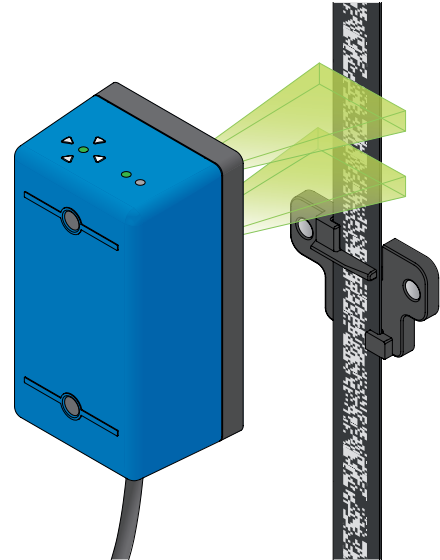


APS – Absolute Positioning System

Technical data

FEATURES

- ▶ SIL 3 certified
- ▶ Wear-free, contactless principle
- ▶ Absolute position up to 1,500 m with a resolution of 0.5 mm
- ▶ Velocity up to 20 m/s with a resolution of 0.001 m/s
- ▶ Integrated building compression detection, no additional sensors needed
- ▶ Floor level detection using mounting clips
- ▶ Very robust system due to high light reserve and dual camera readout
- ▶ Insensitive to dust and smoke
- ▶ CAN, RS485 or customer-specific interfaces available
- ▶ Simple and flexible mounting



OPTICAL

Position resolution	0.5 mm
Velocity resolution	1 mm/s
Range of velocity measurement	±0 ... 20 m/s
Distance between APS sensor and APS code tape	105 mm
Readout tolerance:	
Distance	±15 mm
Left-right	±15 mm

MECHANICAL

Housing (h x w x d)	103.6 x 56.6 x 45.6 mm
Enclosure rating	IP65
Temperature range	-20°C ... +65°C

ELECTRICAL

Supply voltage USP	24 VDC ±20%
Max. current consumption	100 mA
Max. power-up inrush current	200 mA
Termination	
- CAN	100 Ω (internally)
- RS485	120 Ω (internally)
Scanning rate	200 Hz

CODE TAPE

Max. length	1,500 m
Material	Stainless steel body (1.4310)
Width	19 mm
Thickness	0.6 mm (steel body 0.2 mm)

CONNECTION CABLE AND ELECTRICAL CONNECTION

Length	0.5 ... 5 m (customer specific lengths on request)	
Connector	RJ45	
	CAN	RS485
1 – blue	CAN Channel 1 LOW	RS485 Channel 1 A
2 – grey	CAN Channel 1 HIGH	RS485 Channel 1 B
3 – green	GND (0 V)	GND (0 V)
4 – white	USP	USP
5 – black	No function	No function
6 – pink	No function	No function
7 – brown	CAN Channel 2 LOW	No function
8 – yellow	CAN Channel 2 HIGH	GND_SEC

