

Elevator occupancy detection with CabSens

Technical data

Kit part number 116 825

FEATURES

- ▶ Empty cabin detection
- ▶ Occupied area detection
- ▶ Signaling upon reaching the occupied area threshold
- ▶ Reliable detection using time-of-flight (ToF) technology
- ▶ Easy integration into existing elevator systems
- ▶ Flush and surface mounting
- ▶ Flexible installation on side walls or front/back walls of the elevator cab



OPTICAL - CABSSENS 3D SENSOR

Max. installation height	Up to 2.5 m
Max. elevator cabin length	Up to 3 m (left/right installation)
Max. elevator cabin width	Up to 2.0 m at 2.1 m inst. height Up to 2.4 m at 2.5 m inst. height
Min. detectable object size	300 × 300 × 300 mm
Wave length	Infrared, 850 nm

MECHANICAL

CabSens 3D sensor	
Dimensions (l × h × w)*	104.9 × 32.5 × 40 mm
Front plate (l × h × w)*	133 × 40 × 2.5 mm
Sensor body material	Aluminum
Surface treatment	Electrophoretic coating (black / silver)
Surface mounting	
- Material	Aluminum
- Dimensions (l × h × w)*	153 × 47.5 × 43 mm (including CabSens 3D)

Controller

- Dimensions (l × h × w)*	250 × 191 × 110 mm
- Housing material	Metal
- Housing color	Blue
Enclosure rating	
- CabSens	IP65
- Controller	IP 20
Operating temperature	
- CabSens and controller	-20°C ... +50°C

(* see drawings)

ELECTRICAL - CONTROLLER

Supply voltage U _{sp}	
- Low voltage (J2) DC input	21 ... 37 VDC
- High voltage (J1) AC input	100 ... 240 VAC
Max. power up time	< 90 s
Average power consumption	10 W (including 2x CabSens-3D)
Inrush current	
- At 24 VDC	1.2 A
- At 27 VDC	1.6 A
Output type	GPIO
Field of view angles	
- Left / right	± 45°
- Back / forward	0° / 30°

CONNECTION CABLE AND CONNECTORS

CabSens 3D sensor	
Pigtail	
- Length	250 mm
- Dimension ferrite	Ø15 mm, length 40 mm
- Connection	M8, 6-pin, Ø10 mm
- Material	PVC, black
Connection cables - sensors	
- Length	0.3 m
- Connector	M8, 6-pin, Ø10 mm, RJ45
- Material	PVC, black
Extension cable	
- Length	3 m
- Connector	M8, 6-pin, Ø10 mm, female-male
- Material	PVC, black
Push-pull output designation	
- IO1 Cabin status	Not empty Off Empty On
- IO2 Occupied area	Threshold not reached Off Threshold reached On
Power connector	J1: 0.05 ... 2.5 mm ² / 30 ... 12 AWG Screw M3

