

# ANT-DIR-2459-01 - Antenna



2701186

<https://www.phoenixcontact.com/us/products/2701186>

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Directional antenna for wall or mast mounting, 2.4 GHz / 5 GHz, gain: 9 dBi, degree of protection: IP67, shockproof: IK06, saltwater-resistant, connection: N (female), incl. mounting bracket and mast clamps, ATEX and IECEx approval



## Your advantages

- Ideally suited for stationary or linear mobile applications with 2.4 GHz or 5 GHz
- For use in potentially explosive areas
- Salt water resistant
- Impact-resistant housing (IK06)

## Commercial data

|                                      |               |
|--------------------------------------|---------------|
| Item number                          | 2701186       |
| Packing unit                         | 1 pc          |
| Minimum order quantity               | 1 pc          |
| Sales key                            | DN23          |
| Product key                          | DNN2Z1        |
| GTIN                                 | 4046356717182 |
| Weight per piece (including packing) | 431.8 g       |
| Weight per piece (excluding packing) | 210 g         |
| Customs tariff number                | 85177100      |
| Country of origin                    | PL            |

## Technical data

### Notes

#### Note on application

|                     |                         |
|---------------------|-------------------------|
| Note on application | Only for industrial use |
|---------------------|-------------------------|

#### Utilization restriction

|            |                                                               |
|------------|---------------------------------------------------------------|
| CCCex note | Use in potentially explosive areas is not permitted in China. |
|------------|---------------------------------------------------------------|

### Product properties

|                           |                                           |
|---------------------------|-------------------------------------------|
| Product type              | Antenna                                   |
| Scope of supply           | included mounting bracket and mast clamps |
| Radiation characteristics | Directional                               |
| Gain                      | 9 dBi                                     |
| Vertical beamwidth        | 55 ° (2.4 GHz ... 2.5 GHz)                |
|                           | 55 ° (5.1 GHz ... 5.9 GHz)                |
| Horizontal beamwidth      | 75 ° (2.4 GHz ... 2.5 GHz)                |
|                           | 55 ° (5.1 GHz ... 5.9 GHz)                |
| Polarization              | Linear vertical                           |

### Electrical properties

|                                                   |                       |
|---------------------------------------------------|-----------------------|
| Frequency band                                    | 2.4 GHz               |
|                                                   | 5 GHz                 |
| Frequency range                                   | 2.4 GHz ... 2.5 GHz   |
|                                                   | 5.15 GHz ... 5.83 GHz |
| Impedance                                         | 50 Ω                  |
| Maximum capacity                                  | 10.00 W               |
| Voltage standing wave ratio VSWR in a 50 Ω system | ≤ 2.00                |

### Connection data

#### Connection technology

|                   |                        |
|-------------------|------------------------|
| Connection method | N (female)             |
| Outside diameter  | 25 mm ... 85 mm (Mast) |

### Ex data

#### Safety data

|                                |            |
|--------------------------------|------------|
| Input voltage $U_i$            | 30 V       |
| Input current $I_i$            | 600 mA     |
| Max. internal inductance $L_i$ | negligible |
| Capacitance $C_i$              | negligible |

### Dimensions

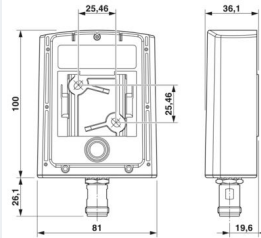
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## Dimensional drawing



|        |        |
|--------|--------|
| Width  | 80 mm  |
| Height | 100 mm |
| Length | 35 mm  |

## External dimensions

|                  |                        |
|------------------|------------------------|
| Outside diameter | 25 mm ... 85 mm (Mast) |
|------------------|------------------------|

## Material specifications

|          |                |
|----------|----------------|
| Material | Lexan EXL 9330 |
|          | V2A            |
|          | V2A            |

