



LED Lights

Lights
Display Devices
Signal Devices

touch • switch • light



LED Lights

ESCHA TSL lights are mainly used for applications with special requirements such as robustness, tightness, and functional reliability.

ESCHA TSL lights are specifically designed for direct installation in harsh environments without any additional protection.

Traffic Engineering...

Bus and Railway:

Buses and railways operate worldwide along various longitudes and latitudes. TSL products are specifically designed for reliable operation in all climate zones.

For instance, an outdoor signal light should not only operate reliably in extreme heat or freezing temperatures, but also in dusty and humid conditions.

Special Trucks...

Firetrucks, Military and Construction Vehicles:

These vehicles are often used under rough conditions and place high demands on the equipment used on board.

ESCHA TSL LED lights are resistant to shock and vibration.

Machine Illumination...

Machine Tools:

For decades, machine wiring has developed from electrical cabinets to decentralized IP67 solutions. For example, today sensors in robust housings are exposed to harsh environments.

ESCHA TSL has integrated precisely this heavy-duty technology into the field of machine illumination.



ESCHA TSL GmbH
Elberfelder Str. 1 . 58553 Halver, Germany
Sales
Phone: +49 2353 66796-0
Fax: +49 2353 66796-799
info@escha-tsl.com . www.escha-tsl.com

ESCHA TSL is a member of the TURCK group.

Lights

touch • switch • light

Lights

Spotlight with 3x3 Watt LEDs



Type code	EL50-32°
Lamp type	Built-in light
Photometric data	
Light color	Cool white approx. 6,300K Warm white approx. 3,200K
Illumination-geometry	Circle
Angle of radiation	Approx. 32°

Mechanical data	
Protection level	IP67
Connection	Industrial connector M8
Front cover material	V2A, matte shot blasted
Back housing material	Aluminum die-cast
Protective cap	1-layer safty glas or PC
Operating temperature	-40° to +50° Celsius
Dimensions	Ø 90mm
Weight	190g

Electrical data	
Operating voltage	24/36V _{DC} or 110V _{DC}
Power consumption	5W
Current consumption	200mA at 24V _{DC}

Spotlight with 3x3 Watt LEDs



Type code	EL50-14°x49°
Lamp type	Built-in light
Photometric data	
Light color	Cool white approx. 6,300K Warm white approx. 3,200K
Illumination-geometry	Ellipse
Angle of radiation	Approx. 14°x49°

Mechanical data	
Protection level	IP67
Connection	Industrial connector M8
Front cover material	V2A, matte shot blasted
Back housing material	Aluminum die-cast
Protective cap	1-layer safty glas or PC
Operating temperature	-40° to +50° Celsius
Dimensions	Ø 90mm
Weight	190g

Electrical data	
Operating voltage	24/36V _{DC} or 110V _{DC}
Power consumption	5W
Current consumption	200mA at 24V _{DC}

Built-in Light with 2x3 Watt LEDs - with light diffuser



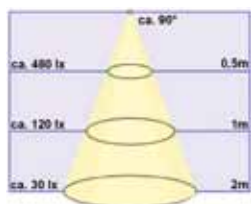
Type code	TL82 White, diffuse
Lamp type	Built-in light
Photometric data	
Light color	Cool white approx. 4,000 - 7,000K
Angle of radiation	diffuse

Mechanical data	
Protection level	IP67
Connection	2 m Connection cable, wire-end sleeves
Housing material	PA6GF15
Protective cap	2-layer safety glass with light diffuser
Operating temperature	-40° to +80° Celsius
Dimensions	120x25x23.5 mm
Weight	120g

Electrical data	
Operating voltage	24/36V _{DC}
Power consumption	6W
Current consumption	250mA

Lights

Built-in Light with 2x3 Watt LEDs - with clear glass

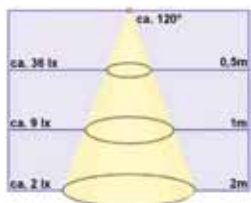


Type code	TL82 White, clear glass
Lamp type	Built-in light
Photometric data	
Light color	Cool white approx. 4,000 - 7,000K
Angle of radiation	Approx. 90°

Mechanical data	
Protection level	IP67
Connection	2m Connection cable, wire-end sleeves
Housing material	PA6GF15
LED-cover	2-layer clear safety glass
Operating temperature	-40° to +80° Celsius
Dimensions	120x25x23.5 mm
Weight	120 g

Electrical data	
Operating voltage	24/36V _{DC}
Power consumption	6W
Current consumption	250 mA

Built-in and Surface-Mounted Light with 2x1 Watt LEDs



Type code	TL80 White
Lamp type	Built-in and surface-mounted light
Photometric data	
Light color	Cool white approx. 5,600K
Angle of radiation	diffuse

Mechanical data	
Protection level	IP67
Connection	2m Connection cable, wire-end sleeves
Housing material	PA6GF15
LED-cover	2-layer safety glass with light diffuser
Operating temperature	-40° to +80° Celsius
Dimensions	120x25x23.5 mm
Weight	120 g

Electrical data	
Operating voltage	24V _{DC}
Power consumption	2.5W
Current consumption	100 mA

Built-in and Surface-Mounted Light with 2x1 Watt LEDs



Type code	TL80 White, clear glass
Lamp type	Built-in and surface-mounted light
Photometric data	
Light color	Cool white approx. 5,600K
Angle of radiation	Approx. 120°, clear

Mechanical data	
Protection level	IP67
Connection	2m Connection cable, wire-end sleeves
Housing material	PA6GF15
LED-cover	2-layer clear safety glass
Operating temperature	-40° to +80° Celsius
Dimensions	120x25x23.5 mm
Weight	120 g

Electrical data	
Operating voltage	24V _{DC}
Power consumption	2.5W
Current consumption	100 mA

Lights

Built-in Light with 2 x 3 Watt LEDs - with clear glass



Type code	TL83 white, clear glass
Lamp type	Built-in light
Photometric data	
Light color	Cool white approx. 6,300K
Angle of radiation	approx. 80°

Mechanical data	
Protection level	IP67
Connection	Ø8
Housing material	Aluminum die-cast
LED-cover	1-layer clear safety glass
Operating temperature	-40° to +50° Celsius
Dimensions	120x25x16 mm
Weight	100 g

Electrical data	
Operating voltage	24V _{DC}
Power consumption	4W
Current consumption	160 mA

Built-in Light with 2 x 3 Watt LEDs - with light diffuser

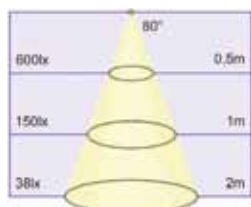


Type code TL82	TL83 white, diffuse
Lamp type	Built-in light
Photometric data	
Light color	Cool white approx. 6,300K
Angle of radiation	diffuse

