

Elevator sensors

Product overview

CEDES
More than you expect!



Sensors for elevators

CEDES is a world leader when it comes to sensor solutions for elevators. Over 25 years we have built up partnerships with all the leading names in the industry, providing innovative elevator sensor, intelligent hoistway information and safe communication solutions. Our worldwide support program ensures we are where our customers are.

Innovation lies at the heart of CEDES. We have sensors that can be integrated into almost any installation but we also offer customer specific solutions to meet the needs of any application. Our detailed understanding and mastery of technology and our understanding of each customer's needs has enabled us to develop the most advanced and cost-effective solutions anywhere in the world.

CEDES – More than you expect!



Door protection



Object recognition



Capacity monitoring



Entrance area monitoring



Hoistway information



Sensors for the elevator industry

	IMS 100	TOF/PSD	TOF/Spot	TPS	GLS 126 NT	GLS 326	GLS 526
Technical data							
Type	3D-Sensor with distance info	3D-Sensor	3D-Sensor	Triangulation sensor	Slot-type sensor (features model-dependent)	Slot-type sensor	Slot-type sensor
Operating range (in m)	0.6 ... 2.5	0 ... 3	0 ... 3	0.1 ... 2	n.a.	n.a.	n.a.
Response time (in ms)	350	150	max. 100	10	1	1	1
Supply voltage	24 VDC ±10%	24 VDC ±10%	10 ... 30 VDC / 12 ... 24 VAC	10 ... 30 VDC	10 ... 60 VDC	12 ... 60 VDC	10 ... 30 VDC
Current consumption (max.)	200 mA	150 mA (peak max. 400 mA)	50 mA	40 mA	40 mA	100 mA	100 mA
Protection area	0.2 × 0.9 m (at 2 m)	1.47 × 0.4 m (at 2.1 m)	40 × 40 mm (at 2 m)	∅ 22 mm	1 beam	3 beams	5 beams
Output type	PNP	PNP or NPN	Solid-state relay	PNP	PNP / NPN	3 x PNP	5 x NPN
Output current	50 mA, 100nF	50 mA, 100nF	150 mA, 60 VDC	50 mA	120 mA, 100nF	200 mA	100 mA
Enclosure rating	IP54	IP50	IP65	IP65	IP65	IP65	IP65
Dimensions (in mm)	102 × 27 × 23	139 × 69 × 59	∅ 29.5 × 35.8	150 × 48 × 26	51 × 49 × 41	72 × 72 × 20	36 × 108 × 64
Standards	CE, CSA	CE, SGS TÜV	CE	CE	CE, CSA	CE	CE, CSA

Application segment






Modernization	●	●	●	●			
Capacity monitoring		●		●			
Entrance area monitoring	●						
Hoistway information					●	●	●
Door protection		●					●
Safeguarding the hinge edge			●				

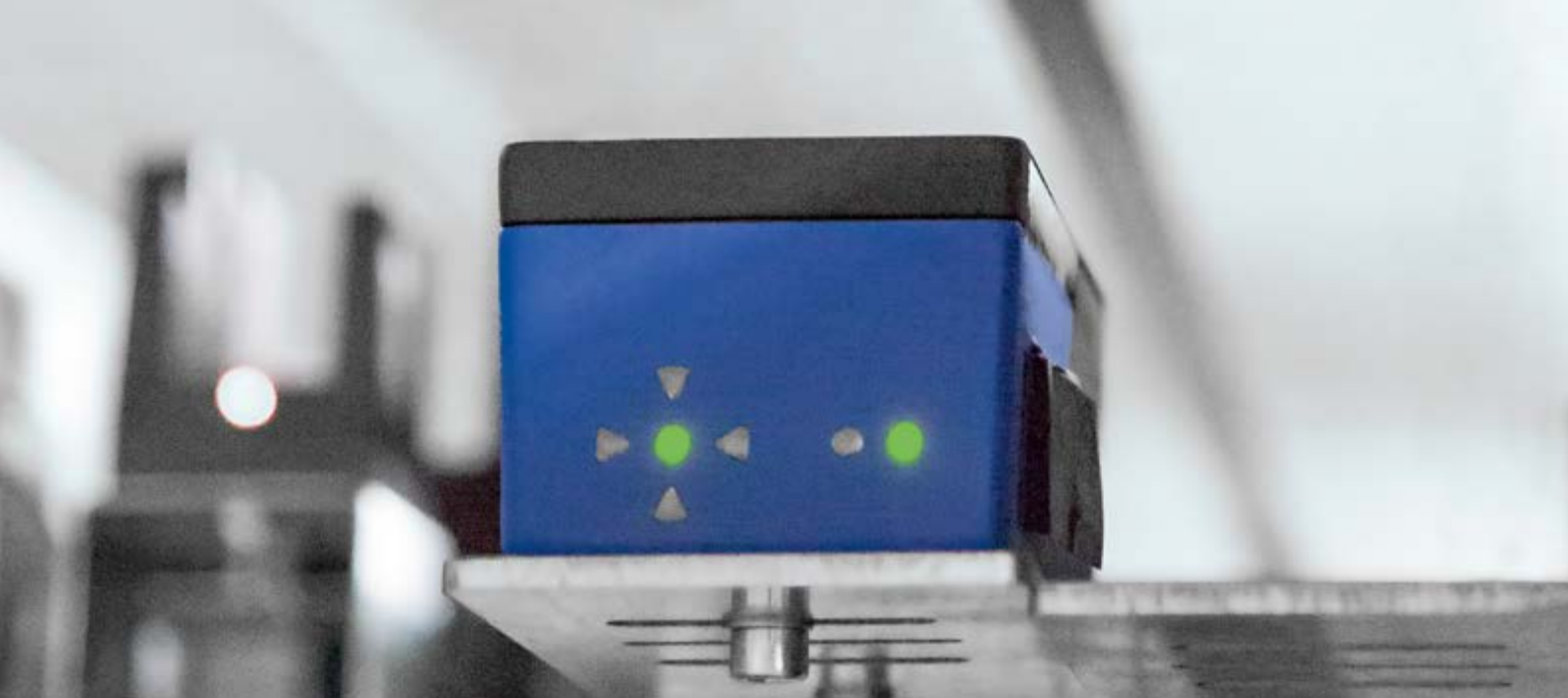
Optional

Halogen-free cable					●	●	●
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Light curtains for the elevator industry

