

# TOF/Start-EA (Entrance Automation)

## Technical data

### FEATURES

- ▶ Ignores cross-traffic via intelligent direction recognition
- ▶ Excellent detection capability, independent of reflectance
- ▶ Individual setting of the detection area
- ▶ Detection area operates with all types of background
- ▶ Insensitive to ambient light



### OPTICAL

Detection area	
- Length	Min. 0 ... 400 mm Max. 0 ... 2,000 mm
- Width	Min. 0 ... 4 00 mm Max. 0 ... 2,000 mm

### MECHANICAL

Dimensions (w × h × l)	57 × 34 × 44,5 mm
Housing material	Polycarbonate
Housing color	Black
Enclosure rating	IP65
Temperature range	-20°C ... +65°C

### ELECTRICAL

Supply voltage $U_{sp}$	24 VDC ±20%
Current consumption at 24 VDC	50 mA (peak max. 0.5 A)
Output	PNP/NPN (push-pull)
Max. response time	
- TOF/Start-EA	
Area without cross-traffic < 1 m	200 ms
Area with cross-traffic > 1 m	400 ms
Min. switching time	200 ms
Power-on time	1 s

### GENERAL

Eye safety	EN 62471:2008
EMC emission	EN 61000-6-3:2007 EN 12015:2014
EMC immunity	EN 61000-6-2:2005 EN 12016:2013
Vibration	IEC 60068-2-6:2007
Shock	IEC 60068-2-27:2008
RoHS	2011/65/EU
Certificate	CE

### CONNECTION CABLE AND ELECTRICAL CONNECTION

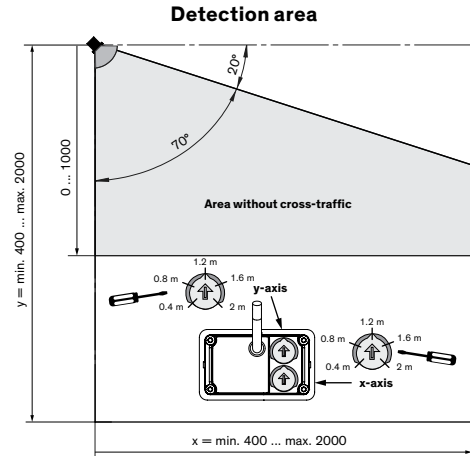
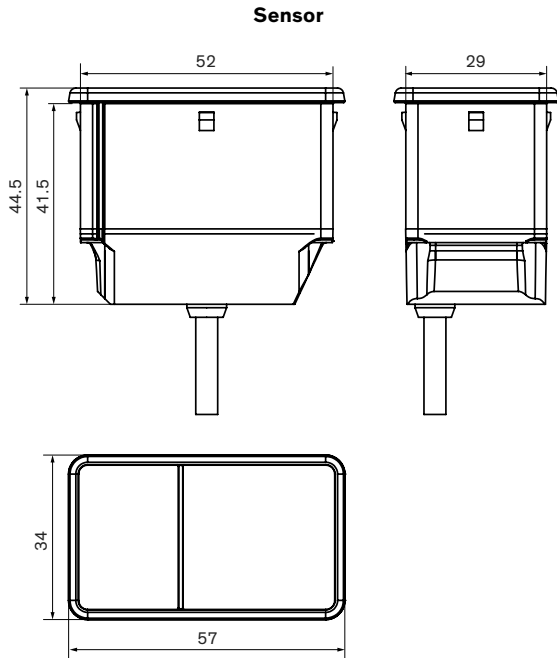
<b>Sensor</b>	
Length	0.25 m
Connection	M8, 6-pin
Diameter	Ø 4.2 mm
Material	PVC, black
Plug color	Blue
<b>Connection cable</b>	
Length	2 m (other lengths on request)
Connection	M8, 6-pin
Diameter	Ø 4.2 mm
Material	PVC, black
Plug color	Blue
Wires	AWG26
• brown	$U_{sp}$
• blue	GND (0 V)
• black	Output
• white	Not connected
• gray	Selectable output logic
• green	Not connected



