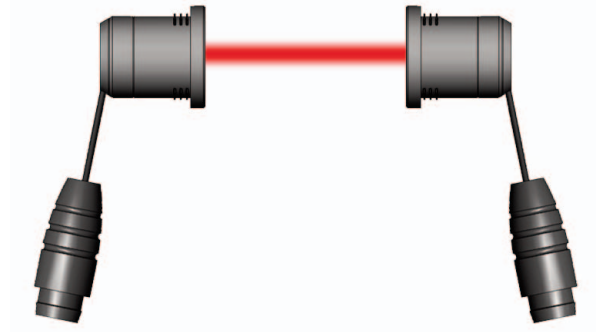


... safeguards indoors and outdoors!



ISO 9001: 2000



IEC 61496-2



EN 13849-1

## Features

- Very compact design
- High performance
- Integrated controller
- Simple installation and mounting
- For indoor and outdoor applications
- Insensitive to ambient light
- Excellent detection even in harsh conditions
- Plug-and-play system
- PNP or NPN output, light or dark switching available
- Multiple sensors networkable
- Type 2 sensor suitable for cat. 2 applications

## Technical data

### Receiver

	ELS 300 Rx-PNP			ELS 300 Rx-NPN		
	LO-N or DO-N	LO-F	LO-NA-F	LO-N or DO-N	LO-F	LO-NA or DO-NA
Type	Standard	Fast	Narrow aperture	Standard	Fast	Narrow aperture
Description	Standard	Fast	Narrow aperture	Standard	Fast	Narrow aperture
Operating range	< 20 ms	< 5 ms	< 5 ms	< 20 ms	< 5 ms	< 20 ms
Max. angle of paraxial detection	±5° @ 3.0 m	±5° @ 3.0 m	±2° @ 1.2 m	±5° @ 3.0 m	±5° @ 3.0 m	±2° @ 1.2 m

### Emitter

	ELS 300 Tx-NA	ELS 300 Tx-S	ELS 300 Tx-N	ELS 300 Tx-L
Type	NA	S	N	L
Description	Narrow aperture	Short range	Standard range	Long range
Operating range	0.2 ... 1.2 (with Rx-...-NA)	0.2 ... 2.0	0.5 ... 6.0	1.0 ... 12.0
Max. angle of paraxial detection	±2° @ 1.2 m	±5° @ 2.0 m	±5° @ 3.0 m	±5° @ 3.0 m

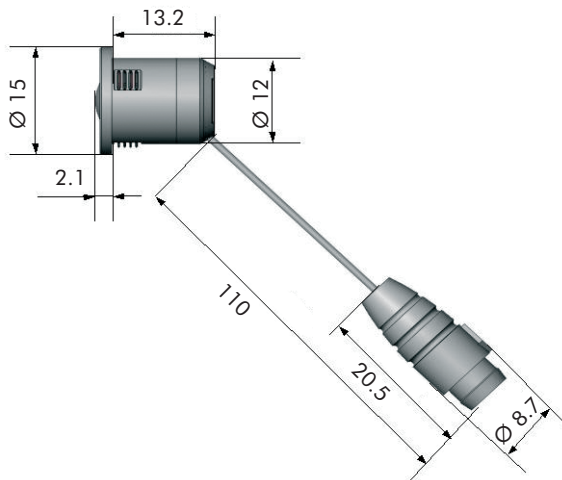
### Electrical data

Supply voltage	10 ... 30 VDC
Ripple of supply voltage	±10%
Output	PNP or NPN
Max. output current	50 mA
Max. capacitive load	100 nF
Output saturation voltage	< 4 V
Polarity protection	Yes
Curr. consumption Tx	< 10 mA @ 30 VDC
Curr. consumption (without load)	< 10 mA @ 30 VDC

### General data

Temperature range storage	-20° ... +85°C
Temperature range operation	-20° ... +60°C
Max. ambient light	100,000 Lux
Cable Rx	Gray with 4-pin M8 connector, male
Cable Tx	Black with 4-pin M8 connector, male
LEDs	Green (rear), Tx: Indicates power, Rx: Indicates output
Enclosure rating	IP65
Safety category	DIN 18650-1:2005, EN ISO 13849-1, EN ISO 13849-2
	IEC 61496-2:2006, EN 12453:2000, EN 12978:2003