GENERAL - CABSSENS 3D SENSOR

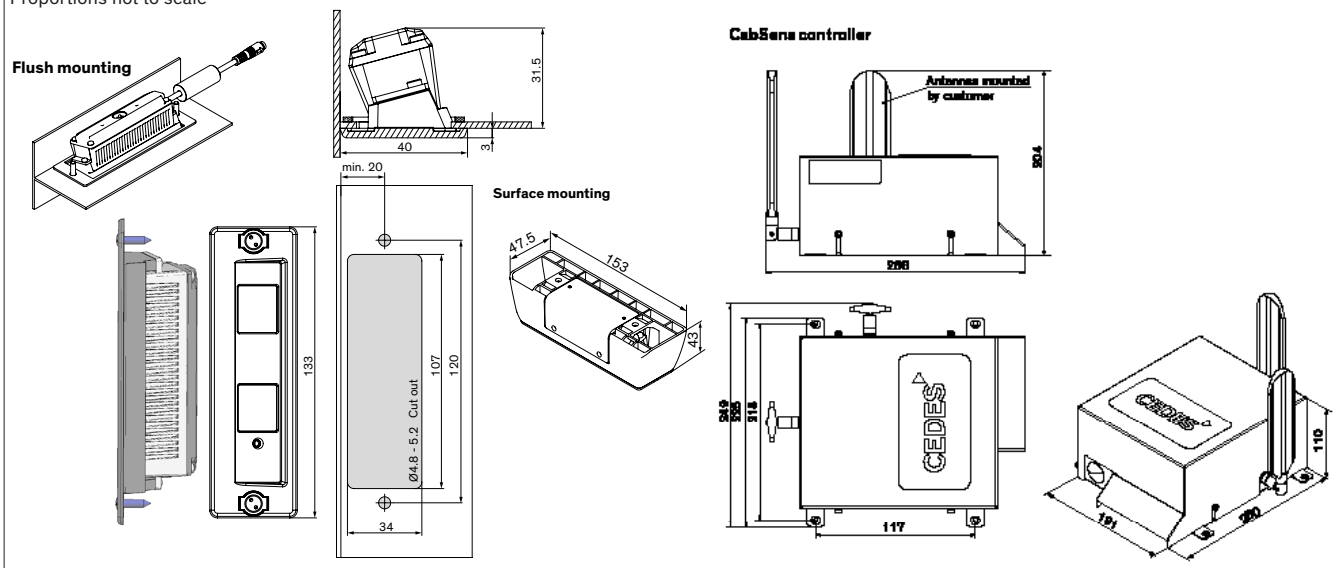
EMC emission	EN 12015:2021
EMC immunity	EN 12016:2013, 22200:2009
Vibration	IEC 60068-2-6:2007
Shock	IEC 60068-2-27:2008
Eye safety	IEC 60825-1:2014
CE certificate	2014/30/EU; 2014/33/EU
RoHS	2011/65/EU



CEDES AG is certified according to ISO 9001: 2015.

Dimensions

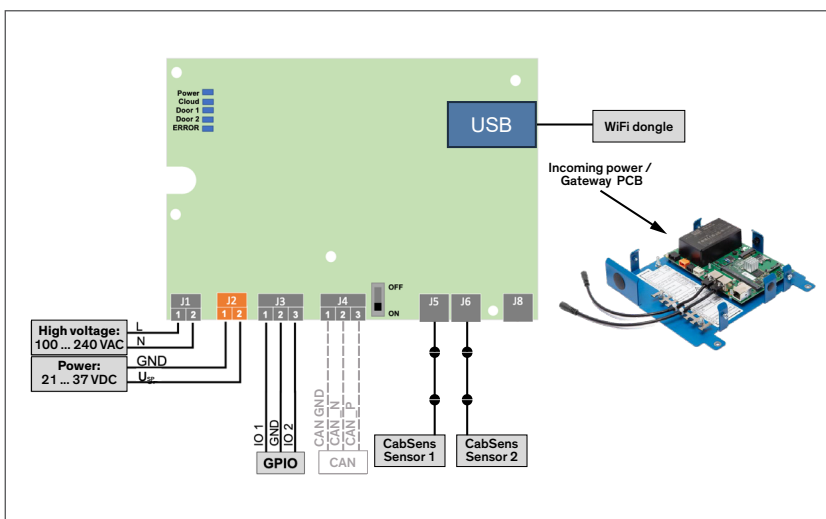
All dimensions in mm
Proportions not to scale



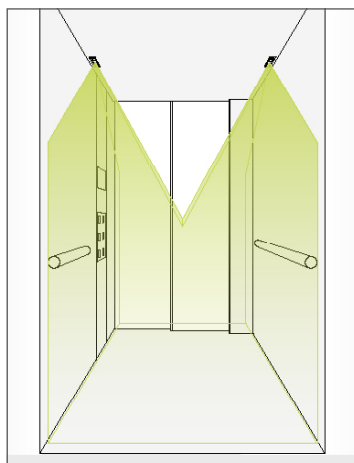
Basic system architecture



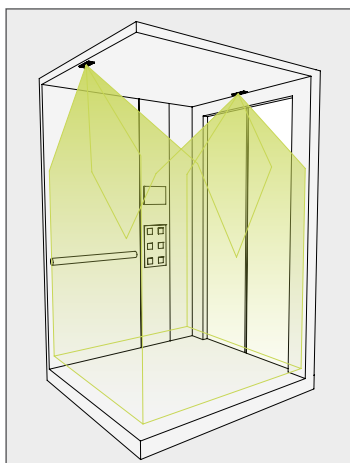
Schematic electrical connection



Applications



CabSens 3D Sensors
mounted to the left/right side



CabSens 3D Sensors
mounted to the front/back side