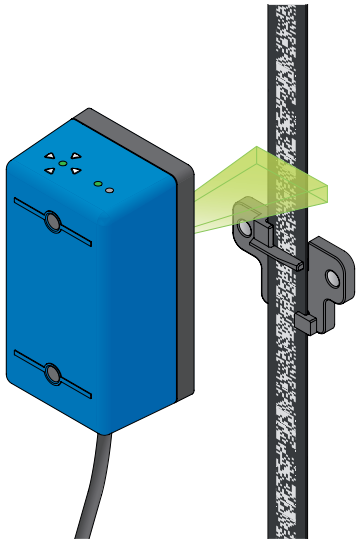
APS C-Series one – Absolute Positioning System

Technical data

FEATURES

- 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
- Insensitive to dust and smoke
- CAN, CANopen DS417, 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 × w × d)	103.6 × 56.6 × 45.6 mm
Enclosure rating	IP65
Temperature range	-20°C … +65°C

ELECTRICAL

Supply voltage U_{SP}	10.8 VDC ... 28.8 VDC
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	U_{SP}	U_{SP}
5 – N/A	Not connected	Not connected
6 – N/A	Not connected	Not connected
7 – brown	No function	No function
8 – yellow	No function	GND_SEC

GENERAL

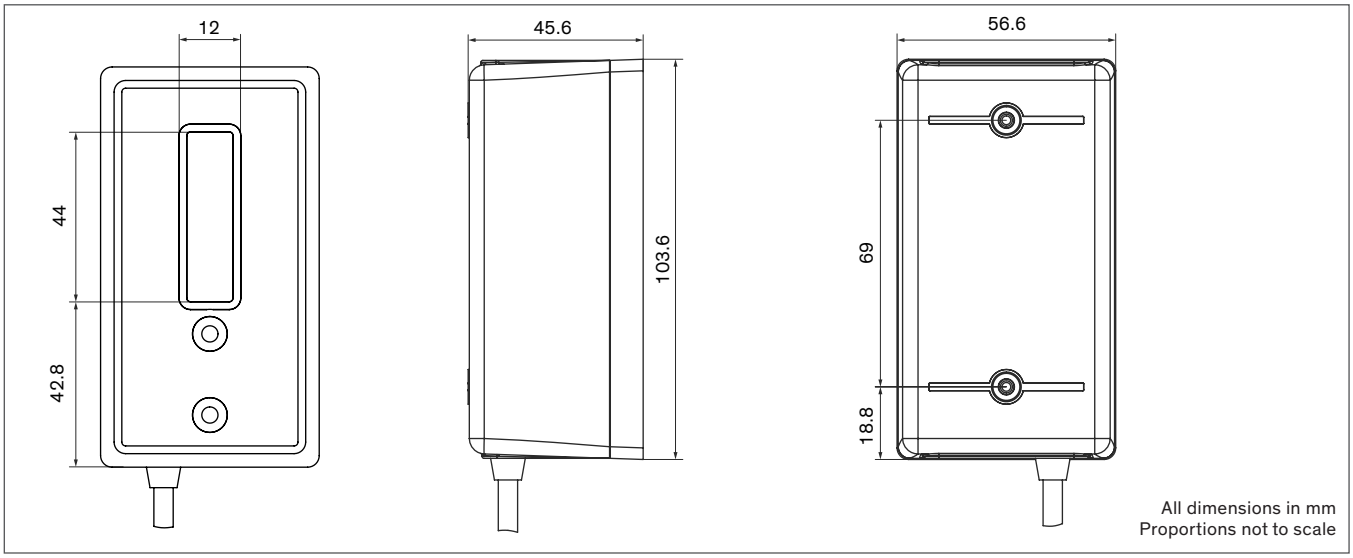
EMC emission	EN 12015:2014
EMC immunity	EN 12016:2013
Vibration	IEC 60068-2-6:2007
Shock	IEC 60068-2-27:2008
RoHS	2011/65/EU
Certificates	CE, UKCA

CEDES AG is certified according to ISO 9001: 2015.

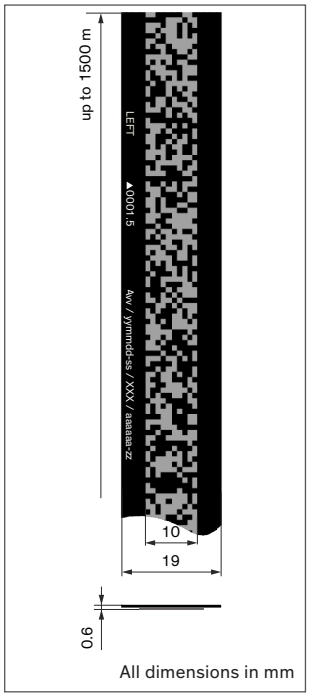
CEDES AG reserves the right to modify or change technical data without prior notice.