Mechanical data	
Protection level	IP67
Connection	Ø8
Housing material	Aluminum die-cast
LED-cover	2-layer safety glass with light diffuser
Operating temperature	-40° to +50° Celsius
Dimensions	120x25x16 mm
Weight	100 g

Electrical data	
Operating voltage	24V _{DC}
Power consumption	4W
Current consumption	160 mA

Built-in Light with 2 x 3 Watt LEDs - with clear glass



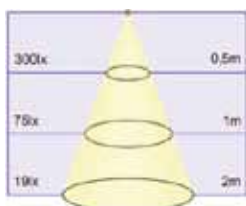
Type code	TL83 white, clear glass
Lamp type	Built-in light
Photometric data	
Light color	Cool white approx. 6,300K
Angle of radiation	approx. 80°

Mechanische Daten	
Protection level	IP67
Connection	M12-connector
Housing material	Aluminum die-cast
LED-cover	1-layer clear safety glass
Operating temperature	-40° to +50° Celsius
Dimensions	120x25x16 mm
Weight	100 g

Electrical data	
Operating voltage	24V _{DC}
Power consumption	4W
Current consumption	160 mA

Lights

Built-in Light with 2 x 3 Watt LEDs - with light diffuser

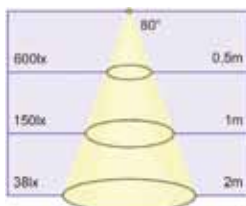


Type code TL82	TL83 white, diffuse
Lamp type	Built-in light
Photometric data	
Light color	Cool white approx. 6,300K
Angle of radiation	diffuse

Mechanical data	
Protection level	IP67
Connection	M12-connector
Housing material	Aluminum die-cast
LED-cover	2-layer safety glass with light diffuser
Operating temperature	-40° to +50° Celsius
Dimensions	120 x 25 x 16 mm
Weight	100 g

Electrical data	
Operating voltage	24V _{DC}
Power consumption	4W
Current consumption	160 mA

Built-in Light with 2 x 3 Watt LEDs - with clear glass

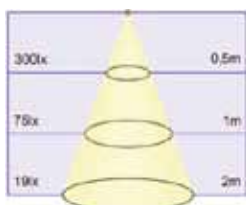


Type code	TL83 white, clear glass
Lamp type	Built-in light
Photometric data	
Light color	Cool white approx. 6,300K
Angle of radiation	approx. 80°

Mechanical data	
Protection level	IP67
Connection	2 m Connection cable, wire-end sleeves
Housing material	Aluminum die-cast
LED-cover	1-layer clear safety glass
Operating temperature	-40° to +50° Celsius
Dimensions	120 x 25 x 16 mm
Weight	100 g

Electrical data	
Operating voltage	24V _{DC}
Power consumption	4W
Current consumption	160 mA

Built-in Light with 2 x 3 Watt LEDs - with light diffuser



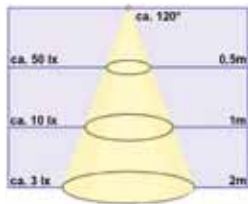
Type code TL82	TL83 white, diffuse
Lamp type	Built-in light
Photometric data	
Light color	Cool white approx. 6,300K
Angle of radiation	diffuse

Mechanical data	
Protection level	IP67
Connection	2 m Connection cable, wire-end sleeves
Housing material	Aluminum die-cast
LED-cover	2-layer safety glass with light diffuser
Operating temperature	-40° to +50° Celsius
Dimensions	120 x 25 x 16 mm
Weight	100 g

Electrical data	
Operating voltage	24V _{DC}
Power consumption	4W
Current consumption	160 mA

Lights

Built-in Light with 4 x 1 Watt LEDs

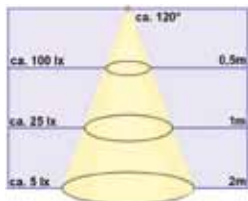


Type code	ELE150 White
Lamp type	Built-in light
Photometric data	
Light color	Cool white approx. 6,300K
Angle of radiation	Approx. 120°, diffuse

Mechanical data	
Protection level	IP67
Connection	2 m Connection cable, wire-end sleeves
Front cover material	V2A, matte shot blasted
Back housing material	Polycarbonate UL94V0
LED-cover	Special frosted glass
Operating temperature	-40° to +80° Celsius
Dimensions	200x50x55 mm
Weight	300g

Electrical data	
Operating voltage	24V _{DC} or 110V _{DC}
Power consumption	4 W
Current consumption	150 mA at 24V _{DC}

Built-in Light with 3 x 1 Watt LEDs

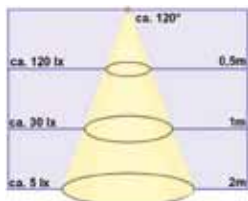


Type code	ELE63 White
Lamp type	Built-in light
Photometric data	
Light color	Cool white approx. 6,300K
Angle of radiation	Approx. 120°, diffuse

Mechanical data	
Protection level	IP67
Connection	2 m Connection cable, wire-end sleeves
Front cover material	V2A, matte shot blasted
Back housing material	PA6GF15
LED-cover	Special glass, frosted and hardened
Operating temperature	-40° to +80° Celsius
Dimensions	Ø 100 mm
Weight	280g

Electrical data	
Operating voltage	24V _{DC} or 110V _{DC}
Power consumption	2.5 W
Current consumption	100 mA at 24V _{DC}

Built-in Light with 3 x 1 Watt LEDs



Type code	ELK63 White
Lamp type	Built-in light
Photometric data	
Light color	Cool white approx. 6,300K
Angle of radiation	diffuse

Mechanical data	
Protection level	IP67
Connection	2 m Connection cable, wire-end sleeves
Front cover material	V2A, matte shot blasted
Back housing material	PA6GF15
LED-cover	Special glass, frosted and hardened
Operating temperature	-40° to +80° Celsius
Dimensions	Ø 100 mm
Weight	280g

Electrical data	
Operating voltage	24V _{DC} or 110V _{DC}
Power consumption	2.5 W
Current consumption	100 mA at 24V _{DC}

Lights

Step Light with 2x3 Watt LEDs



Type code	TL82 White, diffuse
Lamp type	Built-in light
Photometric data	
Light color	Cool white approx. 4,000 - 7,000K
Angle of radiation	diffuse
Mechanical data	
Protection level	IP67
Connection	2m Connection cable, wire-end sleeves
Housing material	Steel, coated RAL 9006
Lamp	TL82 White, diffuse
Operating temperature	-40° to +80° Celsius
Dimensions	120x25x23.5 mm
Weight	120g
Electrical data	
Operating voltage	24/36V _{DC}
Power consumption	6W
Current consumption	250 mA
Housing color	Additional colors upon request
LED color	Additional colors upon request

