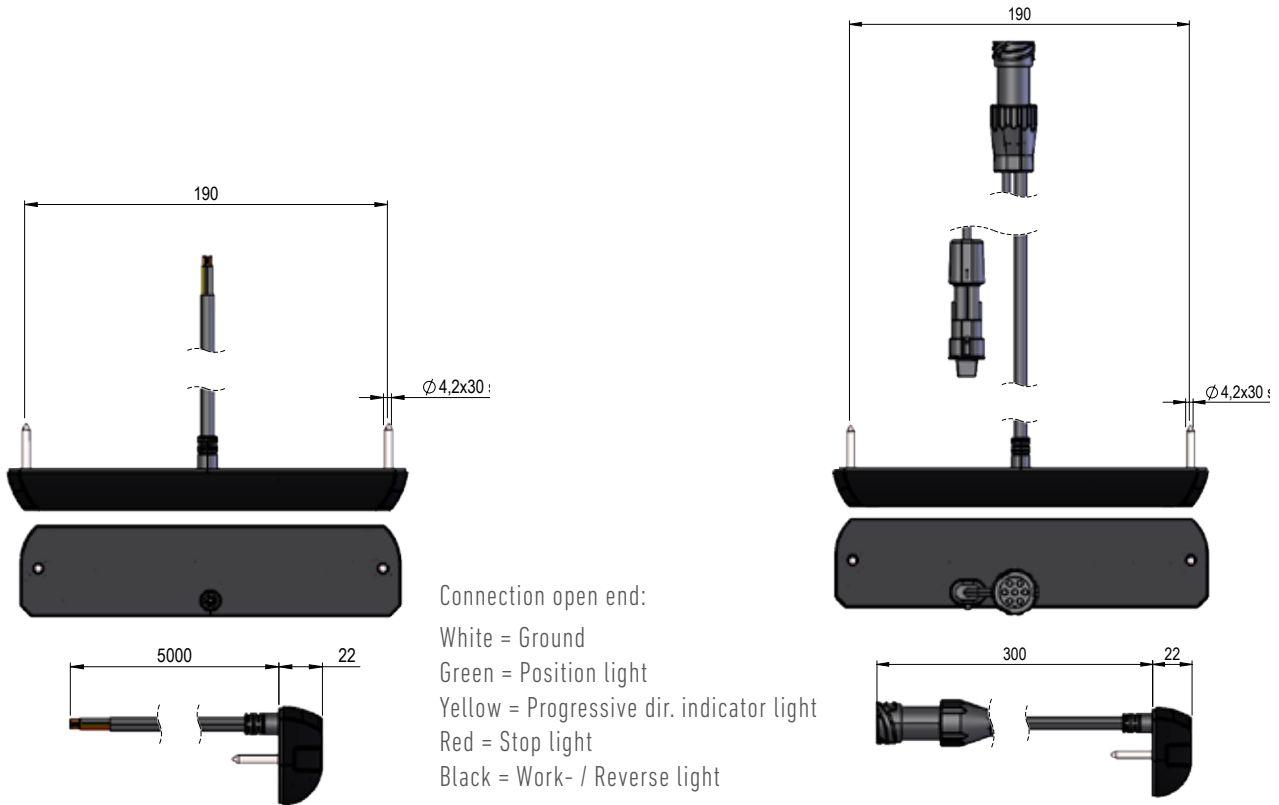
The Ermax Top light LED tail light is due to its size and slim design applicable for many purposes, especially for where there are limited and narrow mounting surfaces. High-mounted in order to use the work light function - or mounted in a height of max. 1.200 mm to use the reverse light function.



High lights

- Slim and compact design - Optimal as high-mounted tail lights
- Intergrated work- or reverse light
- Progressive direction indicator light
- Impact-resistant lens made of Polycarbonate
- Ideal as high-mounted light for use as work light in order to lighten up the work area in th rear end of the trailer or truck
- Especially suitable for vehicles with limited mounting surfaces
- Certified according to all relevant standards and regulations in Europe

LED Tail light 12/24 with intergrated reverse- or work light



Description

Lens: Impact resistant polycarbonate
 Housing: Impact resistant polycarbonate with backplate of aluminium
 Dimension: 210 x 50 x 20 mm
 Bolt distance: 190 mm / M4
 Working temperature: -40°C - +65°C
 IP-Rating: IP69K

Consumption per function

Position light: 0,6W
 Stop light: 2,7W
 Progressive dir. indicator: 2,5W
 Work- / Reverse light: 10W

Obs - approved as reverse light with installation height of max. 1.200 mm



Type	Right → left ←	Position Stop Progressive dir. indicator	Work light / Reverse light * Lumen theoretical/ effektive	Connection and cable length	Article no.
LED	→	✓	950 / 730 Lumen	5.000 mm cable open end	098 212 240
LED	←	✓	950 / 730 Lumen	5.000 mm cable open end	098 212 241
LED	→	✓	950 / 730 Lumen	300 mm cable with 7 poled AMP socket 300 mm cable with 2 poled Super Seal socket	098 212 242
LED	←	✓	950 / 730 Lumen	300 mm cable with 7 poled AMP socket 300 mm cable with 2 poled Super Seal socket	098 212 243

LED Tail lights, 12 / 24 V

EMC

E



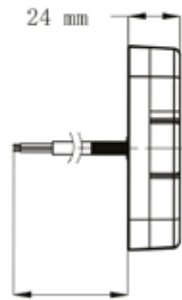
Pos. 1



Pos. 2 - Placed at the front



Pos. 3



Description

Lens: PMMA
 Housing: ABS
 Dimension: 105 x 95 x 25 mm
 Bolt distance: 90 mm / M5



Operating voltage	IP Rating	Position Stop	Dir. indicator	Position front	Reverse	Rear fog	License plate light	Cable length	Connection	Pos.	Article No.
12 / 24 V	IP67	✓	✓					150 mm	Open End	1	098 212 470
12 / 24 V	IP67	✓	✓					200 mm	7-poled socket	1	098 212 472
12 / 24 V	IP67	✓	✓				✓	200 mm	7-poled socket	1	098 212 474
12 / 24 V	IP67		✓	✓				150 mm	Open End	2	098 222 470
12 / 24 V	IP67				✓	✓		150 mm	Open End	3	098 255 470

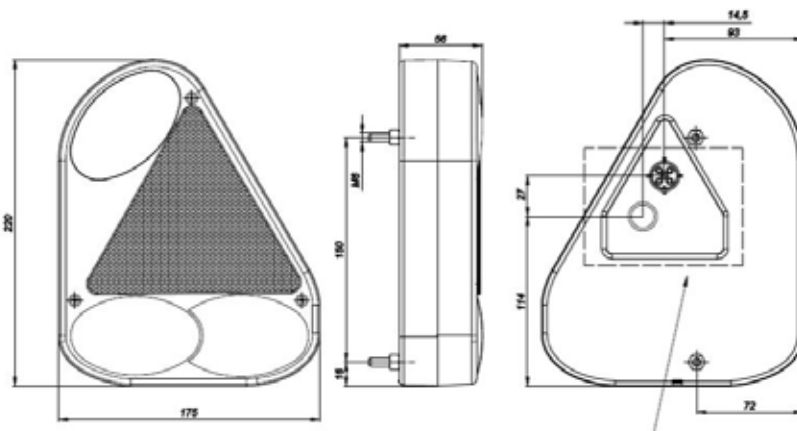
Tail lights bulb, 12V



Left



Right



Description

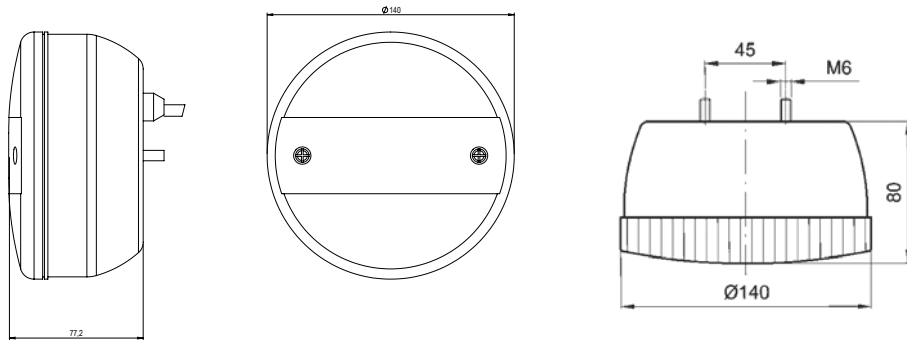
Lens: PMMA
 Housing: PP
 Dimension: 175 x 220 x 52 mm
 Bolt distance: 152 mm / M6

Supplied with 12 V bulb
 For bulb 21W/BA15S + 21/5W/BAY15d
 License plate light by choice, by blinder



Operating voltage	IP Rating	Right → Left ←	Position Stop Dir. indicator	Reverse	Rear fog	License platelight	Reflex reflector	Connection	Article No.
12 V	IP54	←	✓		✓		✓	5 poled socket	098 215 150
12 V	IP54	→	✓	✓			✓	5 poled socket	098 215 151

TM1 GL - Tail lights bulb



Description

Tail lights bulb - Pos. 1, 3 and 4 is delivered without bulb

Lens: PMMA
 Housing: ABS
 Dimension: Ø140 mm x 80 mm
 Bolt distance: 45 mm / M6



Operating voltage	IP Rating	Position	Stop	Dir. indicator	Reverse	Reverse - H3 bulb	Rear fog	License plate	Connection	Pos.	Article No.
12/24V	IP54	✓	✓	✓					Cable lead through rubber grommet	1	098 212 352
12/24V	IP54	✓	✓	✓				✓	Cable lead through rubber grommet	1	098 212 356
12/24V	IP54	✓	✓	✓					7 poled AMP 1.5 socket	2	098 212 354**
12/24V	IP54	✓	✓	✓					7 poled AMP 1.5 socket	2	098 212 351
12/24V	IP54				✓	✓			Cable lead through rubber grommet	3	098 256 040*
12/24V	IP54						✓		Cable lead through rubber grommet	4	098 256 050

Spare parts TM1 GL - Tail lights bulb



Pos. 1



Pos. 2



Pos. 3



Pos. 4



Pos. 5



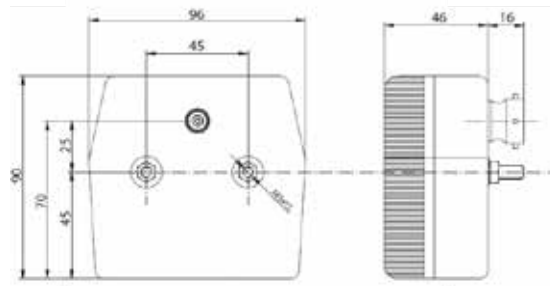
Pos. 6



Pos. 7

Lens for position light with 2 screws and 1 sealing Suitable for 098 212 352 / 356 / 351	1	098 292 354
Lens, transparent for reverse light Suitable for 098 256 040	2	098 292 242
Chrome ring and built-in kit	3	098 292 360
Protection cover for reverse light	4	098 296 720
Bulb 24V 5W HD BA15s - for position light	5	091 624 075
Bulb 24V 21W HD BA15s - for stop- and rear fog	6	091 624 071
Halogen headlight H3, bulb 24V 70W H3, PK22s	7	091 324 003

Heckleuchten Glühlampen, 12 V



Description

Lens: PMMA
 Housing: Schwarzem Kunststoff
 Dimension: 96 x 90 x 46 mm
 Bolt distance: 45 mm / M5

Fore light bulb 21W/BA15S + 21/5W/BAY15d



Operating voltage	IP Rating	Position	Stop	License plate	With lightbulb delivered	Connection	Artikel-No.
12 / 24 V	IP54	✓	✓	✓		Cable lead through rubber grommet	098 212 642

REAR UNDERRUN PROTECTION BAR



Rear underrun protection bar with TM5 tail lights
Unbeatable durability

- Space-saving – ultra slim built-in depth of the TM5 tail lights
- Unsurpassed durability - impact resistant lens made of polycarbonate
- Increased traffic security – Eternal Light technology



Measure (WxDxH): 2780 (2400 mm without OEM) x 160 x 252 mm

Variant - ECE R58-02

Article no.	Type	Junction box	SIMAC	LED failure control	
				Direct indicator	Stop
098 258 100	LED	-	-	-	-
098 258 110	LED	-	-	✓	-
098 258 130	LED	-	✓	✓	-
098 258 140	LED	✓	-	-	-
098 258 150	LED	✓	-	✓	-
098 258 160	LED	✓	✓	-	-
098 258 170	LED	✓	✓	✓	-

Variant - ECE R58-03

Article no.	Type	Junction box	SIMAC	LED failure control	
				Direct indicator	Stop
098 259 100	LED	-	-	-	-
098 259 110	LED	-	-	✓	-
098 259 130	LED	-	✓	✓	-
098 259 140	LED	✓	-	-	-
098 259 150	LED	✓	-	✓	-
098 259 155	LED	✓	-	✓	✓
098 259 170	LED	✓	✓	✓	-
098 259 175	LED	✓	✓	✓	✓

Rear underrun protection bar with TM7 tail lights

Classical solution

- Compact round lights with a chrome look
- Easy mounting
- Classical LED look



Measure (WxDxH): 2780 (2400 mm without OEM) x 160 x 252 mm

Variant - ECE R58-02

Article no.	Type	Junction box	SIMAC	LED failure control	
				Direct indicator	Stop
098 258 200	LED	-	-	-	-
098 258 210	LED	-	-	✓	-
098 258 230	LED	-	✓	✓	-
098 258 240	LED	✓	-	-	-
098 258 250	LED	✓	-	✓	-
098 258 260	LED	✓	✓	-	-
098 258 270	LED	✓	✓	✓	-

Variant - ECE R58-03

Article no.	Type	Junction box	SIMAC	LED failure control	
				Direct indicator	Stop
098 259 200	LED	-	-	-	-
098 259 210	LED	-	-	✓	-
098 259 230	LED	-	✓	✓	-
098 259 240	LED	✓	-	-	-
098 259 250	LED	✓	-	✓	-
098 259 255	LED	✓	-	✓	✓
098 259 270	LED	✓	✓	✓	-
098 259 275	LED	✓	✓	✓	✓

Rear underrun protection bar with TM11 tail lights

Unsurpassed full LED functionality

- Unsurpassed durability - impact resistant lens made of polycarbonate
- Increased traffic security – Eternal Light technology
- High reliability - LED failure control optional and SIMAC integrated



Measure (WxDxH): 2780 (2400 mm without OEM) x 160 x 252 mm

Variant - ECE R58-02

Article no.	Type	SIMAC	LED failure control	
			Direct indicator	Stop
098 258 520	LED	✓	-	-
098 258 530	LED	✓	✓	-
098 258 580	LED	✓	✓	✓

Variant - ECE R58-03

Article no.	Type	SIMAC	LED failure control	
			Direct indicator	Stop
098 259 520	LED	✓	-	-
098 259 530	LED	✓	✓	-
098 259 580	LED	✓	✓	✓

With the TM11 tail light the Ermax rear bumper has a real all-rounder on board: further to the standard functions the TM11 also has an optional LED indicator failure control and a flash function for the side marker lights (SIMAC) integrated in the light housing – mounting will never be easier!



TM11 LED



LED control unit "Snap-in"



SIMAC control "Snap-in"

Rear underrun protection bar ECE R58-02

Anodized - without lights

Anodized aluminium - 3 variants packed individually in a cardboard box or pallet packaging.

End caps and T-bolts must be ordered separately.



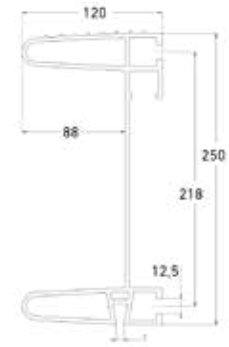
Pos 1



Pos 2



Pos 3



Pos 4

Pos 5

Variant - ECE R58-02

Article no.	Pos	Variant type	Drilling	Packaging
098 259 000	1	Without drilling	-	Individually (1 pcs)
098 258 000	2	For built-in lights (TM5, TM7)	6 x Ø135 mm	
098 258 001	3	For 7-function lights (TM10, TM11)	2 x Ø44 mm, 8 x Ø30 mm	

OBS.
End caps and T-bolts
must be ordered
separately

Article no.	Pos	Description	Packaging
098 299 610	4	End cap, plastic (2 pcs. per underrun protection bar)	Bag with 2 pcs.
099 110 004	5	T-bolts (4 pcs. per underrun protection bar)	Bag with 4 pcs.

Rear underrun protection bar ECE R58-03

Anodized - without lights

Anodized aluminium - 4 variants packed individually in a cardboard box or pallet packaging.

End caps and T-bolts must be ordered separately.



* If 2x 4 TM4 tail lights are to be mounted, an additional hole (right) for the cable from the rear light must be drilled.

Variant - ECE R58-03

Article no.	Pos	Variant type	Drilling	Packaging
098 259 005	1	Without drilling	-	Individually (1 pcs)
098 259 006	2	For built-in lights (TM5, TM7)	6 x Ø135 mm	
098 259 007	3	For 7-function lights (TM10, TM11)	2 x Ø44 mm, 8 x Ø30 mm	
098 259 008 *	4	For surface mounted lights (TM4)	16 x Ø7 mm, 8 x Ø28/20 mm	

099 259 005	1	Without drilling	-	Pallet 15 pcs
099 259 006	2	For built-in lights (TM5, TM7)	6 x Ø135 mm	
099 259 007	3	For 7-function lights (TM10, TM11)	2 x Ø44 mm, 8 x Ø30 mm	
099 259 008 *	4	For surface mounted lights (TM4)	16 x Ø7 mm, 8 x Ø28/20 mm	

OBS.
End caps and T-bolts must be ordered separately

Article no.	Pos	Description	Packaging
099 299 616	4	End cap, plastic (2 pcs. per underrun protection bar)	Bag with 2 pcs.
099 299 615	4	End cap, plastic (2 pcs. per underrun protection bar)	40 pcs.
099 110 004	5	T-bolts (8 pcs. per underrun protection bar)	Bag with 4 pcs.

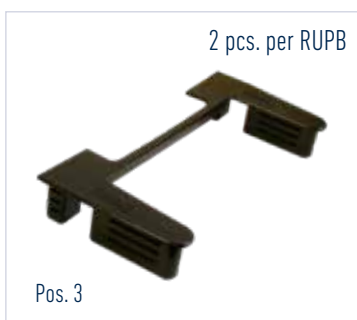
Spare parts and accessories

ECE R58-02



The consoles mentioned in the certificate (pos. 1) are mounted at the chassis frame. The associated reinforcement brackets (pos. 2) must be used for specific widths of the chassis frame according to the guidance in the certificate.

Consoles as well as reinforcement brackets are offered from ERMAX as accessories, but may also be produced by the vehicle manufacturer, provided that the technical instructions in the certificate are followed exactly.



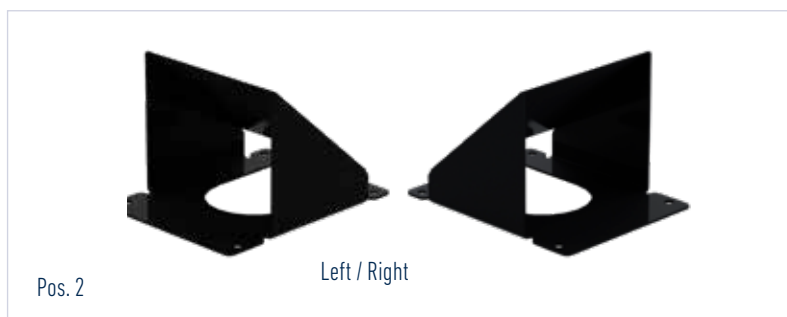
* when using reinforcement bracket 8 pcs. has to be used

Spare parts and accessories

	Pos.	Article no.
Console - Square profile for welding on the chassis frame	1	098 299 620
Reinforcement bracket - Left side 098 299 602 / right side 098 292 603 A frame width between 840-1250 requires 2 pcs. By use of these reinforcement brackets, additional 4 T-bolts will be needed. (099 110 004)	2	098 299 602 098 299 603
End cap, plastic - Bag with 2 pcs. (2 pieces per underrun protection bar are needed)	3	098 299 610
T-bolt M12x55 mm with square head - Bag with 4 pcs. (4 pieces per underrun protection bar are needed)	4	099 110 004

Spare parts and accessories

ECE R58-03

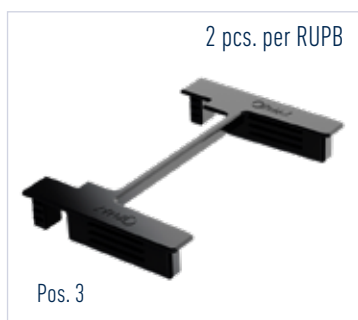


The consoles mentioned in the certificate (pos. 1) are mounted at the chassis frame. The associated reinforcement brackets (pos. 2) must always be present.

Depending upon the width of the chassis frame (distances between the consoles) the reinforcement brackets must be placed inside or outside the consoles in order to support the underrun protection bar.

Consoles as well as reinforcement brackets are offered from ERMAX as accessories, but may also be produced by the vehicle manufacturer, provided that the technical instructions in the certificate are followed exactly.

According to the certificate, the consoles may also be integrated in the chassis.



