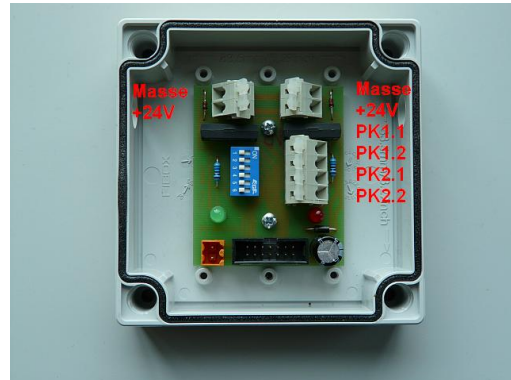


COMPONENTS OF PARKING GUIDANCE SYSTEMS

USS350 Single-space-monitoring-sensor

- Power and data in one cable
- Small robust cabinet
- Build-In, Exposed or rail mounting
- Integrated, bright green/red display
- Maintenance free
- Stand-alone operating, with 2 relay contacts
- Measurement area up to 5m



Function

The sensor uses ultrasonic to measure the distance between itself and either the vehicle or the floor. The results of these measurements are compared to the configured mounting height to determine if the parking space is free or occupied. The data can be read out via two relays:

PK1: Contact made, if parking space is occupied

PK2: Contact made, if parking space is free

Connection

The sensor is connected using a two-core power supply cable for 24V, and two two-core connections for relay contacts (maker).

Mounting

The sensor is suitable for exposed or rail mounting. It is attached using two 4mm screws. To improve recognition of the sensor's display it is also possible to attach it to hanging cable ducts. Separating the sensor into a sensor-module and a connecting-module takes into consideration how things run on the building site. Only the connecting module is necessary to start any electro-mechanic work on site. The sensor-module is connected before operations are started.

Technical Data

Measuring principle:	Ultrasonic-distance-measurement
Size (W x H x L):	100 x 100 x 50 mm
Measuring range:	up to 4 m
Resolution:	0,05 m
Measuring frequency:	41 kHz
Band width:	< 1kHz
Emitting angle:	30°
Brightness:	>1 Cd (per LED)
Voltage:	24 Volt =
Supply:	16mA
Intake:	0.4 Watt (average)
Data communication:	RS485 2-Wire(>0.5mm ²)
Operating temperature:	-20°C to +70°C
Protection:	IP43

2 relay contacts for counting devices

Impulse duration: ca. 2 sec.

Configuration of DIP-Switches

DIP-Switch 6 5 4 3 2 1	Function
0 X X X X X	Continued relay contact
1 X X X X X	Impuls relay contact
X 0 X X X X	LEDs on
X 1 X X X X	LEDs off
X X 0 0 0 0	Mounting height : 100 cm
X X 0 0 0 1	Mounting height : 120 cm
X X 0 0 1 0	Mounting height : 140 cm
X X 0 0 1 1	Mounting height : 160 cm
X X 0 1 0 0	Mounting height : 180 cm
X X 0 1 0 1	Mounting height : 200 cm
X X 0 1 1 0	Mounting height : 220 cm
X X 0 1 1 1	Mounting height : 240 cm
X X 1 0 0 0	Mounting height : 260 cm
X X 1 0 0 1	Mounting height : 280 cm
X X 1 0 1 0	Mounting height : 300 cm
X X 1 0 1 1	Mounting height : 320 cm
X X 1 1 0 0	Mounting height : 340 cm
X X 1 1 0 1	Mounting height : 360 cm
X X 1 1 1 0	Mounting height : 380 cm
X X 1 1 1 1	Mounting height : 400 cm

Examples:

The sensor is mounted in a height of 320 cm from the floor. The sensor should hold the relay till there is a change in state (Continued), and the internal LEDs are turned on to show the current state.

Dip-Switch 6	Dip-Switch 5	Dip-Switch 4	Dip-Switch 3	Dip-Switch 2	Dip-Switch 1
0	0	1	0	1	1

The sensor is mounted in a height of 289 cm from the floor. The sensor should hold the relay only for a second on state change (Impulse), and the internal LEDs should be turned off:

Dip-Switch 6	Dip-Switch 5	Dip-Switch 4	Dip-Switch 3	Dip-Switch 2	Dip-Switch 1
1	1	1	0	0	1