Step Light with 2x3 Watt LEDs

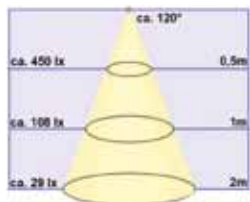


Type code	TL82 White, clear
Lamp type	Built-in light
Photometric data	
Light color	Cool white approx. 4,000 - 7,000K
Angle of radiation	Approx. 120°, clear
Mechanical data	
Protection level	IP67
Connection	2m Connection cable, wire-end sleeves
Housing material	Steel, coated RAL 9006
Lamp	TL82 White, clear glass
Operating temperature	-40° to +80° Celsius
Dimensions	120x25x23.5 mm
Weight	120g
Electrical data	
Operating voltage	24/36V _{DC}
Power consumption	6W
Current consumption	250 mA
Housing color	Additional colors upon request
LED color	Additional colors upon request



Lights

Cube Light with 3x3 Watt LEDs



Type code	1SB CWZ M3301-4W
Lamp type	Cube
Photometric data	
Light color	Cool white approx. 6,300K
Illumination-geometry	Circle
Angle of radiation	Approx. 120°

Mechanical data	
Protection level	IP67
Connection	Industrial connector M12 x 1
Housing material	Aluminum die-cast
LED-cover	1-layer safety glass
Operating temperature	-40° to +50° Celsius
Dimensions	41 x 41 x 66 mm
Weight	200 g

Electrical data	
Operating voltage	24/36V _{DC}
Power consumption	4 W
Current consumption	150 mA

Cube Light with 3x3 Watt LEDs - with swan neck

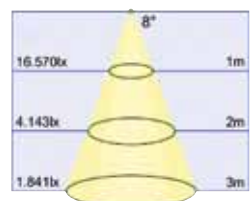


Type code	1SB CWZ M3304-4W
Lamp type	Cube
Photometric data	
Light color	Cool white approx. 6,300K
Illumination-geometry	Circle
Angle of radiation	Approx. 120°

Mechanical data	
Protection level	IP67
Connection	Industrial connector M12 x 1
Housing material	Aluminum die-cast
LED-cover	1-layer safety glass
Operating temperature	-40° to +50° Celsius
Dimensions	41 x 41 x 66 mm
Weight	680 g

Electrical data	
Operating voltage	24/36V _{DC}
Power consumption	4 W
Current consumption	150 mA

High-Power LED-Spot - with swan neck



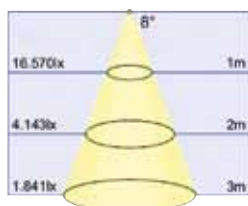
Type code	1MB CWS M3503-24W
Lamp type	HPLS
Photometric data	
Light color	Cool white approx. 6,300K
Illumination-geometry	Circle
Angle of radiation	Approx. 8°

Mechanical data	
Protection level	IP67
Connection	Industrial connector M12 x 1
Housing material	Aluminum die-cast
LED-cover	1-layer safety glass
Operating temperature	-40° to +50° Celsius
Dimensions	Ø 160 mm
Weight	Approx. 1,750 g

Electrical data	
Operating voltage	24V _{DC}
Power consumption	Approx. 24 W
Current consumption	Approx. 1,000 mA

Lights

High-Power LED-Spot EX-Protected

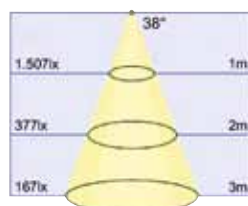


Type code	1MB CWS P35X1-24W
Lamp type	HPLS-EX
Photometric data	
Light color	Cool white approx. 6,300K
Illumination-geometry	Circle
Angle of radiation	Approx. 8°

Mechanical data	
Protection level	IP67
Connection	Rubber cable, wire-end sleeves
Housing material	Aluminum die-cast
LED-cover	1-layer safety glass
Operating temperature	-40° to +50° Celsius
Dimensions	Ø 160mm
Weight	Approx. 1,000g

Electrical data	
Operating voltage	24V _{DC}
Power consumption	Approx. 24W
Current consumption	Approx. 1,000mA

High-Power LED-Spot EX-Protected

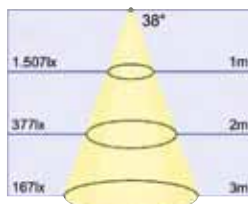


Type code	1MB CWN P35X1-24W
Lamp type	HPLS-EX
Photometric data	
Light color	Cool white approx. 6,300K
Illumination-geometry	Circle
Angle of radiation	Approx. 38°

Mechanical data	
Protection level	IP67
Connection	Rubber cable, wire-end sleeves
Housing material	Aluminum die-cast
LED-cover	1-layer safety glass
Operating temperature	-40° to +50° Celsius
Dimensions	Ø 160mm
Weight	Approx. 1,000g

Electrical data	
Operating voltage	24V _{DC}
Power consumption	Approx. 24W
Current consumption	Approx. 1,000mA

High-Power LED-Spot



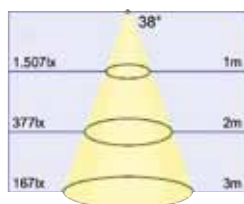
Type code	1ME NWN P3501-24W
Lamp type	HPLS
Photometric data	
Light color	Neutral white approx. 4,200K
Illumination-geometry	Circle
Angle of radiation	Approx. 38°

Mechanical data	
Protection level	IP67
Connection	Rubber cable, wire-end sleeves
Housing material	Aluminum die-cast
LED-cover	1-layer safety glass
Operating temperature	-40° to +50° Celsius
Dimensions	Ø 160mm
Weight	Approx. 1,000g

Electrical data	
Operating voltage	230V _{AC}
Power consumption	Approx. 24W
Current consumption	Approx. 150mA

Lights

High-Power LED-Spot

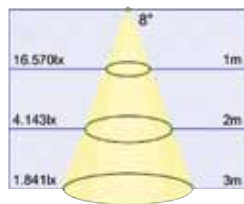


Type code	1ME NWN Z3501-24W
Lamp type	HPLS
Photometric data	
Light color	Neutral white approx. 4,200K
Illumination-geometry	Circle
Angle of radiation	Approx. 38°

Mechanical data	
Protection level	IP67
Connection	3-phase track adapter
Housing material	Aluminum die-cast
LED-cover	1-layer safety glass
Operating temperature	-40° to +50° Celsius
Dimensions	Ø 160mm
Weight	Approx. 1,000g

Electrical data	
Operating voltage	230V _{AC}
Power consumption	Approx. 24W
Current consumption	Approx. 150mA

High-Power LED-Spot

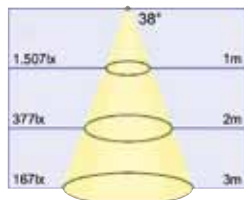


Type code	1MB CWS M3501-24W
Lamp type	HPLS
Photometric data	
Light color	Cool white approx. 6,300K
Illumination-geometry	Circle
Angle of radiation	Approx. 8°