Spare parts and accessories

	Pos.	Article no.
Console 1 - Profile for welding on the chassis frame	1	099 299 623
Console 2 - Profile for welding on the chassis frame	1	099 299 622
Reinforcement bracket - left / right (1 pcs) Frame distance 1250-1450 mm : The reinforcement brackets must be installed on the inside of the consoles. Frame distance 980-1249 mm : The reinforcement brackets must be mounted on the outside of the consoles. 4 x 099 110 004 T-bolts M12 x 55 mm are needed for each bracket / totally 8 pcs.	2	099 299 625
End cap, plastic - Bag with 2 pcs (2 pieces per underrun protection bar are needed)	3	099 299 616
T-bolt M12x55 mm with square head - Bag with 4 pcs. (8 pieces per underrun protection bar are needed)	4	099 110 004

UNIVERSAL LIGHTING PRODUCTS & ACCESSORIES



LICENSE PLATE LIGHT



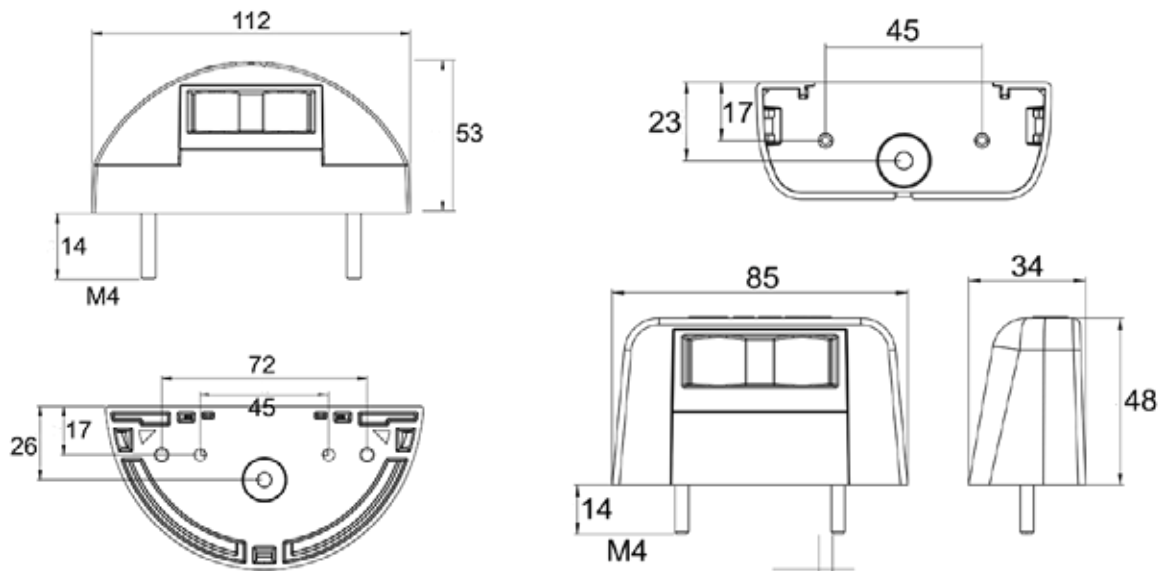
LED License plate lights 12 / 24 V



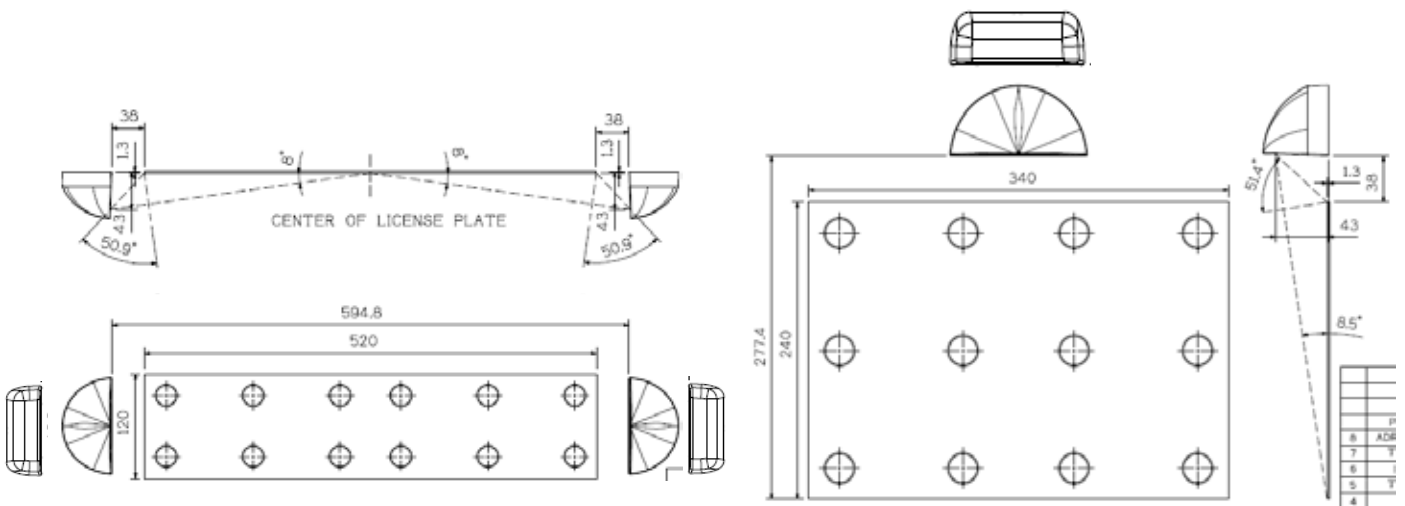
Pos. 1



Pos. 2



Both types are certified for the application as shown:



LED License plate lights 12 / 24 V

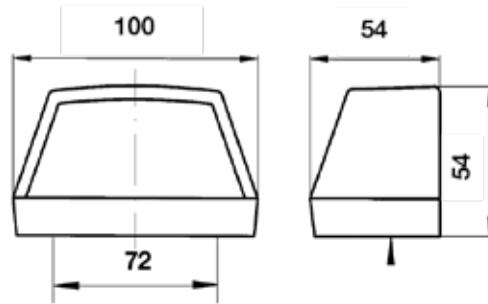


Description

Lens:	PMMA
Housing:	ABS
Half-round design	
Dimension:	112 x 57 x 53 mm
Bolt distance:	45 mm or 72 mm / M4
Square design	
Dimension:	85 x 34 x 48 mm
Bolt distance:	45 mm / M4
LED unit:	IP69K capability

Operating voltage	IP Rating	Connection	Cable length	Bolt distance	LED	Pos.	Article No.
12 / 24 V	IP54	Click-in 0,75 mm ²	500 mm	45 mm	2	2	098 254 341
12 / 24 V	IP54	Click-in 0,75 mm ²	1.500 mm	45 mm	2	2	098 254 343
12 / 24 V	IP54	Click-in 1,5 mm ²	500 mm	45 / 72 mm	2	1	098 254 330
12 / 24 V	IP54	Click-in 1,5 mm ²	500 mm	45 mm	2	2	098 254 340
12 / 24 V	IP54	Click-in 1,5 mm ²	1.500 mm	45 / 72 mm	2	1	098 254 332
12 / 24 V	IP54	Click-in 1,5 mm ²	1.500 mm	45 mm	2	2	098 254 342
12 / 24 V	IP54	Super Seal socket	500 mm	45 / 72 mm	2	1	098 254 334
12 / 24 V	IP54	Super Seal socket	500 mm	45 mm	2	2	098 254 344
12 / 24 V	IP54	Super Seal plug	1.200 mm	45 / 72 mm	2	1	098 254 335
12 / 24 V	IP54	Super Seal plug	1.200 mm	45 mm	2	2	098 254 345
12 / 24 V	IP54	Super Seal plug	2.000 mm	45 / 72 mm	2	1	098 254 350
12 / 24 V	IP54	Open End	2.500 mm	45 / 72 mm	2	1	098 254 336
12 / 24 V	IP54	Open End	2.500 mm	45 mm	2	2	098 254 346
12 / 24 V	IP54	Cable lead through rubber grommet	--	45 / 72 mm	2	1	098 254 338
12 / 24 V	IP54	Cable lead through rubber grommet	--	45 mm	2	2	098 254 348

LED License plate light 12 V

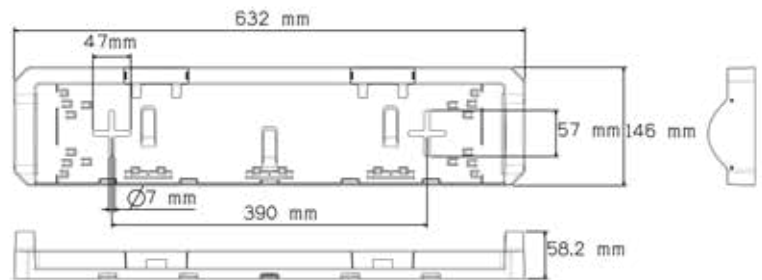


Description

Lens: PMMA
 Housing: ABS
 Dimension: 100 x 54 x 54 mm
 Bolt distance: 72 mm / M4

Operating voltage	IP Rating	Connection	Cable length	Bolt distance	Article no.
12V	IP67	Cable lead through rubber grommet	---	72 mm	098 254 165

LED license plate carrier 24V



Description

Dimensions: L x B x H: 625 x 145 x 55 mm

Bolt distance: 445-535 mm / Ø7 mm

Material: Black ABS

Consumption: 0,8W

Operationg voltage	Light source	Connection	Cable length	Bolt distance	Artikel-Nr.
12V	LED	Click-In	150 mm	445-535 mm	098 254 312

Clips for license plate carrier



Clips for license plate carrier. 2 clips are needed for each license plate carrier.

098 292 300

OUTER END MARKER LIGHTS



LED Outer end marker (45°) 12 / 24 V

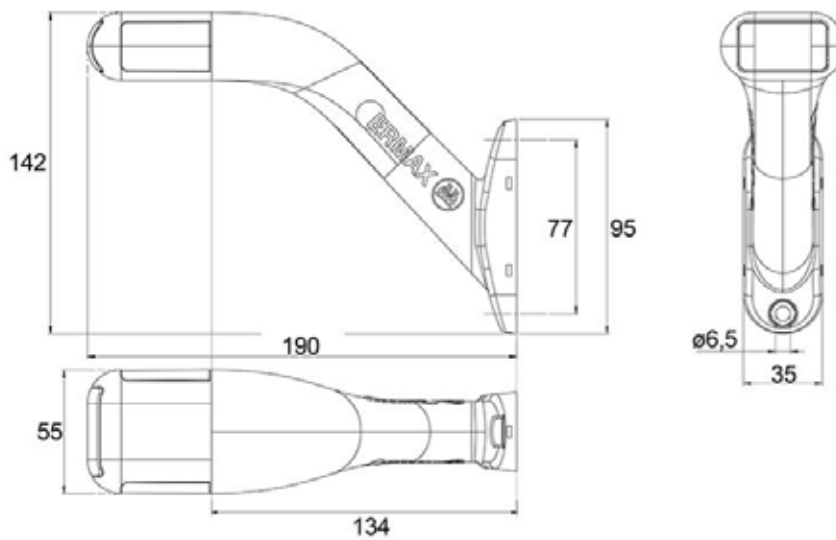


Pos. 1



Pos. 2

Possibility of having the cable at the side of the mounting foot



Description

With clear lens - lighting red, amber and white

- Lens: Impact resistant polycarbonate
- Housing: Rubber
- Bolt distance: 77 mm / ø6,5

LED Outer end marker (45°) 12 / 24 V

Operating voltage	IP Rating	Right → Left ←	Connection	Cable length	Light color	Pos.	Article No.
12 / 24 V	IP69K	←	Click-in 0,75 mm ²	1.500 mm	Red / White / Amber	1	098 241 440
12 / 24 V	IP69K	→	Click-in 0,75 mm ²	1.500 mm	Red / White / Amber	1	098 241 441
12 / 24 V	IP69K	←	Click-in 1,5 mm ²	1.500 mm	Red / White / Amber	1	098 241 422
12 / 24 V	IP69K	→	Click-in 1,5 mm ²	1.500 mm	Red / White / Amber	1	098 241 423
12 / 24 V	IP69K	←	Super Seal socket	1.500 mm	Red / White / Amber	1	098 241 425
12 / 24 V	IP69K	→	Super Seal socket	1.500 mm	Red / White / Amber	1	098 241 426
12 / 24 V	IP69K	←	Open End	1.500 mm	Red / White / Amber	1	098 241 427
12 / 24 V	IP69K	→	Open End	1.500 mm	Red / White / Amber	1	098 241 428
12 / 24 V	IP69K	←	Open End	5.000 mm	Red / White / Amber	1	098 241 429
12 / 24 V	IP69K	→	Open End	5.000 mm	Red / White / Amber	1	098 241 430
12 / 24 V	IP69K	→	Super Seal plug	300 mm	Red / White / Amber	1	098 241 448
12 / 24 V	IP69K	←	Super Seal plug	300 mm	Red / White / Amber	1	098 241 449



Pos. 2



Suitable for mounting on flat surfaces, with the possibility of having the cable at the side of the mounting foot. Also there is the possibility to connect the outer end marker to the tail lights or the rear cable with Super Seal connection

→	12 / 24 V		Super Seal plug	300 mm	Red / White / Amber	2	098 241 438
←	12 / 24 V		Super Seal plug	300 mm	Red / White / Amber	2	098 241 439

LED Outer end marker (Short version) 12 / 24 V

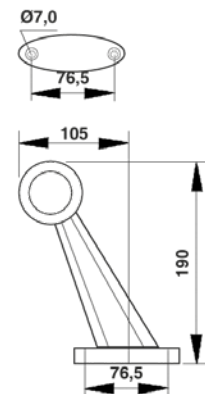
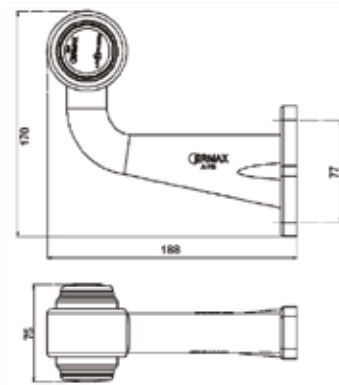
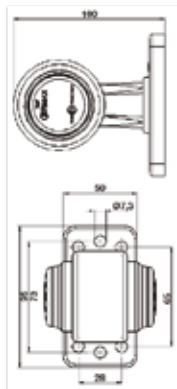


Description

Lens: Impact resistant polycarbonate - with clear lens
 Housing: Rubber
 Bolt distance: 77 mm / ø7

Operating voltage	IP Rating	Left ← Right →	Connection	Cable length	Light color	Article No.
12 / 24 V	IP69K	← →	Super Seal socket	500 mm	Red / White / Amber	098 241 205
12 / 24 V	IP69K	← →	Super Seal socket	1.500 mm	Red / White / Amber	098 241 215
12 / 24 V	IP69K	← →	Click-in 1,5 mm ²	1.500 mm	Red / White / Amber	098 241 211
12 / 24 V	IP69K	← →	Open End	1.500 mm	Red / White / Amber	098 241 216
12 / 24 V	IP69K	← →	Open End	5.000 mm	Red / White / Amber	098 241 217
12 / 24 V	IP69K	← →	Super Seal plug	300 mm	Red / White / Amber	098 241 218

LED Outer end marker light 12 / 24V - Classic 1



Description

Lens: PMMA
 Housing: Rubber
 Bolt distance: 77 mm / Ø 7

1 impact resistant LED units per light



Left ← Right →	Operating voltage	IP Rating	Connection	Cable length	Light source	Light color	Pos.	Article no.
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← →	12/24V	IP67	Super Seal socket	500 mm	1 LED	red / white	1	098 241 005
← →	12/24V	IP67	Open end	1.500 mm	1 LED	red / white	1	098 241 000
← →	12/24V	IP67	Open end	1.500 mm	1 LED	red / white	2	098 241 050
← →	12/24V	IP67	Super Seal socket	500 mm	1 LED	red / white	2	098 241 055
← →	12/24V	IP67	Super Seal plug	300 mm	1 LED	red / white	2	098 241 056
← →	12/24V	IP67	Open end	1.500 mm	1 LED	red / white	3	098 241 090

Spare parts

LED - red unit with 1.250 mm connection cable	4	098 291 001
LED - clear unit with 1.250 mm connection cable	5	098 291 000

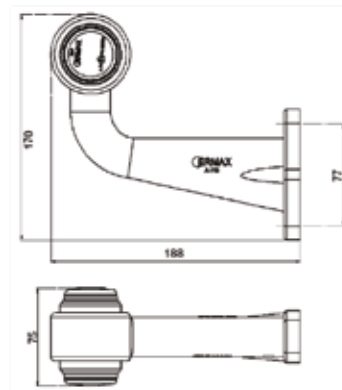
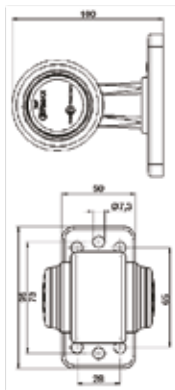
LED Outer end marker light 12 / 24V - Classic 2



Pos. 1



Pos. 2



Description

Lens: PMMA
 Housing: Rubber
 Bolt distance Pos 1: 77 mm
 Bolt distance Pos 2: 77 mm
 Bolt distance Pos 3: 77 mm

2 impact resistance LED units per light



Pos. 3



Pos. 4



Pos. 5



Left ← Right →	Operating voltage	IP Rating	Connection	Cable length	Light color	Pos.	Article no.
-------------------------	-------------------	-----------	------------	--------------	-------------	------	-------------

← →	12/24V	IP67	Open end	1500 mm	red / white	1	098 241 600
← →	12/24V	IP67	Open end	1500 mm	red / white	2	098 241 650

Spare parts

Rubber grommet for 098 241 014	3	098 291 119
LED unit, red	4	098 291 031
LED unit, white	5	098 291 030

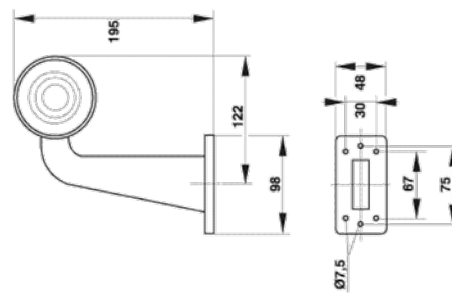
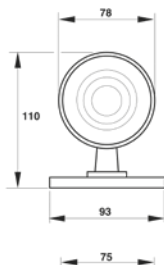
LED Outer end marker light 12 / 24V - Classic XL



Pos 1



Pos 2



Description

Lens: PMMA

Housing: Rubber

2 variants - short straight variant (possible to turn 360°) - angled variant 45°

2 impact resistant LED units in each outer end marker light - 6 LEDs per LED unit



Pos. 5



Pos. 6



Pos. 7



Left ← Right →	light source	Operating voltage	IP Rating	Connection	Cable length	Light color	Pos	Article no.
-------------------------	--------------	-------------------	-----------	------------	--------------	-------------	-----	-------------

← →	LED	12/24V	IP67	Open end	500 mm	red / white	1	098 241 800
← →	LED	12/24V	IP67	Open end	2500 mm	red / white	1	098 241 802
← →	LED	12/24V	IP67	Super Seal socket	500 mm	red / white	1	098 241 805
← →	LED	12/24V	IP67	Open end	500 mm	red / white	2	098 241 850
← →	LED	12/24V	IP67	Open end	2500 mm	red / white	2	098 241 852
← →	LED	12/24V	IP67	Super Seal socket	500 mm	red / white	2	098 241 855

Spare parts

LED unit, red	5	098 291 041
LED unit, white	6	098 291 040
Rubber grommet for 098 221 076	7	098 291 119

MARKER LIGHTS

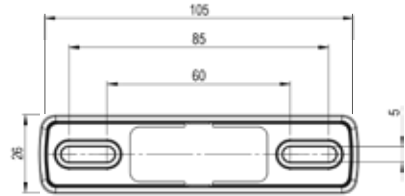
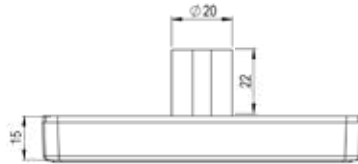
Position & side marker lights



LED Marker lights - position & side marker lights 12 / 24 V



Standard frame - with Super Seal socket



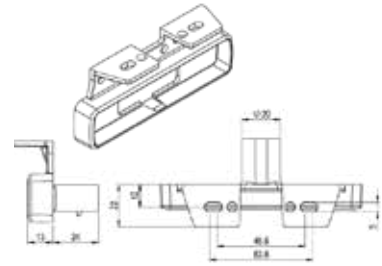
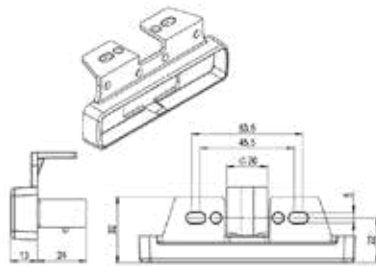
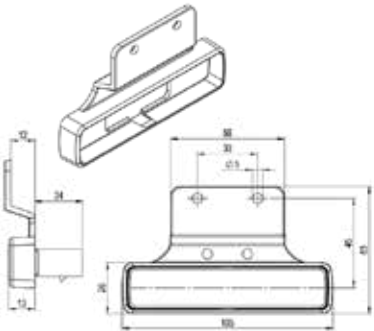
Surface mounting straight



Backwards 90°



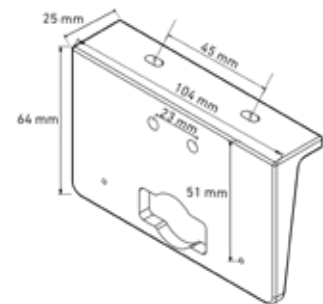
Forwards 90°



- Mounting without visible screws
- 2 LED
- 4 Mounting variants
- 3 cable variants
- IP69K Rating



Universal rubber bracket



Description

LED Side marker- and position lights 12 / 24 V
 2 LEDs with Reflex reflector
 IP69K Rating

Lens:	PMMA
Housing:	ABS
Frame:	PP
Dimension:	105 x 26 x 13 mm with Standard frame
Variable bolt distance:	60-85 mm

LED Marker lights - position & side marker lights 12 / 24 V

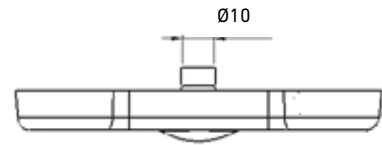
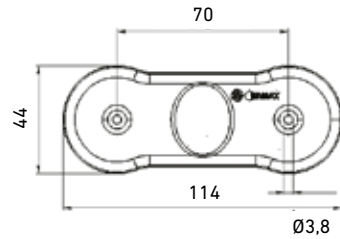
Mounting bracket	Connection	Cable length	Operating voltage	Side marker Amber	Positions lights White	Positions lights Red
Standard frame	Super Seal socket	---	12 / 24 V	098 221 726	098 230 726	098 204 726
Straight	Super Seal socket	----	12 / 24 V	098 221 742		
90° bracket backwards	Super Seal socket	----	12 / 24 V	098 221 748		
90° bracket forwards	Super Seal socket	----	12 / 24 V	098 221 756		
Standard frame	Super Seal socket	500 mm	12 / 24 V	098 221 727		
90° bracket backwards	Super Seal socket	1.500 mm	12 / 24 V	098 221 745		
Standard frame	Super Seal plug	5.000 mm	12 / 24 V		098 230736	
Standard frame	Click-in 1,5 mm ²	500 mm	12 / 24 V	098 221 720	098 230 720	098 204 720
Standard frame	Click-in 1,5 mm ²	1.500 mm	12 / 24 V	098 221 722	098 230 722	098 204 722
Standard frame	Click-in 1,5 mm ²	5.000 mm	12 / 24 V	098 221 724	098 230 724	098 204 724
Straight Mounting bracket	Click-in 1,5 mm ²	1.500 mm	12 / 24 V	098 221 740		
90° bracket backwards	Click-in 1,5 mm ²	500 mm	12 / 24 V	098 221 744		
90° bracket backwards	Click-in 1,5 mm ²	1.500 mm	12 / 24 V	098 221 746		
90° bracket forwards	Click-in 1,5 mm ²	500 mm	12 / 24 V	098 221 752		
90° bracket forwards	Click-in 1,5 mm ²	1.500 mm	12 / 24 V	098 221 754		
Standard frame	Open End	500 mm	12 / 24 V	098 221 730		
Standard frame	Open End	2.500 mm	12 / 24 V	098 221 732	098 230 732	098 204 732
Standard frame	Open End	5.000 mm	12 / 24 V	098 221 734	098 230 734	098 204 734
Standard frame	Open End	10.000 mm	12 / 24 V		098 230 737	

Spare parts

Standard frame	098 292 700
Mounting bracket, straight, bolt distance 30 mm	098 292 701
Mounting bracket - 90° bracket backwards, bolt distance 30-55 mm	098 292 702
Mounting bracket - 90° bracket forwards, bolt distance 30-55 mm	098 292 703
Universal rubber holder - 90° bracket backwards, bolt distance 45-55 mm	098 292 629

*) This article no. is not in stock - is only produced at customer specification in larger quantities

LED Marker lights - position & side marker lights - 12 / 24 V



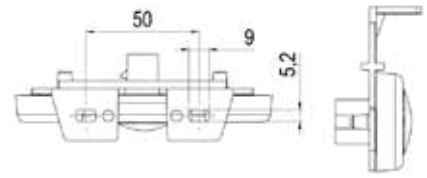
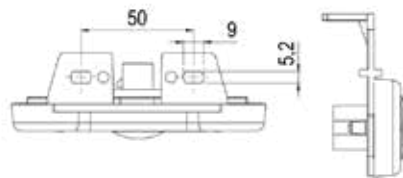
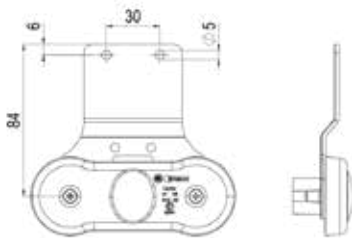
Straight



Backwards 90°



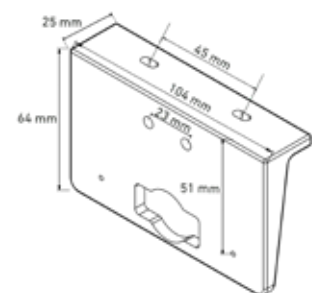
Forward 90°



- Standardized mounting
- 2 LED
- 4 Mounting variants
- 4 cable variants
- IP69K Rating



Universal rubber bracket



Description

LED position and side marker light
 Mounting screw with Ø 4 mm must be used
 2 LEDs and with reflex reflector
 IP69K rating

Lens:	PMMA
Housing:	ABS
frame:	PP
Dimension:	114 x 44 x 16 mm (Standard frame)
Bolt distance:	70 mm

