

# ANT-DIR-868-01 - Antenna

2702137

<https://www.phoenixcontact.com/us/products/2702137>

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.

Directional antenna for mast or panel mounting, frequency band: 868 MHz, gain: 3.5 dBi, circular polarized, degree of protection: IP67, shockproof: IK06, seawater-resistant, connection: N (female), incl. mounting bracket and mast clamps, ATEX and IECEx approval



## Your advantages

- Ideally suited for stationary or linear mobile 868 MHz applications
- For applications in reflective environments
- For use in potentially explosive areas
- Resistant to salt water

## Commercial data

|                                      |               |
|--------------------------------------|---------------|
| Item number                          | 2702137       |
| Packing unit                         | 1 pc          |
| Minimum order quantity               | 1 pc          |
| Product key                          | DNC6A2        |
| GTIN                                 | 4055626006512 |
| Weight per piece (including packing) | 502.6 g       |
| Weight per piece (excluding packing) | 519.2 g       |
| 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                      | 3.5 dBi                                   |
| Vertical beamwidth        | 90 °                                      |
| Horizontal beamwidth      | 135 °                                     |
| Polarization              | Circular clockwise                        |

### Electrical properties

|   |                     |
|---|---------------------|
| Frequency band                                    | 868 MHz             |
| Frequency range                                   | 865 MHz ... 870 MHz |
| 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

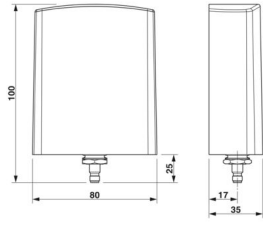
|                                 |  |
|---------------------------------|--|
| Input voltage $U_i$             | max. 30 V  |
| Input current $I_i$             | max. 600 mA  |
| Input power $P_i$               | 0.89 W (Maximum HF input power, 29.5 dBm, group IIC) |
|                                 | 1.54 W (Maximum HF input power, 31.9 dBm, group IIB) |
|                                 | 2.63 W (Maximum HF input power, 34.2 dBm, group IIA) |
| Max. internal inductance $L_i$  | negligible   |
| Max. internal capacitance $C_i$ | negligible   |

### Dimensions

# ANT-DIR-868-01 - Antenna

2702137

<https://www.phoenixcontact.com/us/products/2702137>

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

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

## Material specifications

|  |                       |
|--|-----------------------|
| Color                                  | gray white (RAL 9002) |
| Material (Radom)                       | PC                    |
| Material (Holder)                      | Stainless steel V2A   |
| Material (Mast clamp)                  | Stainless steel V2A   |
| Flammability rating according to UL 94 | V0                    |

## Cable/line

|                  |                      |
|------------------|----------------------|
| Other resistance | salt water resistant |
|------------------|----------------------|

## Environmental and real-life conditions

|   |                    |
|---|--------------------|
| Ambient conditions                      |                    |
| Degree of protection                    | IP67               |
| Impact strength                         | IK06               |
| Ambient temperature (operation)         | -40 °C ... 75 °C   |
| Ambient temperature (storage/transport) | -40 °C ... 85 °C   |
| Air pressure (operation)                | 80 kPa ... 110 kPa |
| Wind velocity                           | 220 km/h           |

## Approvals

|             |              |
|-------------|--------------|
| CE          |              |
| Certificate | CE-compliant |

|                |   |
|----------------|---|
| ATEX           |   |
| Identification | Ⓔ II 1G Ex ia IIC T6 Ga   |
| Certificate    | IBExU14ATEX1116 X   |
| Note           | Please follow the special installation instructions in the documentation! |

|                |                 |
|----------------|-----------------|
| IECEX          |                 |
| Identification | Ex ia IIC T6 Ga |

|             |                    |
|-------------|--------------------|
| Certificate | IECEX IBE 14.0039X |
|-------------|--------------------|

#### 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 |
|------------------|----------------------|

#### Explosive atmospheres

|                          |                                  |
|--------------------------|----------------------------------|
| Standard designation     | Ex areas, essential requirements |
| Standards/specifications | EN 60079-0                       |