Mechanical data	
Protection level	IP67
Connection	Industrial connector M12x1
Housing material	Aluminum die-cast
LED-cover	1-layer safety glass
Operating temperature	-40° to +50° Celsius
Dimensions	Ø 160mm
Weight	Approx. 1,000g

Electrical data	
Operating voltage	24V _{DC}
Power consumption	Approx. 24W
Current consumption	Approx. 1,000mA

High-Power LED-Spot



Type code	1MB CWN M3501-24W
Lamp type	HPLS
Photometric data	
Light color	Cool white approx. 6,300K
Illumination-geometry	Circle
Angle of radiation	Approx. 38°

Mechanical data	
Protection level	IP67
Connection	Industrial connector M12x1
Housing material	Aluminum die-cast
LED-cover	1-layer safety glass
Operating temperature	-40° to +50° Celsius
Dimensions	Ø 160mm
Weight	Approx. 1,000g

Electrical data	
Operating voltage	24V _{DC}
Power consumption	Approx. 24W
Current consumption	Approx. 1,000mA

Lights

High-Power LED-Spot



Type code 1ME ZBN P3501-24W

Lamp type HPLS

Photometric data

Light color Blue

Illumination-geometry Circle

Angle of radiation Approx. 38°

Mechanical data

Protection level IP67

Connection Rubber cable, wire-end sleeves

Housing material Aluminum die-cast

LED-cover 1-layer safety glass

Operating temperature -40° to +50° Celsius

Dimensions Ø 160mm

Weight 1,000g

Electrical data

Operating voltage 230V_{AC}

Power consumption Approx. 24W

Current consumption Approx. 150mA

High-Power LED-Spot



Type code 1ME ZRN P3501-24W

Lamp type HPLS

Photometric data

Light color Red

Illumination-geometry Circle

Angle of radiation Approx. 38°

Mechanical data

Protection level IP67

Connection Rubber cable, wire-end sleeves

Housing material Aluminum die-cast

LED-cover 1-layer safety glass

Operating temperature -40° to +50° Celsius

Dimensions Ø 160mm

Weight Approx. 1,000g

Electrical data

Operating voltage 230V_{AC}

Power consumption Approx. 24W

Current consumption Approx. 150mA

Tubular Light



Type code 1LB CWN M3101-12W

Lamp type PL18

Photometric data

Light color Cool white approx. 6,300K

Illumination-geometry Area

Angle of radiation 40°

Mechanical data

Protection level IP67

Connection Industrial connector M12 x 1

Housing material Extruded aluminum, anodized

LED-cover 1-layer safety glass

Operating temperature -40° to +50° Celsius

Dimensions Ø 60x447 mm

Weight Approx. 1,300g




Electrical data

Operating voltage 24V_{DC}

Power consumption 12W

Current consumption 500mA

Lights

Tubular Light			
	Type code Lamp type	1LE CWN P3101-12W PL18	
	Photometric data Light color Illumination-geometry Angle of radiation	Cool white approx. 6,300 K Area 40°	
	Mechanical data Protection level Connection Housing material LED-cover Operating temperature Dimensions Weight	IP67 Rubber cable, wire-end sleeves Extruded aluminum, anodized 1-layer safety glass -40° to +50° Celsius Ø 60x447 mm Approx. 1,300 g	
	Electrical data Operating voltage Power consumption Current consumption	230V _{AC} 12 W 55 mA	
Tubular Light			
	Type code Lamp type	1LB CWN M3101-24W PL18	
	Photometric data Light color Illumination-geometry Angle of radiation	Cool white approx. 6,300 K Area 40°	
	Mechanical data Protection level Connection Housing material LED-cover Operating temperature Dimensions Weight	IP67 Industrial connector M12x1 Extruded aluminum, anodized 1-layer safety glass -40° to +50° Celsius Ø 60x835 mm Approx. 2,700 g	
	Electrical data Operating voltage Power consumption Current consumption	24V _{DC} 24 W 1,000 mA	
Tubular Light			
	Type code Lamp type	1LE CWN P3101-24W PL18	
	Photometric data Light color Illumination-geometry Angle of radiation	Cool white approx. 6,300 K Area 40°	
	Mechanical data Protection level Connection Housing material LED-cover Operating temperature Dimensions Weight	IP67 Rubber cable, wire-end sleeves Extruded aluminum, anodized 1-layer safety glass -40° to +50° Celsius Ø 60x835 mm Approx. 2,700 g	
	Electrical data Operating voltage Power consumption Current consumption	230V _{AC} 24 W 110 mA	

Lights

PL14-300 Surface-mounted light



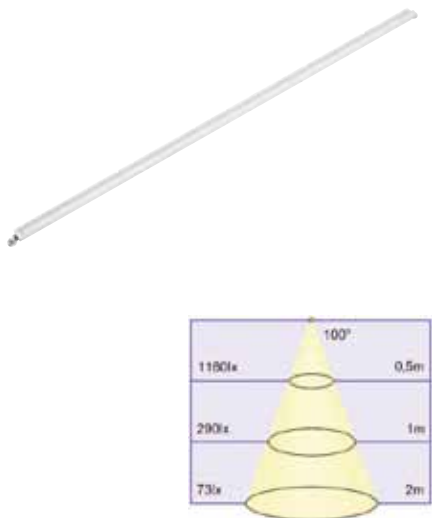
Type code	PL14-300
Lamp type	Surface-mounted light
Photometric data	
Light color	white*
Angle of radiation	approx. 100°

Mechanical data	
Protection level	IP20
Connection	M8-Connector
Housing material	Aluminum
LED-cover	PMMA
Operating temperature	-10° to +40° Celsius
Dimensions	290x23x17 mm
Weight	120 g

Electrical data	
Operating voltage	48V _{DC}
Power consumption	7W
Current consumption	140 mA

*Individuell adjustable color temperature with Dimmer

PL14-600 Surface-mounted light



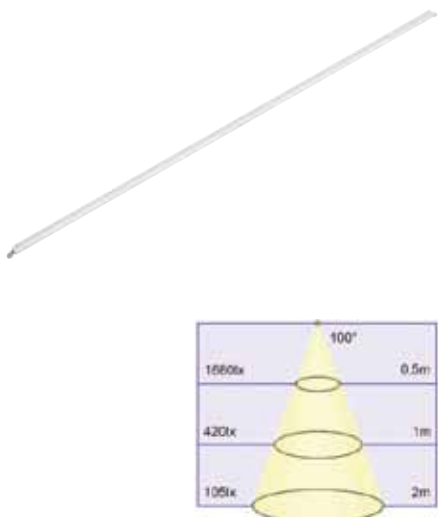
Type code	PL14-600
Lamp type	Surface-mounted light
Photometric data	
Light color	white*
Angle of radiation	approx. 100°