	cegard/Mini	cegard/Mini-CC	cegard/Mini-MOD	GridScan/Mini-SR	cegard/Lift
Technical data					
Type	Comfort light curtain	Comfort light curtain	Comfort light curtain	Safety light curtain	Safety light curtain
Range (in m)	0 ... 4	0 ... 4	0 ... 5	0.5 ... 1.5	0.7 ... 4 / 4 ... 8
Maximum ambient light (in Lux)	100,000	100,000	100,000	100,000	50,000
Monitored height (in mm)	1,800	1,800	1,630 / 1,800 / 1,822	1,805	1,630 / 1,908
Typical response time (in ms)	70 with 16 elements 120 with 32 elements	120	80 with 16 elements 105 with 24 elements 130 with 32 elements	140	50 with 16 elements 50 with 24 elements
Number of elements	16 / 32	32	16 / 24 / 32	43	16 / 24
Number of beams	74 / 154	154 criss-cross beams remain active up to full door closure	74 / 114 / 154	127	46 / 70
Supply voltage	10 ... 30 VDC	10 ... 30 VDC	20 ... 265 VAC / DC Universal power supply UPS	24 VDC ±20 % 230 VAC ±10 %	24 VDC ±20 % (LI) 195 ... 265 VAC (LX, LY)
Typical power consumption at 24 VDC (without load)	40 mA	40 mA	120 mA at 24 VDC 55 mA at 230 VAC	100 mA	< 150 mA (LI) < 200 mA (LX, LY)
Output	PNP/NPN (push-pull)	PNP/NPN (push-pull)	Relay	Relay	PNP & relay
Enclosure rating	IP65 / IP67 edges	IP65 / IP67 edges	IP65 / IP67 edges IP54 Universal power supply UPS	IP65 edges IP56 control unit	IP65 / IP67 edges IP54 control unit
Certificates	CE, CSA	CE, CSA	CE, CSA	CE, TÜV	CE, TÜV
Application segment					
Door safeguarding	●	●	●	●	●
Modernization			●	●	●
Elevators without inner doors				●	●
Platform elevators				●	
Optional					
EN 81-20 ready		●	●		
Explosive environments (Ex)	●				●
Halogen-free cable	●	●	●		



APS – a breakthrough in hoistway information

CEDES has redefined intelligent elevator controlling with our revolutionary APS Absolute Positioning System. The genius of the contactless, SIL 3 rated twin IR-camera system lies in its complex code. A twin-camera infrared sensor on the elevator cab reads a coded-tape running the length of the hoistway. Elevator position and speed are relayed to the elevator control system via a customer-specific interface, such as CAN.

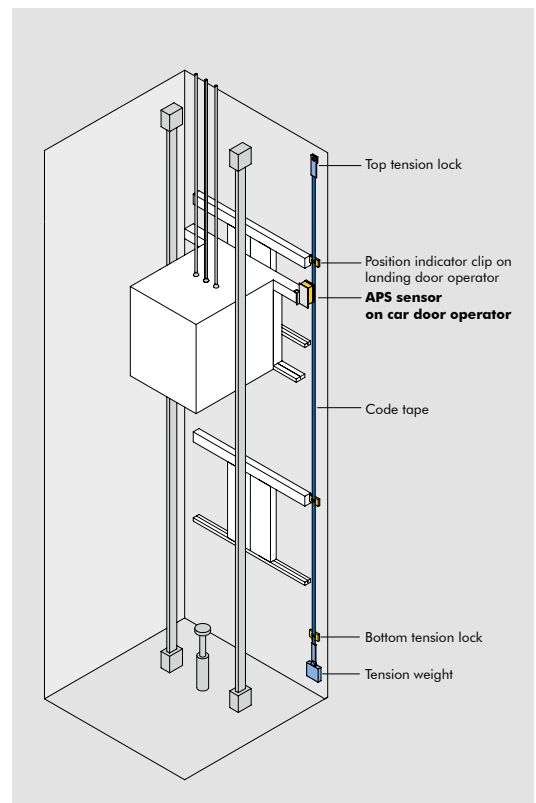
In conjunction with the elevator controller, the APS sensor can compensate for building compression as well as detect the floor level automatically. These functions clearly differentiate APS from competitive sensors, making it a breakthrough in hoistway information.

APS



Technical data

Type	Absolute Positioning System
Maximum length of code tape	1,500 m
Position resolution	0.5 mm
Distance between APS sensor and code tape	105 mm
Readout tolerance	Distance ± 10 mm, Left-right ± 10 mm
Velocity resolution	1 mm/s
Range of velocity measurement	$\pm 0 \dots 20$ m/s
Scanning rate	200 Hz
Output	CAN 2.0A
Supply voltage U_{SP}	24 VDC ± 20 %
Compression compensation input voltage (optional)	13 ... U_{SP} for switching „active“
Enclosure rating (sensor)	IP65
Enclosure rating (code tape)	IP67
Certificates	CE, TÜV
Safety category	EN 61508:2010, SIL 3; EN 81-1/2; A17.1/CSA B44:2010, A17.5



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