

TOF/Spot

Technical data

FEATURES

- ▶ Time-of-Flight (TOF) sensor
- ▶ Exact distance setting, independent from background
- ▶ Excellent detection capability
- ▶ Solid-state relay and analog output
- ▶ Small and sleek design
- ▶ Operating range from 0.2 m up to 6 m
- ▶ Easy mounting
- ▶ Insensitive to ambient light up to 100,000 Lux



OPTICAL

| | |
|-----------------------------------|---|
| Operating range | |
| - P, C, T and A types | 0.2 ... 6 m |
| - N type | 0.2 ... 3 m |
| Active light spot at 2 m distance | 40 mm × 40 mm |
| Offset | |
| - C and T types | 0.15 m |
| Measurement precision | ±5% at 2 m ±10 cm over the whole range |
| Max. ambient light | 100,000 Lux |

MECHANICAL

| | |
|------------------------------------|---------------------|
| Dimensions | Ø 29.5 mm × 35.8 mm |
| Housing material | Polycarbonate |
| Housing color | Black |
| Enclosure rating | IP65 |
| Temperature range | -40 °C ... +60 °C |
| Relative humidity (non-condensing) | 0 ... 95 %C |

ELECTRICAL

| | |
|--|-------------------------------|
| Supply voltage U_{sp} | 10 ... 30 VDC / 12 ... 24 VAC |
| Current consumption at 24 VDC | 50 mA |
| Peak current consumption during power up at 24 VDC | 500 mA |
| Output | Solid-state relay, analog |
| Max. switching voltage | 60 V |
| Max. switching current | 150 mA |
| Max. power-up time | 1 s |
| Max. response time | 60 ms |
| Test response time | 5 ms |

P = Preset, C = Automatic calibration, N = Potentiometer, A = Analog, T = Teach-in button

CONNECTION CABLE AND ELECTRICAL CONNECTION

| | |
|---------------|------------|
| Sensor | |
| Length | 0.25 m |
| Connection | M8, 6-pin |
| Diameter | Ø 4.2 mm |
| Material | PVC, black |
| Plug color | Blue |

| | |
|-------------------------|--------------------------------|
| Connection cable | |
| Length | 2 m (other lengths on request) |
| Connection | M8, 6-pin |
| Diameter | Ø 4.2 mm |
| Material | PVC, black |
| Plug color | Blue |
| Wires | AWG26 |
| • brown | +U _{sp} |
| • black | Output A / Analog output |
| • green | Output B / Analog GND |
| • blue | GND (0 V) / -U _{sp} |
| • white | Test input |
| • gray | Logic selector |

GENERAL

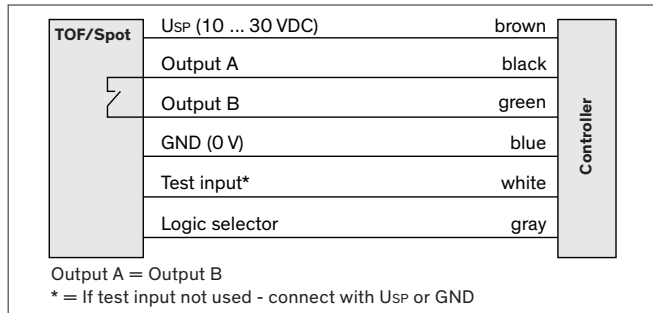
| | |
|--------------|---------------------|
| EMC emission | EN 12015:2014 |
| EMC immunity | EN 12016:2013 |
| Vibration | IEC 60068-2-6:2007 |
| Shock | IEC 60068-2-27:2008 |
| RoHS | 2011/65/EU |
| Certificate | CE |



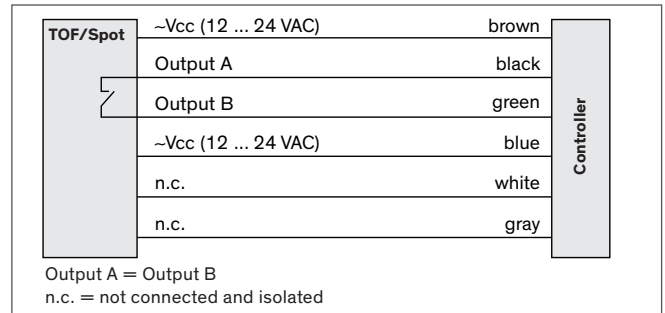
CEDES AG is certified according to ISO 9001: 2015.