## Cable/line

|                  |                      |
|------------------|----------------------|
| Connecting cable | no                   |
| Other resistance | salt water resistant |

## Environmental and real-life conditions

### Ambient conditions

|                                         |                  |
|-----------------------------------------|------------------|
| Degree of protection                    | IP67             |
| Ambient temperature (operation)         | -40 °C ... 75 °C |
| Ambient temperature (storage/transport) | -40 °C ... 85 °C |
| Wind velocity                           | 220 km/h         |

## Approvals

### Electronic devices in rail vehicles

|                       |                                                                           |
|-----------------------|---------------------------------------------------------------------------|
| Shock (operation)     | In accordance with EN 50125-3, positioning profile: "away from the rails" |
| Vibration (operation) | In accordance with EN 50125-3, positioning profile: "away from the rails" |

## Standards and regulations

|                          |                      |
|--------------------------|----------------------|
| Other resistance         | salt water resistant |
| Standards/specifications | EN 60079-0           |
|                          | EN 60079-11          |
|                          | EN 60079-26          |
| Standards/specifications | EN 50155             |
| Note                     | Railway application  |

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|                          |                                     |
|--------------------------|-------------------------------------|
| Standards/specifications | EN 45545-2                          |
|                          | NFPA 130                            |
|                          | BS 6853                             |
| Note                     | Fire protection on railway vehicles |

## Mounting

|               |                      |
|---------------|----------------------|
| Mounting type | Panel mounting       |
|               | Mast mounting        |
| Assembly note | Outdoors and indoors |

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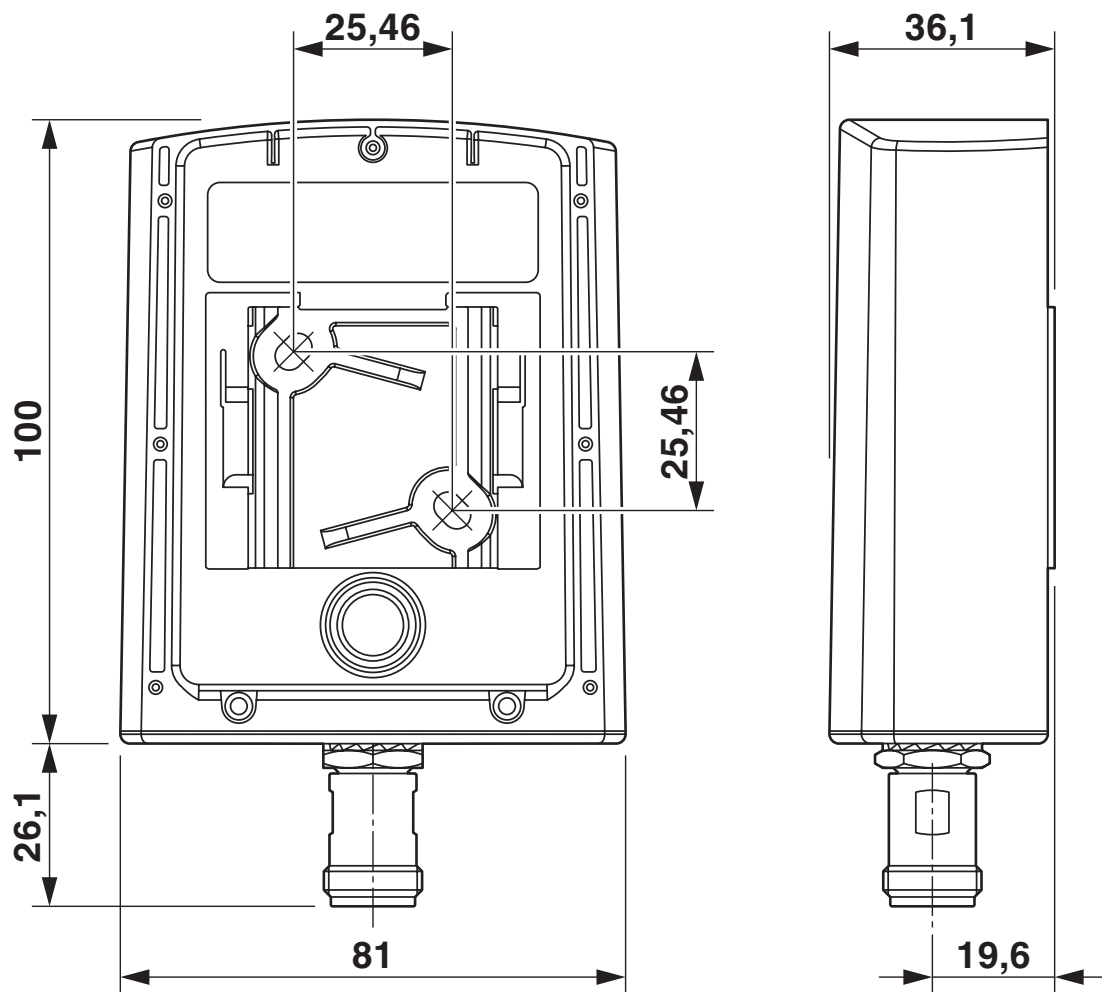
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## Drawings