Mechanical data	
Protection level	IP20
Connection	M8-Connector
Housing material	Aluminum
LED-cover	PMMA
Operating temperature	-10° to +40° Celsius
Dimensions	550x23x17 mm
Weight	250 g

Electrical data	
Operating voltage	48V _{DC}
Power consumption	14W
Current consumption	290 mA

*Individuell adjustable color temperature with Dimmer

PL14-800 Surface-mounted light



Type code	PL14-800
Lamp type	Surface-mounted light
Photometric data	
Light color	white*
Angle of radiation	approx. 100°

Mechanical data	
Protection level	IP20
Connection	M8-Connector
Housing material	Aluminum
LED-cover	PMMA
Operating temperature	-10° to +40° Celsius
Dimensions	810x23x17 mm
Weight	330 g

Electrical data	
Operating voltage	48V _{DC}
Power consumption	20W
Current consumption	400 mA

*Individuell adjustable color temperature with Dimmer

Lights

PL30-400 Built-in light



Type code	PL30-400
Lamp type	Built-in light
Photometric data	
Light color	Cool white approx. 6,300K
Angle of radiation	approx. 80x 120°

Mechanical data	
Protection level	IP67
Connection	M12-Connector
Housing material	Aluminum
LED-cover	1-layer clear safety glass
Operating temperature	-20° to +50° Celsius
Dimensions	420x46x30 mm
Weight	600g

Electrical data	
Operating voltage	24V _{DC}
Power consumption	15W
Current consumption	620mA

PL30-800 Built-in light



Type code	PL30-800
Lamp type	Built-in light
Photometric data	
Light color	Cool white approx. 6,300K
Angle of radiation	approx. 80x 120°

Mechanical data	
Protection level	IP67
Connection	M12-Connector
Housing material	Aluminum
LED-cover	1-layer clear safety glass
Operating temperature	-20° to +50° Celsius
Dimensions	820x46x30 mm
Weight	600g

Electrical data	
Operating voltage	24V _{DC}
Power consumption	30W
Current consumption	1240mA

PL150 Sureface-mounted light



Type code	PL150
Lamp type	Sureface-mounted light
Photometric data	
Light color	white*
Angle of radiation	approx. 60°

Mechanical data	
Protection level	IP20
Connection	Ø8
Housing material	Aluminum
LED-cover	PMMA
Operating temperature	-10° to +40° Celsius
Dimensions	825x198x31 mm
Weight	3kg




Electrical data	
Operating voltage	48V _{DC}
Power consumption	70W
Current consumption	1460mA

* Individuell adjustable color temperature with Dimmer






Display Devices
Signal Devices




Display Devices

Display Device		
	Type code Type Photometric data Background illumination Signal sound	ML100 Door out of order Red No
	Mechanical data Protection level Connection Front cover material Intermediate frame Visual display Operating temperature Dimensions Weight	IP67 2 m Connection cable, wire-end sleeves V2A, matte shot blasted Aluminium, powder-coated 1-layer safety glass, back-printed -40° to +80° Celsius 182 x 104 x 35 mm 900 g
	Electrical data Operating voltage Power consumption Current consumption	24 V _{DC} 5 W 200 mA
	Pictograph/text	Additional colors upon request
	Display Device	
	Type code Type Photometric data Background illumination Signal sound	PKM Door out of order Red No
	Mechanical data Protection level Connection Mounting ring Housing material Operating temperature Dimensions Weight	IP67 2 m Connection cable, wire-end sleeves PA6GF15 PC -40° to +80° Celsius Ø 87 mm 100 g
	Electrical data Operating voltage Power consumption Current consumption	24 V _{DC} 1 W 300 mA
	Pictograph/text	Additional colors upon request
	Display Device	
	Type code Type Photometric data Background illumination Signal sound	ML52 WC Display Green, red Piezo
	Mechanical data Protection level Connection Front cover material Back housing material Protective cap Operating temperature Dimensions Weight	IP67 2 m Connection cable, wire-end sleeves V2A, matte shot blasted PA6GF15 PC -40° to +80° Celsius Ø 100 mm 210 g
	Electrical data Operating voltage Power consumption Current consumption	24 V _{DC} oder 110 V _{DC} 2 W 60 mA
	Pictograph/text	Additional colors upon request

Display Devices

Display Device		
	Type code Type Photometric data Background illumination Signal sound	ML52 WC-Out of order-display Red Piezo
	Mechanical data Protection level Connection Front cover material Housing material Protective cap Operating temperature Dimensions Weight	IP67 2m Connection cable, wire-end sleeves V2A, matte shot blasted PA6GF15 PC -40° to +80° Celsius Ø 100 mm 210 g
	Electrical data Operating voltage Power consumption Current consumption	24V _{DC} or 110V _{DC} 2W 60mA
	Pictograph/text	Additional colors upon request
	Display Device	
	Type code Type Photometric data Background illumination Signal sound	ML63 Service display White Piezo
	Mechanical data Protection level Connection Front cover material Housing material Protective cap Operating temperature Dimensions Weight	IP67 2m Connection cable, wire-end sleeves V2A, matte shot blasted PA6GF15 1-layer safety glass, back-printed -40° to +80° Celsius Ø 100 mm 260 g
	Electrical data Operating voltage Power consumption Current consumption	24V _{DC} 2W 60mA
	Pictograph/text	Additional colors upon request
	Display Device	
	Type code Type Photometric data LED display Signal sound	PKF Filling level display 4-segment display, yellow 12 LEDs illuminated by quarters No
	Mechanical data Protection level Connection Mounting ring Housing material Operating temperature Dimensions Weight	IP67 2m Connection cable, wire-end sleeves PA6GF15 PC -40° to +80° Celsius Ø 87 mm 100 g
	Electrical data Operating voltage Power consumption Current consumption	24V _{DC} 2W 60mA
	Pictograph/text	Additional colors upon request
	Display Device	

