GridScan/Mini-SB2/-ST2

Technical data

FEATURES

- TÜV – EC Type examination certified
- Fulfills ASR A1.7
- SIL 2 certified
- FSS version fulfills SIL 2 without testing
- Direct integration into the door edge (SB2 type)
- Door speeds up to 1.6 m/s
- Waterproof housing (IP67) and very high light reserve make the GridScan/Mini insensitive to dust, dirt and water
- Electrical synchronization for increased light and strobe immunity
- Short-circuit proof semiconductor output PNP/NPN (push-pull) or FSS output
- Cross section only 12 mm × 16 mm

OPTICAL

Operating range 1.2 ... 8 m
Max. protection height 2,500 mm
Number of elements 4 ... 50
Aperture angle at 3 m Tx and Rx: ≤ ±5°
Max. ambient light 100,000 Lux

MECHANICAL

Cross-section 12 mm × 16 mm
Housing material Natural anodized aluminum
Enclosure rating IP67
Temperature range -40°C ... +60°C

ELECTRICAL

Supply voltage $U_{SP}$ 10 ... 30 VDC
Current consumption at 24 VDC 100 mA
Output PNP/NPN (push-pull) or FSS
Output load 100 mA, 100 nF
Typ. response time with 32 elements 90 ms
Max. door speed 1.6 m/s
Status LED Rx: Object detected red
No object detected green
Power LED Tx: Power ok green

GENERAL

EMC emission EN 61000-6-3:2007, EN 12015:2014
EMC immunity EN 61000-6-2:2005, EN 12016:2013
Vibration IEC 60068-2-6:2007
RoHS 2011/65/EU
Certificates CE, TÜV
Safety category EN ISO 13849-1:2008, Cat. 2, PL D
EN 61508:2010, Sil, 2
EN 12453:2014 E device
Applicable standards UL 325:2012

TYPES

GridScan/Mini-SB2 With door blanking feature
GridScan/Mini-ST2 For static applications without door blanking function

CONNECTION CABLE AND ELECTRICAL CONNECTION

Synchronization cable
Length 10 m
Diameter Ø 3.5 mm
Material PVC, black
Plug color Black
Wires AWG26
• brown $U_{SP}$
• blue GND (0 V)
• black Communication
• white Test signal

Connection cable
Cable length 5 m
Diameter Ø 4.2 mm
Material PVC, black
Plug color Blue
Wires AWG26
• brown $U_{SP}$
• blue GND (0 V)
• black Output 1 (PNP/NPN or FSS)
• white Test input
• gray Selectable output logic
• green Not used or Output 2 (PNP/NPN)

CEDES AG is certified according to ISO 9001: 2015.
Dimensions

All dimensions in mm
Proportions not to scale

Selectable output logic

LO/DO selector connected to GND (0 V)

Output 1 (PNP/NPN) | UsrP | 0 V
|-----------------|--------|--------|
| LO/DO selector connected to UsrP
| Output 1 (PNP/NPN) | UsrP | 0 V

Detailed view

All dimensions in mm

Connection diagram

Semiconductor output

<table>
<thead>
<tr>
<th>Synchronization</th>
<th>MB, 6-pin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tx</td>
<td>Rx</td>
</tr>
<tr>
<td>Selectable output logic</td>
<td>brown</td>
</tr>
<tr>
<td>Test input</td>
<td>grey</td>
</tr>
<tr>
<td>Output 1 (PNP/NPN)</td>
<td>black</td>
</tr>
<tr>
<td>GND (0 V)</td>
<td>blue</td>
</tr>
<tr>
<td>Not used or Output 2 (PNP/NPN)</td>
<td>green</td>
</tr>
</tbody>
</table>

FSS output

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<td>Test input</td>
<td>grey</td>
</tr>
<tr>
<td>Output (FSS)</td>
<td>white</td>
</tr>
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<td>GND (0 V)</td>
<td>black</td>
</tr>
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Front mounting

Applications

High-speed and sectional doors (with door blanking)

Sectional doors (static mounting, without door blanking)