LED Marker lights - position & side marker lights - 12 / 24 V

Mounting bracket	Connection	Cable length	Operating voltage	Side marker Amber	Position light White	Position light Red
Without mounting bracket	Super Seal socket	- - -	12 / 24 V	098 221 620	098 230 401	098 204 501
Straight mounting bracket	Super Seal socket	- - -	12 / 24 V	098 221 630		
90° bracket backwards	Super Seal socket	- - -	12 / 24 V	098 221 640	098 230 430	
90° bracket forwards	Super Seal socket	- - -	12 / 24 V	098 221 650		
Without mounting bracket	Super Seal socket	500 mm	12 / 24 V	098 221 635		
Without mounting bracket	Super Seal socket	1.500 mm	12 / 24 V	098 221 628	098 230 428	
90° bracket backwards	Super Seal socket	1.500 mm	12 / 24 V	098 221 662		
90° bracket forwards	Super Seal socket	1.500 mm	12 / 24 V	098 221 664		
Without mounting bracket	Super Seal plug	2.500 mm	12/24V		098 230 418	
Without mounting bracket	Super Seal plug	5.000 mm	12 / 24 V	098 221 627		
Without mounting bracket	Super Seal plug	10.000 mm	12 / 24 V	098 221 629	098 230 431	
Without mounting bracket	Click-in 1,5 mm ²	500 mm	12 / 24 V	098 221 621	098 230 405	098 204 502
Without mounting bracket	Click-in 1,5 mm ²	1.500 mm	12 / 24 V	098 221 622	098 230 415	098 204 503
Without mounting bracket	Click-in 1,5 mm ²	5.000 mm	12 / 24 V	098 221 623	098 230 450	098 204 504
Straight mounting	Click-in 1,5 mm ²	500 mm	12 / 24 V	098 221 631		
90° bracket backwards	Click-in 1,5 mm ²	500 mm	12 / 24 V	098 221 641		
90° bracket backwards	Click-in 1,5 mm ²	1.500 mm	12 / 24 V	098 221 642		
90° bracket forwards	Click-in 1,5 mm ²	500 mm	12 / 24 V	098 221 651		
90° bracket forwards	Click-in 1,5 mm ²	1.500 mm	12 / 24 V	098 221 652		
Without mounting bracket	Click-in 0,75 mm ²	500 mm	12 / 24 V	098 221 633	098 230 406	
Without mounting bracket	Click-in 0,75 mm ²	1.500 mm	12 / 24 V	098 221 634	098 230 634	
Without mounting bracket	Click-in 0,75 mm ²	2.500 mm	12 / 24 V			098 204 508*
Without mounting bracket	Open End	500 mm	12 / 24 V	098 221 624	098 230 420	098 204 505
Without mounting bracket	Open End	1.500 mm	12 / 24 V	098 221 625	098 230 425	
Without mounting bracket	Open End	2.500 mm	12 / 24 V			098 204 506
Without mounting bracket	Open End	5.000 mm	12 / 24 V	098 221 626	098 230 427	098 204 507

*) This article no. is not in stock - is only produced for large customer-specific quantities

Spare parts LED marker lights - position & side marker lights - 12 / 24 V



Pos. 1 - Straight



Pos. 2 - Backwards 90°



Pos. 3 - Forward 90°



Pos. 4



Pos. 5



Pos. 6



Pos. 7



Pos. 8



Example with Pos. 7 + 8

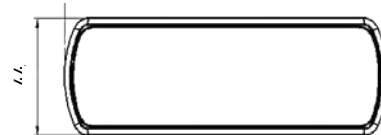
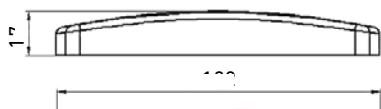
Mounting bracket, straight, bolt distance 30 mm	1	098 292 622
Mounting bracket - 90° bracket backwards,, bolt distance 30-55 mm	2	098 292 620
Mounting bracket - 90° bracket forwards, bolt distance 30-55 mm	3	098 292 621
Gasket - 10 pcs packing unit, black rubber	4	098 292 626
Rivet - 20 pcs packing unit, black plastic, Ø4 mm	5	098 291 602
Rivet - 100 pcs packing unit, black plastic, Ø4 mm	5	098 291 610
Mounting bracket, rubber, for mudwingholders. Usable with Ermax sider marker light	6	098 292 627
Universal rubber bracket - 90° bracket backwards, bolt distance 45-55 mm	7	098 292 629
Mounting bracket, rubber, for mudwingholders. Usable with Ermax position light	8	098 292 628

LED Marker lights - position & side marker lights 12 / 24 V

Ⓔ



Flat mounting - without mounting bracket



Backwards 90°



Pos. 1

Description

LED position and side marker light - Dual polarity
4 LEDs and with reflex reflector

Lens: PMMA
Housing: PP
Dimension: 122 x 44 x 17 mm, without mounting bracket
Variabler bolt distance: 65 - 90 mm

Mounting bracket	Connection	Cable length	Operating voltage	IP Rating	Position White	Side marker Amber	Position Red
Flat mounting	Open End	500 mm	12 / 24 V	IP67	098 230 601	098 221 601	098 203 601
Flat mounting	Open End	5.000 mm	12 / 24 V	IP67	098 230 605	098 221 605	098 203 605
Flat mounting	Open End	10.000 mm	12 / 24 V	IP67		098 221 610	
90° bracket backwards	Open End	500 mm	12 / 24 V	IP67		098 221 611	

Spare parts

Protective body, steel plate, untreated	Suitable for flat mounting lights	Pos. 1	098 291 912
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WORK- AND REVERSE LIGHTS

Lumen specification

The working lamps in the following section are specified with a theoretical and an effective lumen.

The theoretical lumen is the calculated lumen of the light source.

The effective lumen is the light measured outside the lens.



Standard product programme with large flexibility

Compact design, universally applicable and various connection possibilities

ERMAX reversing lights and work lights are available in 3 design types with different light performances / lumen.



LED Reverse light

Lumen:
Theoretical 650 / Effective 300



LED Work light

Lumen:
Theoretical 800 / Effective 600



LED Work light

Lumen:
Theoretical 1600 / Effective 1200

Approved as reversing light (ECE -R23) with 30° angling by vertical mounting



LED Work light

Lumen:
Theoretical 2400 / Effective 1800

Approved as reversing light (ECE -R23) with 35° angling by vertical mounting.



This type is also available with handle and on/off switch.



LED Reverse light

Lumen:
Theoretical 3.200 / Effective 2.400

Universally applicable

Mounting options

ERMAX working lights have a compact design with measures meaning that they can be mounted in a very narrow place. The compact design and symmetric light distribution give a large degree of flexibility when mounting. The work lights can be standing, hanging, rear or side mounted.

Mounting options ERMAX work lights



Standing



Hanging



Side



Rear



Easy maintenance

Various connection variations

ERMAX work lights are available with various connection variations – connection cable with Open end, Super Seal socket or “Deutsch” socket. For connector variants, Ermax always offers a standard cable length of 300 millimeters to the first plug connection. The cable length can be adjusted according to need by means of standard extension cable or adapter cable. This ensures optimum ease of maintenance.

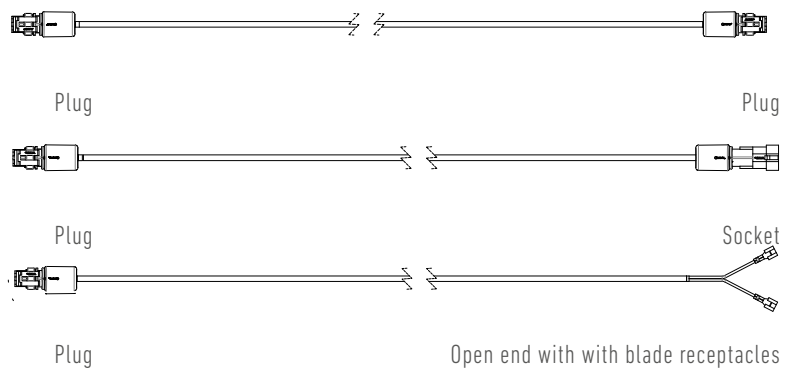
The large variety of cable solutions ensures the best installation without having to adjust the cable length (see page 23-27).

Connection / Extension possibilities ERMAX work lights

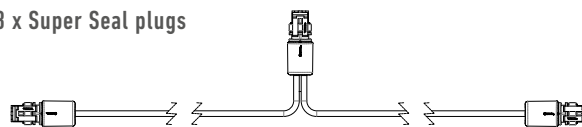


Super Seal socket

Extension cable with Super Seal connection

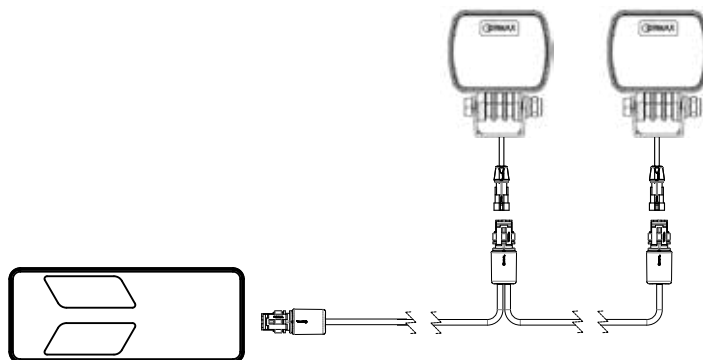


Y-Adapter with 3 x Super Seal plugs



Reverse light connected as a chain

-connected by a side cable with 1 inlet and 2 outlets with Super Seal plugs



2 pieces of Ermax reverse lights or work lights are allowed to be connected to an Ermax tail light (Max 52W)

Technical features ERMAX reverse lights and work lights

Technical specifications - Common to all variants

- Impact-resistant lens made of polycarbonate
- Housing made of aluminium, black lacquer (anti corrosion layers)
- Mounting bracket made of stainless steel, AISI 304 quality
- Mounting bolts M8 / 30 mm
- Multivolt 12/24V
- Working temperature -40 °C bis +65 °C
- Flood light pattern
- Colour temperature 6.500 °Kelvin
- Protection class IP69K
- Overheating and reverse polarity protection
- ADR and EMC/R10 approved
- ECE-R23 approved

Advantages of the newest LED light technology

- which are optimally utilised in the Ermax reverse lights and work lights

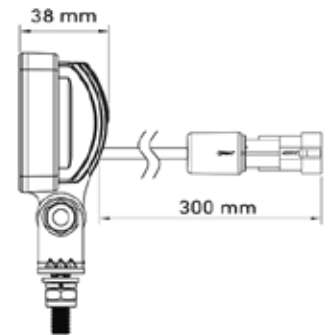
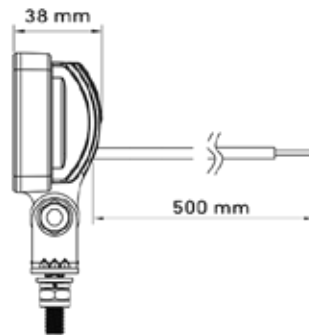
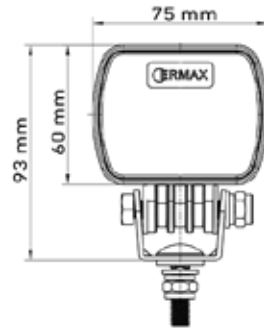
The advantages of the newest LED technology, which are optimally utilised in the ERMAX reverse lights and work lights - result in a product with a very high quality and extremely long life - and thus cost-effectiveness, which is a real highlight.

- High light output
- Extremely long lifetime
- 100% water & dustproof
- Low power consumption
- Maintenance free
- High shock and vibration resistance
- Effective heat conduction
- Increased profitability

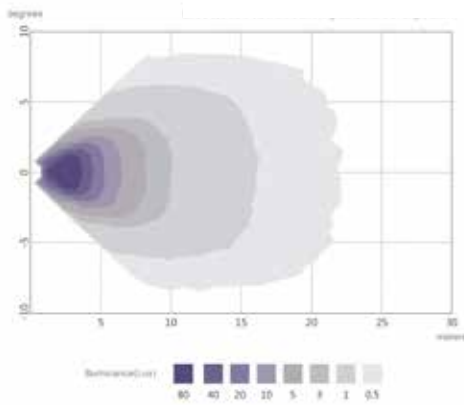


LED Reverse Light - Housing made of Aluminium

Lumen 650



Illumination



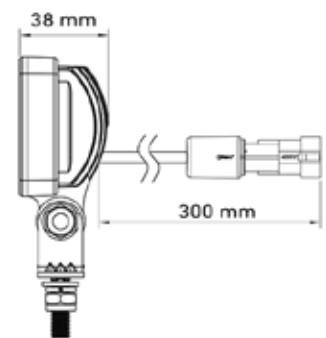
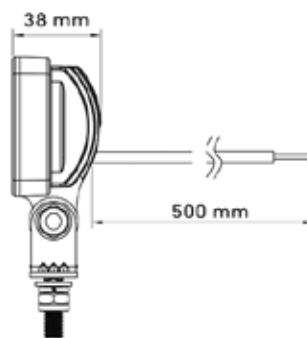
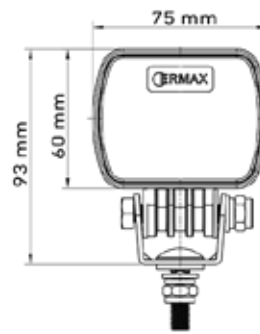
Bird's eye view 1,2 meter above the ground with an incline angle of 5°



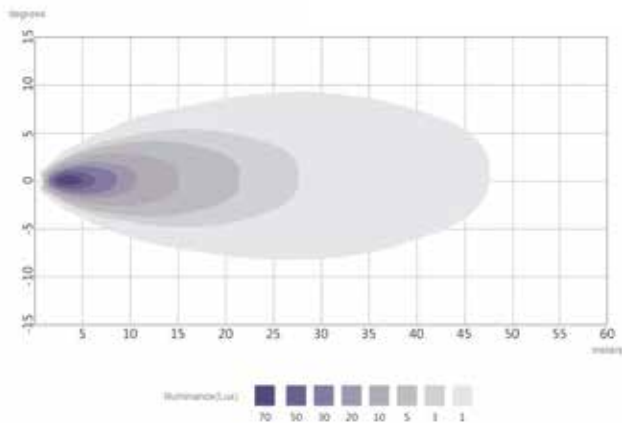
Operating voltage	Energy consumption	Connection	Cable length	Light source	Lumen Theoretical / effective	Light pattern	Article No.
12/24V	6,5 W	Open end	500 mm	6 x high-powered LED	650 / 300	Flood	098 256 250
12 / 24 V	6,5 W	Super Seal Plug	300 mm	6 High Power LED	650 / 300	Flood	098 256 254
12/24V	6,5 W	Super Seal Socket	300 mm	6 x high-powered LED	650 / 300	Flood	098 256 255

LED Work Lights - Housing made of Aluminium

Lumen 800



Illumination



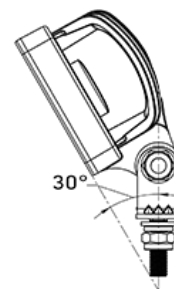
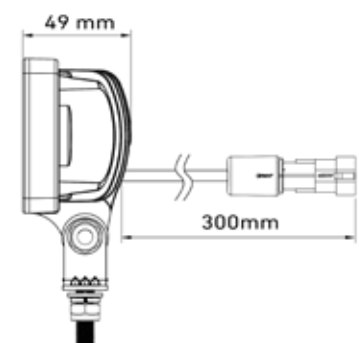
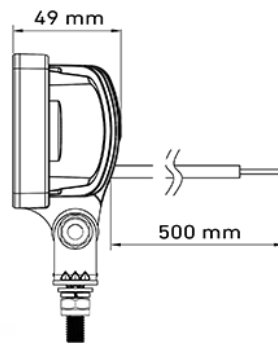
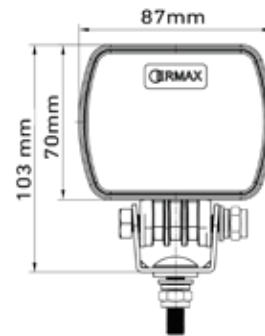
Bird's eye view 1,2 meter above the ground with an incline angle of 5°



Operating voltage	Energy consumption	Connection	Cable length	Light source	Lumen Theoretical / effective	Light pattern	Article No.
12/24V	8 W	Open end	500 mm	6 x high-powered LED	800 / 600	Flood	098 174 250
12/ 24 V	8 W	Super Seal plug	1.000 mm	6 high-powered LED	800 / 600	Flood	098 174 254
12/24V	8 W	Super Seal socket	300 mm	6 x high-powered LED	800 / 600	Flood	098 174 255

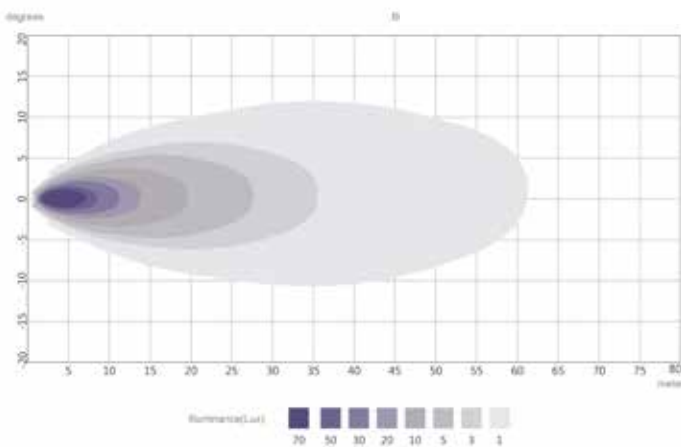
LED Work Lights - Housing made of Aluminium

Lumen 1.600



Approved as reverse light
- with 30° tilt when vertical mounted

Illumination



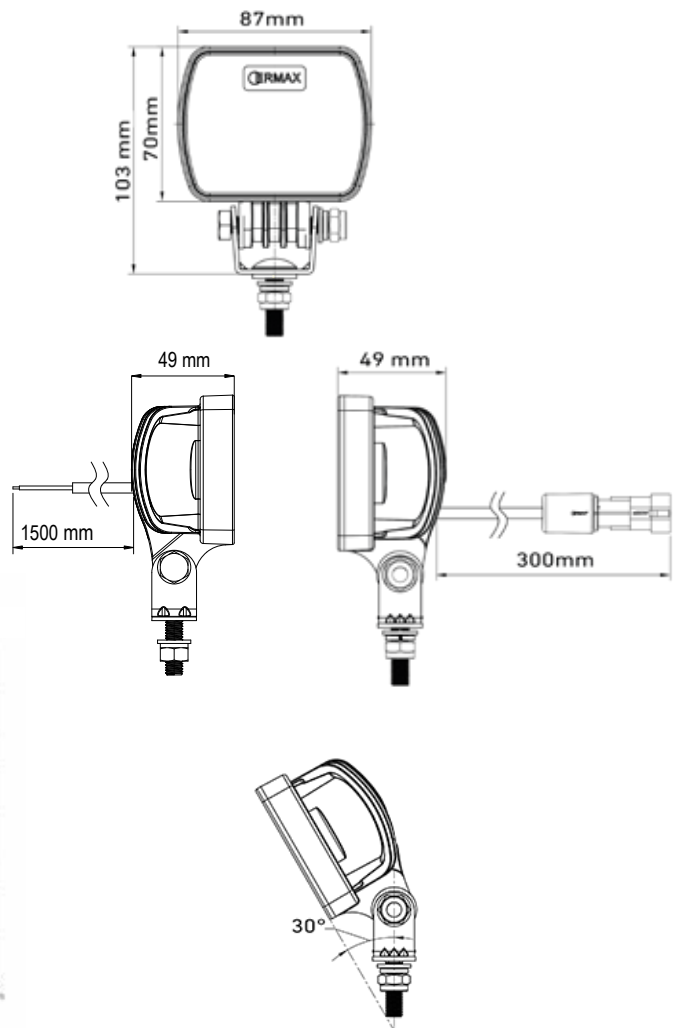
Bird's eye view 1,2 meter above the ground with an incline angle of 5°



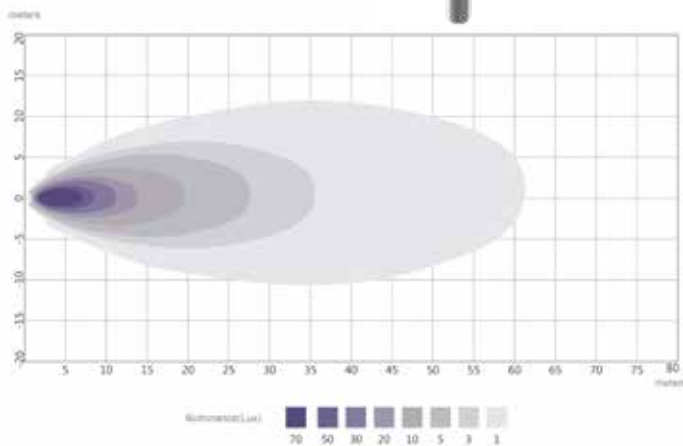
Operating voltage	Energy consumption	Connection	Cable length	Light source	Lumen Theoretical / effective	Light pattern	Article No.
12/ 24 V	16 W	Open end	500 mm	9 high-powered LED	1600 / 1200	Flood	098 174 260
12 / 24 V	16 W	Super Seal plug	1.000 mm	9 high-powered LED	1.600 / 1.200	Flood	098 174 264
12/ 24 V	16 W	Super Seal socket	300 mm	9 high-powered LED	1600 / 1200	Flood	098 174 265
12 / 24 V	16 W	Integrated Deutsch (Dt) socket	--	9 high-powered LED	1.600 / 1.200	Flood	098 174 267

LED Work Lights – Housing made of plastic

Lumen: 1.600



Illumination



Bird's eye view 1.2 metres above the ground with an incline angle of 5°

Approved as reversing light
- with 30° tilt when vertically-mounted

- Particularly suitable for use in corrosive environments
- Housing material: Thermally conductive plastic



Voltage	Consumption	Connection	Cable length	Light source	Lumen, theoretical/effective	Light pattern	Article no.
12/24 V	16 W	Open end	1,500 mm	9 x high power LEDs	1,600/1,200	Flood	098 174 290
12/24 V	16 W	Super Seal plug	6,000 mm	9 x high power LEDs	1,600/1,200	Flood	098 174 293
12/24 V	16 W	Super Seal socket	300 mm	9 x high power LEDs	1,600/1,200	Flood	098 174 295
12/24 V	16 W	Integrated Deutsch (DT2) socket	--	9 x high power LEDs	1,600/1,200	Flood	098 174 297

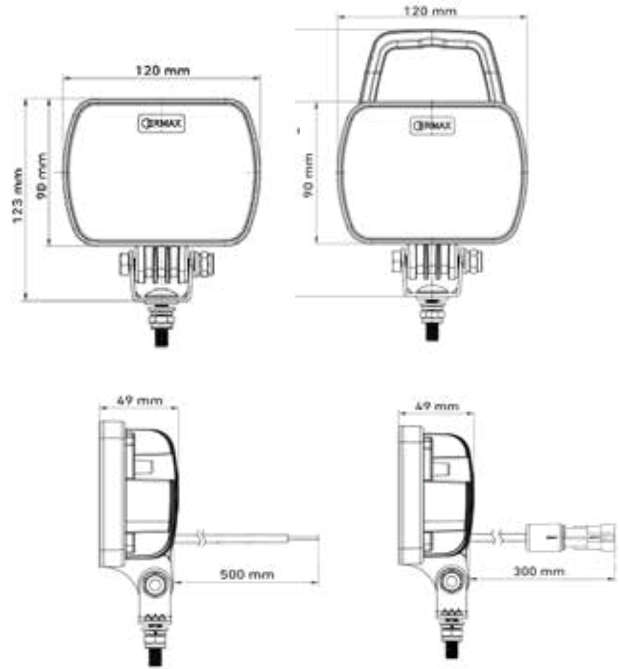
LED Work Lights - Housing made of Aluminium
Lumen 2.400