Output connections

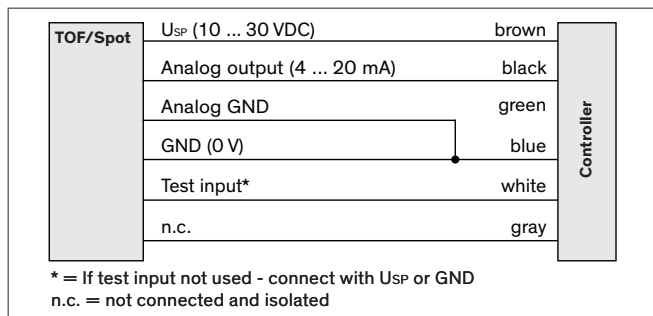
Solid state relay output (DC supply)



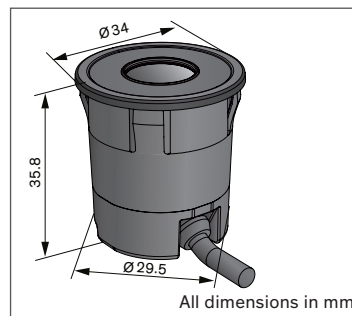
Solid state relay output (AC supply)



Analog output (DC supply)

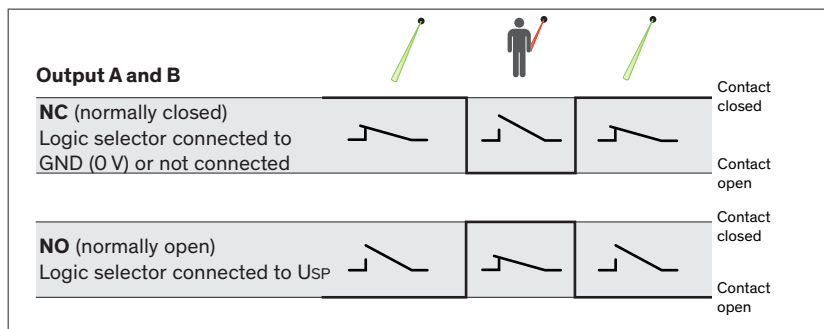


Dimensions

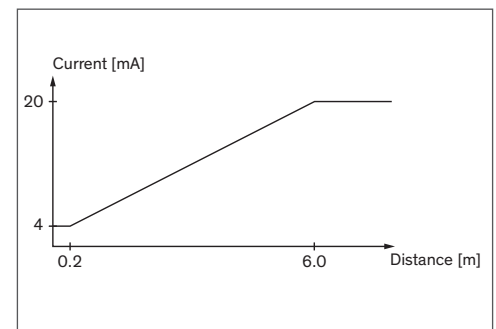


Output description

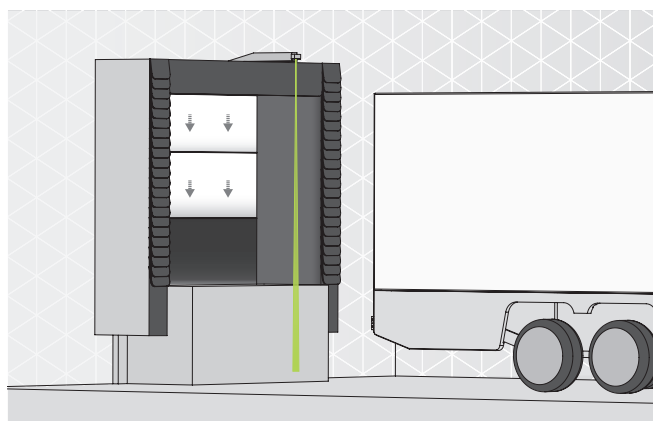
Solid state relay output



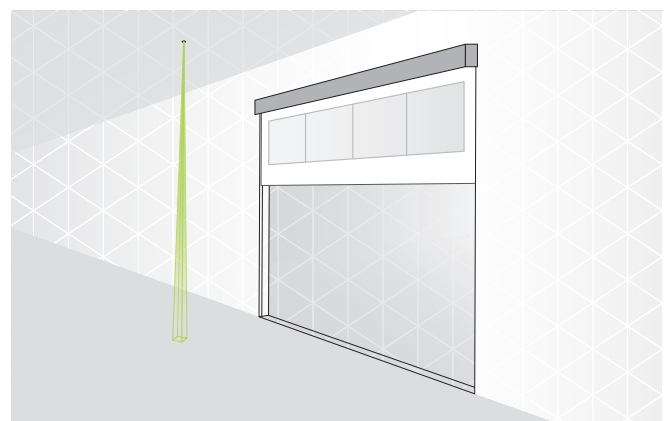
Analog output



Application examples



Truck detection in loading bay



Replaces 'pull-string' door opening