CEDES AG is certified according to ISO 9001: 2015

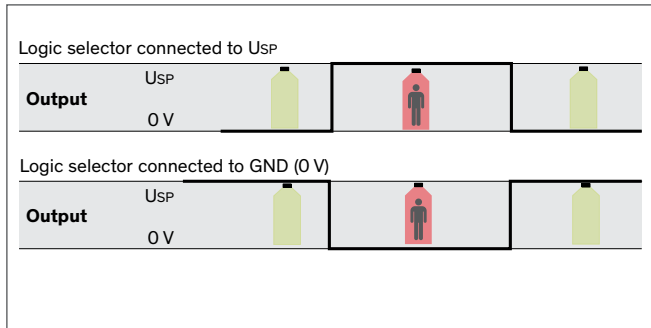
**Dimensions**

All dimensions in mm  
Proportions not to scale

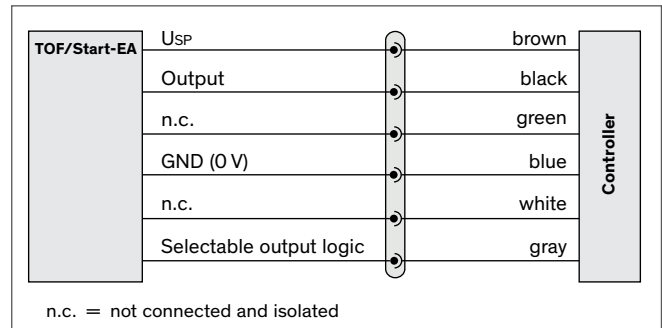


Parameter	Value
Operating range x-axis	Min.: 0 ... 200 mm Max.: 0 ... 2,000 mm
Operating range y-axis	Min.: 0 ... 200 mm Max.: 0 ... 2,000 mm
Aperture angle	70°

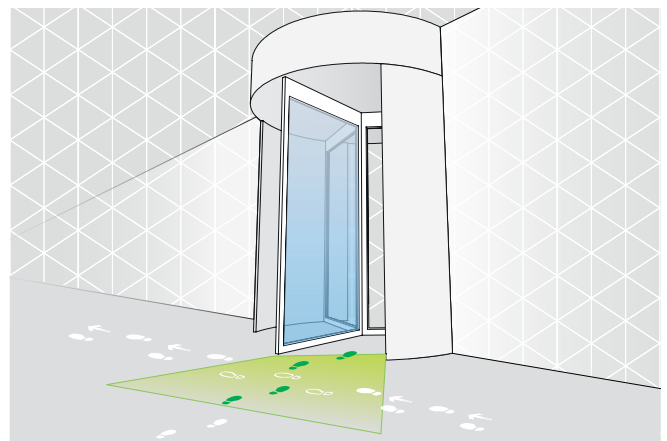
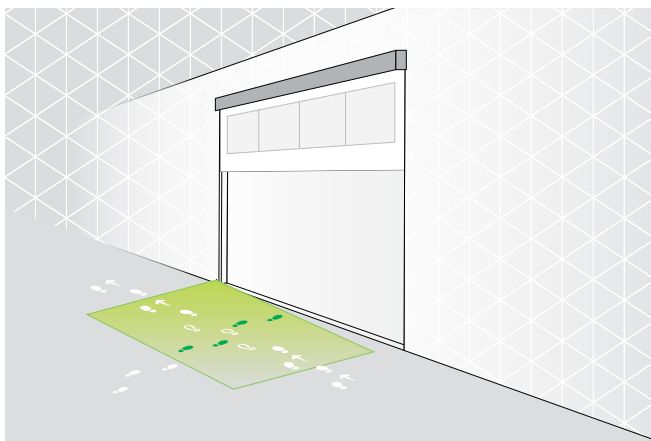
**Selectable output logic**



**Connection diagram**



**Applications**



**Direction recognition - eliminates unnecessary door openings**  
TOF/Start-EA ignores cross-traffic via intelligent door opening