Display Devices

Audible Device		
	Type code Type Acoustics data Signal sound LED display	WM28 Audible/visual warning alert Piezo, max. 70 dB Green = Ready to use mode Red = Warning mode
	Mechanical data Protection level Connection Mounting ring Housing material Operating temperature Dimensions Weight	IP67 2 m Connection cable, wire-end sleeves PA6GF15 PC -40° to +80° Celsius Ø 100 mm 80 g
	Electrical data Operating voltage Power consumption Current consumption	24 V _{DC} 1.5 W 50 mA
Warning Device		
	Type code Type Acoustics data Loudspeaker Signal sound	WM87 Audible alert Up to 7 tones and sound sequence, freely programmable Max. 70 dB, adaptable in environments with ambient noise
	Mechanical data Protection level Connection Front cover Housing material Operating temperature Dimensions Weight	Max. IP69K 2 m Connection cable, wire-end sleeves Oval or round V2A, matte shot blasted -40° to +80° Celsius 87 x 100 mm, Ø 87 mm 200 g
	Electrical data Operating voltage Power consumption Current consumption	24 V _{DC} to 110 V _{DC} 2 W 60 mA
Emergency Device		
	Type code Type Photometric data Display window Sound converter Signal sound	GSE101 Intercom device LEDs background illumination Dynamic 70 dB
	Mechanical data Protection level Connection Visual display Housing material Housing color Push-button Push-button color Operating temperature Dimensions Weight	IP40 Tab connector 6.3x0.8 mm Acrylic, back-printed Aluminium die-cast RAL colors, free choice Single pole, normally open Free color choice -30° to +60° Celsius 150 x 60 x 90.3 mm 800 g
	Electrical data Operating voltage Power consumption Current consumption	24 V _{DC} 1 W 30 mA
	Pictograph/text	Additional colors upon request

Signal Lights

Signal Light with 2x1 Watt LEDs



Type code	TL80 Blue
Lamp type	Signal light
Photometric data	
Light color	Blue
Angle of radiation	Approx. 120°, diffuse

Mechanical data	
Protection level	IP67
Connection	2m Connection cable, wire-end sleeves
Housing material	PA6GF15
LED-cover	2-layer safety glass with lighting diffuser
Operating temperature	-40° to +80° Celsius
Dimensions	120x25x23.5 mm
Weight	120 g

Electrical data	
Operating voltage	24V _{DC}
Power consumption	2.5W
Current consumption	100 mA

Signal Light with 2x1 Watt LEDs



Type code	TL80 Yellow
Lamp type	Signal light
Photometric data	
Light color	Yellow
Angle of radiation	Approx. 120°, diffuse

Mechanical data	
Protection level	IP67
Connection	2m Connection cable, wire-end sleeves
Housing material	PA6GF15
LED-cover	2-layer safety glass with lighting diffuser
Operating temperature	-40° to +80° Celsius
Dimensions	120x25x23.5 mm
Weight	120 g

Electrical data	
Operating voltage	24V _{DC}
Power consumption	2.5W
Current consumption	100 mA



Signal Lights

Signal Light with 2x1 Watt LEDs



Type code	TL80 Red
Lamp type	Signal light
Photometric data	
Light color	Red
Angle of radiation	Approx. 120°, diffuse

Mechanical data	
Protection level	IP67
Connection	2 m Connection cable, wire-end sleeves
Housing material	PA6GF15
LED-cover	2-layer safety glass with lighting diffuser
Operating temperature	-40° to +80° Celsius
Dimensions	120x25x23.5 mm
Weight	120 g

Electrical data	
Operating voltage	24V _{DC}
Power consumption	2.5W
Current consumption	100 mA

Signal Light with 2x1 Watt LEDs



Type code	TL80 Green
Lamp type	Signal light
Photometric data	
Light color	Green
Angle of radiation	Approx. 120°, diffuse

Mechanical data	
Protection level	IP67
Connection	2 m Connection cable, wire-end sleeves
Housing material	PA6GF15
LED-cover	2-layer safety glass with lighting diffuser
Operating temperature	-40° to +80° Celsius
Dimensions	120x25x23.5 mm
Weight	120 g

Electrical data	
Operating voltage	24V _{DC}
Power consumption	2.5W
Current consumption	100 mA

SLE160



Type code	1MB ZRZ A1101-7W
Lamp type	Signal light
Photometric data	
Light color	Red
Angle of radiation	Approx. 120°, diffuse

Mechanical data	
Protection level	IP44
Connection	AMP Connector
Housing material	PC, UL94-V0
LED-cover	-
Operating temperature	-40° to +60° Celsius
Dimensions	160x56x15 mm
Weight	141 g

Electrical data	
Operating voltage	24V _{DC}
Power consumption	7W
Current consumption	100 mA

Signal Lights

Signal Light with 4x1 Watt LEDs



Type code	SLE150 Yellow
Lamp type	Signal light
Photometric data	
Light color	Yellow
Angle of radiation	Approx. 120°, diffuse

Mechanical data	
Protection level	IP67
Connection	2 m Connection cable, wire-end sleeves
Front cover material	V2A, matte shot blasted
Back housing material	Polycarbonate UL94V0
LED-cover	Special frosted glass
Operating temperature	-40° to +80° Celsius
Dimensions	200x50x55 mm
Weight	300g

Electrical data	
Operating voltage	24V _{DC} to 110V _{DC}
Power consumption	2.5W
Current consumption	100 mA at 24V _{DC}

Signal Light with 4x1 Watt LEDs



Type code	SLE150 Red
Lamp type	Signal light
Photometric data	
Light color	Red
Angle of radiation	Approx. 120°, diffuse

Mechanical data	
Protection level	IP67
Connection	2 m Connection cable, wire-end sleeves
Front cover material	V2A, matte shot blasted
Back housing material	Polycarbonate UL94V0
LED-cover	Special frosted glass
Operating temperature	-40° to +80° Celsius
Dimensions	200x50x55 mm
Weight	300g

Electrical data	
Operating voltage	24V _{DC} to 110V _{DC}
Power consumption	2.5W
Current consumption	100 mA at 24V _{DC}

Signal Light with 4x1 Watt LEDs



Type code	SLE150 Green
Lamp type	Signal light
Photometric data	
Light color	Green
Angle of radiation	Approx. 120°, diffuse

Mechanical data	
Protection level	IP67
Connection	2 m Connection cable, wire-end sleeves
Front cover material	V2A, matte shot blasted
Back housing material	Polycarbonate UL94V0
LED-cover	Special frosted glass
Operating temperature	-40° to +80° Celsius
Dimensions	200x50x55 mm
Weight	300g

Electrical data	
Operating voltage	24V _{DC} to 110V _{DC}
Power consumption	2.5W
Current consumption	100 mA at 24V _{DC}

Signal Lights

2-Color Built-in Light with 4 x 1 Watt LEDs - Colors are separately controlled



Type code	SLE150 2-color traffic light
Lamp type	Signal light
Photometric data	
Light color	4 LEDs ex. red, red, white, white
Angle of radiation	Approx. 120°, diffuse

Mechanical data	
Protection level	IP67
Connection	2 m Connection cable, wire-end sleeves
Front cover material	V2A, matte shot blasted
Back housing material	Polycarbonate UL94V0
LED-cover	Special frosted glass
Operating temperature	-40° to +80° Celsius
Dimensions	200x50x55 mm
Weight	300g

Electrical data	
Operating voltage	24V _{DC} to 110V _{DC}
Power consumption	2.5W
Current consumption	100mA at 24V _{DC}