Dimensional drawing

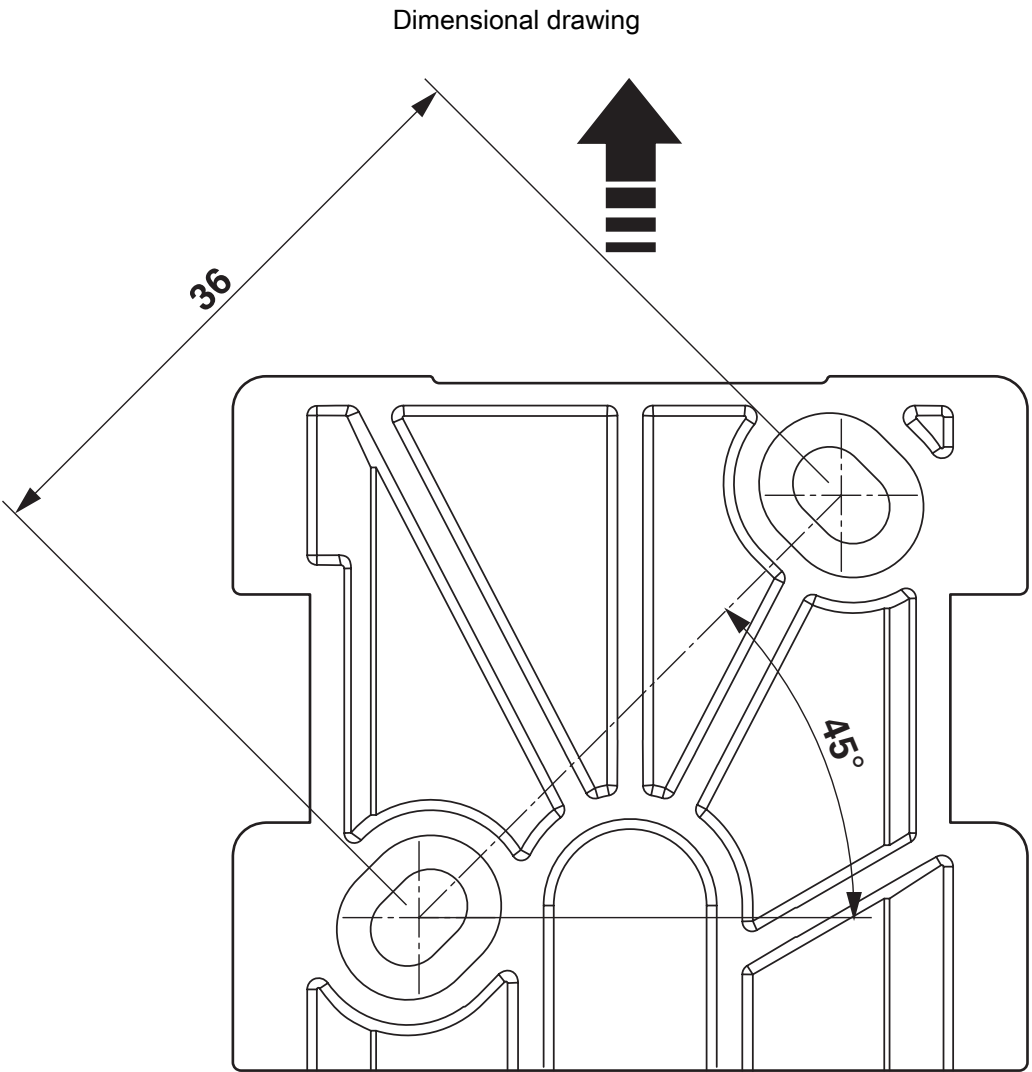


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Mounting panel

