



## Main

|                               |   |
|-------------------------------|---|
| Range of product              | OsiSense XG   |
| Product or component type     | Compact smart antenna   |
| RFID compact station name     | XGCS  |
| RFID frequency                | 13.56 MHz   |
| Design                        | Flat form 40 x 40 x 15  |
| Electrical connection         | 5 pin(s) male remote connector M12, shielded cable cable 0.2 m  |
| Transmission rate             | 9600 bauds...115200 bauds (automatic detection)   |
| Outer dimension               | 40 x 40 x 15 mm   |
| Product compatibility         | RFID microchip Microelectronic (EM4135)<br>RFID microchip Texas (Tag-it HFI)<br>RFID microchip NXP (SL2, SL1, Ultralight, Std 1K/4K, Desfire)<br>RFID microchip STM (CRIX4K)<br>RFID microchip INSIDE (micropass)<br>RFID microchip Fujitsu (MB89R118 - MB89R119) |
| [Sn] nominal sensing distance | 10...70 mm  |
| [Us] rated supply voltage     | 24 V DC conforming to Protective Extra Low Voltage  |

## Complementary

|                             |  |
|-----------------------------|--|
| Communication port protocol | Modbus RTU<br>Uni-Telway   |
| Communication port support  | RS485  |
| Associated tag type         | Automatic detection of the type of tag<br>ISO 14443 standard tags<br>ISO 15693 standard tags |
| Supply voltage limits       | 19.2...29 V DC   |
| Current consumption         | < 60 mA  |
| Status LED                  | Communication network: 1 LED (dual colour)<br>RFID communication: 1 LED (dual colour)        |
| Tightening torque           | < 1 N.m  |
| Marking                     | CE   |
| Net weight                  | 0.057 kg   |

## Environment

|                                       |  |
|---------------------------------------|--|
| Product certifications                | UL, FCC  |
| Standards                             | ETSI EN 301 489-3<br>ETSI EN 300 330-1<br>ETSI EN 301 489-1<br>ETSI EN 300 330-2                       |
| Ambient air temperature for operation | -25...70 °C  |
| Ambient air temperature for storage   | -40...85 °C  |
| IP degree of protection               | IP65 conforming to IEC 60529   |
| Vibration resistance                  | 2 mm (f= 5...29.5 Hz) conforming to EN 60068-2-6<br>7 gn (f= 29.5...150 Hz) conforming to EN 60068-2-6 |
| Shock resistance                      | 30 gn for 11 ms conforming to EN 60068-2-27  |

|                               |  |
|-------------------------------|--|
| IK degree of protection       | IK02 conforming to EN 50102  |
| Electromagnetic compatibility | <p>Electrostatic discharge immunity test: (contact discharge), 3, 6 kV, conforming to IEC 61000-4-2</p> <p>Electrostatic discharge immunity test: (air discharge), 3, 8 kV, conforming to IEC 61000-4-2</p> <p>Electrical fast transient/burst immunity test: (signal ports), 3, 1 kV, conforming to IEC 61000-4-4</p> <p>Electrical fast transient/burst immunity test: (power ports), 3, 2 kV, conforming to IEC 61000-4-4</p> <p>Susceptibility to electromagnetic fields: , 3, 10 V/m, conforming to IEC 61000-4-3</p> <p>1.2/50 µs shock waves immunity test: , 3, 10 kV, conforming to IEC 61000-4-5</p> <p>Conducted RF disturbances: , 3, 10 V, conforming to IEC 61000-4-6</p> <p>Magnetic field at power frequency: , 4, 30 A/m, conforming to IEC 61000-4-8</p> |

## Packing Units

|                              |          |
|------------------------------|----------|
| Unit Type of Package 1       | PCE      |
| Number of Units in Package 1 | 1        |
| Package 1 Weight             | 56 g     |
| Package 1 Height             | 6.5 cm   |
| Package 1 width              | 4 cm     |
| Package 1 Length             | 9.5 cm   |
| Unit Type of Package 2       | S02      |
| Number of Units in Package 2 | 44       |
| Package 2 Weight             | 3.975 kg |
| Package 2 Height             | 15 cm    |
| Package 2 width              | 30 cm    |
| Package 2 Length             | 40 cm    |