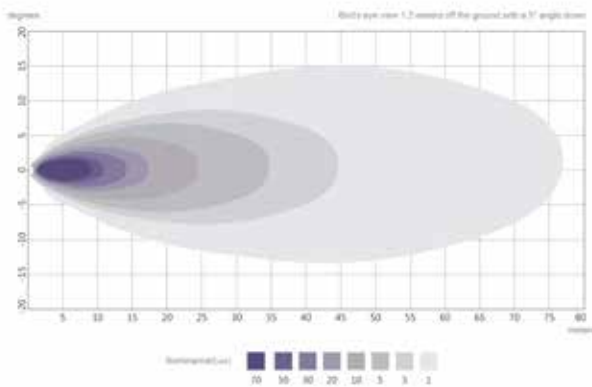
Pos. 1
Without on/off switch



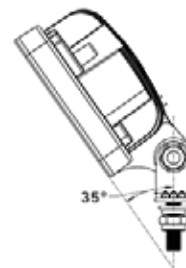
Pos. 2
With bracket and on/off switch



Illumination



Bird's eye view 1,2 meter above the ground with an incline angle of 5°



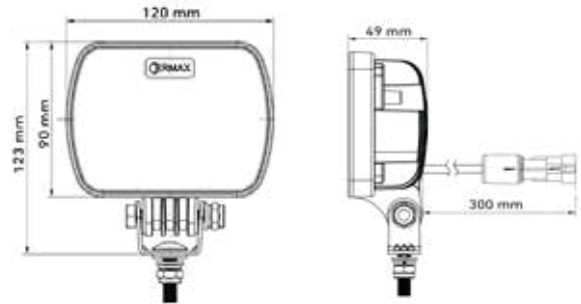
Approved as reverse light
- with 35° tilt when vertical mounted



Operating voltage	Energy consumption	Connection	Cable length	Light source	Lumen Theoretical / effective	Light pattern	Pos.	Article No.
12/24V	25 W	Open end	500 mm	12 high-powered LED	2.400 / 1.800	Flood	1	098 174 270
12 / 24 V	25 W	Super Seal plug	1.000 mm	12 high-powered LED	2.400 / 1.800	Flood	1	098 174 274
12/24V	25 W	Super Seal socket	300 mm	12 high-powered LED	2.400 / 1.800	Flood	1	098 174 275
12 / 24 V	25 W	Integrated Deutsch (DT) socket	---	12 high-powered LED	2.400 / 1.800	Flood	1	098 174 277
12/24V	25 W	Super Seal socket - with handle & switch	300 mm	12 high-powered LED	2.400 / 1.800	Flood	2	098 174 279

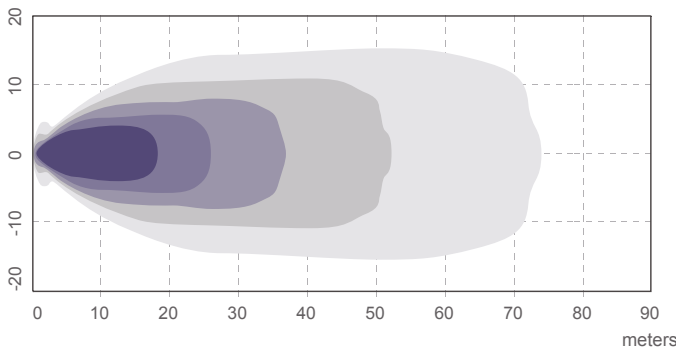
LED Work Lights - Housing made of Aluminium

Lumen 3.200



Illumination

meters Bird's eye view 1.2 meters off the ground , with a 5° angle down



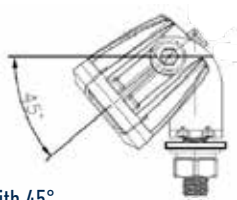
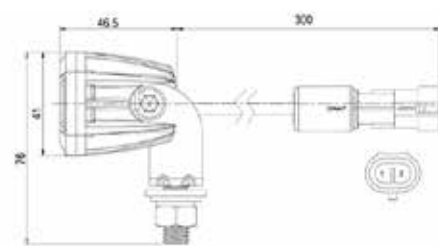
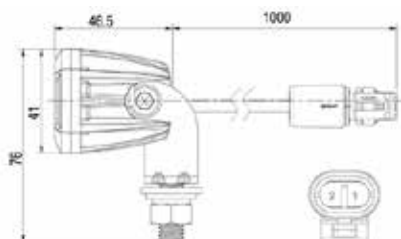
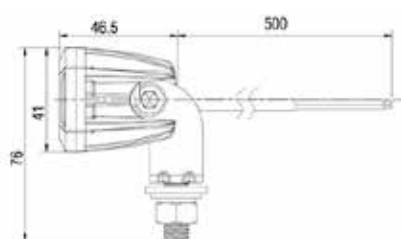
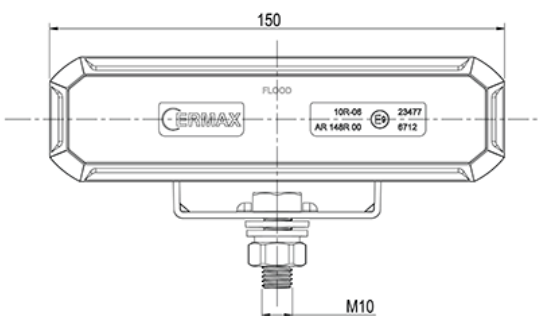
Bird's eye view 1,2 meter above the ground with an incline angle of 5°



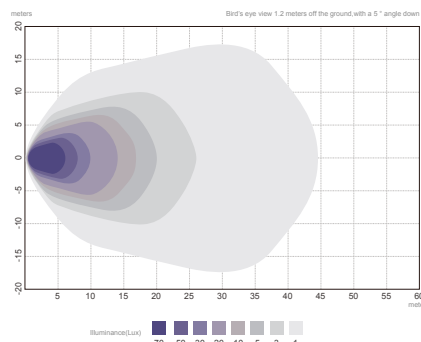
Operating voltage	Energy consumption	Connection	Cable length	Light source	Lumen Theoretical / effective	Light pattern	Pos.	Article No.
12 / 24 V	25 W	Super Seal socket	300 mm	12 High Power LED	3.200 / 2.400	Flood	1	098 174 285
12 / 24 V	25 W	Intergrated Deutsch (DT) socket	---	12 High Power LED	3.200 / 2.400	Flood	1	098 174 287

LED work light 12/24V - 6 diodes

Theoretical Lumen: 2.700



Light pattern



Approved as reverse light with 45° tilt angle mounted vertically

Description

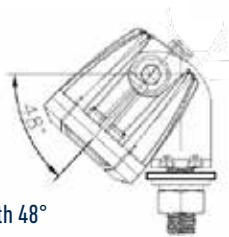
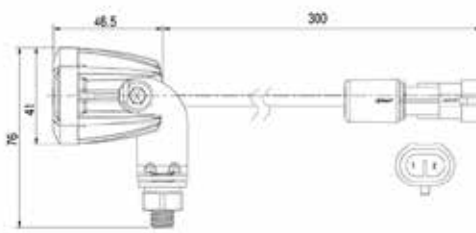
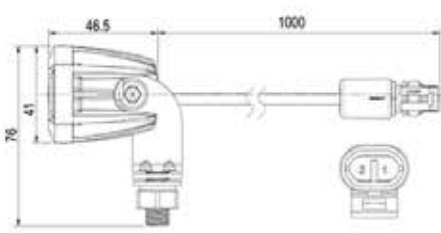
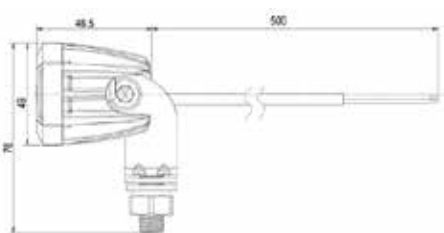
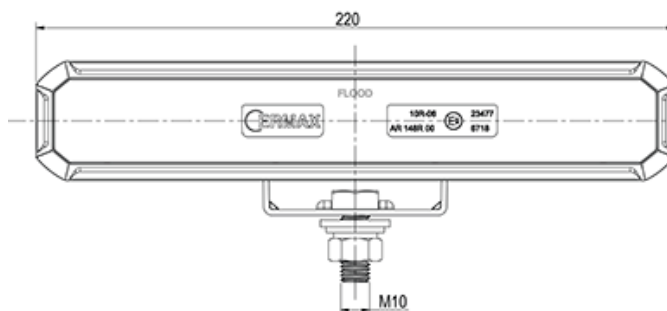
Lens:	Impact-resistant polycarbonate	Working temperature:	-40°C to + 65°C
Housing:	Aluminium	IP Rating:	IP6K9K
Colour temperature:	6500K	Mounting bracket in stainless steel with polycarbonate washer	
Dimensions, W x H x D:	150 x 41 x 46 mm	Wire colours:	
Light height, total:	54 mm	Brown = minus	
Bolt size:	22 mm/M10	Blue = +	
Width bracket:	63 mm		



Voltage	Con- sumption	Connection	Cable length	Light source	Lumen, theoretical/effective	Light pattern	Item no.
12/24 V	30 W	Open end	500 mm	6 High Power LEDs	2.700 / 2.000	Flood	098 174 360
12/24 V	30 W	Super-Seal plug	1,000 mm	6 High Power LEDs	2.700 / 2.000	Flood	098 174 364
12/24 V	30 W	Super-Seal socket	300 mm	6 High Power LEDs	2.700 / 2.000	Flood	098 174 365
12/24 V	30 W	Integrated Deutsch (DT2) socket	--	6 High Power LEDs	2.700 / 2.000	Flood	098 174 367

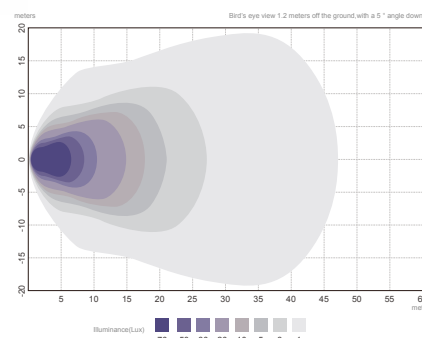
LED work light 12/24V - 8 diodes

Theoretical Lumen: 3.600



Approved as reverse light with 48° tilt angle mounted vertically

Light pattern



Description

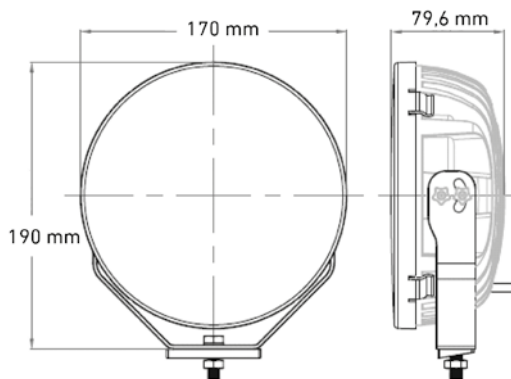
Lens:	Impact-resistant polycarbonate	Working temperature:	-40°C to + 65°C
Housing:	Aluminium	IP Rating:	IP6K9K
Colour temperature:	6500K	Mounting bracket in stainless steel with polycarbonate washer	
Dimensions, W x H x D:	220 x 41 x 46 mm	Wire colours:	
Light height, total:	54 mm	Brown = minus	
Bolt size:	22 mm/M10	Blue = +	
Width bracket:	63 mm		



Voltage	Con- sumption	Connection	Cable length	Light source	Lumen, theoretical/effective	Light pattern	Item no.
12/24 V	40 W	Open end	500 mm	8 High Power LEDs	3.600 / 2.700	Flood	098 174 380
12/24 V	40 W	Super-Seal plug	1,000 mm	8 High Power LEDs	3.600 / 2.700	Flood	098 174 384
12/24 V	40 W	Super-Seal socket	300 mm	8 High Power LEDs	3.600 / 2.700	Flood	098 174 385
12/24 V	40 W	Integrated Deutsch (DT2) socket	--	8 High Power LEDs	3.600 / 2.700	Flood	098 174 387

LED Work lights

Lumen 5.600

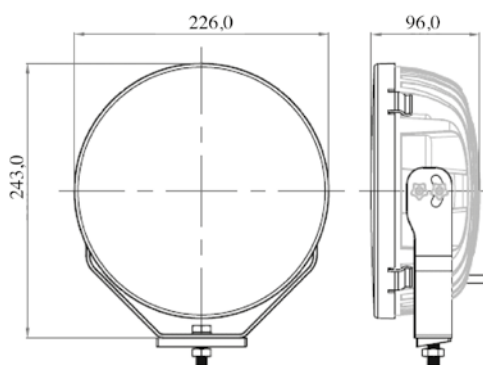


Lens: Polycarbonate
 Housing: Black aluminum
 Dimension: Ø170 x 80 mm
 Mounting bolts: 8 mm / 30 mm
 Working temperature: -30°C to +65°C

Operating voltage	Energy consumption	IP Rating	Connection	Cable length	Light source	Lumen Theoretical / Effective	Light pattern	Article No.
12 / 24 V	7-10 W	IP67	DT socket	250 mm	7 x LED	5.600 / 4.500	Flood	098 174 230

LED Work lights

Lumen 9.600



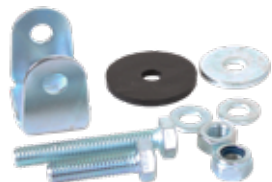
Lens: Polycarbonate
 Housing: Black aluminum
 Dimension: Ø226 x 96 mm
 Mounting bolts: 8 mm / 30 mm
 Working temperature: -30°C to +65°C

Operating voltage	Energy consumption	IP Rating	Connection	Cable length	Light source	Lumen Theoretical / Effective	Light pattern	Article No.
12 / 24 V	10-30 W	IP67	Deutsch socket	250 mm	12 x LED	9.600 / 7.400	Flood	098 174 235

Plug connections – spare parts and accessories

The ERMAX plug connector accessory programme offers solutions for almost any application.

Matching mount brackets can also be found in our programme.



Pos. 1



Pos. 2



Pos. 3



Pos. 4



Pos. 5



Pos. 6



Pos. 7



Pos. 8



Pos. 9



Pos. 10

Spare parts and accessories		Article No.
Mounting bracket for 37 mm light fixation - Kit set with	1	098 296 174
Mounting bracket aluminium, 31,5 x 30,5 x 17 mm. Ø61-65 mm	2	098 295 750
Mounting bracket aluminium, 32,5 x 31,5 x 18 mm. Ø66-71 mm	2	098 295 752
Super Seal plug 2 poled, Diameter yellow seal Ø 1,8 - 2,4 mm, Blade receptacle 0,5 - 1,0 mm ²	3	099 110 019
Super Seal socket 2 pole, Diameter yellow seal Ø 1,8 - 2,4 mm, Blade receptacle 0,5 - 1,0 mm ²	4	099 110 018
Rubber grommet for 2 pole Super Seal plug	5	099 110 712
T-coupling for 2 pole Super Seal plug (3 socktes)	6	099 111 415
Blanking plug for 2 pole Super Seal socket - black plastic	7	099 110 028
Blanking plug for 2 pole Super Seal plug - black plastic	8	099 110 029
Deutsch (DT) plug, with blade receptacles 0,75-2,0 mm ²	9	098 291 690
Deutsch (DT) socket, with blade terminals 0,75-2,0 mm ²	10	099 111 043

WARNING LIGHTS - BLITZ



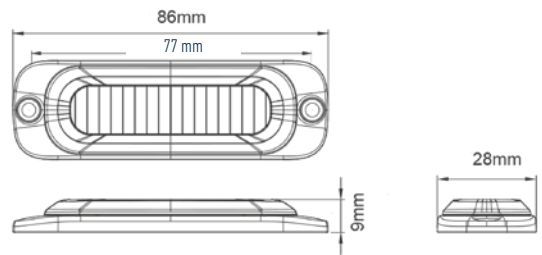
LED Warning lights - Surface mounting

ECE R65

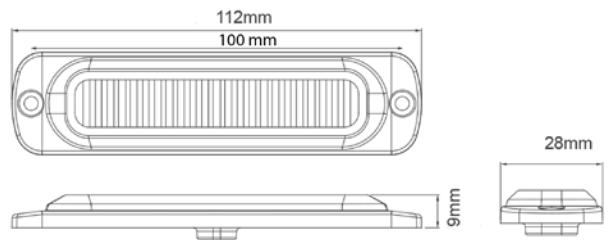
EMC R10



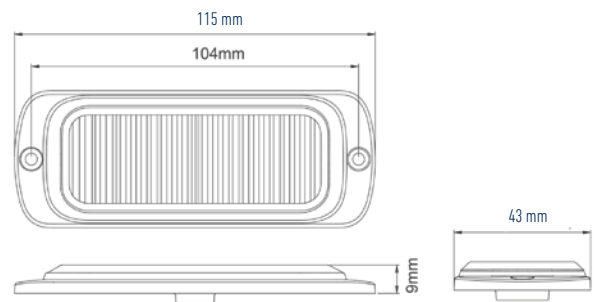
Pos. 1



Pos. 2



Pos. 3



Description

Lens: Impact resistant clear polycarbonate
 Housing: Aluminum
 Working temperature: -30°C to +80°C

Approved for horisontial mounting

Built-in- and programming instructions are available: www.ermamax.dk

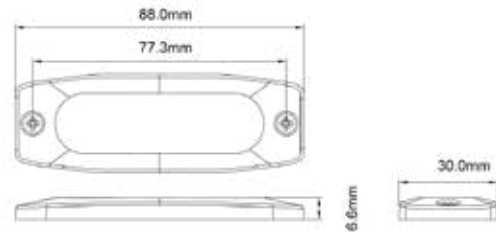
Indicator color	Operating voltage	IP Rating	Connection	Cable length	Bolt distance	Dimension	Light source	Flash pattern	Pos.	Article No.
	12/24V	IP69K	Open end	2500 mm	77 mm	86 x 9 x 28 mm	3 x LED	12	1	098 286 444
	12/24V	IP69K	Super Seal socket	250 mm	77 mm	86 x 9 x 28 mm	3 x LED	12	1	098 286 445
	12/24V	IP69K	Open end	2500 mm	100 mm	112 x 9 x 28 mm	6 x LED	19	2	098 286 446
	12/24V	IP69K	Open end	2500 mm	104 mm	115 x 9 x 43 mm	12 x LED	25	3	098 286 448
	12/24V	IP69K	Super Seal socket	250 mm	104 mm	115 x 9 x 43 mm	12 x LED	25	3	098 286 449

LED Warning lights - Surface mounting

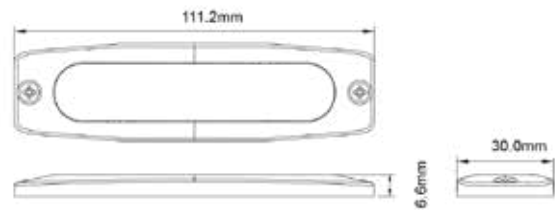
EMC R10



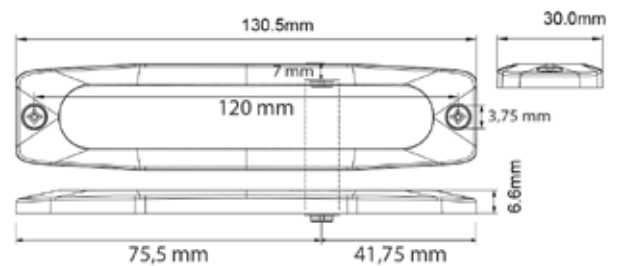
Pos 1



Pos 2



Pos 3



Description

Lens: Impact resistant clear polycarbonate
 Housing: Aluminum
 Working temperature: -30°C til +65°C
 Built-in- and programming instructions are available: www.ermamax.dk

Indicator color	Operating voltage	IP Rating	Connection	Cable length	Bolt distance	Dimension	Light source	Flash pattern	Pos.	Article No.
	12/24V	IP68	Open end	200 mm	77,3 mm	88 x 6,6 x 30 mm	3 x LED	12	1	098 286 410
	12/24V	IP68	Open end	200 mm	102 mm	111 x 6,6 x 30 mm	4 x LED	23	2	098 286 412
	12/24V	IP68	Open end	200 mm	122 mm	131 x 6,6 x 30 mm	6 x LED	23	3	098 286 414
	12/24V	IP68	Superseal socket	200 mm	122 mm	131 x 6,6 x 30 mm	6 x LED	23	3	098 286 416

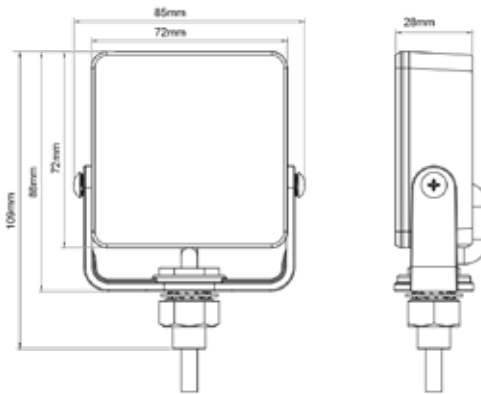
Warning lights LED 12/24V

ECE R65

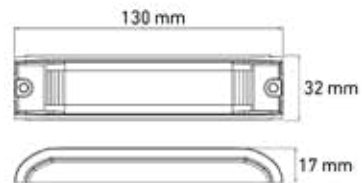
EMC R10



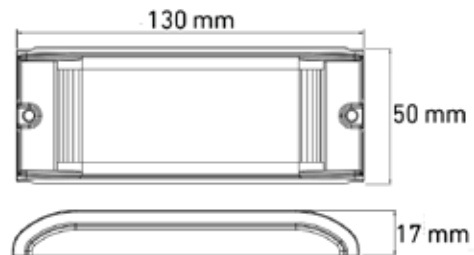
Pos. 1



Pos. 2



Pos. 3



Lens: Impact resistant Polycarbonate
 Housing: Aluminium
 Working temperature: -30°C - +80°C

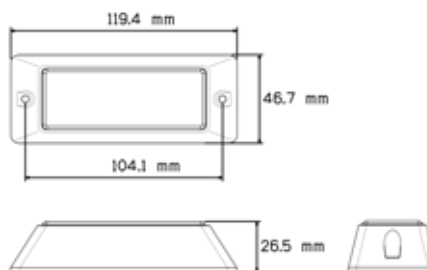
Built-in- and programming instructions are available: www.ermax.dk

Flash colour	Operation voltage	IP Rating	Connection	Cable length	Loch Mounting	Dimension	Light source	Flash-pattern	Pos.	Article No.
	12/24 V	IP69K	Open end	120 mm	U-bracket with hole Ø13mm	72 x 72 x 28 mm	4 x LED	5	1	098 286 290
	12/24 V	IP66	Open end	250 mm	Bolt distance 117 mm	129 x 17 x 31 mm	6 x LED	15	2	098 286 270
	12/24 V	IP66	Open end	250 mm	Bolt distance 117 mm	129 x 17 x 50 mm	12 x LED	15	3	098 286 288

LED Warning lights - Surface mounting

ECE R65

EMC R10



Description

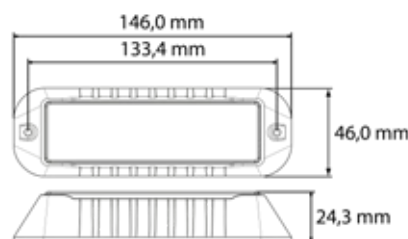
Lens: Impact resistant clear polycarbonate
 Housing: Impact resistant polycarbonate
 Working temperature: -30°C til +50°C

ECE R65 (only for flash pattern 1)

Indicator colour	Operating voltage	IP Rating	Connection	Cable length	Bolt distance	Dimension	Light source	Flash pattern	Article No.
	9-36V	IP67	Open end	180 mm	99 mm	110 x 43 x 37 mm	2 x 3 LED	6	098 286 346

EMC

LED Warning lights -Surface mounting



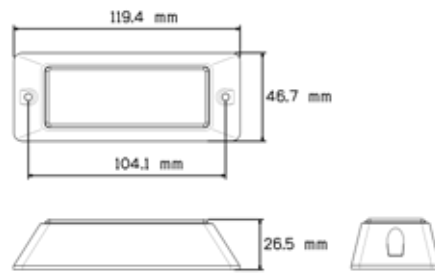
Description

Lens: Impact resistant clear polycarbonate
 Housing: Impact resistant polycarbonate
 Working temperature: -30°C til +50°C

Indicator colour	Operating voltage	IP Rating	Connection	Cable length	Bolt distance	Dimension	Light source	Flash pattern	Article No.
	12/24V	IP67	Open end	180 mm	133,4 mm	46 x 46 x 24,3 mm	4 x LED	13	098 286 716

LED Warning lights - Surface mounting

EMC R10



Description

Lens: Impact resistant clear polycarbonate
 Housing: Impact resistant polycarbonate
 Working temperature: -30°C til +50°C

Indicator color	Operating voltage	IP Rating	Connection	Cable length	Bolt distance	Dimension	Light source	Flash pattern	Article No.
	12/24V	IP67	Open end	180 mm	104,1 mm	119,4 x 46,7 x 26,5 mm	3 x LED	12	098 286 736

WARNING BEACONS



Small, compact and long durability

3 flash patterns all with R65 approval and CISPR 25 class 3 - **PREMIUM**

The new warning light from ERMAX

The warning light with LED technology convinces with a modern design and robust construction. The compact design of the series is suitable for all kinds of heavy vehicles, guaranteeing visibility and safety.