#### Explosive atmospheres

|                          |                            |
|--------------------------|----------------------------|
| Standard designation     | Ex areas, intrinsic safety |
| Standards/specifications | EN 60079-11                |

#### Railway applications

|                          |                      |
|--------------------------|----------------------|
| Standard designation     | Railway applications |
| Standards/specifications | EN 50155             |

#### Railway applications

|                          |                                     |
|--------------------------|-------------------------------------|
| 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 |

# ANT-DIR-868-01 - Antenna

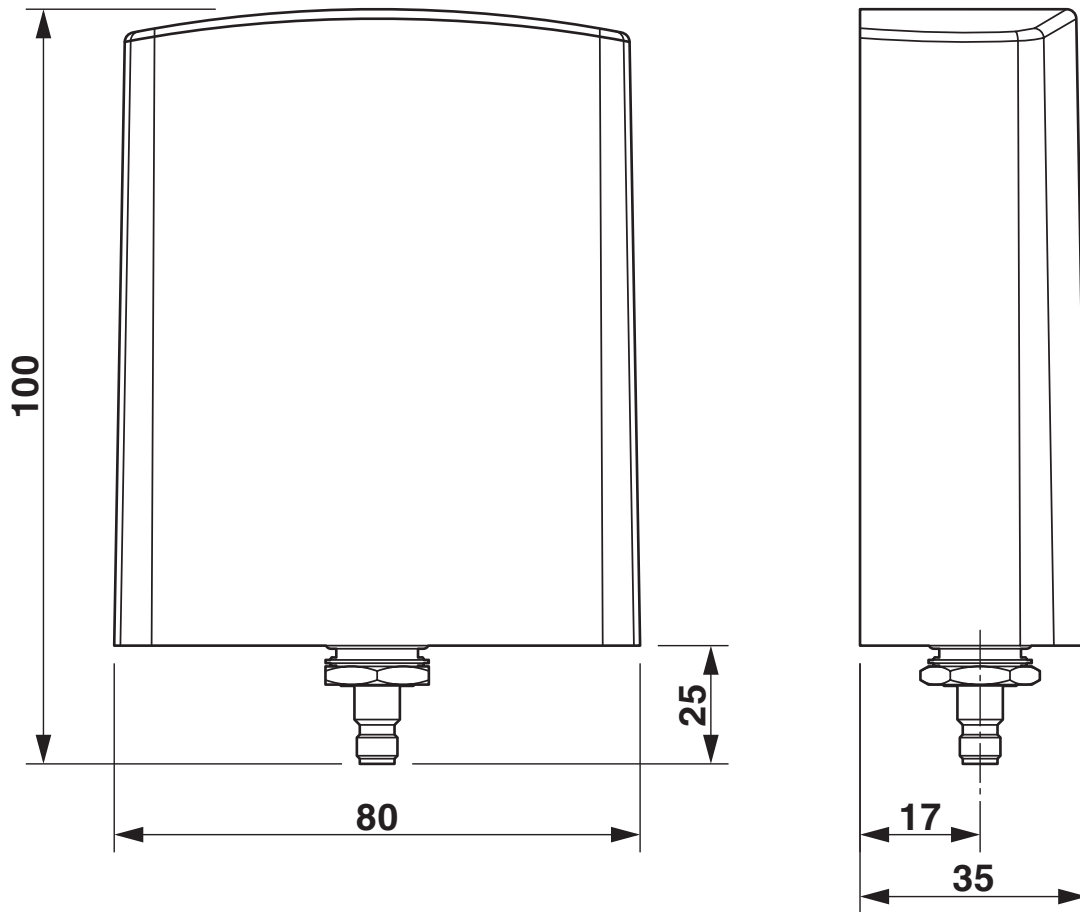
2702137

<https://www.phoenixcontact.com/us/products/2702137>



## Drawings

Dimensional drawing



Housing dimensions

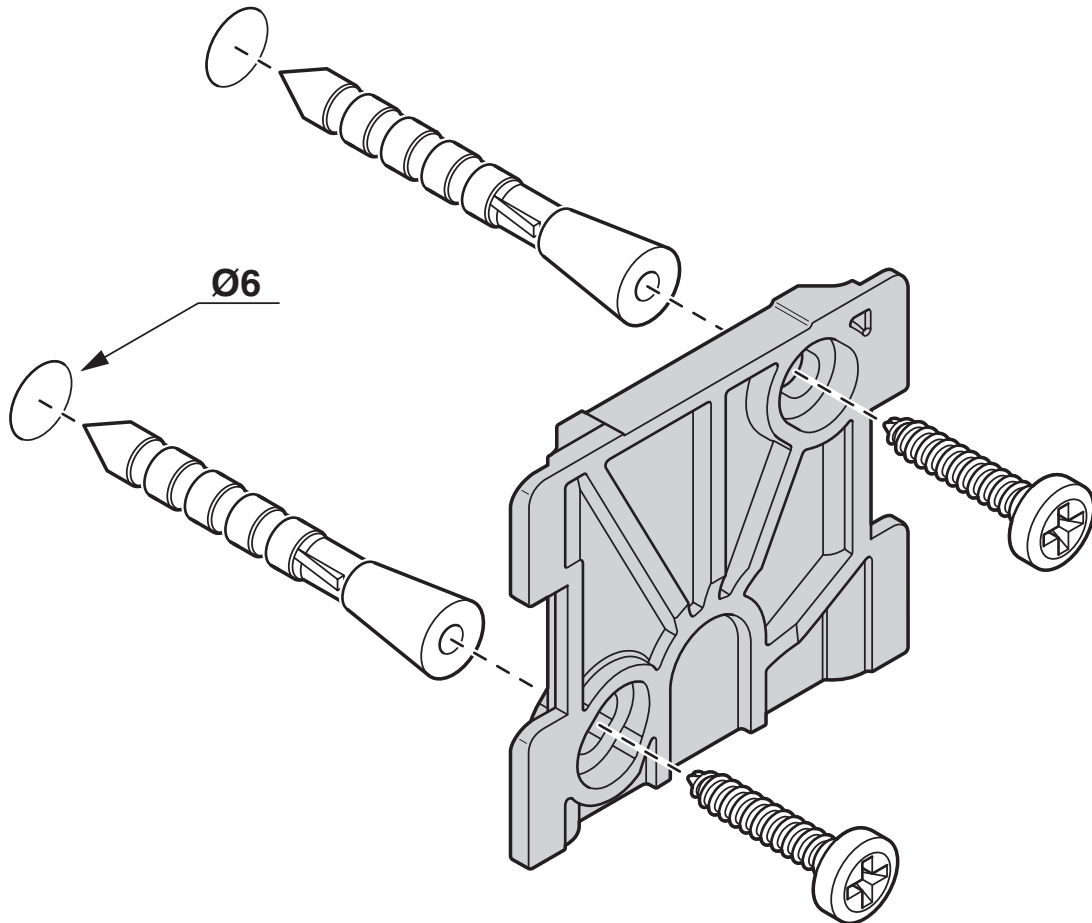
# ANT-DIR-868-01 - Antenna

2702137

<https://www.phoenixcontact.com/us/products/2702137>



