User’s Guide for product version 0200 and higher
See product label for serial number

VIO-ST SIDE SCREEN
Side screen safety sensor for automatic sliding doors

DESCRIPTION

1. cover
2. IR-prism (2 m)
3. main connector
4. IR-angle adjustment
5. push button for setup or DIP-setting confirmation
6. DIP-switch

TECHNICAL SPECIFICATIONS

Supply voltage: 12 V - 30 V DC -5%/+10% (to be operated from SELV compatible power supplies only)
Power consumption: < 1.6 W
Mounting height: 1.8 m to 3 m
Temperature range: -25 °C to +55 °C
Degree of protection: IP54
Noise: < 70 dB
Expected lifetime: 20 years
Norm conformity: EN 62061 SIL2; EN 61496-1 ESPE Type 2; EN 61000-6-2; EN 61000-6-3; EN 12978; EN 50581; EN 16005; EN ISO 13849-1 PI «c» CAT.2 (under the condition that the door control system monitors the sensor at least once per door cycle)

Detection mode: Presence
Typical response time: < 256 ms
Technology: Active infrared with background analysis
Spot diameter: 0.1 m (typ)
Number of spots: max. 24 per curtain
Number of curtains: 1
Angle: From -4 ° to +4 ° (adjustable)
Output: Solid-state-relay
(free of potential, free of polarity)
Max. contact current: 100 mA
Max. contact voltage: 42 V AC/DC
Hold time output signal: 0.3 s to 1 s (not adjustable)
Response time on test request: Typical: < 5 ms

Specifications are subject to changes without prior notice. All values measured in specific conditions.
1 MOUNTING & WIRING

The door control unit and the door cover profile must be correctly earthed.

The size of the detection field varies according to the mounting height of the sensor.

2 INFRARED FIELD - SAFETY

Detection field width indicated according to conditions defined in EN 16005 and including dimension of test body CA.

Check position of IR-curtain with Spotfinder and adjust if necessary.

@ 2.2 m:
Depth of curtain : 8-10 cm

1 Output status when sensor is operational
2 For compliance with EN 16005, connection to door controller test output is required.
**SETTINGS (by DIP-switch)**

<table>
<thead>
<tr>
<th>PRESETTINGS</th>
<th>FREQUENCY</th>
<th>ENVIRONMENT</th>
<th>R2 CONFIGURATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>critical environment</td>
<td>B</td>
<td>extreme ¹</td>
<td>NO</td>
</tr>
<tr>
<td>standard</td>
<td>A</td>
<td>standard</td>
<td>NC</td>
</tr>
</tbody>
</table>

¹ Enhanced IR-immunity which excludes EN 16005-conformity of the door system.

- **standard**: standard environments (factory setting)
- **critical environment**: enhanced immunity for critical environments (rain, snow, lamps...).

After changing a DIP-switch, the orange LED flashes. A LONG push on the push button confirms the setting.

Always launch a setup after changes of the DIP-settings.

**SETUP**

- **Step outside of the detection field before launching a setup.**

**QUICK SETUP**

- SHORT, RED-GREEN, OFF

**ASSISTED SETUP**

- LONG (≥ 3s), OPEN+CLOSE, RED-GREEN, OFF

The yellow and white wires have to be connected to launch an assisted setup.

- Launch an **ASSISTED SETUP** to verify wiring, position of the curtain and correct functioning of the sensor.

**SAFETY INSTRUCTIONS**

- Test the good functioning of the installation before leaving the premises.
- The manufacturer of the door system is responsible for carrying out a risk assessment and installing the sensor and the door system in compliance with applicable national and international regulations and standards on door safety and if applicable, the machinery directive 2006/42/EC.
- The device cannot be used for purposes other than its intended use. All other uses cannot be guaranteed by the manufacturer of the sensor.
- The manufacturer of the sensor cannot be held responsible for incorrect installations or inappropriate adjustments of the sensor.
- Only trained and qualified personnel may install and setup the sensor.
- The warranty is void if unauthorized repairs are made or attempted by unauthorized personnel.
- Avoid touching any electronic and optical components, avoid vibrations, do not cover the sensor and avoid proximity to neon lamps or moving objects.
- It is recommended to clean the optical parts at least once a year or more often if required due to environmental conditions.
## LED-SIGNALS

<table>
<thead>
<tr>
<th>LED Signal</th>
<th>Description</th>
<th>Action 1</th>
<th>Action 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orange LED flashes quickly</td>
<td>A DIP-switch was changed without confirmation.</td>
<td>Confirm the DIP-settings by a long push on the push button.</td>
<td></td>
</tr>
<tr>
<td>Orange LED flashes 1 x</td>
<td>The sensor signals an internal fault.</td>
<td>Cut and restore power supply. If orange LED flashes again, replace sensor.</td>
<td></td>
</tr>
<tr>
<td>Orange LED flashes 2 x</td>
<td>Irregularities in the power supply</td>
<td>Check power supply. Check wiring.</td>
<td></td>
</tr>
<tr>
<td>Orange LED flashes 4 x</td>
<td>The sensor receives not enough IR-energy.</td>
<td>Use the 1 m prism if possible (accessory). Check the angle of the IR-curtain.</td>
<td></td>
</tr>
<tr>
<td>Orange LED flashes 5 x</td>
<td>The sensor receives too much IR-energy.</td>
<td>Use a low energy prism if possible (accessory). Check the angle of the IR-curtain.</td>
<td></td>
</tr>
<tr>
<td>Orange LED is on</td>
<td>The sensor encounters a memory problem.</td>
<td>Cut and restore power supply. If orange LED lights up again, replace sensor.</td>
<td></td>
</tr>
<tr>
<td>Red LED flashes quickly after an assisted setup</td>
<td>The sensor sees the door during the assisted setup.</td>
<td>Check the angle of the IR-curtain. Launch a new assisted setup. <em>Attention: Do not stand in the detection field!</em></td>
<td></td>
</tr>
<tr>
<td>Red LED lights up sporadically</td>
<td>The sensor vibrates.</td>
<td>Check if the sensor is fastened firmly. Check position of prism and cover.</td>
<td></td>
</tr>
<tr>
<td>The LED is off</td>
<td>The sensor sees the door.</td>
<td>Launch an assisted setup and adjust the IR angle.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The sensor is disturbed by lamps or another sensor.</td>
<td>Choose a different frequency (DIP 2).</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The sensor is disturbed by the rain.</td>
<td>Choose the critical environment presetting (DIP 1).</td>
<td></td>
</tr>
</tbody>
</table>

*excludes EN 16005-conformity of the door system*