2-Color Built-in Light with 4 x 1 Watt LEDs - Colors are separately controlled



Type code	SLE150 2-color traffic light
Lamp type	Signal light
Photometric data	
Light color	4 LEDs ex. red, red, green, green
Angle of radiation	Approx. 120°, diffuse

Mechanical data	
Protection level	IP67
Connection	2 m Connection cable, wire-end sleeves
Front cover material	V2A, matte shot blasted
Back housing material	Polycarbonate UL94V0
LED-cover	Special frosted glass
Operating temperature	-40° to +80° Celsius
Dimensions	200x50x55 mm
Weight	300g

Electrical data	
Operating voltage	24V _{DC} to 110V _{DC}
Power consumption	2.5W
Current consumption	100mA at 24V _{DC}

2-Color Alternate Built-in Light with 4 x 1 Watt LEDs - Colors are separately controlled



Type code	SLE150 2-color alternate signal light
Lamp type	Signal light
Photometric data	
Light color	4 LEDs ex. red, green, red, green
Angle of radiation	Approx. 120°, diffuse

Mechanical data	
Protection level	IP67
Connection	2 m Connection cable, wire-end sleeves
Front cover material	V2A, matte shot blasted
Back housing material	Polycarbonate UL94V0
LED-cover	Special frosted glass
Operating temperature	-40° to +80° Celsius
Dimensions	200x50x55 mm
Weight	300g

Electrical data	
Operating voltage	24V _{DC} to 110V _{DC}
Power consumption	2.5W
Current consumption	100mA at 24V _{DC}

Signal Lights

2-Color Alternate Built-in Light with 4 x 1 Watt LEDs - Colors are separately controlled



Type code **SLE150 2-color alternate signal light**

Lamp type Signal light

Photometric data

Light color 4 LEDs ex. red, white, red, white

Angle of radiation Approx. 120°, diffuse

Mechanical data

Protection level IP67

Connection 2m Connection cable, wire-end sleeves

Front cover material V2A, matte shot blasted

Back housing material Polycarbonate UL94V0

LED-cover Special frosted glass

Operating temperature -40° to +80° Celsius

Dimensions 200x50x55 mm

Weight 300g

Electrical data

Operating voltage 24V_{DC} to 110V_{DC}

Power consumption 2.5W

Current consumption 100 mA at 24V_{DC}

Built-in Light with 3 x 1 Watt LEDs



Type code **SLK63 Red**

Lamp type Signal light

Photometric data

Light color Red

Angle of radiation Approx. 120°, diffuse

Mechanical data

Protection level IP67

Connection 2m Connection cable, wire-end sleeves

Front cover material V2A, matte shot blasted

Back housing material PA6GF15

LED-cover Special glass, frosted and hardened

Operating temperature -40° to +80° Celsius

Dimensions Ø 100mm

Weight 280g

Electrical data

Operating voltage 24V_{DC} to 110V_{DC}

Power consumption 2.5W

Current consumption 100 mA at 24V_{DC}

Built-in Light with 3 x 1 Watt LEDs



Type code **SLK63 Blue**

Lamp type Signal light

Photometric data

Light color Blue

Angle of radiation Approx. 120°, diffuse

Mechanical data

Protection level IP67

Connection 2m Connection cable, wire-end sleeves

Front cover material V2A, matte shot blasted

Back housing material PA6GF15

LED-cover Special glass, frosted and hardened

Operating temperature -40° to +80° Celsius

Dimensions Ø 100mm

Weight 280g

Electrical data

Operating voltage 24V_{DC} to 110V_{DC}

Power consumption 2.5W

Current consumption 100 mA at 24V_{DC}

Signal Lights

Built-in Light with 3 x 1 Watt LEDs



Type code	SLK63 Yellow
Lamp type	Signal light
Photometric data	
Light color	Yellow
Angle of radiation	Approx. 120°, diffuse

Mechanical data	
Protection level	IP67
Connection	2 m Connection cable, wire-end sleeves
Front cover material	V2A, matte shot blasted
Back housing material	PA6GF15
LED-cover	Special glass, frosted and hardened
Operating temperature	-40° to +80° Celsius
Dimensions	Ø 100 mm
Weight	280 g

Electrical data	
Operating voltage	24V _{DC} to 110V _{DC}
Power consumption	2.5W
Current consumption	100 mA at 24V _{DC}

Built-in Light with 3 x 1 Watt LEDs



Type code	SLK63 Green
Lamp type	Signal light
Photometric data	
Light color	Green
Angle of radiation	Approx. 120°, diffuse

Mechanical data	
Protection level	IP67
Connection	2 m Connection cable, wire-end sleeves
Front cover material	V2A, matte shot blasted
Back housing material	PA6GF15
LED-cover	Special glass, frosted and hardened
Operating temperature	-40° to +80° Celsius
Dimensions	Ø 100 mm
Weight	280 g

Electrical data	
Operating voltage	24V _{DC} to 110V _{DC}
Power consumption	2.5W
Current consumption	100 mA at 24V _{DC}

Built-in Light with 3 x 1 Watt LEDs



Type code	SLE63 Red
Lamp type	Signal light
Photometric data	
Light color	Red
Angle of radiation	Approx. 120°, diffuse

Mechanical data	
Protection level	IP67
Connection	2 m Connection cable, wire-end sleeves
Front cover material	V2A, matte shot blasted
Back housing material	PA6GF15
LED-cover	Special frosted glass
Operating temperature	-40° to +80° Celsius
Dimensions	Ø 100 mm
Weight	280 g

Electrical data	
Operating voltage	24V _{DC} to 110V _{DC}
Power consumption	2.5W
Current consumption	100 mA at 24V _{DC}

Signal Lights

Built-in Light with 3 x 1 Watt LEDs



Type code	SLE63 Blue
Lamp type	Signal light
Photometric data	
Light color	Blue
Angle of radiation	Approx. 120°, diffuse

Mechanical data	
Protection level	IP67
Connection	2 m Connection cable, wire-end sleeves
Front cover material	V2A, matte shot blasted
Back housing material	PA6GF15
LED-cover	Special frosted glass
Operating temperature	-40° to +80° Celsius
Dimensions	Ø 100 mm
Weight	280 g

Electrical data	
Operating voltage	24V _{DC} to 110V _{DC}
Power consumption	2.5 W
Current consumption	100 mA at 24V _{DC}

Built-in Light with 3 x 1 Watt LEDs



Type code	SLE63 Yellow
Lamp type	Signal light
Photometric data	
Light color	Yellow
Angle of radiation	Approx. 120°, diffuse

Mechanical data	
Protection level	IP67
Connection	2 m Connection cable, wire-end sleeves
Front cover material	V2A, matte shot blasted
Back housing material	PA6GF15
LED-cover	Special frosted glass
Operating temperature	-40° to +80° Celsius
Dimensions	Ø 100 mm
Weight	280 g