Schematic diagram



Mounting panel

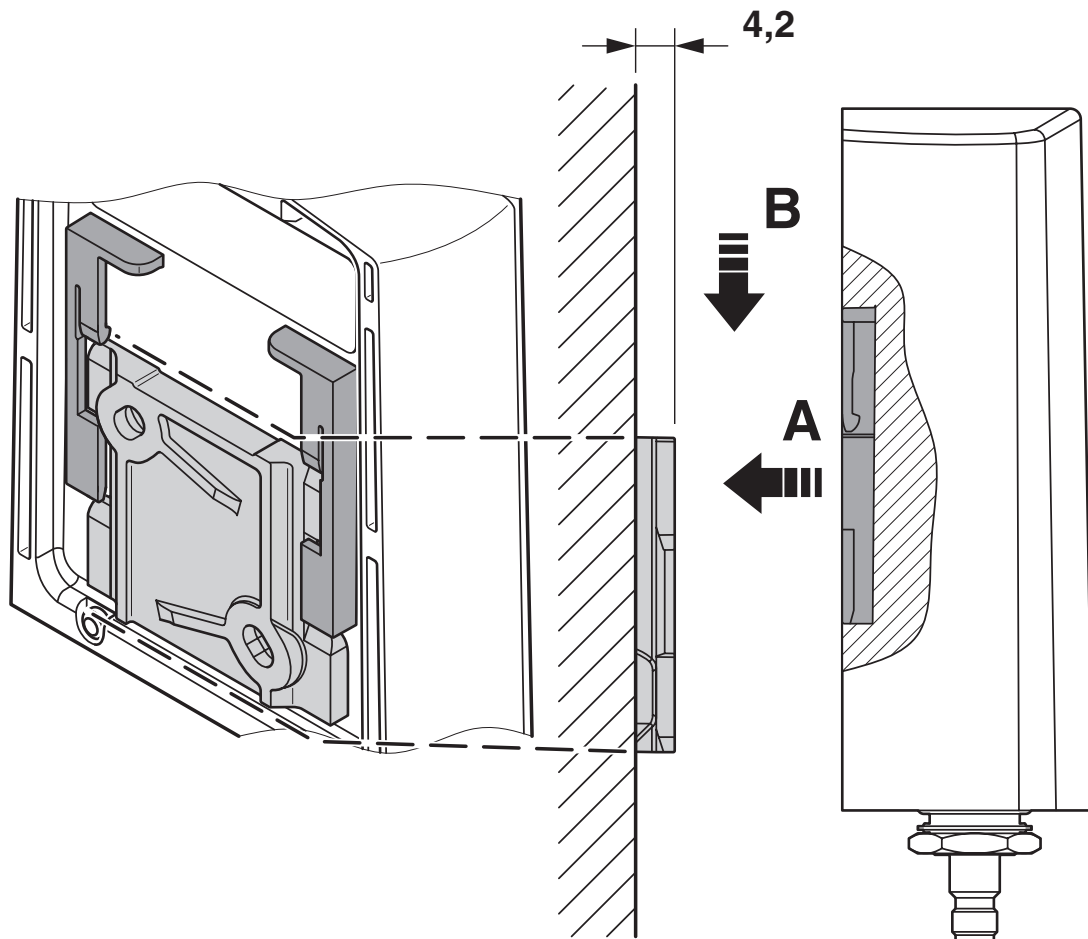
# ANT-DIR-868-01 - Antenna

2702137

<https://www.phoenixcontact.com/us/products/2702137>



Schematic diagram



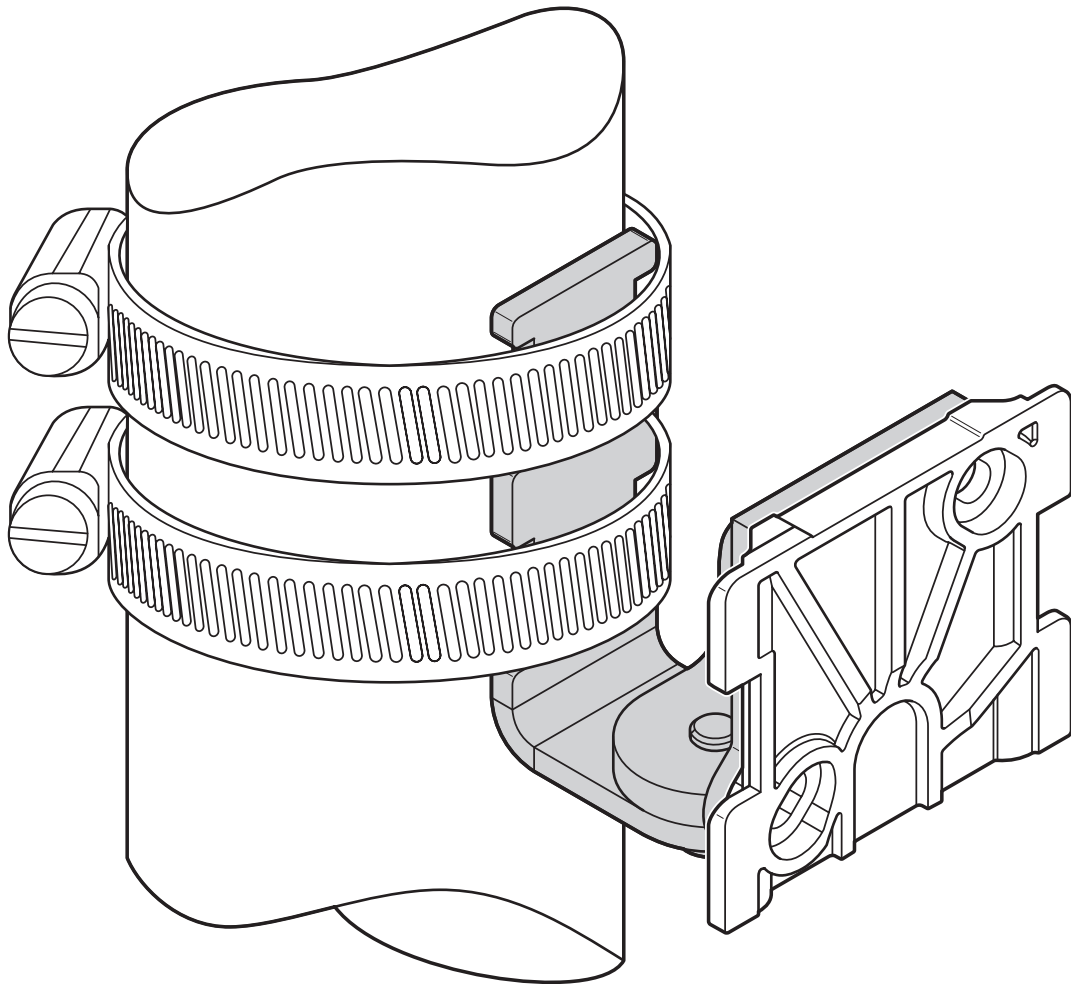
Panel mounting

# ANT-DIR-868-01 - Antenna

2702137

<https://www.phoenixcontact.com/us/products/2702137>

Schematic diagram



Mast mounting

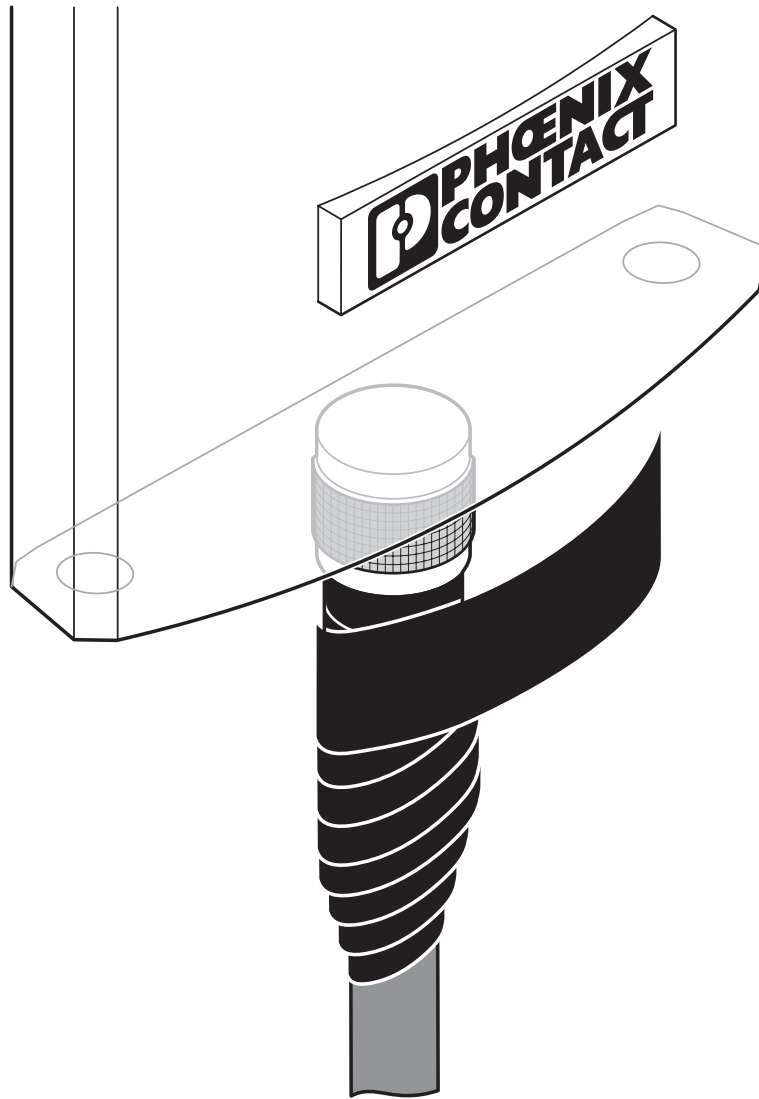
# ANT-DIR-868-01 - Antenna

2702137

<https://www.phoenixcontact.com/us/products/2702137>



Schematic diagram