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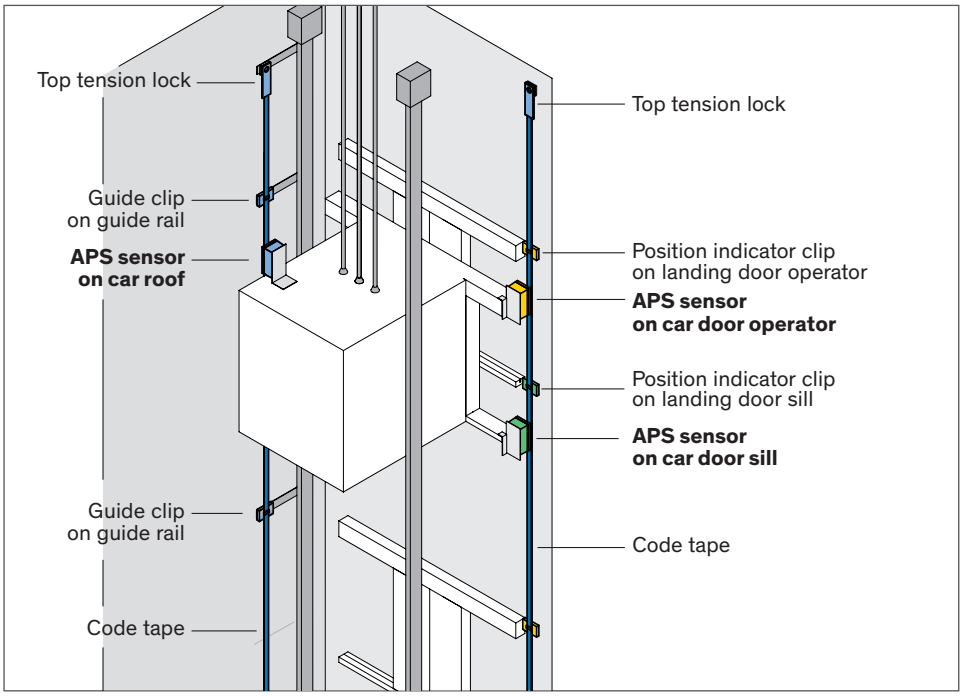
APS Sensor dimensions



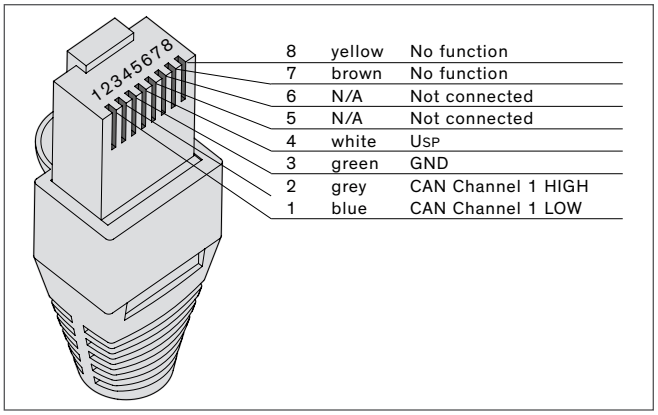
APS code tape dimensions



Mounting position examples

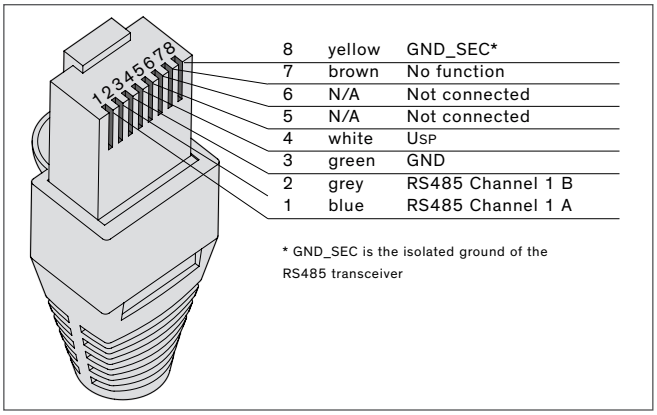


RJ45 plug connections (CAN interface)



8	yellow	No function
7	brown	No function
6	N/A	Not connected
5	N/A	Not connected
4	white	U_{SP}
3	green	GND
2	grey	CAN Channel 1 HIGH
1	blue	CAN Channel 1 LOW

RJ45 plug connections (RS485 interface)



8	yellow	GND_SEC*
7	brown	No function
6	N/A	Not connected
5	N/A	Not connected
4	white	U_{SP}
3	green	GND
2	grey	RS485 Channel 1 B
1	blue	RS485 Channel 1 A

* GND_SEC is the isolated ground of the RS485 transceiver

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