Electrical data	
Operating voltage	24V _{DC} to 110V _{DC}
Power consumption	2.5 W
Current consumption	100 mA at 24V _{DC}

Built-in Light with 3 x 1 Watt LEDs






Type code	SLE63 Green
Lamp type	Signal light
Photometric data	
Light color	Green
Angle of radiation	Approx. 120°, diffuse

Mechanical data	
Protection level	IP67
Connection	2 m Connection cable, wire-end sleeves
Front cover material	V2A, matte shot blasted
Back housing material	PA6GF15
LED-cover	Special frosted glass
Operating temperature	-40° to +80° Celsius
Dimensions	Ø 100 mm
Weight	280 g

Electrical data	
Operating voltage	24V _{DC} to 110V _{DC}
Power consumption	2.5 W
Current consumption	100 mA at 24V _{DC}

Signal Lights

Built-in Light		
	Type code Lamp type Photometric data Light color	SM22 Signal light Red
	Mechanical data Protection level Connection Reflector Housing material Nut O-Ring Operating temperature Dimensions Mounting hole Weight	IP67 Front side Screw terminal to 1.5 mm ² Aluminum, chrome-plated Plastic, PA6.6 gray-white Aluminium, M22 x 1 NBR, ø22 x 1.5 -40° to +70° Celsius Ø 30 mm Ø 22 mm 27 g
	Electrical data Operating voltage Power consumption Current consumption	24 V _{DC} , 110 V _{DC} , 230 V _{AC} 0.5 W 15 mA at 24 V _{DC}
Built-in Light		
	Type code Lamp type Photometric data Light color	SM22 Signal light Yellow
	Mechanical data Protection level Connection Reflector Housing material Nut O-Ring Operating temperature Dimensions Mounting hole Weight	IP67 Front side Screw terminal to 1.5 mm ² Aluminum, chrome-plated Plastic, PA6.6 gray-white Aluminium, M22 x 1 NBR, ø22 x 1.5 -40° to +70° Celsius Ø 30 mm Ø 22 mm 27 g
	Electrical data Operating voltage Power consumption Current consumption	24 V _{DC} , 110 V _{DC} , 230 V _{AC} 0.5 W 15 mA at 24 V _{DC}
Built-in Light		
	Type code Lamp type Photometric data Light color	SM22 Signal light Blue
	Mechanical data Protection level Connection Reflector Housing material Nut O-Ring Operating temperature Dimensions Mounting hole Weight	IP67 Front side Screw terminal to 1.5 mm ² Aluminum, chrome-plated Plastic, PA6.6 gray-white Aluminium, M22 x 1 NBR, ø22 x 1.5 -40° to +70° Celsius Ø 30 mm Ø 22 mm 27 g
	Electrical data Operating voltage Power consumption Current consumption	24 V _{DC} , 110 V _{DC} , 230 V _{AC} 0.5 W 15 mA at 24 V _{DC}

Signal Lights

Built-in Light	
	Type code SM22 Lamp type Signal light
	Photometric data Light color Green
	Mechanical data Protection level IP67 Front side Connection Screw terminal to 1.5 mm ² Reflector Aluminum, chrome-plated Housing material Plastic, PA6.6 gray-white Nut Aluminium, M22 x 1 O-Ring NBR, ø22 x 1.5 Operating temperature -40° to +70° Celsius Dimensions Ø 30 mm Mounting hole Ø 22 mm Weight 27 g
	Electrical data Operating voltage 24 V _{DC} , 110 V _{DC} , 230 V _{AC} Power consumption 0.5 W Current consumption 15 mA at 24 V _{DC}
Built-in Light	
	Type code SM30 Lamp type Signal light
	Photometric data Light color Red
	Mechanical data Protection level IP67 Front side Connection Tab connector, 2.8 x 0.8 mm Reflector Aluminum, chrome-plated Housing material Plastic PC, according to light color Nut PC, M30 x 1.5 Sealing ring NBR70 Operating temperature -40° to +70° Celsius Dimensions Ø 34 mm Mounting hole Ø 30 mm Weight 40 g
	Electrical data Operating voltage 24 V _{DC} , 110 V _{DC} , 230 V _{AC} Power consumption 0.5 W Current consumption 20 mA at 24 V _{DC}
Built-in Light	
	Type code SM30 Lamp type Signal light
	Photometric data Light color Yellow
	Mechanical data Protection level IP67 Front side Connection Tab connector, 2.8 x 0.8 mm Reflector Aluminum, chrome-plated Housing material Plastic PC, according to light color Nut PC, M30 x 1.5 Sealing ring NBR70 Operating temperature -40° to +70° Celsius Dimensions Ø 34 mm Mounting hole Ø 30 mm Weight 40 g
	Electrical data Operating voltage 24 V _{DC} , 110 V _{DC} , 230 V _{AC} Power consumption 0.5 W Current consumption 20 mA at 24 V _{DC}

Signal Lights

Built-in Light



Type code	SM30
Lamp type	Signal light
Photometric data	
Light color	Blue
Mechanical data	
Protection level	IP67 Front side
Connection	Tab connector, 2.8x0.8 mm
Reflector	Aluminum, chrome-plated
Housing material	Plastic PC, according to light color
Nut	PC, M30 x 1.5
Sealing ring	NBR70
Operating temperature	-40° to +70° Celsius
Dimensions	Ø 34 mm
Mounting hole	Ø 30 mm
Weight	40 g
Electrical data	
Operating voltage	24 V _{DC} , 110 V _{DC} , 230 V _{AC}
Power consumption	0.5 W
Current consumption	20 mA at 24 V _{DC}

Built-in Light



Type code	SM30
Lamp type	Signal light
Photometric data	
Light color	Green
Mechanical data	
Protection level	IP67 Front side
Connection	Tab connector, 2.8x0.8 mm
Reflector	Aluminum, chrome-plated
Housing material	Plastic PC, according to light color
Nut	PC, M30 x 1.5
Sealing ring	NBR70
Operating temperature	-40° to +70° Celsius
Dimensions	Ø 34 mm
Mounting hole	Ø 30 mm
Weight	40 g
Electrical data	
Operating voltage	24 V _{DC} , 110 V _{DC} , 230 V _{AC}
Power consumption	0.5 W
Current consumption	20 mA at 24 V _{DC}





APPLICATIONS OF OUR LED LIGHTS



Traffic Engineering



Machine Illumination



Special Trucks



**In-Store, Window Displays,
and Booth Illumination**



Headquarters

ESCHA TSL GmbH
Elberfelder Str. 1 . 58553 Halver . Germany
Sales
Phone: +49 2353 66796-0
Fax: +49 2353 66796-799
info@escha-tsl.com . www.escha-tsl.com

Please visit our website for further information.
A representative in your region will be happy to assist you.