Whether single flash, double flash or rotating light, all 3 flash patterns can be set in compliance with R65 – unique in Europe!

The mounting possibilities are either surface mounting or pole mounting/DIN. The warning lights are available with orange or transparent lens.

This series is E-approved according to ECE R65 and also approved with CISPR 25 class 3 and ADR - and due to the high degree of electromagnetic compatibility the warning light can be placed anywhere.



Surface mounting



Pole mounting/DIN



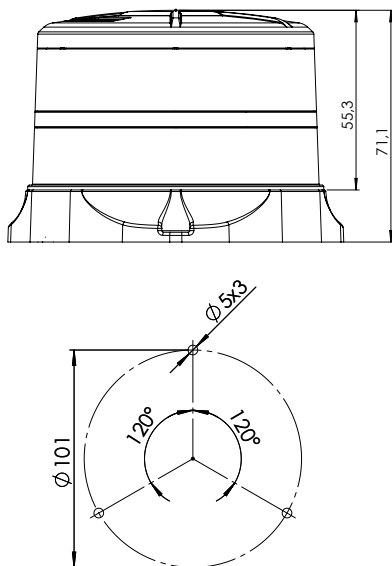
ERMAX warning lights - Why ?

- 1 Newest light and LED technology**
Small and powerful, long durability and an optimum signal picture with a small power consumption..
- 2 Unique design**
Unique reflection design with clear lens and very strong light.
- 3 Long lifetime and durability**
Impact-resistant lens of polycarbonate and housing top of aluminium.
- 4 3 Flash Patterns approved**
All 3 flash patterns with high warning effect are ECE R65 compliant - unique in Europe
- 5 Unique availability**
The compact design offers flexibility in mounting.
- 6 Absorb vibrations**
The flexible pipe socket avoids damages to the lights by impact or collision.
- 4 2 warning signals**
Choose between flashing warning signal or rotating warning signal.
- 6 First-class approved quality**
All products go through our strict quality criteria and testing methods to ensure the high product quality.

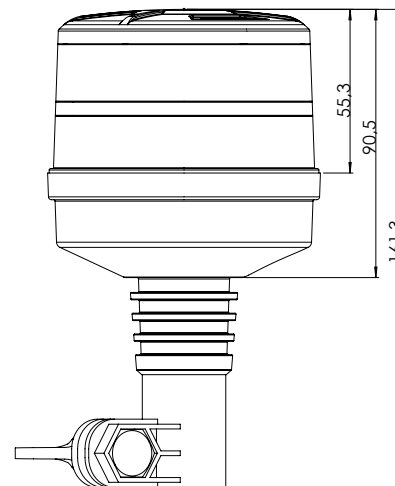
LED Warning lights 12/24V

Technical details - Premium variants with 3 flash patterns, R65 approval and CISPR 25 class 3

Surface mounting



Pole mounting/DIN



Description - Surface mounting

Lens:	Impact resistant polycarbonate
Housing:	Impact resistant polycarbonate
Housing top:	Aluminium
Sealing:	EVA
Light colour:	Amber
Measures Ø x H:	Ø115 x 71 mm
Hole pattern:	Ø101 mm / 3 x 87 mm / Ø4,5 mm
Working temperature:	-40°C to +65°C
IP-Rating:	IP6K9K

Description - Pole mounting/DIN

Lens:	Impact resistant polycarbonate
Housing:	TPE
Housing top:	Aluminium
Light colour:	Amber
Measures Ø x H:	Ø91 x 161 mm
Working temperature:	- 40°C to +65°C
IP-Rating:	IP6K9K

Radio interference (CISPR 25): Klasse 3



Mounting	Colour light lens	Connections	Measures	Voltage	Consumption - Max	Flash pattern	Artikel no.
Surface	Transparent glass	500 mm cable open-end Ø6 mm, 3 x 0,75 mm ²	Ø115 x 71 mm	10-30V	27W	3 (R65) Single 480 ms Double 400 ms Rotating 400 ms	098 287 200
Surface	Amber glass	500 mm cable open-end Ø6 mm, 3 x 0,75 mm ²	Ø115 x 71 mm	10-30V	27W		098 287 205
Pole (DIN)	Transparent glass	Integrated plug in the socket, DIN 4165	Ø91 x 161 mm	10-30V	27W		098 287 230
Pole (DIN)	Amber glass	Integrated plug in the socket, DIN 4165	Ø91 x 161 mm	10-30V	27W		098 287 235

Spareparts

Seal - Suitable for 098 287 200 + 098 287 205 without adapter ring

098 295 250

Wenn more flash patterns are needed

10 flash patterns - 1 flash pattern with R65 approval - **STANDARD**

These 4 variants have similar characteristics as the premium types – the only difference is that this series has a cover of polycarbonate instead of aluminium and has 10 different flash patterns – of these 1 flash pattern with R65 approval.

The warning lights are available with orange or transparent lens and the mounting possibilities are either surface mounting or pole mounting/DIN, and the series are ADR approved. The two types for surface mounting are delivered with an adapter for Ø130 mm hole configuration.



Surface mounting



Adapter ring

10 flash patterns

- ___ Single flash 480ms (Reg. 65 approved)
- ___ Single flash 800ms
- ___ Double flash 400ms
- ___ Double flash 800ms
- ___ Triple flash
- ___ Quad flash
- ___ ISO-fase flash 400ms
- ___ ISO-fase flash 800ms
- ___ Rotating 400ms
- ___ Rotating 800ms



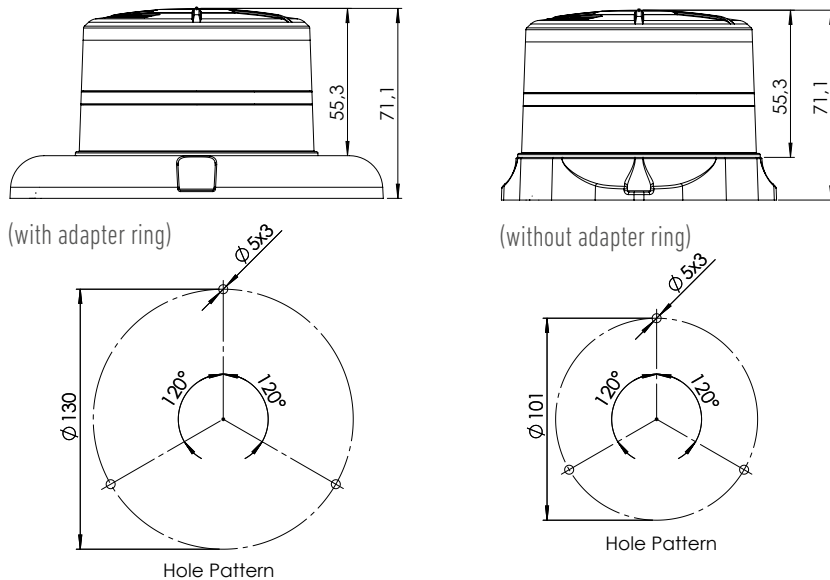
Pole mounting/DIN



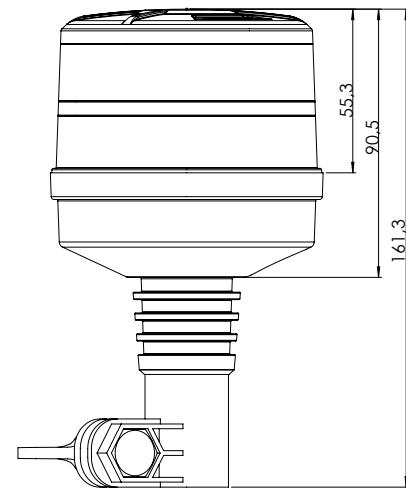
LED Warning lights 12/24V

Technical details - Standard variants with 10 flash patterns

Surface mounting



Pole mounting/DIN



Description - Surface mounting with adapter ring

Lens: Impact resistant polycarbonate
 Housing: Impact resistant polycarbonate
 Housing top: Impact resistant polycarbonate
 Sealing: EVA
 Light colour: Amber
 Measures \varnothing x H: \varnothing 140 x 71 mm
 Hole pattern: \varnothing 130 mm / 3 x 112 mm / \varnothing 4,5 mm
 Working temperature: -40°C to +65°C
 IP-Rating: IP6K9K

Description - Pole mounting/DIN

Lens: Impact resistant polycarbonate
 Housing: TPE
 Housing top: Impact resistant polycarbonate
 Light colour: Amber
 Measures \varnothing x H: \varnothing 91 x 161 mm
 Working temperature: -40°C to +65°C
 IP-Rating: IP6K9K

ECE R65 EMC

Mounting	Colour light lens	Connections	Measures	Voltage	Consumption	Flash pattern	Artikel no.
Surface	Transparent glass	500 mm cable open-end \varnothing 6 mm, 3 x 0,75 mm ²	\varnothing 140 x 71 mm	10-30V	23W	See page 4	098 287 250
Surface	Amber glass	500 mm cable open-end \varnothing 6 mm, 3 x 0,75 mm ²	\varnothing 140 x 71 mm	10-30V	23W		098 287 255
Pole (DIN)	Transparent glass	Integrated plug in the socket, DIN 4165	\varnothing 91 x 161 mm	10-30V	23W		098 287 280
Pole (DIN)	Amber glass	Integrated plug in the socket, DIN 4165	\varnothing 91 x 161 mm	10-30V	23W		098 287 285

Spareparts

The adapter ring makes it possible to adapt the LED beacon to mounting holes \varnothing 130 mm - Measurements, \varnothing x H: \varnothing 140 x 16 mm Bolt distance: \varnothing 130 mm / 3 x 112 mm / \varnothing 4,5 mm Material: Polycarbonate	098 292 640
Seal - Suitable for 098 287 250 + 098 287 255 with adapter ring	098 295 251
Seal - Suitable for 098 287 250 + 098 287 255, if adapter ring is not used	098 295 250

LED Warning lights 12/24V

Technical details and flash pattern selection

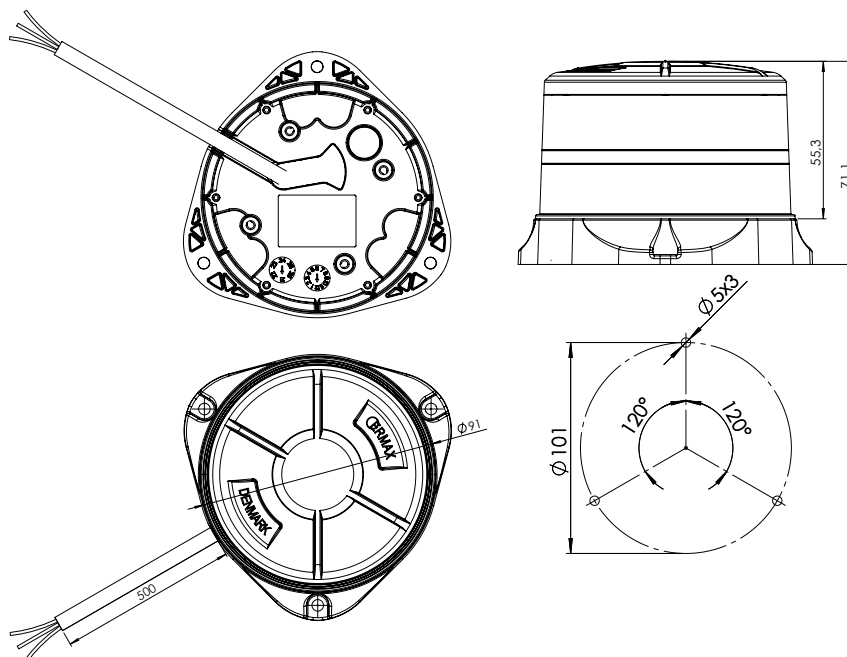
Surface mounting

Connection:

Red: Permanent power supply (+)

Black: Ground (-)

Yellow: Choose flash pattern / synchronizing



Flash pattern choosing - Surface mounting

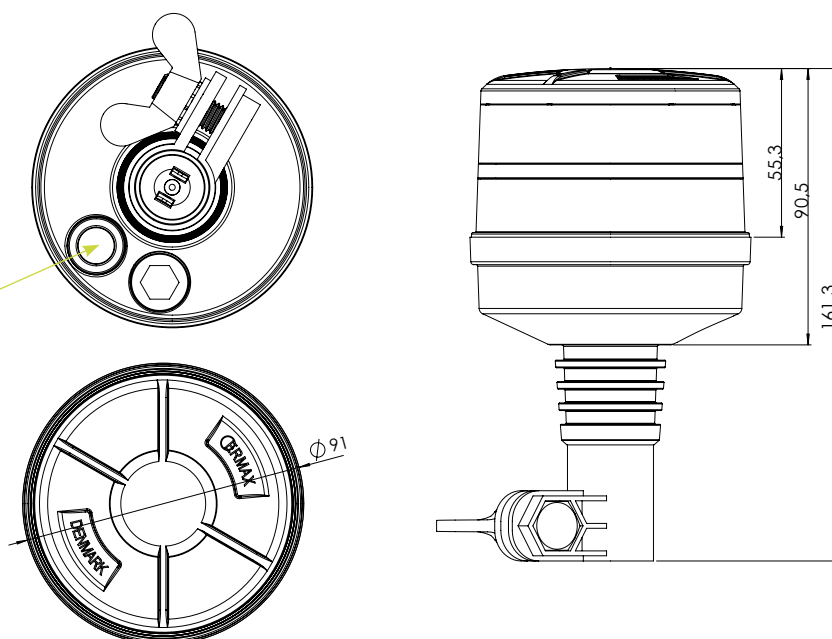
Apply yellow cable to +, hold briefly (0.5-2 sec) and select flash pattern.

To synchronize more lights, all lights must be adjusted to the same flash pattern. Then all yellow cables will be connected to each other.

If the yellow cable is placed at + for more than 2 seconds, the light return to flash pattern 1.

Pole mounting/DIN

Press the bottom in order to change the light pattern



Choose flash pattern - Pole mounting/DIN

To choose flash pattern, press the red bottom shortly (0.5 - 2 sec).

If pressed at the red bottom for more than 2 seconds, the light return to flash pattern 1.

LED Beacons 12/24 V - ECE REG.65



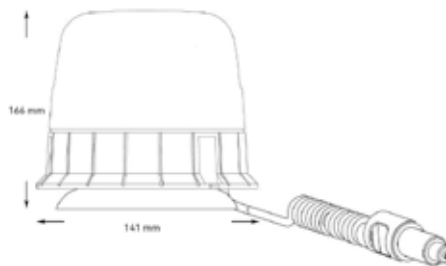
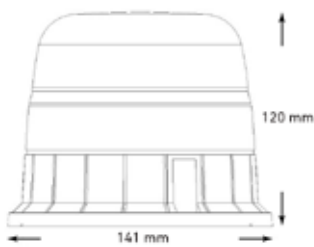
Pos. 1



Pos. 2



Pos. 3



Description

Lens: Polycarbonate
 Housing: Compound thermoplastic
 Working temperature: -40°C - +60°C
 Color: Amber

Mounting	IP Rating	Connection	Dimension	Operating voltage	Energy consumption	Pos.	Article No.
Firm surface mounting	IP69	150 mm cable Open end	Ø141 x 120 mm	12/24V	9W	1	098 287 400
Magnet	IP56	Coil cable with plug	Ø141 x 166 mm	12/24V	9W	2	098 287 420
For mounting bushes	IP69	Integrated plug in socket	Ø128 x 125 mm	12/24V	9W	3	098 287 410

LED Beacons 12/24 V - ECE REG.65



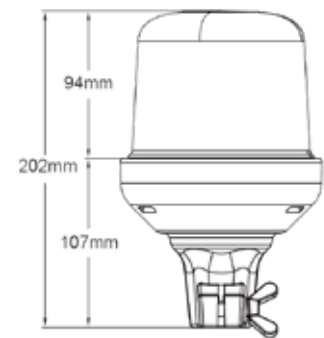
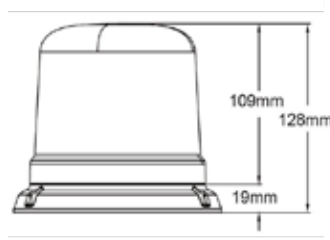
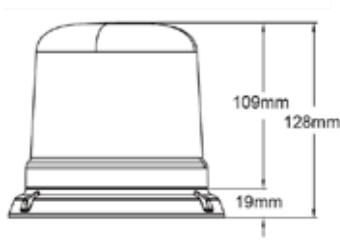
Pos. 1



Pos. 2



Pos. 3



Description

Lens: Polycarbonate
 Housing: Polycarbonate
 Working temperature: -30°C to +65°C
 LED units: 10 x 3W
 Color: Amber

Built-in- and programming instructions are available: www.ermas.dk

Mounting	IP Rating	Connection	Dimension	Operating voltage	Energy consumption	Flash pattern	Pos.	Article No.
Firm surface mounting	IP66	400 mm cable Open end	Ø142 x 128 mm	12/24V	21-42W	11	1	098 287 938
Magnet	IP66	Coil cable with plug	Ø142 x 128 mm	12/24V	21-42W	11	2	098 287 940
For mounting bushes	IP66	Integrated plug in socket	Ø130 x 202 mm	12/24V	21-42W	11	3	098 287 936

LED Beacons 12/24V - ECE REG.65



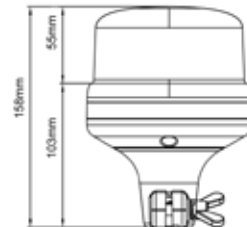
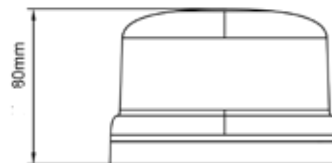
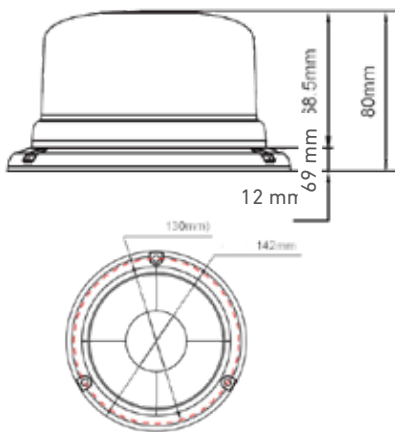
Pos. 1



Pos. 2



Pos. 3



Description

Lens: Polycarbonate
 Housing: Polycarbonate
 Working temperature: -30°C to +65°C
 LED units: 8 x 3W
 Color: Amber

Built-in- and programming instructions are available: www.ermas.dk

Mounting	IP Rating	Connection	Dimension	Operating voltage	Energy consumption	Flash pattern	Pos.	Article No.
Firm surface mounting	IP66	400 mm cable Open end	Ø142x 80 mm	12/24V	15-30W	11	1	098 287 944
Magnet	IP66	Coil cable with plug	Ø142 x 80 mm	12/24V	15-30W	11	2	098 287 946
For mounting bushes	IP66	Integrated plug in socket	Ø130 x 158 mm	12/24V	15-30W	11	3	098 287 942

LED Warning lights 12/24V - ECE REG.65

ECE R65

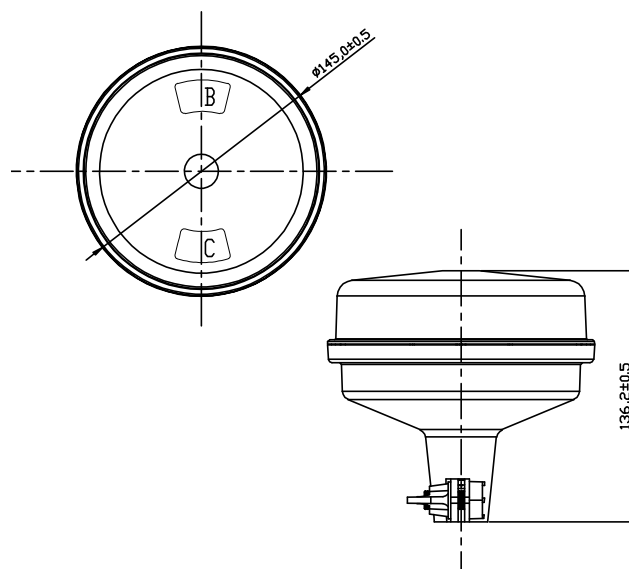
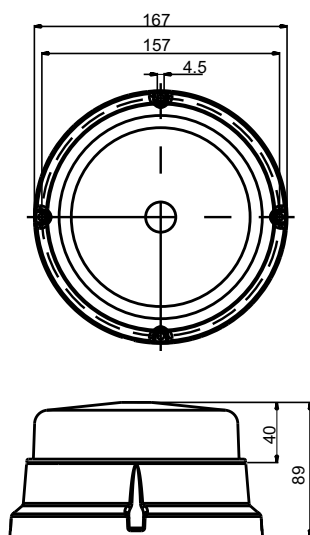
EMC R10



Pos 1



Pos 2

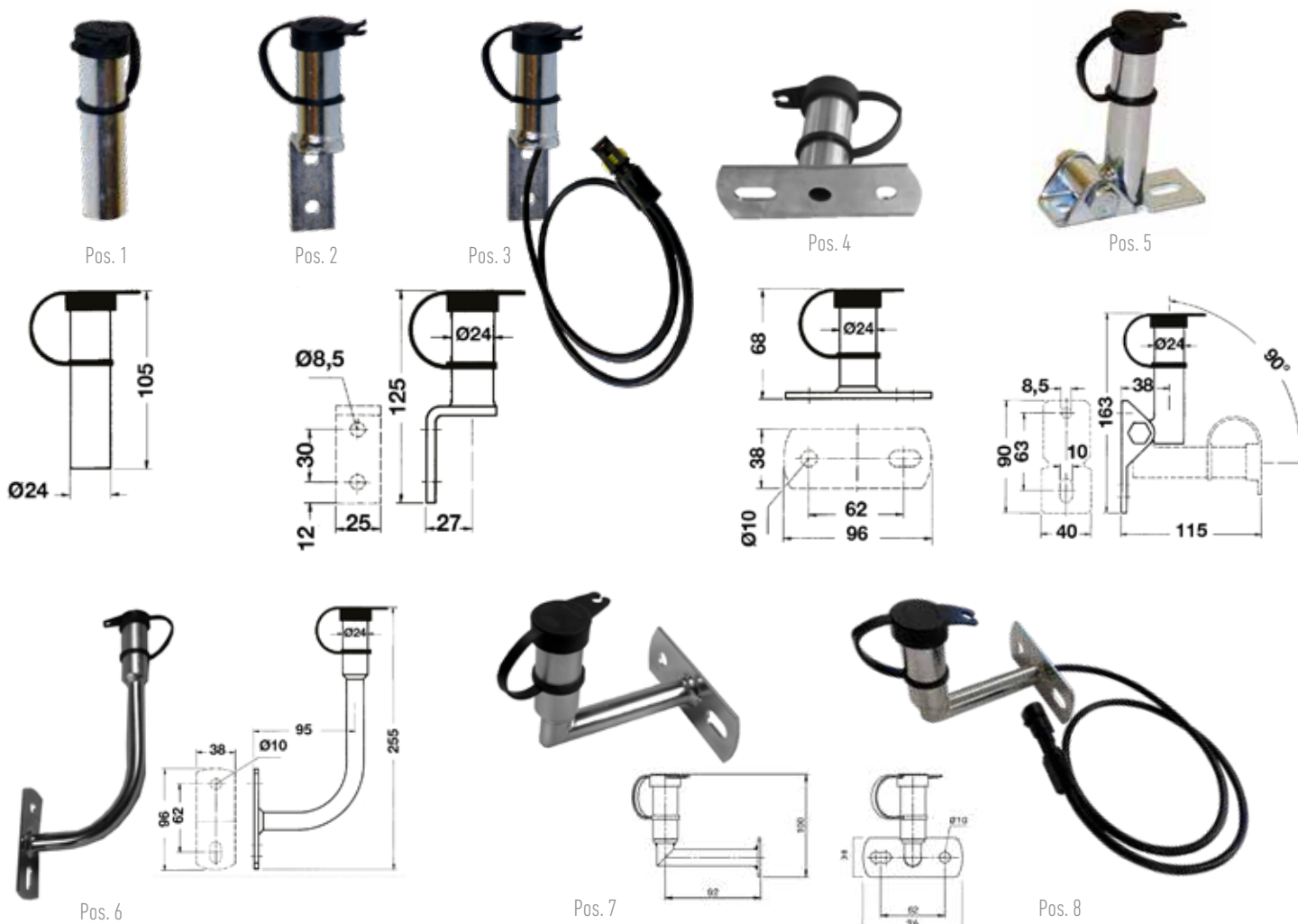


Description

Lens: Polycarbonate
 Housing: Polycarbonate/TPE
 Working temperature: -40° C - +65° C
 Color: Amber