## Offer Sustainability

|                            |  |
|----------------------------|--|
| Sustainable offer status   | Green Premium product  |
| REACH Regulation           | <a href="#">REACH Declaration</a>  |
| EU RoHS Directive          | Pro-active compliance (Product out of EU RoHS legal scope) <a href="#">EU RoHS Declaration</a> |
| Mercury free               | Yes  |
| RoHS exemption information | <a href="#">Yes</a>  |
| Environmental Disclosure   | <a href="#">Product Environmental Profile</a>  |
| Circularity Profile        | <a href="#">End of Life Information</a>  |

## Contractual warranty

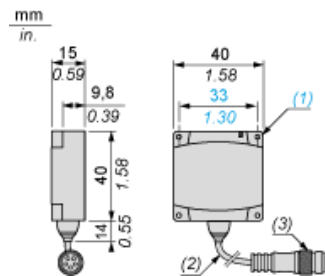
|          |           |
|----------|-----------|
| Warranty | 18 months |
|----------|-----------|

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Dimensions

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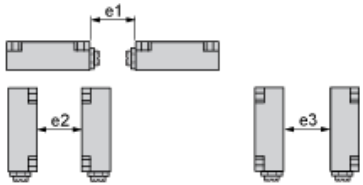
Compact Smart Antennas



- (1) 4 x Ø 4.5. for CHC type screws
- (2) Shielded cable (length: 20 cm)
- (3) A-coded, male 5-pin M12 connector

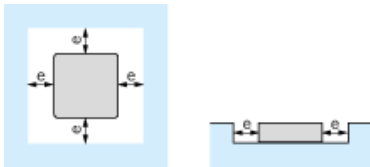
Minimum Mounting Distances

Distance Between Smart Antennas



| Tag                      | e1  | e2  | e3  |
|--------------------------|-----|-----|-----|
| XGHB90E340<br>XGHB520246 | 310 | 550 | 120 |
| XGHB221346               | 200 | 320 | 100 |
| XGHB320***               | 140 | 360 | 110 |
| XGHB211345<br>XGHB123345 | 210 | 180 | 60  |
| XGHB44***                | 90  | 190 | 30  |

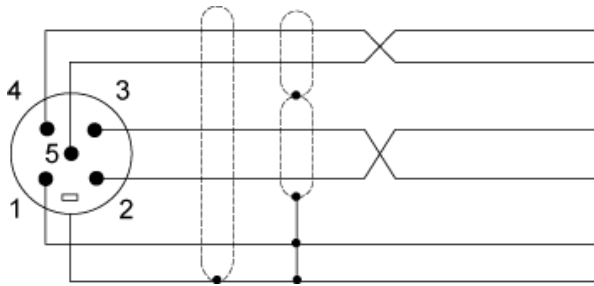
Minimum Mounting Distances in a Metal Structure



(e) ≥ 20 mm.

Wiring Diagram

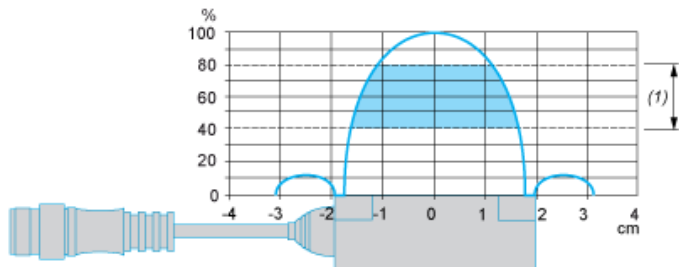
Modbus Connections



| Pin no.          | Modbus smart antenna signal |
|------------------|-----------------------------|
| 1                | Drain (Modbus-SHLD)         |
| 2                | + 24 VDC                    |
| 3                | 0 V/Modbus-GND              |
| 4                | D0                          |
| 5                | D1                          |
| Connector casing | Shielding                   |

Curves

Dialogue Zones of Compact Smart Antennas



(1) Recommended movement zone: between 0.4 and 0.8 Pn.