Sealing tape available as an accessory

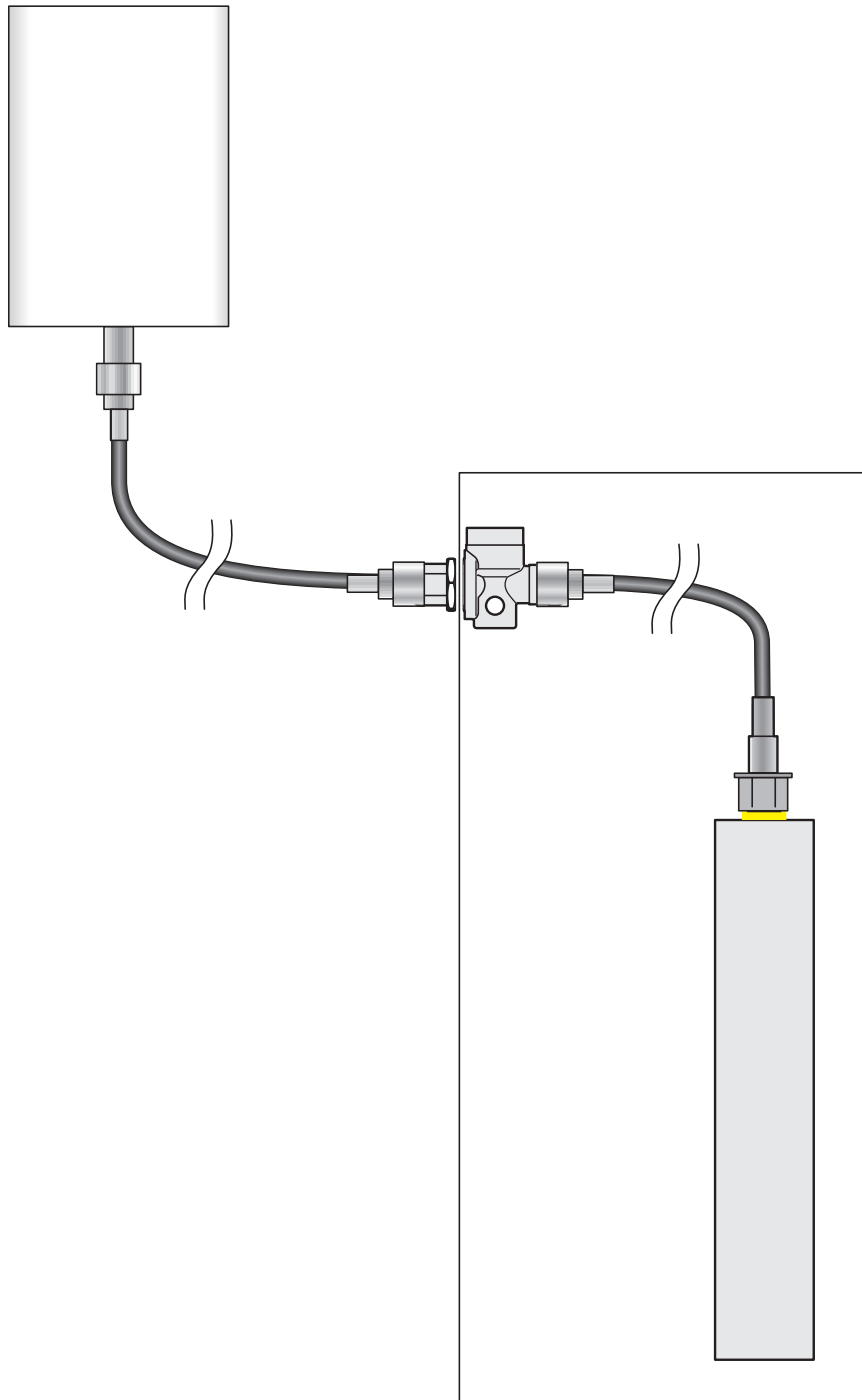
# ANT-DIR-868-01 - Antenna

2702137

<https://www.phoenixcontact.com/us/products/2702137>

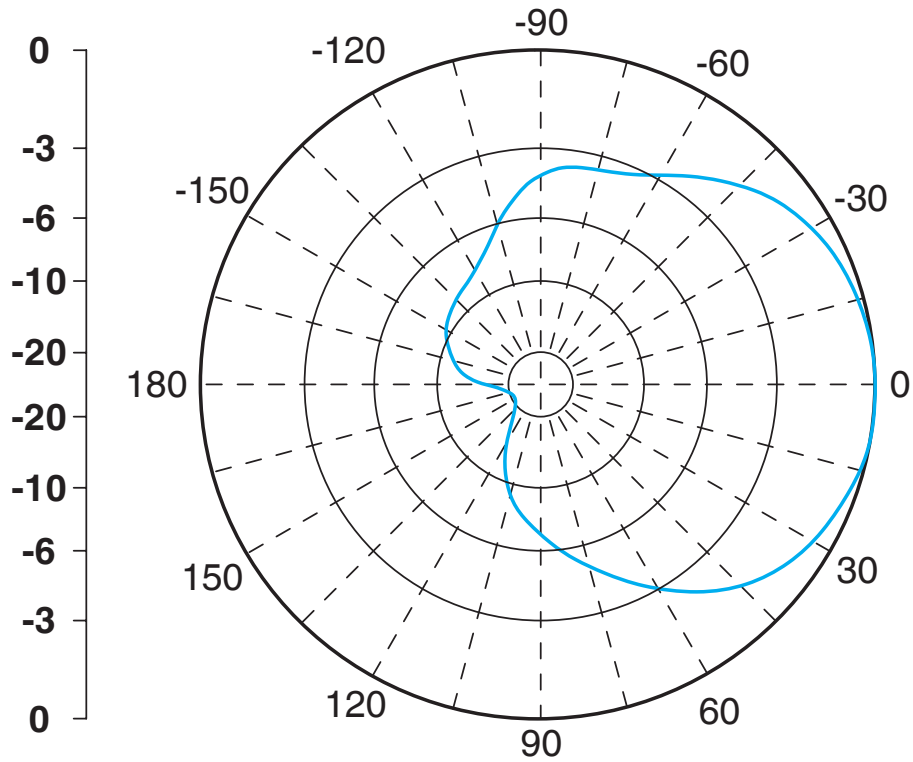


Schematic diagram



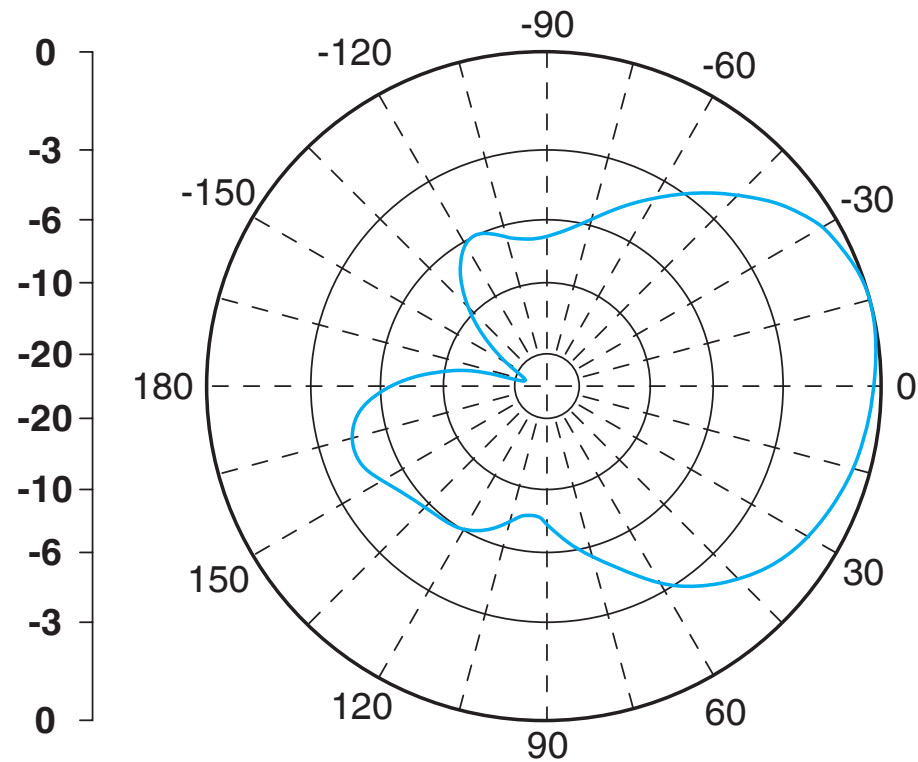
Installation example

Diagram



Horizontal

Diagram



Vertical

# ANT-DIR-868-01 - Antenna



2702137

<https://www.phoenixcontact.com/us/products/2702137>

## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2702137>