Built-in- and programming instructions are available: www.ermamax.dk

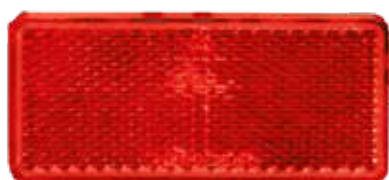
Mounting	IP Rating	Connection	Dimension	Operating voltage	Energy consumption	Flash pattern	LED unit	Pos.	Article No.
Firm Surface mounting	IP67	400 mm cable Open end	Ø167 x 89 mm	12/24V	18-36W	10	8 x 3W	1	098 287 330
For mounting bushes	IP67	Integrated plug in socket	Ø145 x 136,2 mm	12/24V	18-36W	Single	12 x 3W	2	098 287 340



Galvanized steel tube and with protection cap

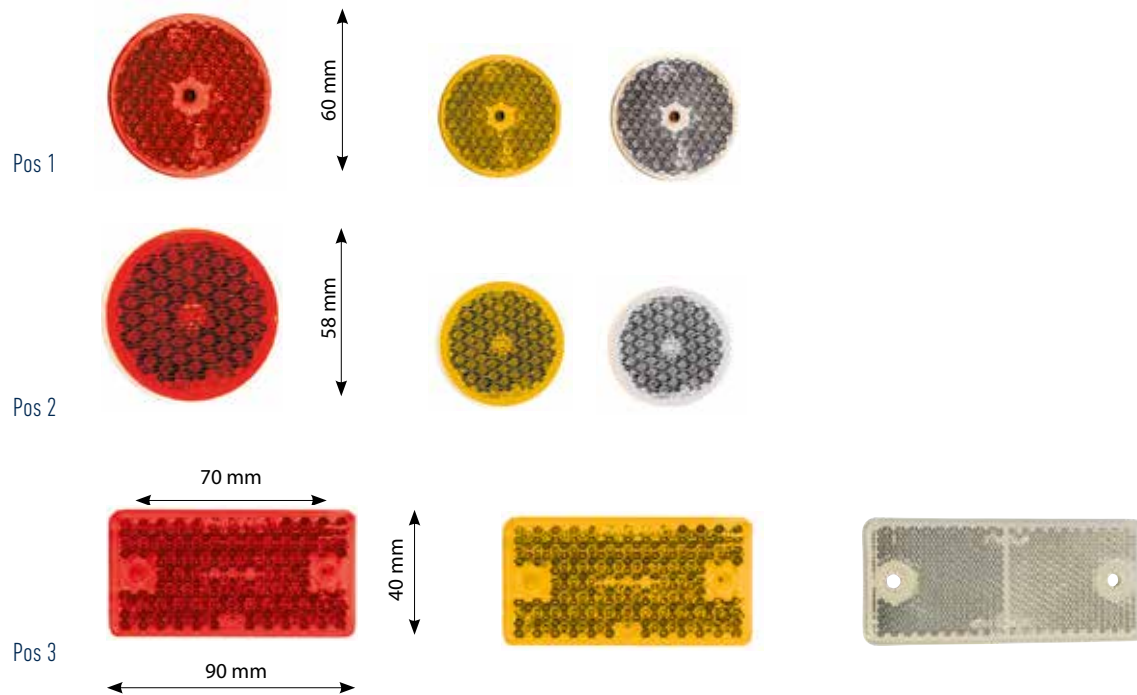
DIN Norm	Form	Mounting	Dimension	Connection	Cable	Pos.	Article No.
DIN 72 591	Straight	-	Ø24 x 105 mm	2 poled socket	--	1	098 295 561
DIN 72 591	Straight	Angled bracket	Ø24 x 125 mm	2 poled socket	--	2	098 295 562
DIN 72 591	Straight	Angled bracket	Ø24 x 125 mm	2 poled socket	900 mm cable with Super Seal plug	3	098 295 595
DIN 72 591	Straight	Flush mounting	Ø24 x 128 mm	2 poled socket	--	4	098 295 564
DIN 72 591	Straight	adjustable bracket	Ø24 x 115 mm	2 poled socket	--	5	098 295 567
DIN 72 591	90° angled	Flush mounting	Ø24 x 255 mm	2 poled socket	--	6	098 295 565
DIN 72 591	90° angled	Flush mounting	Ø24 x 100 mm	2 poled socket	--	7	098 295 583
DIN 72 591	90° angled	Flush mounting	Ø24 x 100 mm	2 poled socket	800 mm cable with Super Seal socket	8	098 295 585

REFLEX REFLECTORS & SIGNS



Reflex reflector with and without self-adhesive back

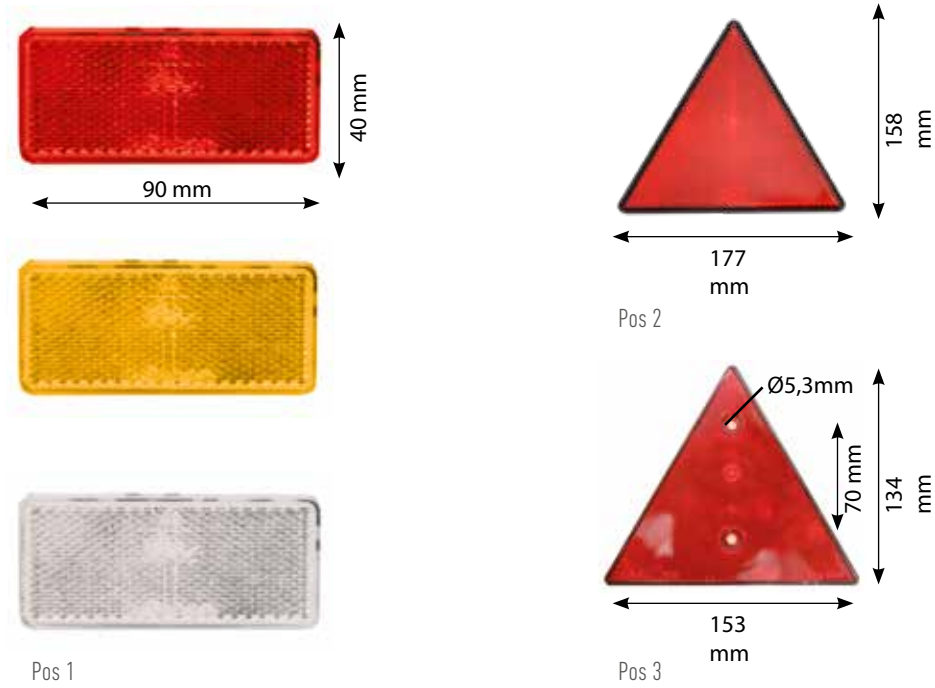
E



Color	Dimension	Hole /screw	Self-adhesive	Packing unit	Pos	Article No.
Red	Ø60 mm	Ø 6,3 mm		10 pcs	1	098 261 060
Yellow	Ø60 mm	Ø 6,3 mm		10 pcs	1	098 261 062
White	Ø 60 mm	Ø 6,3 mm		10 pcs	1	098 261 064
Red	Ø58 mm		✓	10 pcs	2	098 262 061
Yellow	Ø58 mm		✓	10 pcs	2	098 262 063
White	Ø58 mm		✓	10 pcs	2	098 262 065
Red	90 x 40 mm	Ø 4,3 mm/2 x 4 mm M5		10 pcs	3	098 264 120
Yellow	90 x 40 mm	Ø 4,3 mm/2 x 4 mm M5		10 pcs	3	098 264 122
White	90 x 40 mm	Ø 4,3 mm/2 x 4 mm M5		10 pcs	3	098 264 124
Red	90 x 40 mm	Ø 4,3 mm/2 x 4 mm M5	✓	10 pcs	3	098 265 130
Yellow	90 x 40 mm	Ø 4,3 mm/2 x 4 mm M5	✓	10 pcs	3	098 265 132
White	90 x 40 mm	Ø 4,3 mm/2 x 4 mm M5	✓	10 pcs	3	098 265 134

Reflex reflector

E



Color	Dimension	Hole /screw	Self-adhesive	Packing unit	Pos.	Article No.
Red	90 x 40 mm		✓	10 pcs	1	098 265 140
Yellow	90 x 40 mm		✓	10 pcs	1	098 265 142
White	90 x 40 mm		✓	10 pcs	1	098 265 144
Red	177 x 158 mm	2 x M5		1 pcs	2	098 267 605
Black rear plate						
Red	158 x 140 mm	Ø 5,3 mm		10 pcs	3	098 267 610

Reflex marker boards for trailers - ECE Reg. 70.01

E



Aluminum	Self-adhesive foil	Packing unit	Pos.	Article No.
1130 x 200 mm	---	1 pcs	1	098 269 417
---	1130 x 200 mm	1 pcs	1	098 269 412
565 x 200 mm	---	2 pcs	2	098 269 419
---	565 x 200 mm	2 pcs	2	098 269 414
285 x 200 mm	---	4 pcs	3	098 269 421
---	285 x 200 mm	4 pcs	3	098 269 416

Contour marking



E ECE 104

Color	Self-adhesive contour marking, for rigid sides	Packing unit	Article No.
Red 	50 m x 55 mm	50 Meter pro Rolle	098 269 200
White 	50 m x 55 mm	50 Meter pro Rolle	098 269 204

Warning sign



Pos. 1



Pos. 2



Pos. 3



Pos. 4

DIN Norm		Dimension (L x B)	Material	Foldable	Packing	Placement	Pos.	Article No.
DIN 11030	Singlesided	423 x 423 mm	Aluminum plate		1 pcs	Left / Right	1	098 269 122
DIN 11030	Singlesided	423 x 423 mm	Zinc plated steel	Vertical	1 pcs	Left	2	098 269 127
DIN 11030	Singlesided	423 x 423 mm	Zinc plated steel	Vertical	1 pcs	Right	3	098 269 128
DIN 11030	Double sided	423 x 423 mm	Zinc plated steel	Vertical	1 pcs	Left / Right	4	098 269 125

Speed boards/signs



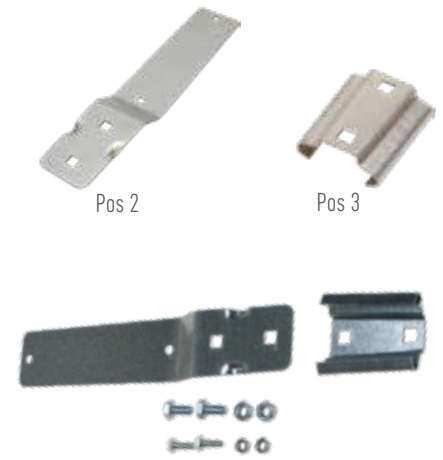
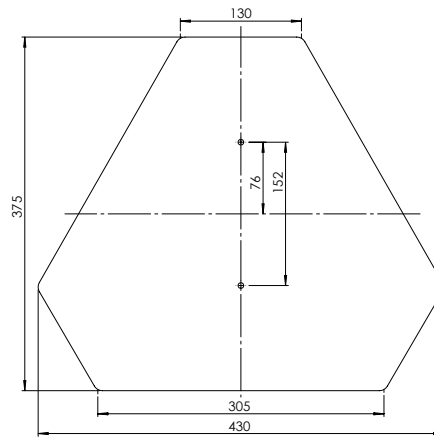
Self-adhesive	Variant	Dimension	Article No.
✓	60 Km	Ø 210 mm	959 401 276
✓	70 Km	Ø 210 mm	959 401 277
✓	80 Km	Ø 210 mm	959 401 278

Warning sign - Triangle reflex reflector

E



Pos 1



Pos 4

Pos 2 - Packed in a plastic bag

Triangle		Dimension (H x B)	Material	Packing units	Mounting	Bolt hole distance	Pos	Article No.
SMV	One-sided	375 x 430 mm	Folie	1	Self-adhesive	---	1	098 269 951
SMV	One-sided	375 x 430 mm	Aluminum plate	1	Screw	152 mm	1	098 269 952
SMV	One-sided	375 x 430 mm	Red impact resistant plastic base sheet	1	Screw	152 mm	1	098 269 960

Spare parts

Mounting bracket for triangle reflex reflector, male-model, with 2 mounting holes 6,5 mm, Length 170 mm Packing units - 5	2	098 269 956
Mounting bracket for triangle reflex reflector, female-model, with 2 mounting holes 6,5 mm, Length 62 mm Packing units - 5	3	098 269 957
Mounting bracket for triangle reflex reflector, male/female kit, with 2 mounting holes 6,5 mm, Length 62 mm Packing units - 5	4	098 269 959

PREMIUM PROGRAMME 12 V CABLE

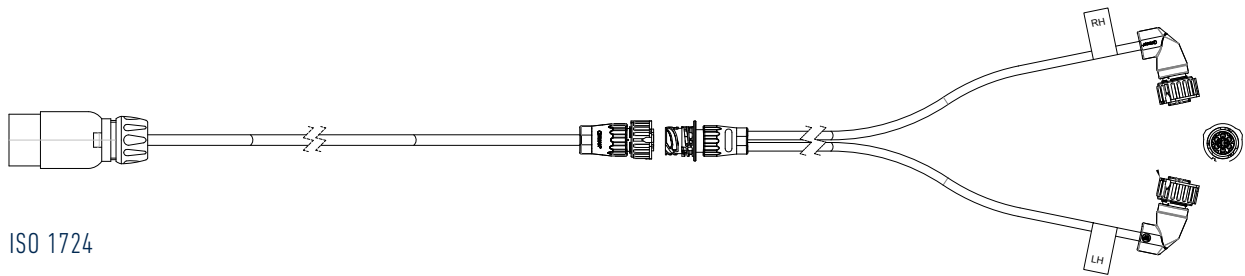
When the lifespan of the product is more important than the possibility of repair

- 7 poled Front adapter – 7 poled plug connection for tail lights
- 2 poled Super Seal plug for side marker lights
- All plug connections are casted
- ADR-approved components - usable in connection with aggressive liquids, dust and high humidity
- Easily replaceable lights with plug technology

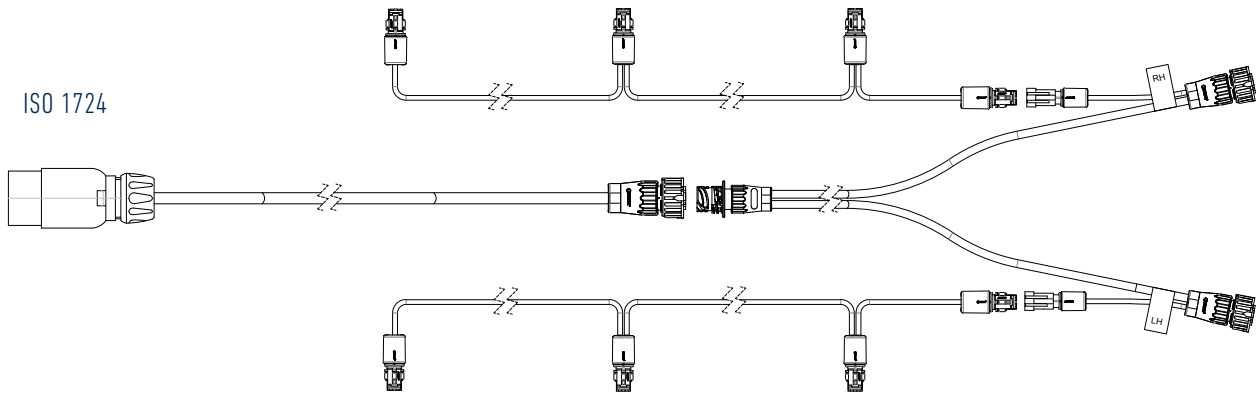


Overview - 12 V CABLE PREMIUM

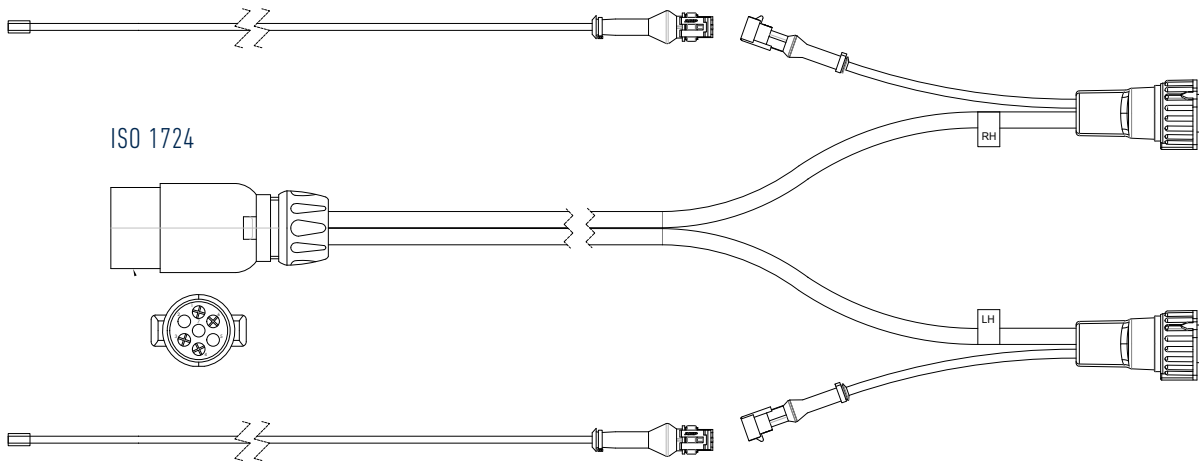
Standard solutions in the Agrar Premium Programme



Type A



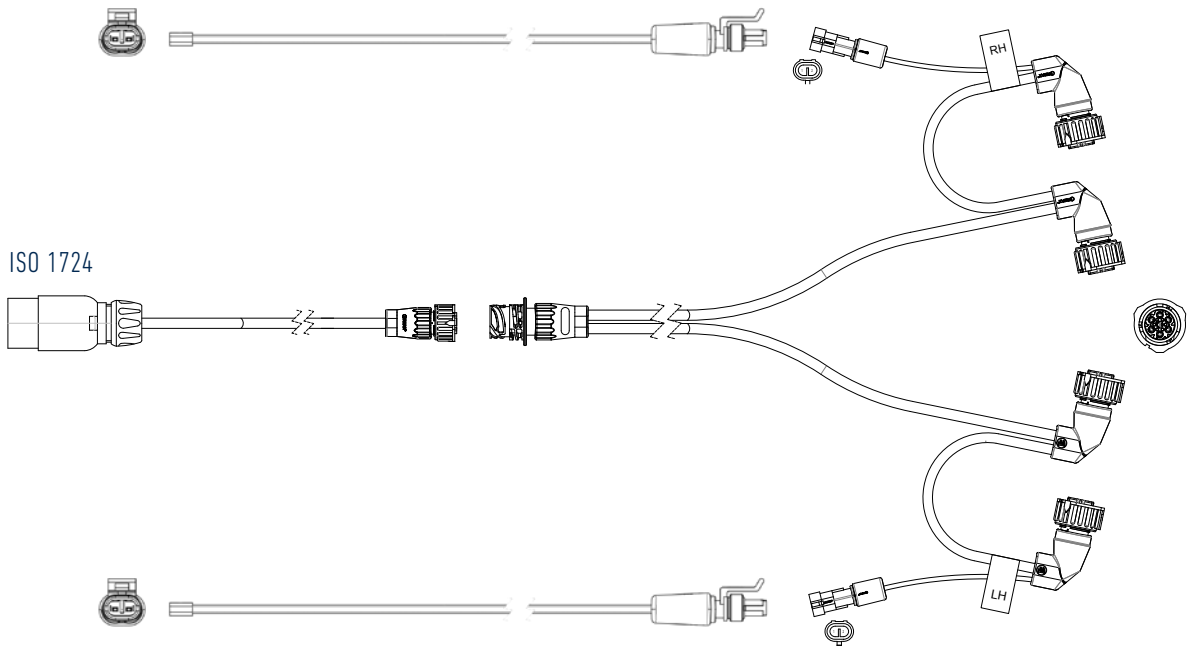
Type B



Type C

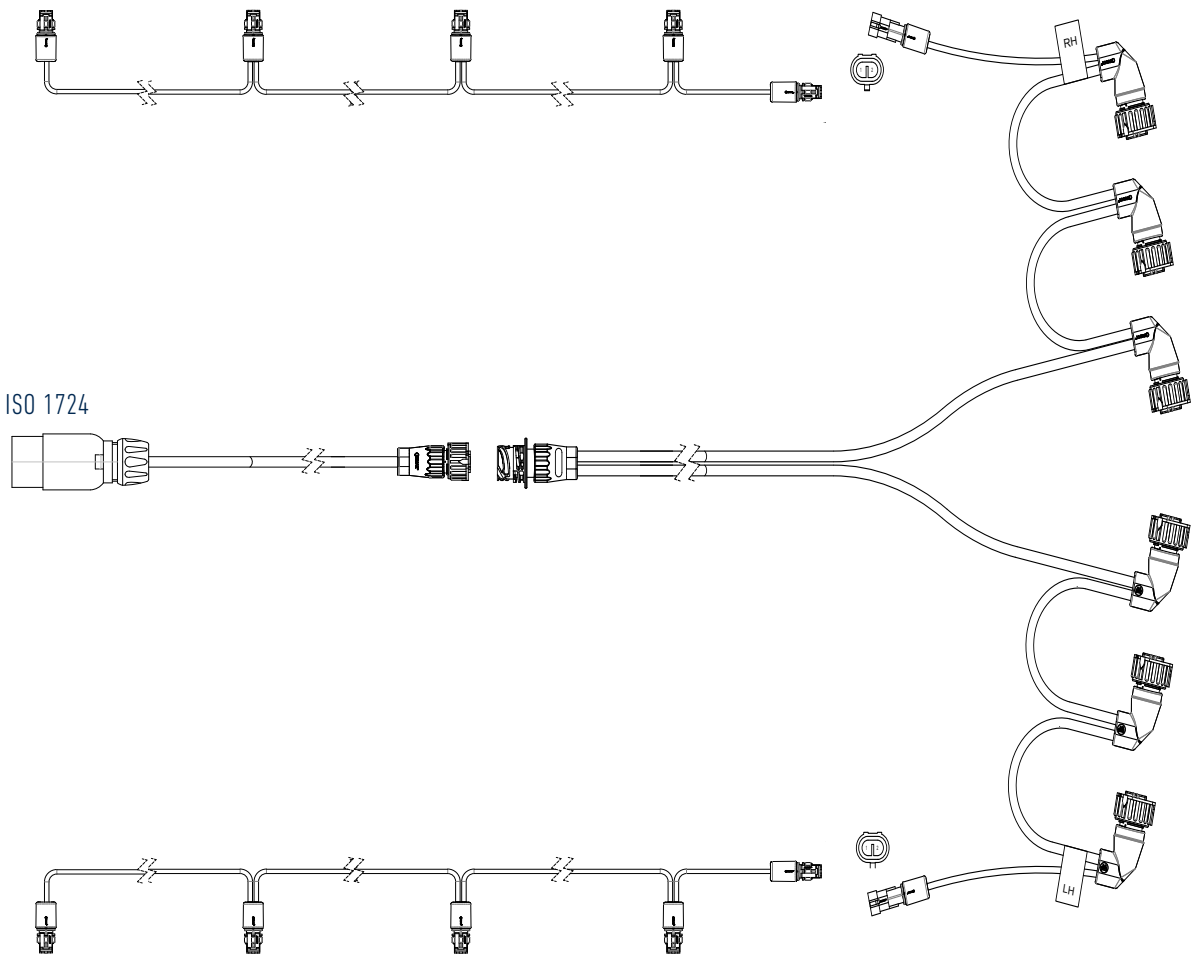
Overview - 12 V CABLE PREMIUM

Standard solutions in the Agrar Premium Programme



ISO 1724

Type D



ISO 1724

Type E

Front connection, 13 poled ISO 1724 - 7 poled AMP plug



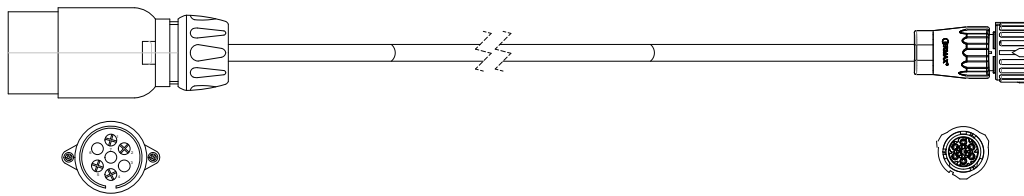
Application / Description

Article No.