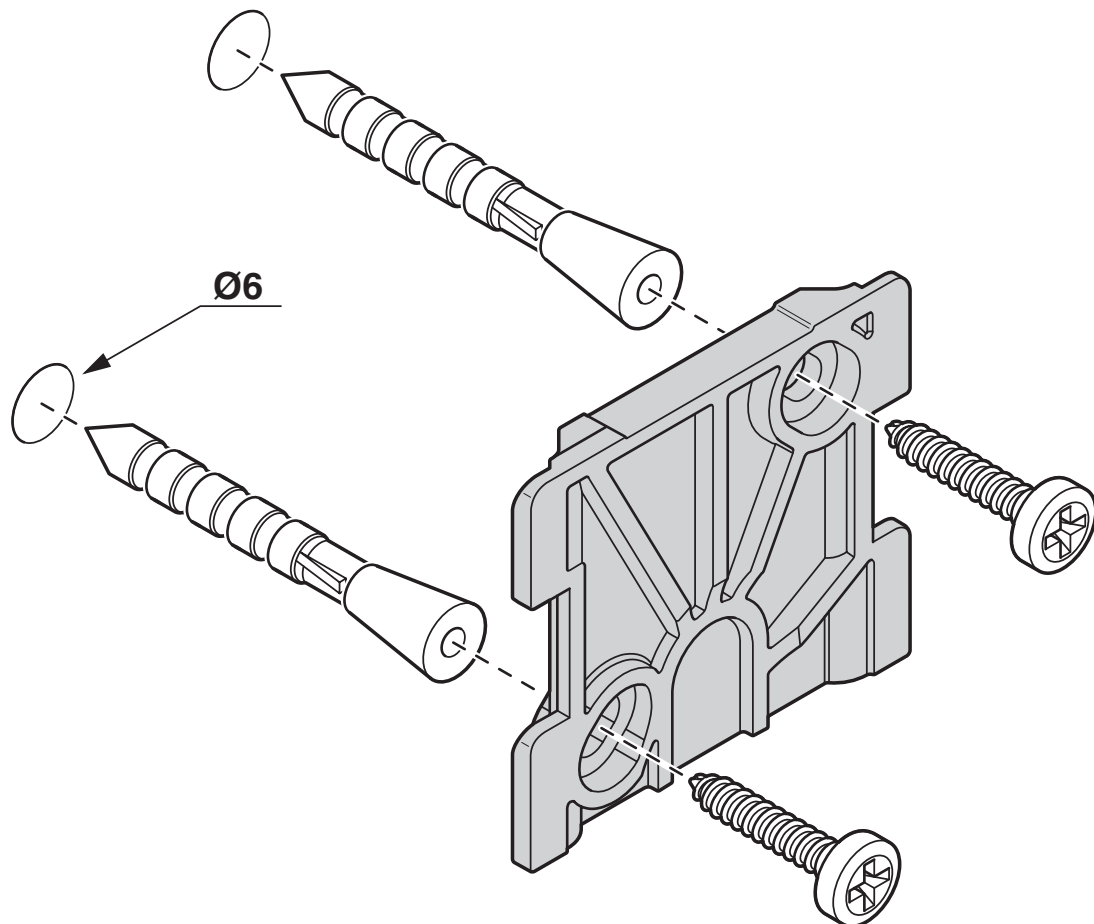
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Schematic diagram