**ELS 300 Tx-N/-S/-NA**  
**ELS 300 Rx-...**



**ELS 300 Tx-L**

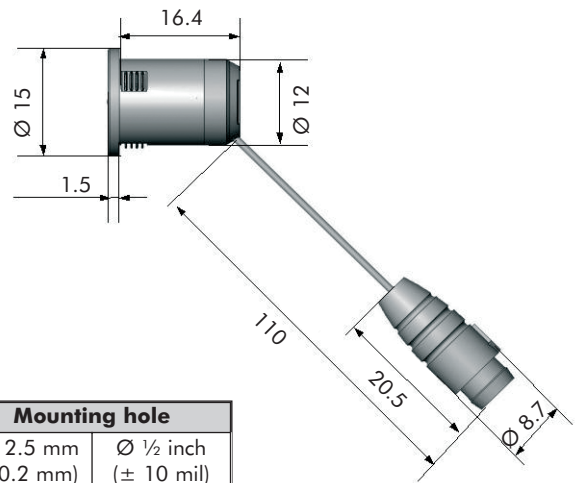


Plate thickness	Mounting hole	
	Ø 12.5 mm (± 0.2 mm)	Ø ½ inch (± 10 mil)
> 1.25 mm	✓	✓

(All dimensions in mm)

Ordering information

Part No.	Type	Description
<b>Emitters</b>		
105 925	<b>ELS 300 Tx-NA</b>	Narrow aperture
105 922	<b>ELS 300 Tx-S</b>	Short range
105 728	<b>ELS 300 Tx-N</b>	Standard range
105 729	<b>ELS 300 Tx-L</b>	Long range
<b>Receivers</b>		
105 730	<b>ELS 300 Rx-PNP/LO-N</b>	Standard PNP, LO
105 731	<b>ELS 300 Rx-PNP/DO-N</b>	Standard PNP, DO
105 732	<b>ELS 300 Rx-NPN/LO-N</b>	Standard NPN, LO
105 733	<b>ELS 300 Rx-NPN/DO-N</b>	Standard NPN, DO
105 734	<b>ELS 300 Rx-PNP/LO-F</b>	Standard PNP, LO Fast
105 735	<b>ELS 300 Rx-NPN/LO-F</b>	Standard NPN, LO Fast
105 736	<b>ELS 300 Rx-NPN/DO-NA</b>	Narrow aperture NPN, DO
105 755	<b>ELS 300 Rx-NPN/LO-NA</b>	Narrow aperture NPN, LO
106 214	<b>ELS 300 Rx-PNP/LO-NA-F</b>	Narrow aperture PNP, LO Fast
<b>Accessories</b>		
103 716	<b>Rx-Cable-5 m-M8</b>	Receiver cable 5 m, gray, with connector M8, AWG26
104 688	<b>Rx-Cable-10 m-M8</b>	Receiver cable 10 m, gray, with connector M8, AWG26
104 567	<b>Rx-Cable-20 m-M8</b>	Receiver cable 20 m, gray, with connector M8, AWG26
103 717	<b>Tx-Cable-5 m-M8</b>	Emitter cable 5 m, black, with connector M8, AWG26
104 689	<b>Tx-Cable-10 m-M8</b>	Emitter cable 10 m, black, with connector M8, AWG26
104 568	<b>Tx-Cable-20 m-M8</b>	Emitter cable 20 m, black, with connector M8, AWG26
103 721	<b>Y-Switch</b>	Connector M8, without LED
105 141	<b>Y-Switch LED, PNP</b>	Connector M8, with LED (for ELS 300 PNP-types only)
103 720	<b>Interconnection m-f</b>	Connector M8, male-female, AWG26, 250 mm
106 108	<b>ELS 300 M18 Adapter cpl.</b>	M18 adapter for ELS 300
103 602	<b>Relay module</b>	Interface module for sensors with semi-conductor outputs
104 794	<b>SafeCIS3 4I/O</b>	High-level safety controller for automatic testing

Other configurations on request