Front connection with 7 poled plug ISO 1724
 7 core cable with 7 poled AMP bayonet plug, straight and casted
 Conductor cross-section : 6 x 1,0 mm² + 1 x 2,5 mm²
 Cable type: FLRYY / PVC

- 5.000 mm
- 7.000 mm
- 8.000 mm
- 10.000 mm
- 12.000 mm

- 296 050 351
- 296 070 351
- 296 080 351
- 296 100 351
- 296 120 351



Front connection, 7 poled ISO 1724 - 7 poled AMP plug

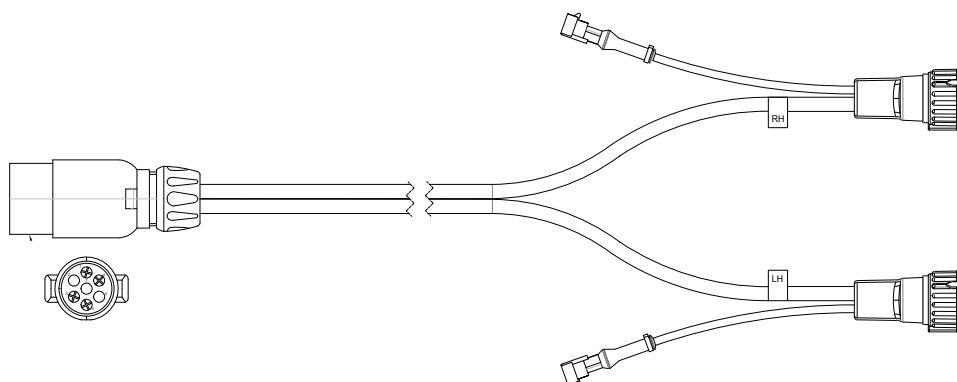
Application / Description

Article No.

Front connection with 7 poled plug ISO 1724
 7 core cable with 7 poled AMP bayonet plug, straight and casted, rubber grommet.
 Cable dimensions : 2x7 m. 5x0,75 mm² / 2x0,3 m, 2x0,5 mm²
 Cable type: FLRYY / PVC

- 7.000 mm
- 9.000 mm
- 11.000 mm

- 296 070 605
- 296 090 605
- 296 110 605



Rear cable



Application / Description

Article No.

Rear cable
 Ermax bayonet socket > 2 x 1 AMP 1,5 plug, angled
 Conductor cross-section: 5 x 1 mm²
 Cable type: FLRY / PVC.

2x5 core 2.500 mm

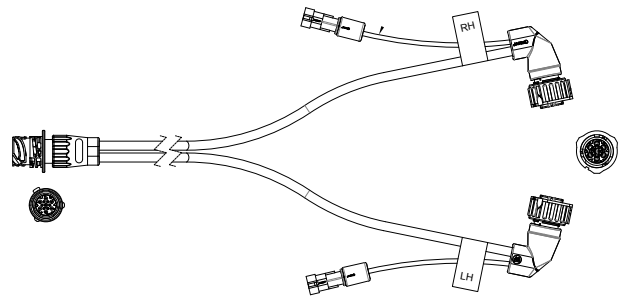
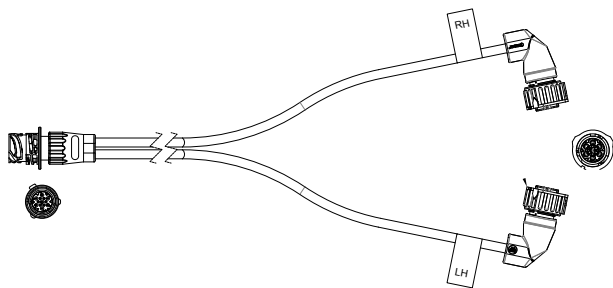
496 025 601

2x5 core 2.500 mm
 With 2x2 poled outlet with Super Seal for Marker lights

496 025 602

2x5 core 3.500 mm
 With 2x2 poled outlet with Super Seal for Marker lights

496 035 602



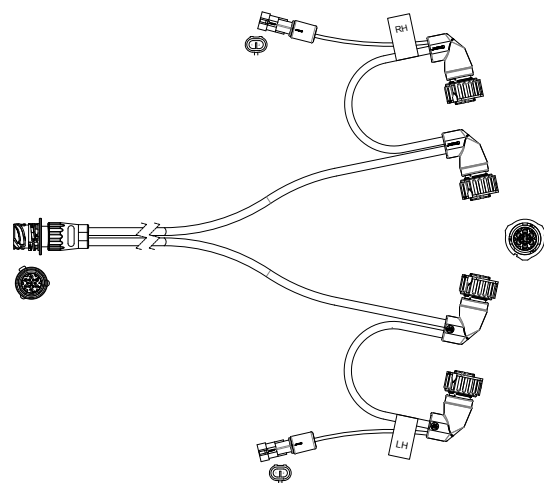
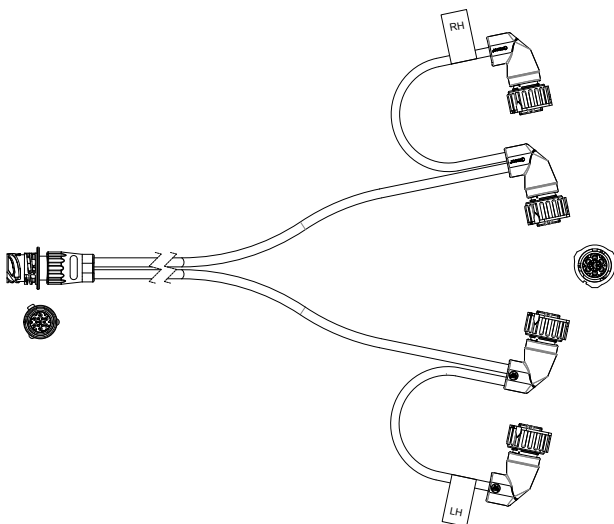
Ermax bayonet socket > 2 x 2 AMP 1,5 plug, angled
 Conductor cross-section: 5 x 1 mm²
 Cable type: FLRY / PVC

2x5 core 2.500 mm, chain

496 025 603

2x5 core 2.500 mm, chain
 With 2x2 poled outlet with Super Seal for Marker lights

496 025 604



Rear cable



Application / Description

Article No.

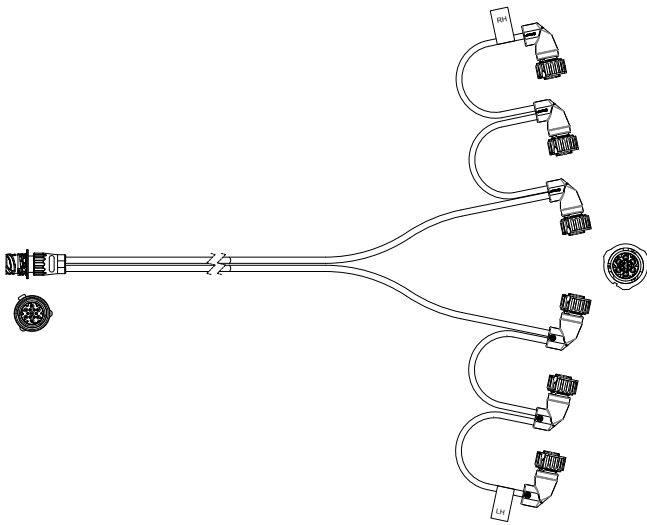
Rear cable
 Ermax bayonet socket > 2 x 3 AMP 1,5 plug, angled
 Conductor cross-section: 5 x 1 mm²
 Cable type: FLRYY / PVC

2x5 core 2.500 mm, chain

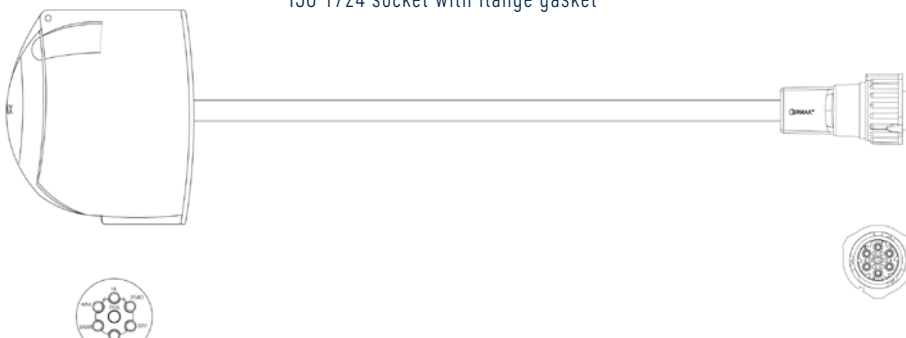

2x5 core 2.500 mm, chain
 With 2x2 poled outlet with Super Seal for Marker lights

496 025 605

496 025 606



Cable for side marker

Application / Description	Article No.
<p>Connection cable with 7 cores, 2000 mm 7-poled AMP plug > 7-poled ISO 1724 socket</p> <p>Conductor cross section: 7x1mm² ISO 1724 socket with flange gasket</p> 	<p>996 020 065</p>
<p>Connection cable with 7 cores, 2000 mm 7-poled AMP plug > 7-poled ISO 1724 socket</p> 	<p>996 020 075</p>

Cable for side marker

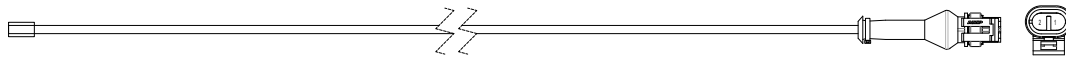


Application / Description	Article No.
<p>Side cable, flat</p> <p>With Super Seal plug. Conductor cross section: 2x1,5 mm². Cable type: FLYYF.</p> <p>4.000 for "Click-in" System 7.000 for "Click-in" System 9.000 for "Click-in" System 13.000 for "Click-in" System</p>	<p>594 040 000 594 070 000 594 090 000 594 130 000</p>



Cable for side marker

Application / Description	Article No.
<p>Side cable, flat</p> <p>With Super Seal plug with grommet. Conductor cross-section: 2x0,75 mm² Cable type: FLRYY / PVC</p> <p>5000 for "Click-in" System 7.000 for "Click-in" System 9.000 for "Click-in" System 13.000 for "Click-in" System</p>	<p>596 050 000</p> <p>596 070 000</p> <p>596 090 000</p> <p>596 130 000</p>



Side cable, chain

Conductor cross section: 2x0,5 mm².
 Cable type: FLRYY.

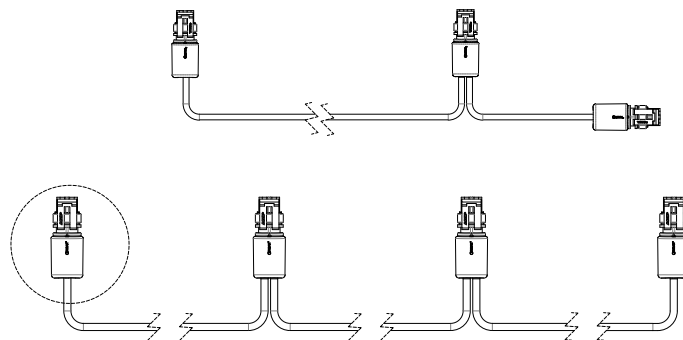
1 x inlet with Super Seal plug + 2 x outlets with Super Seal plugs.
 4.200 mm
 Distance between plugs: 1200 mm + 3000 mm.

1 x inlet with Super Seal plug + 3 x outlets with Super Seal plugs.
 8.000 mm
 Distance between plugs: 2000 mm + 4000 mm + 4000 mm.

9.400 mm
 Distance between plugs: 2000 mm + 3700 mm + 3700 mm

11.500 mm
 Distance between plugs: 1500 mm + 5000 mm + 5000 mm

694 042 200
694 080 300
694 094 300
694 115 300



Y-adapter



Application / Description

Article No.

Y-adapter cable

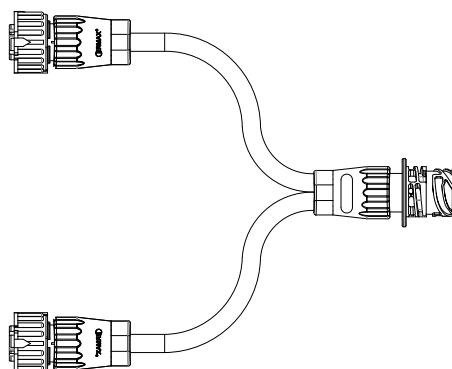
6 core

Conductor cross section: $5 \times 1 \text{mm}^2 + 1 \times 2,5 \text{mm}^2$

Cable type: FLRY / PVC

2 x 500 mm

2 x 7-poled AMP 1,5 plug > 1 x 7-poled AMP 1,5 sockets



894 005 640

Y-adapter cable

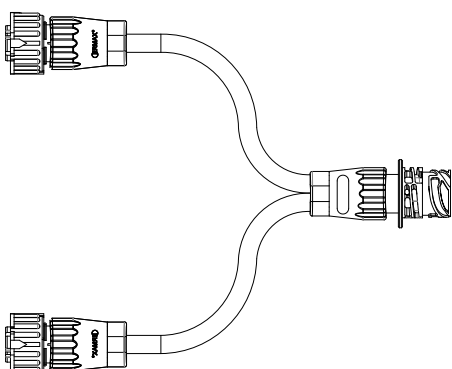
7 core

Conductor cross section: $7 \times 1 \text{mm}^2$

Cable type: FLRY / PVC

2 x 300 mm

2 x 7-poled AMP 1,5 plug > 1 x 7-poled AMP 1,5 sockets



894 003 740

ECONOMY PROGRAMME 12 V CABLE

When possibility of repair is important

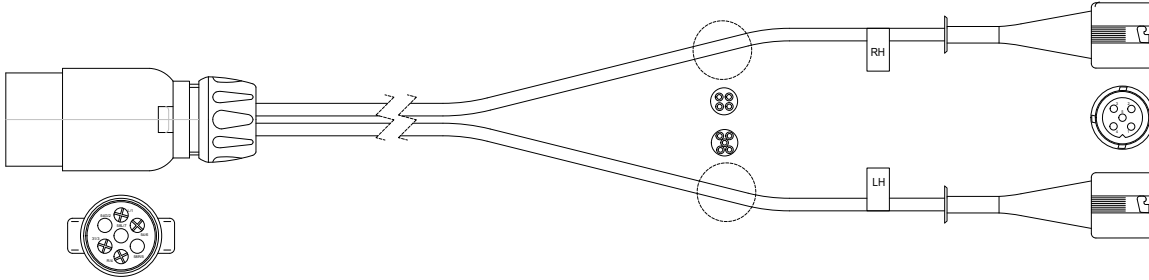
- 7 poled front adapter - 5 poled plug connection or open end for tail lights
- Plug sealed with rubber grommet
- Side cable as 0,75 mm² for click-In solutions



Overview - 12 V CABLE ECONOMY

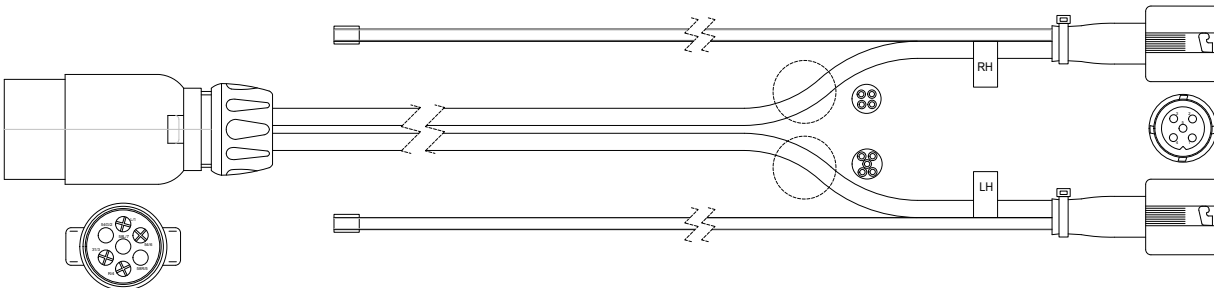
Standard solutions in the Agrar Economy Programme

ISO 1724



Type J

ISO 1724



Type K

Front connection, 7 poled ISO 1724 - 5 poled bayonet plug

Application / Description

Article No.

Front connection with 7 poled plug ISO 1724

5 + 4 core cable with bayonet plug, straight with rubber grommet

Rear fog light in the left handside

Conductor cross-section: 5 x 1,0 mm² + 4 x 1,0 mm²

Cable type: FLRYY / PVC

7.000 mm

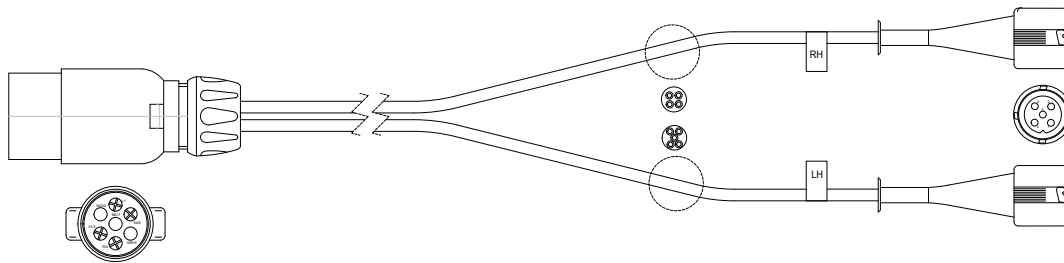
9.000 mm

12.000 mm

296 070 580

296 090 580

296 120 580



Front connection with 7 poled plug ISO 1724 with side cable

5 + 4 core cable with bayonet plug, straight with rubber grommet

Rear fog light in the left handside

Conductor cross-section: 5x1,0 mm² + 4x1,0 mm²

Side cable, 2 x 0,75 mm²

Cable type: FLRYY / PVC

Cable kit - total length

Side cable - length

7.000 mm

6.000 mm

9.000 mm

8.000 mm

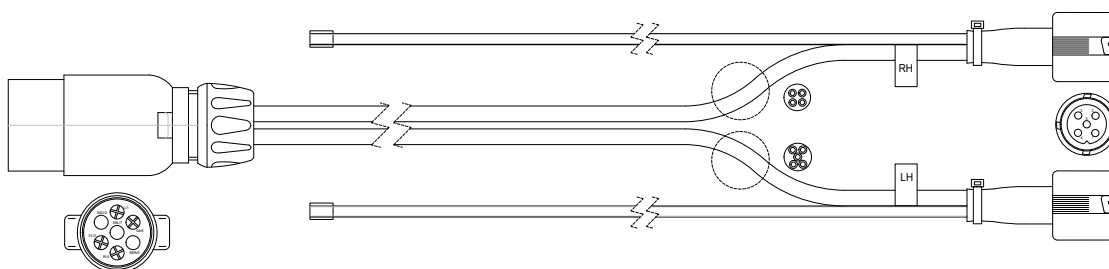
12.000 mm

11.000 mm

296 070 581

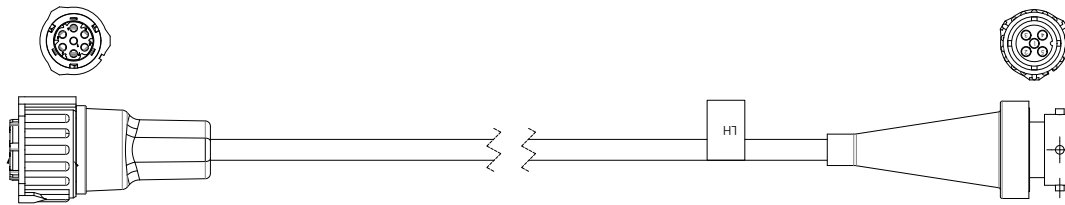
296 090 581

296 120 581



Adapter cable 5 poled to 7 poled

Application / Description	Article No.
<p>Adapter cable</p> <p>From 5 poled bajonet plug > Ermax 7 poled socket</p> <p>Conductor cross section: 6 x 0,75 mm²</p> <p>Cable type: FLRY / PVC</p> <p>200 mm, Left</p> <p>200 mm, Right</p>	<p>996 002 501</p> <p>996 002 502</p>



12 V CABLE - ACCESSORIES



Cable rolls









Pos 1



Pos 2

Cable material	Core	Spool	Cable type	Approval	Conductor cross-section	Pos	Article No.
Side cable, flat for Click-In	2 core	50 M	YLGYS	---	2 x 0,75 mm ²	1	099 897 615
Side cable, flat for Click-In	2 core	100 M	FLRY / PVC	ADR	2 x 1,50 mm ²	1	099 897 611
Plastic	2 core	50 M	FLRY / PVC	---	2x0,75 mm ²	1	099 897 302
Plastic	4 core	100 M	FLRY / PVC	---	4 x 0,5 mm ²	2	099 897 340
Plastic	4 core	50 M	FLRY / PVC	---	4 x 0,75 mm ²	2	099 897 342
Plastic	4 core	50 M	FLRY / PVC	ADR	4 x 1,0 mm ²	2	099 897 045
Plastic	4 core	50 M	FLRY / PVC	---	4 x 1,0 mm ²	2	099 897 344
Plastic	5 core	100 M	FLRY / PVC	---	5 x 0,5 mm ²	2	099 897 352
Plastic	5 core	50 M	FLRY / PVC	---	5 x 1,0 mm ²	2	099 897 354
Plastic	5 core	50 M	FLRY / PVC	ADR	5 x 1,0 mm ²	2	099 897 055
Plastic	6 core	50 M	FLRY / PVC	---	6 x 1,0 mm ²	2	099 897 360
Plastic	7 core	100 M	FLRY / PVC	ADR	7 x 1,0 mm ²	2	099 897 076
Plastic	7 core	50 M	FLRY / PVC	ADR	6 x 1,0 + 1 x 2,5 mm ²	2	099 897 081

Accessories

	Application / Description	Article No.
	<p>Plate grip for Click-in System</p> <p>For cable with Click-in system, flexible and uncomplicated assembly</p>	099 859 970
	<p>Cable with Click-in 1,5 mm² and Open End</p> <p>0,5 Meter</p> <p>1,5 Meter</p> <p>3,5 Meter</p>	<p>794 005 280</p> <p>794 015 280</p> <p>794 035 280</p>
	<p>Cable with Click-in 0,75 mm² and Open End</p> <p>0,5 Meter</p> <p>1,5 Meter</p>	<p>796 005 280</p> <p>796 015 280</p>
	<p>Cap for Click-in cable 1,5 mm²</p> <p>10 pcs./bag</p>	098 291 950
	<p>Adapter - Dual Clin-in</p> <p>For connecting two flat cables</p> <p>Fit for 1,5 mm² flat cable</p> <p>Must be mounted with 2 pcs 098 291 950 clamps</p> <p>Dimension: 68x15x22,1 x 15,4 mm</p>	099 110 032
	<p>End plug for flat cable for Click-in ²</p> <p>Fit for 1,5 mm² flat cable</p> <p>Dimension: Ø15 x 35 mm</p>	099 110 031

JUNCTION BOX



Junction box, Universal



Application / Description

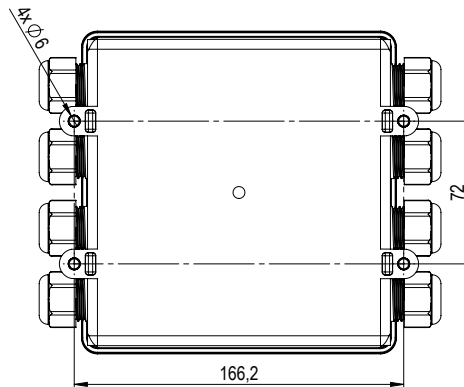
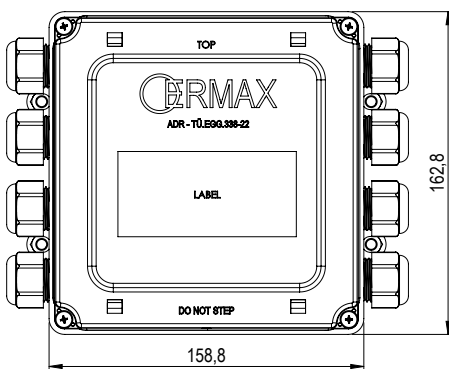
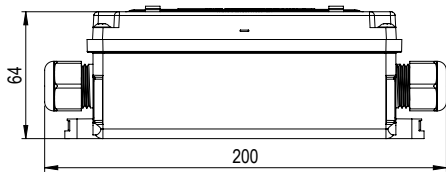
Article No.