Mounting panel

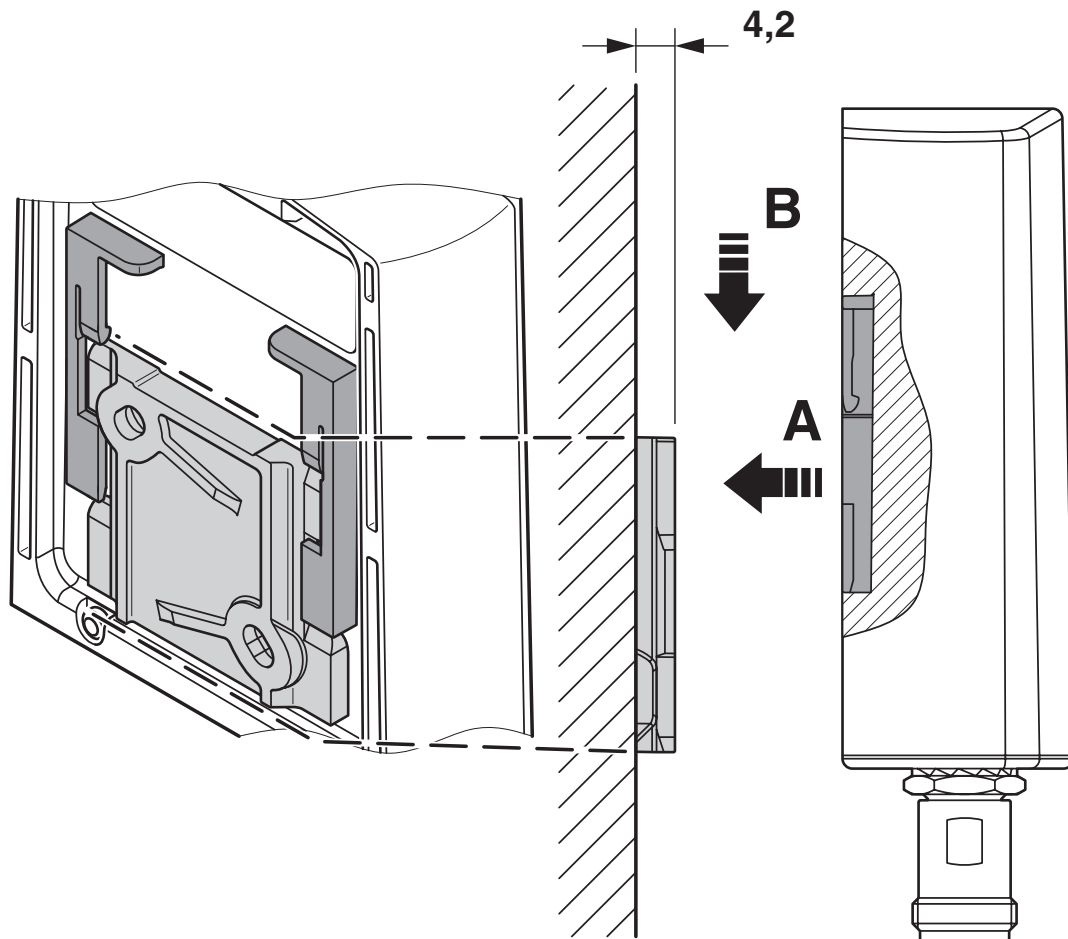
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