**IECEx**

Approval ID: IECEx IBE 14.0039X



**ATEX**

Approval ID: IBExU14ATEX1116 X

# ANT-DIR-868-01 - Antenna



2702137

<https://www.phoenixcontact.com/us/products/2702137>

## Classifications

### ECLASS

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

### ETIM

|           |          |
|-----------|----------|
| ETIM 10.0 | EC001698 |
|-----------|----------|

### UNSPSC

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

# ANT-DIR-868-01 - Antenna



2702137

<https://www.phoenixcontact.com/us/products/2702137>

## Environmental product compliance

### EU RoHS

|   |                    |
|---|--------------------|
| Fulfills EU RoHS substance requirements | Yes, No exemptions |
|---|--------------------|

### China RoHS

|  |  |
|--|--|
| Environment friendly use period (EFUP) | EFUP-E                                   |
|  | No hazardous substances above the limits |

### EU REACH SVHC

|                                     |                            |
|-------------------------------------|----------------------------|
| REACH candidate substance (CAS No.) | No substance above 0.1 wt% |
|-------------------------------------|----------------------------|

### EF3.1 Climate Change

|         |                |
|---------|----------------|
| CO2e kg | 12.529 kg CO2e |
|---------|----------------|

Phoenix Contact 2026 © - all rights reserved  
<https://www.phoenixcontact.com>

Phoenix Contact USA  
586 Fulling Mill Road  
Middletown, PA 17057, United States  
(+717) 944-1300  
[info@phoenixcon.com](mailto:info@phoenixcon.com)