Junction box with terminalplate

Black polycarbonate
IP-Rating: IP69K

Low version - Connections:

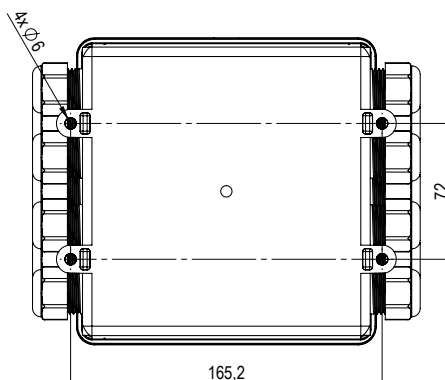
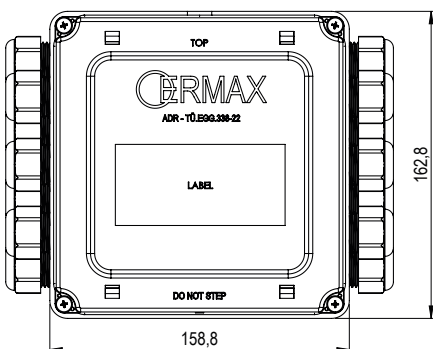
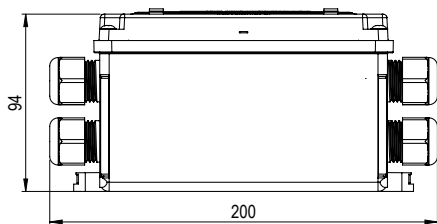
Inlet: 1 x PG with grommet, Ø11-13 mm
Cable glands: 4 x PG with grommet 2 x Ø5,5 mm
2 x PG with grommet Ø4-6 mm
1 x PG with grommet Ø7-11 mm



099 864 100

High version - Connections:

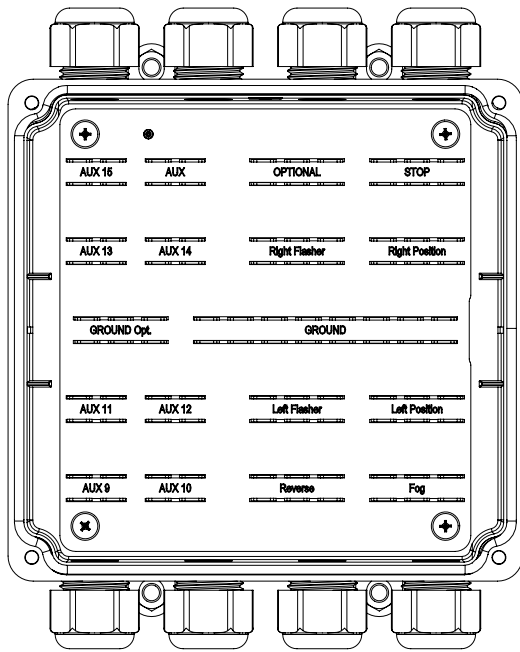
Inlet: 1 x PG med tyll, Ø11-13 mm
Cable glands: 4 x PG with grommet Ø7-11 mm
8 x PG with grommet Ø4-6 mm
1 x PG with grommet 2 x Ø5,5 mm



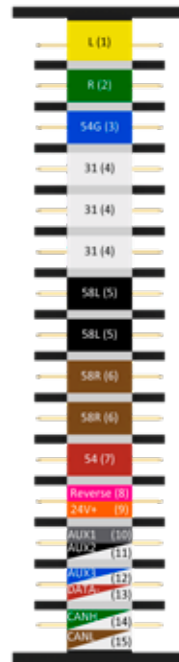
099 864 500

Pin assignment

Connection ISO 12098 pin numbers / Number of spade terminals 6.3 x 0.6 mm



Terminal plate



Terminal block



	Position	Description	Pieces available on terminal plates	Pieces available on terminal block
ISO 12098	1	Left indicator	6 pcs.	8 pcs.
	2	Right indicator	6 pcs.	8 pcs.
	3	Rear fog light	6 pcs.	8 pcs.
	4	Mass (-)	16 pcs.	21 pcs.
	5	Left position	6 pcs.	14 pcs.
	6	Right position	6 pcs.	14 pcs.
	7	Brake light	6 pcs.	8 pcs.
	8	Reversing light	6 pcs.	4 pcs.
	9	Power supply, continuous positive	4 pcs.	4 pcs.
	10	AUX 1, wear display	4 pcs.	4 pcs.
	11	AUX 2, brake control for trailer	4 pcs.	4 pcs.
	12	AUX 3, lifting axle	4 pcs.	4 pcs.
	13	Mass for PINs 9-15 (ISO12098)	4 pcs.	4 pcs.
	14	CANH - data communication	4 pcs.	4 pcs.
	15	CANL - data communication	4 pcs.	4 pcs.
Additional groups		Mass (-) optional	6 pcs.	--
		AUX	4 pcs.	--
		Optional	6 pcs.	--

Installation- and mounting components



Pos 1



Pos 2

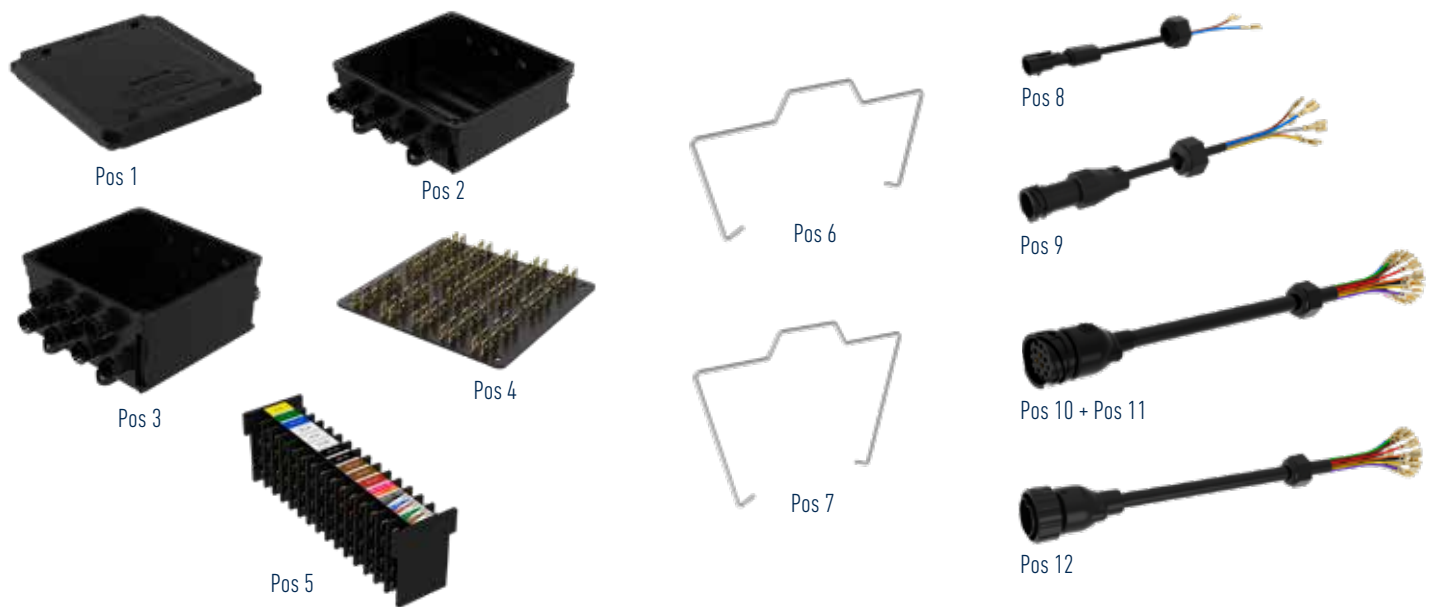


Pos 3

Junction box

IP Rating	Connection	Mounting	Dimension	Pos	Article No.
	6 x 2 Cable gland 4 Cable outlet of rubber - cable Ø max 10,0 mm		147 x 73 x 34 mm	1	099 865 075
IP54	12 x 2 Cable gland	2 holes Ø4,8 mm Bolt distance: 30 mm	147 x 74 x 37 mm	2	099 862 012
IP54	8 x 2 flat plug connection 6,3 x 0,8 mm 4 x 3 flat plug connection 6,3 x 0,8 mm	2 holes Ø5,5 mm Bolt distance: 90 mm	133 x 105 x 42 mm	3	099 868 900

Spareparts - Junction box



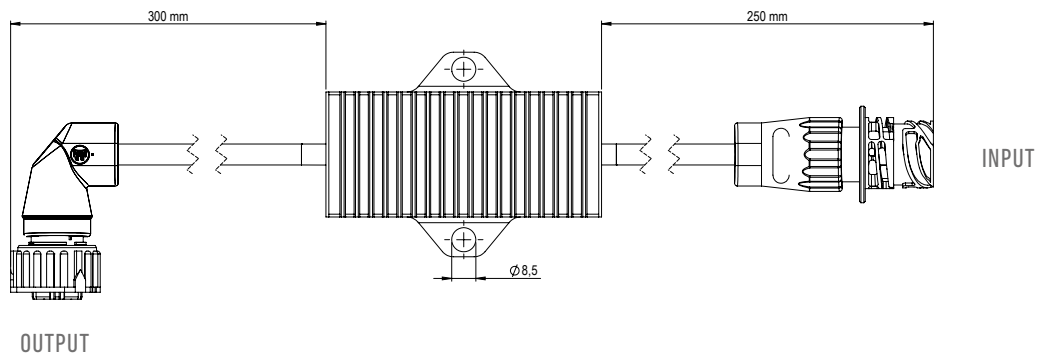
Spareparts / Accessories Ermax Junction boxes

Cover for junction box. Incl. screws. Suitable for both the low and high version of the junction box. Measurements (H x W x L): 18 x 153 x 157 mm	1	099 110 800
Junction box, low version - without cover and cable glands. 8 cable inlets (without nuts and rubber grommets) 5 mounting grooves for self-tapping screws in the bottom.	2	099 110 801
Junction box, high version - without cover and cable glands. 14 cable inlets (without nuts and rubber grommets) 5 mounting grooves for self-tapping screws in the bottom.	3	099 110 802
Terminal board for junction box with 104 terminals. Suitable for both low and high version of the junction box. Incl. screws for installation.	4	099 110 803
Terminal cartridge for junction box, removable with 120 terminals.	5	099 110 804
Locking brace for junction box, low version. The locking brace is used to keep the cover in place on the junction box. 2 pcs per box is needed. Material: Stainless steel.	6	099 110 805
Locking brace for junction box, high version. The locking brace is used to keep the cover in place on the junction box. 2 pcs per box is needed. Material: Stainless steel.	7	099 110 806
Connection cable 300mm with Super Seal socket for junction box. Mounted with grommet 2 x Ø5,5 mm and nut for junction box. 200 mm stripped wire with blade receptacles.	8	099 110 820
Connection cable 300 mm with 7 pole AMP socket for junction box. Mounted with grommet 2 x Ø4-6 mm and nut for junction box. 200 mm stripped wire with blade receptacles.	9	099 110 870
Connection cable 700 mm with 15 pole Ermax socket for junction box. Mounted with grommet 2 x Ø11-13 mm and nut for junction box. 200 mm stripped wire with blade receptacles.	10	099 110 880
Connection cable 1700 mm with 15 pole Ermax socket for junction box. Mounted with grommet 2 x Ø11-13 mm and nut for junction box. 200 mm stripped wire with blade receptacles.	11	099 110 881
Connection cable 700 mm with 15 pole Ermax plug for junction box. Mounted with grommet 2 x Ø11-13 mm and nut for junction box. 200 mm stripped wire with blade receptacles.	12	099 110 885

ELECTRONIC CONTROL UNITS



LED Control box 12 V - mini



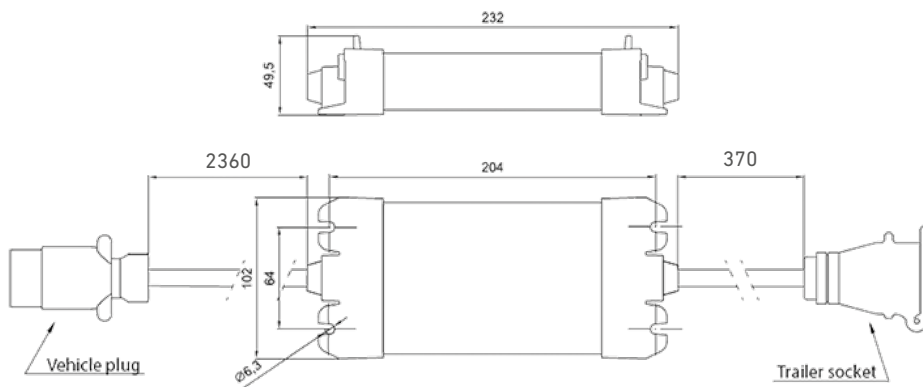
Managing indicator and ensures fully functional monitoring of the truck when LED tail lights are used at the trailer

Aluminum heat sink ensures efficient heat dissipation

Operating voltage	IP Rating	Inlet	Output	Dimension	Distance mounting holes	Article No.
12 V	IP67	250 mm cable with 7 poled AMP socket	350 mm cable with 7 poled AMP plug	120 x 52 x 30 mm	70 mm / Ø 8,5 mm	098 298 145

LED Control box 12 V

EMC

**For built-in with 7 poled plug ISO1724**

Mounted between the vehicle (ISO1724 plug) and the trailer (ISO1724 socket)

Not to be used in a bulb installation

For built-in with 13 poled plug ISO11446

Mounted between the vehicle (ISO11446 plug) and the trailer (ISO11446 socket)

Not to be used in a bulb installation

Managing and controls:

Position light	- with consumption > 30mA resistor 2 x 4W is switched on
Direction indicator	- with consumption > 80mA resistor 2 x 17W is switched on
Stop light	- with consumption > 150mA resistor 1 x 35W is switched on
Rear fog light	- with consumption > 100mA resistor 1 x 17W is switched on
Reverse light	- with consumption > 100mA resistor 1 x 17W is switched on

Dimension: 232 x 102 x 50 mm

Mounting bolt distance: 204 x 64 / Ø6,3 mm

Work temperature: -40°C to +50°C

ISO Norm	Operating voltage	IP Rating	Inlet	Output	Dimension	Article No.
1724	12V	IP67	370 mm cable with 7 poled ISO 1724 socket	2360 mm cable with 7 poled ISO 1724 plug	232 x 102 x 50 mm	098 298 150
11446	12V	IP67	370 mm cable with 13 poled ISO 11446 socket	2360 mm cable with 7 poled ISO 1724 plug	232 x 102 x 50 mm	098 298 155

PLUGS & SOCKETS



Plugs and accessories



Plug type	Yellow rubber grommet	Number of poles	Blade receptacle	Red end grommet	Pos.	Article No.
Super Seal plug	Ø 1,8 - 2,4 mm	2	Plug grommet 0,5 - 1,0 mm ²		1	099 110 019
Super Seal socket	Ø 1,8 - 2,4 mm	2	plug 0,5 - 1,0 mm ²		2	099 110 018
Super Seal plug	Ø 1,8 - 2,4 mm	3	Plug grommet 0,5 - 1,0 mm ²	✓	3	099 111 102
Super Seal socket	Ø 1,8 - 2,4 mm	3	Plug grommet 0,5 - 1,0 mm ²	✓	4	099 111 103
Super Seal plug	Ø 1,8 - 2,4 mm	4	Plug grommet 0,5 - 1,0 mm ²	✓	5	099 111 032
Super Seal socket	Ø 1,8 - 2,4 mm	4	Plug grommet 0,5 - 1,0 mm ²	✓	6	099 111 026

Accessories

Rubber grommet for 2 poled Super Seal plug	7	099 110 712
Rubber grommet for 3 poled Super Seal plug	8	099 110 713
Rubber grommet for 4 poled Super Seal plug	9	099 110 714
T-coupling for 2 poled Super seal plug (3 sockets)	10	099 111 415
Blanking plugs for 2 poled Super Seal socket - black plastic	11	099 110 028
Blanking plugs for 2 poled Super Seal plug - black plastic	12	099 110 029

Plugs and accessories



Plug type	Number of poles	Pin receptacle	Grommet	White grommet	Transparent end grommet	Pos.	Article No.
AMP 1.5 socket Straight	4	1,0-2,5mm ²	1,2-2,1 mm (Yellow)			1	099 110 468
AMP 1.5 plug Angled	4	0,5-1,0 mm ²	1,2-2,1 mm (Grey)		✓	2	099 110 469
5 poled plug left	5					3	098 295 076
5 poled plug, right	5					4	098 295 078
AMP 1,5 plug Straight	7	0,5 - 1,0 mm ² 1,0 - 2,5 mm ²	∅ 1,2 - 2,1 mm	∅ 2,2 - 3,0 mm	✓	5	099 111 481
AMP 1,5 plug Angled	7	0,5 - 1,0 mm ² 1,0 - 2,5 mm ²	∅ 1,2 - 2,1 mm	∅ 2,2 - 3,0 mm	✓	6	099 111 485
AMP 1,5 socket Straight	7	0,5 - 1,0 mm ² 1,0 - 2,5 mm ²	∅ 1,2 - 2,1 mm	∅ 2,2 - 3,0 mm	✓	7	099 111 541

Accessories

Rubber grommet for 7- and 4 poled AMP plug/socket - with cable inlet ∅5,8 mm	8	099 110 715
Rubber grommet for 7- and 4 poled AMP plug/socket - with 2 x cable inlet ∅5,8 mm	9	099 110 716
Rubber grommet for 7- and 4 poled AMP plug/socket - with 2 x cable inlet - 1 x ∅5,8 mm / 1 x 5,5x3,3 mm for side cable	10	099 110 717
Blanking plugs for 7 poled AMP-socket, black plastic	11	099 110 023
Blanking plugs for 7 poled AMP-plug with bayonet gland, black plastic	12	099 110 026

Plugs - Deutsch (DT)



Pos. 1



Pos. 2



Pos. 3



Pos. 4

Plug type	Number of poles	Plug type	Female terminal	Male terminal	Blade receptacle	Blade terminal	Pos	Article No.
Deutsch (DT)	2	Plug	✓		0,75-2,0 mm ²		1	098 291 690
Deutsch (DT)	2	Socket		✓		0,75-2,0 mm ²	2	099 111 043
Deutsch (DT)	4	Plug	✓		0,75-2,0 mm ²		3	099 111 059
Deutsch (DT)	4	Socket		✓		0,75-2,0 mm ²	4	099 111 054

3 poled plugs & sockets, 12 / 24 V



Pos 1



Pos 2



Pos 3



Pos 4



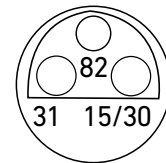
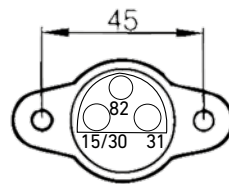
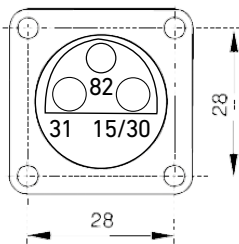
Pos 5



Pos 6



Pos 7



ISO Norm	Plug type	Number of poles	Material	Connection	Consumption	Pos	Article No.
--	Socket	3	Plastic	Screw connection - for cable Ø: max 10 mm	20 A	1	090 133 301
--	Plug	3	Plastic	Screw connection - for cable Ø: max 10 mm	16 A	2	090 133 312
--	Socket	3	Plastic	Flat plug connection - 6,3 x 0,8 mm	2x25 A; 1x5 A	3	090 133 304
--	Plug	3	Plastic	Screw connection - for cable Ø: max 10 mm		4	090 133 315
ISO 9680	Socket	3	Plastic	Flat plug connection 2 x 6,3 x 0,8 mm and 1 x 4,8 x 0,8 mm	2x25 A; 1x5 A	3	090 133 306
ISO 9680	Socket	3	Plastic	Flat plug connection 2 x 6,3 x 0,8 mm and 1 x 4,8 x 0,8 mm	2x25 A; 1x5 A	3	090 133 308
ISO 9680	Plug	3	Plastic	Flat plug connection 2 x 6,3 x 0,8 mm and 1 x 4,8 x 0,8 mm	2x25 A; 1x5 A	7	090 133 317

7 poled plugs & sockets, 12 V



Pos 1



Pos 2



Pos 3



Pos 4



Pos 5



Pos 6

ISO Norm	Plug type	Number of poles	Material	Connection	Consumption	Pos	Article No.
1724	plug	7	Plastic	Screw connection - for cable Ø: max 10 mm	20 A	1	090 147 328
1724	plug	7	Plastic	Flat plug connection - 6,3 x 0,8 mm	20 A	2	090 147 329
1724	socket	7	Plastic	Screw connection - for cable Ø: max 10 mm	20 A	3	090 147 335
1724	socket	7	Plastic	Screw connection - for cable Ø: max 10 mm	20 A	4	090 147 727
1724	socket	7	Plastic	Screw connection - for cable Ø: max 10 mm	20 A	5	090 147 716*
1724	socket	7	Plastic	Screw connection - for cable Ø: max 10 mm	20 A	6	090 147 717

Accessories

Rubber gasket for ISO 1724 socket with 3 cable outlet		7	090 147 914
* 090 147 716 – With cable gland + rubber grommet for one or two cables			

13 poled plugs & sockets, 12 V



Pos 1



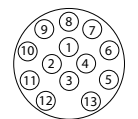
Pos 2



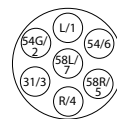
Pos 3



Pos 4



ISO 11446



ISO 1724

ISO Norm	Plug type	Number of poles	Material	Connection	Consumption	Pos	Article No.
11446	plug	13	Plastic	Screw connection with 1 Kabelausgang - for cable Ø: max 10 mm	20 A	1	090 163 604
11446	plug	13	Plastic	Screw connection with 3 Kabelausgang - for cable Ø: max 10 mm	20 A	2	090 163 605
11446	socket	13	Plastic	Schrauben- and Bajonettanschluss - for cable Ø: max 10 mm	20 A	3	090 163 402
11446	Adapter		Plastic	13-polig socket an 7-polig plug	20 A	4	090 163 819

Accessories

Rubber gasket for: 090 163 402/411	090 163 923
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