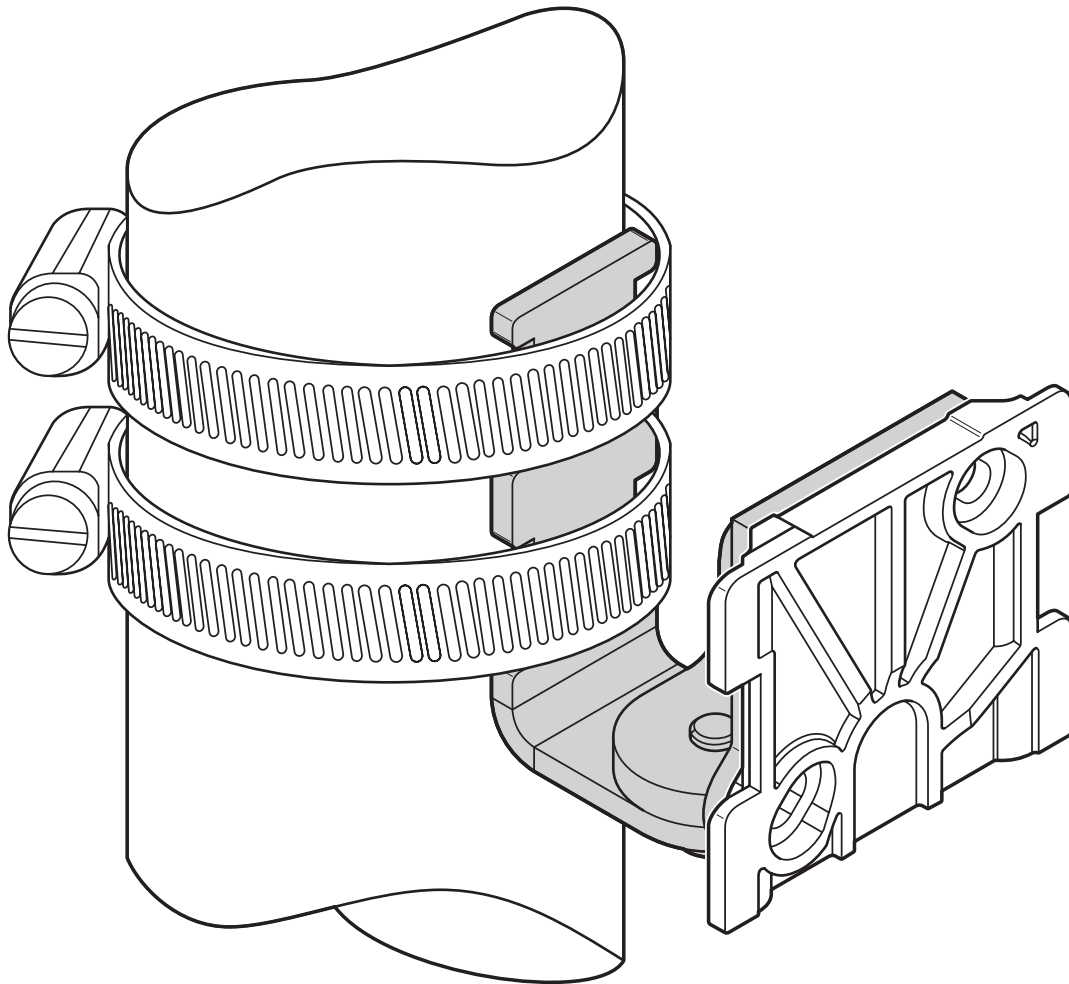
Schematic diagram