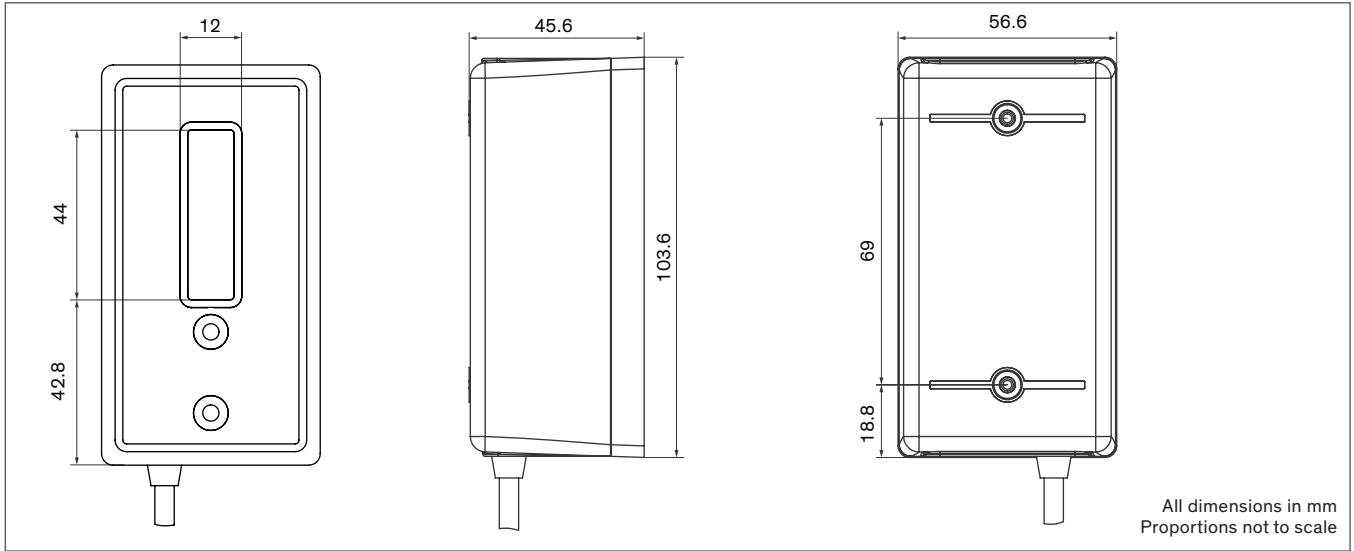
GENERAL

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
Certificates	CE, TÜV, CSA
Safety category	EN 61508:2010, SIL 3
	EN 81-1/2 +A3:2009
	EN 81-20/50:2014
	CSA B44.1-14/ASME A17.5-2014
	ASME A17.1-2013/CSA B44-13

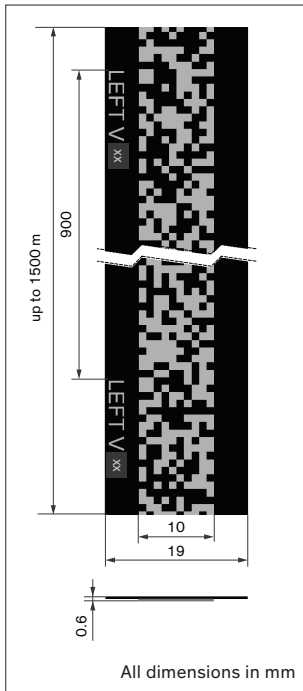


CEDES AG is certified according to ISO 9001: 2015.

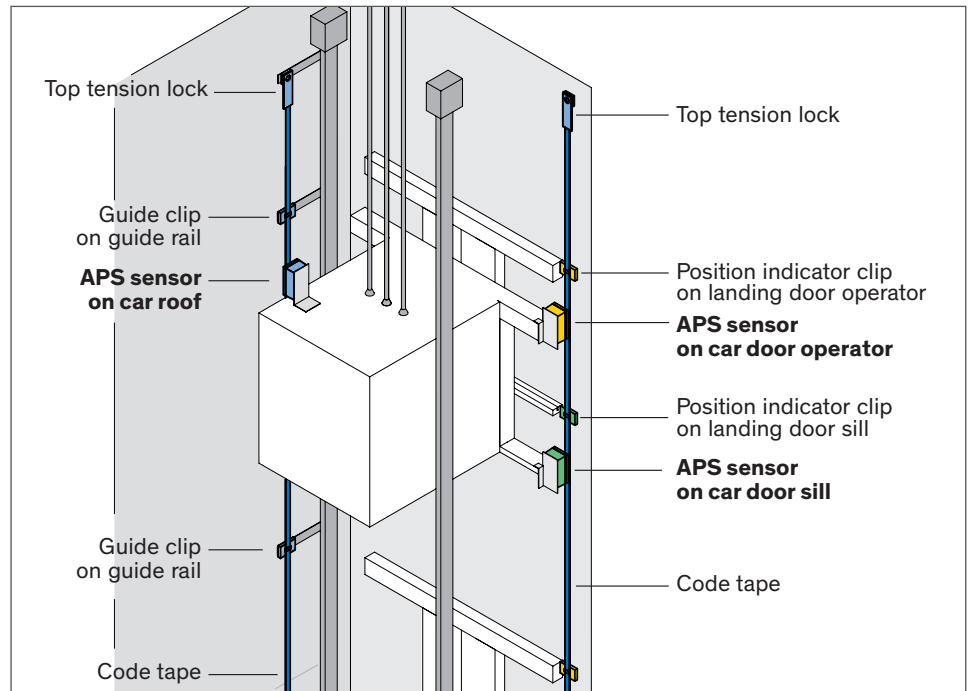
APS Sensor dimensions



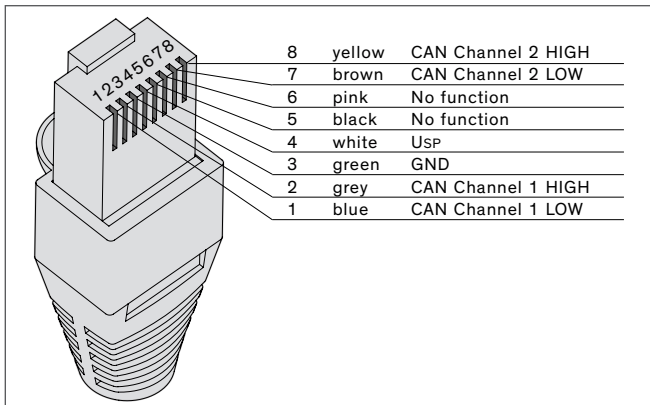
APS code tape dimensions



Mounting position examples



RJ45 plug connections (CAN interface)



RJ45 plug connections (RS485 interface)

