

ELS 300

Technical data

FEATURES

- ▶ Type 2 light barrier suitable for Cat. 2 applications
- ▶ Compact dimensions
- ▶ Excellent detection capability even in harsh environmental conditions
- ▶ Very resistant to ambient light
- ▶ Integrated controller
- ▶ PNP or NPN output, light or dark switching available
- ▶ Various operating ranges available
- ▶ Multiple ELS 300 units connectable in a network with Y-switch



OPTICAL

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

ELS type	Description	Response time	Max. angle of paraxial detection
ELS 300 Rx-PNP/LO-N	Standard PNP, LO	< 20 ms	±5° at 3.0 m
ELS 300 Rx-PNP/DO-N	Standard PNP, DO	< 20 ms	±5° at 3.0 m
ELS 300 Rx-NPN/LO-N	Standard NPN, LO	< 20 ms	±5° at 3.0 m
ELS 300 Rx-NPN/DO-N	Standard NPN, DO	< 20 ms	±5° at 3.0 m
ELS 300 Rx-NPN/DO-NA	Narrow aperture NPN, DO	< 20 ms	±2° at 1.2 m
ELS 300 Rx-NPN/LO-NA	Narrow aperture NPN, LO	< 20 ms	±2° at 1.2 m
ELS 300 Rx-PNP/LO-NA-F	Narrow aperture PNP, LO, fast	< 5 ms	±2° at 1.2 m
ELS 300 Rx-PNP/DO-NA-F	Narrow aperture PNP, DO, fast	< 5 ms	±2° at 1.2 m

GENERAL

Temperature range	-40 °C ... +60 °C
Max. ambient light	100,000 Lux
Cable Rx	Gray with 4-pin M8 Connector, male, 0.15 m pig-tail
Cable Tx	Black with 4-pin M8 Connector, male, 0.15 m pig-tail
Cable material	PVC
LEDs	Green (rear), Tx: Indicates power, Rx: Indicates output
Enclosure rating	IP65
Safety category	DIN 18650-1:2010, EN ISO 13849-1:2008, EN ISO 13849-2: 2008, IEC 61496-2:2006, EN 12453: 2000, EN 12978:2003 +A1:2009

ELECTRICAL

Supply voltage U _{sp}	10 ... 30 VDC
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 at 30 VDC
Curr. consumption (Rx w/o load)	< 10 mA at 30 VDC



CEDES AG is certified according to ISO 9001: 2015.

Dimensions

All dimensions in mm
 Proportions not to scale

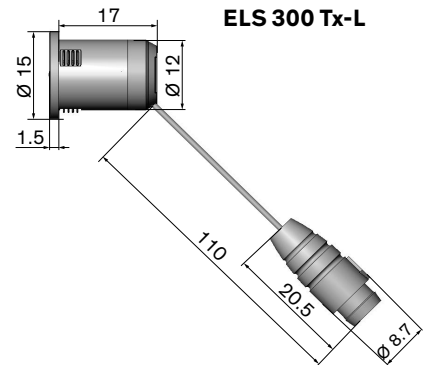
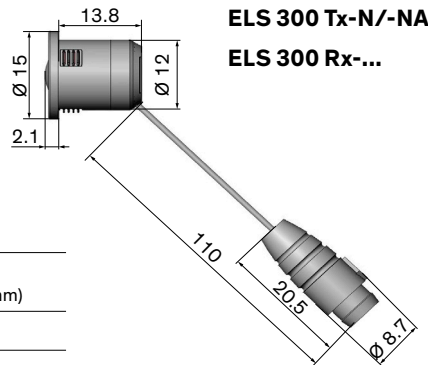
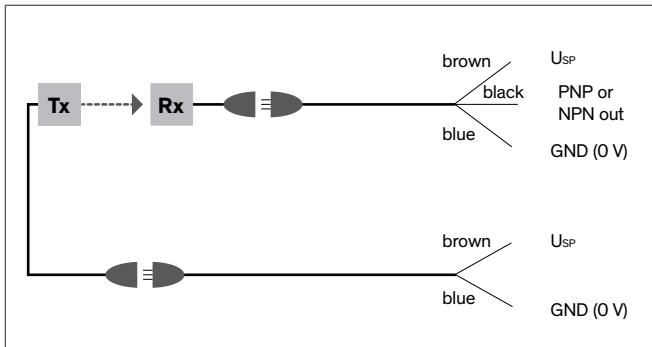
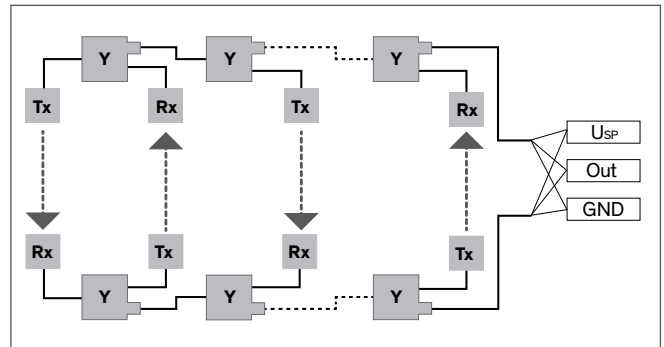


Plate thickness (mm)	Mounting hole Ø 12.5 mm (±0.2 mm)
> 1.25	✓

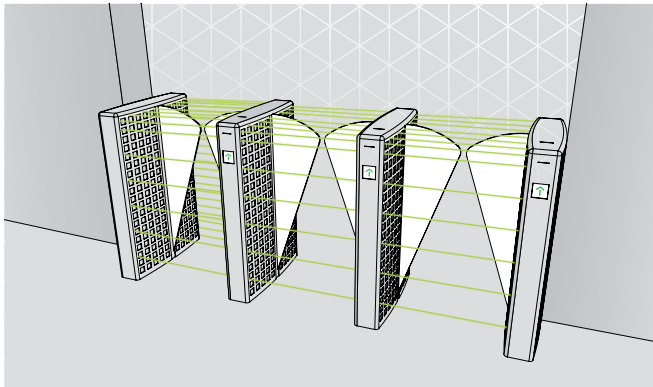
Connection diagram



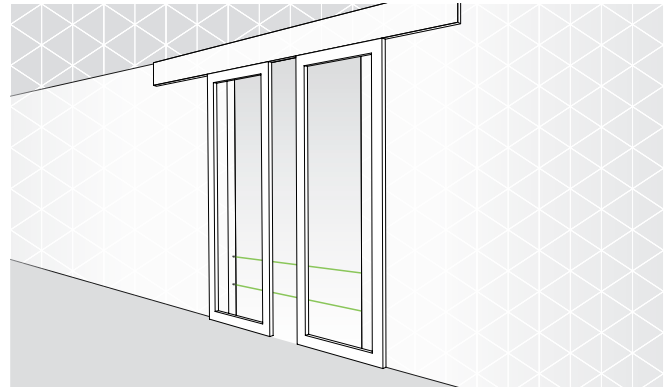
Connections with Y-switch



Applications



Personnel suitor



Sliding doors