Panel mounting



Schematic diagram



Mast mounting

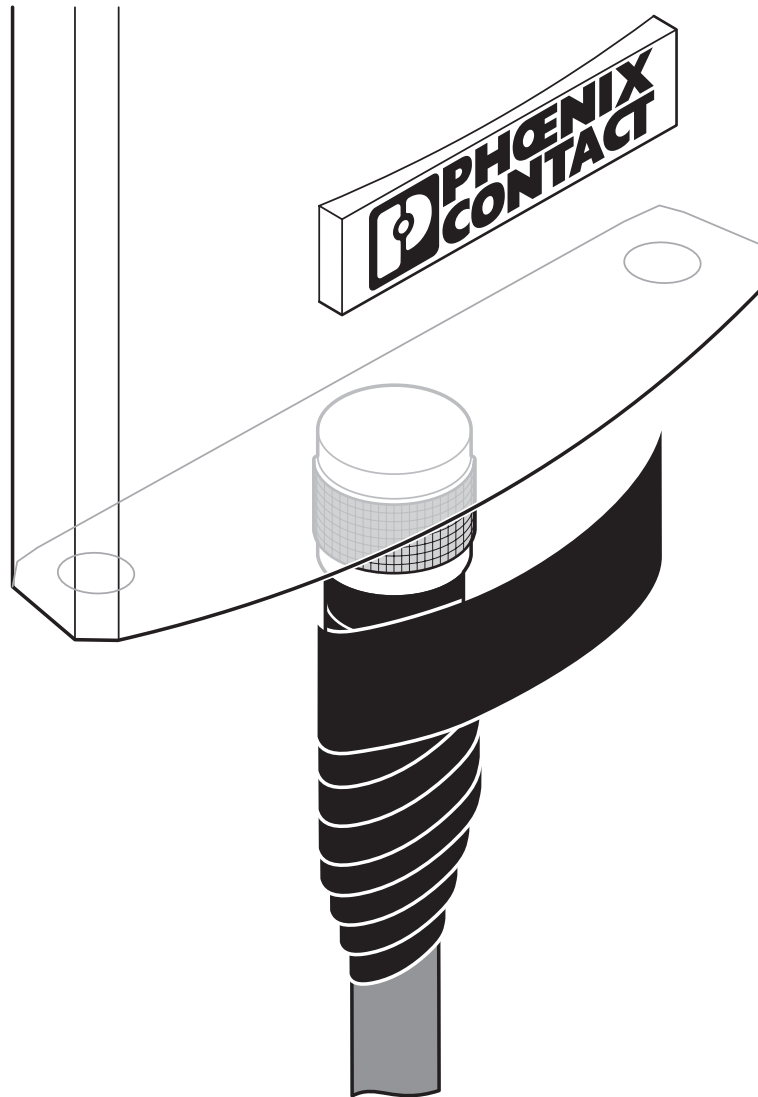
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Schematic diagram



Sealing tape available as an accessory

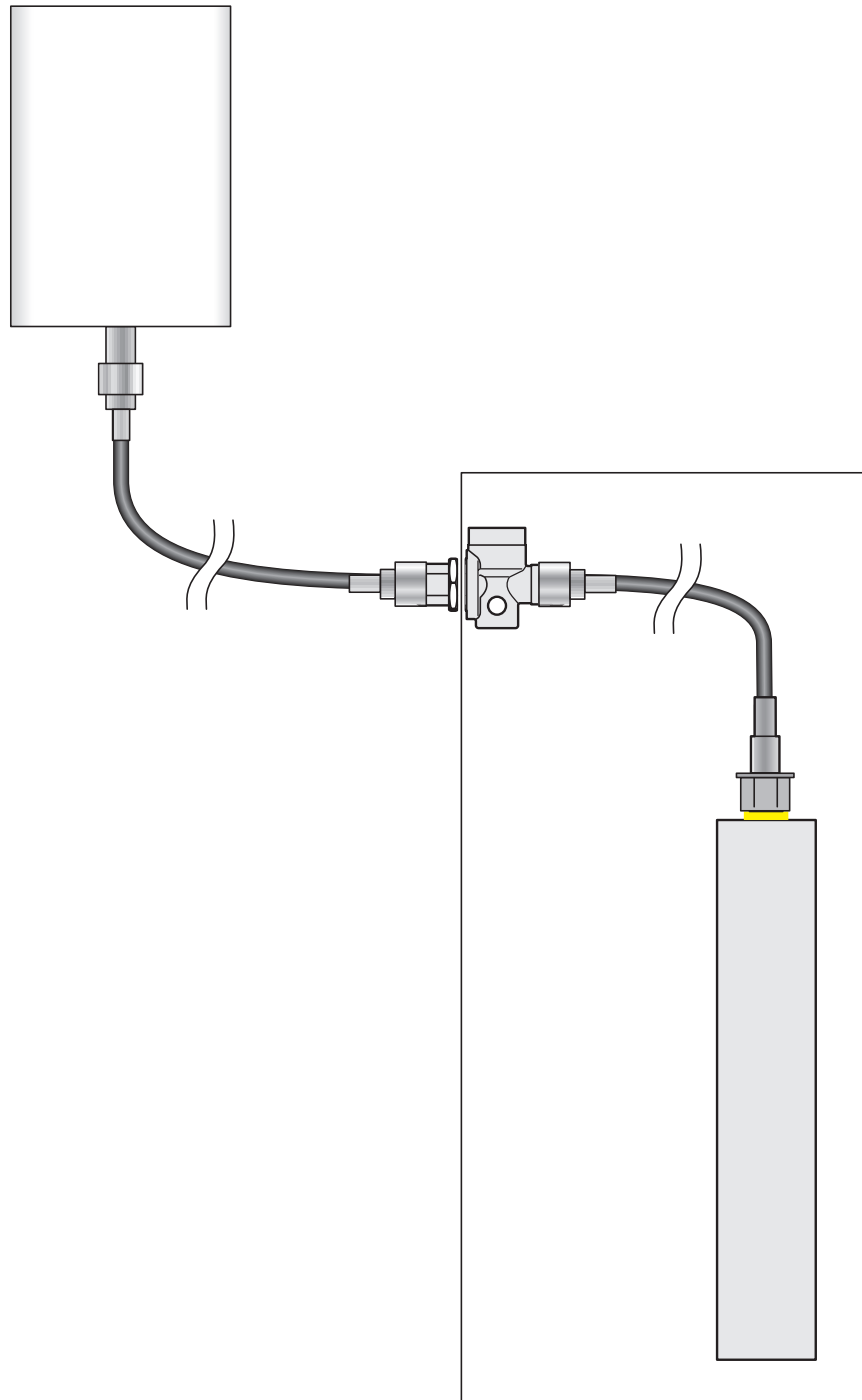
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Schematic diagram



Installation example

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## Classifications

### ECLASS

|             |          |
|-------------|----------|
| ECLASS-13.0 | 19070105 |
| ECLASS-15.0 | 19070105 |

### ETIM

|          |          |
|----------|----------|
| ETIM 9.0 | EC001698 |
|----------|----------|

### UNSPSC

|             |          |
|-------------|----------|
| UNSPSC 21.0 | 43223100 |
|-------------|----------|

## Environmental product compliance

## EU RoHS

|                                         |      |
|-----------------------------------------|------|
| Fulfills EU RoHS substance requirements | Yes  |
| Exemption                               | 6(c) |

## China RoHS

|                                        |                                                                                                                                                                                                                                   |
|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Environment friendly use period (EFUP) | EFUP-25                                                                                                                                                                                                                           |
|                                        | An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required. |

## EU REACH SVHC

|                                     |                                      |
|-------------------------------------|--------------------------------------|
| REACH candidate substance (CAS No.) | Lead(CAS: 7439-92-1)                 |
| SCIP                                | 04d3ab30-15cc-4723-8954-2ea08bbad731 |