

# ANT-DIR-868-01 - Antenna

2702137

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

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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
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#### Utilization restriction

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

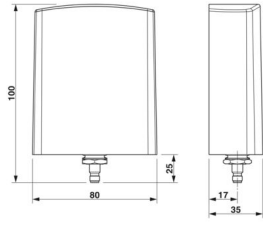
Input voltage $U_i$	max. 30 V
Input current $I_i$	max. 600 mA
Input power $P_i$	0.89 W (Maximum HF input power, 29.5 dBm, group IIC)
	1.54 W (Maximum HF input power, 31.9 dBm, group IIB)
	2.63 W (Maximum HF input power, 34.2 dBm, group IIA)
Max. internal inductance $L_i$	negligible
Max. internal capacitance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

### Dimensions

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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

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
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## 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
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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
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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

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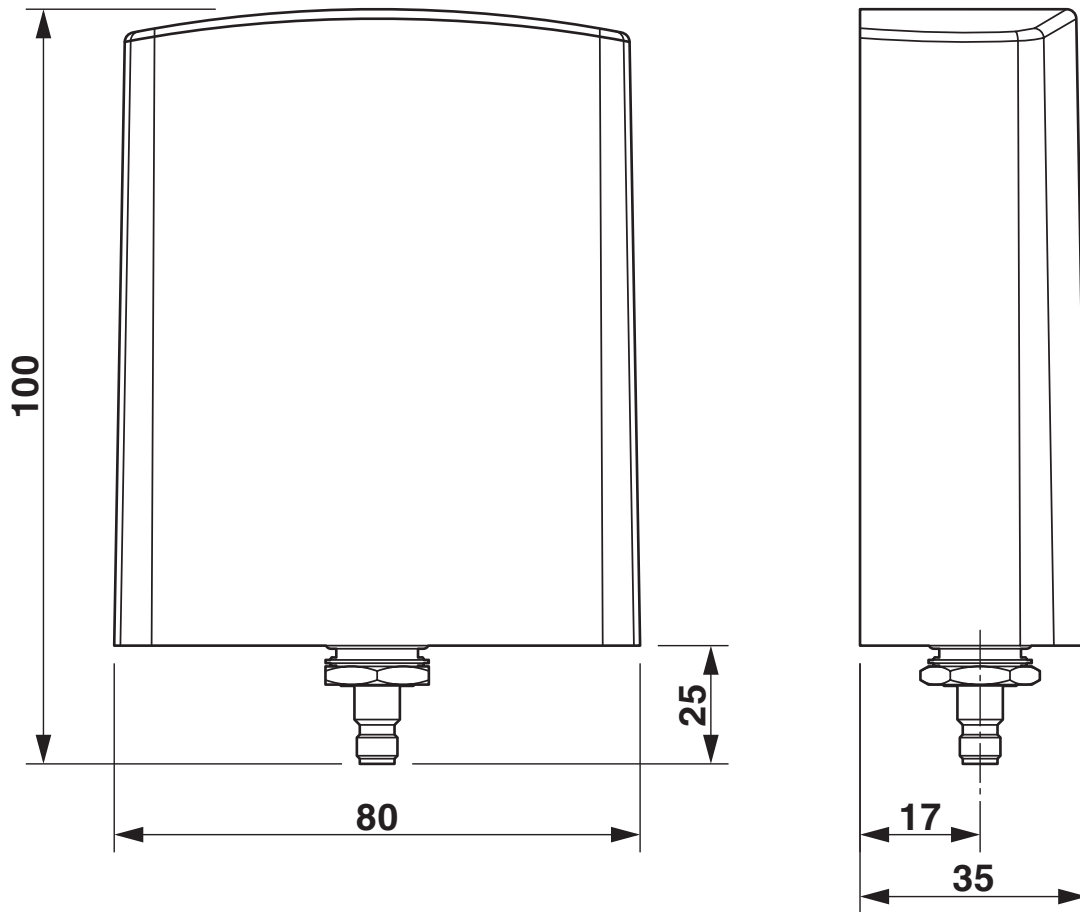
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## Drawings

Dimensional drawing



Housing dimensions

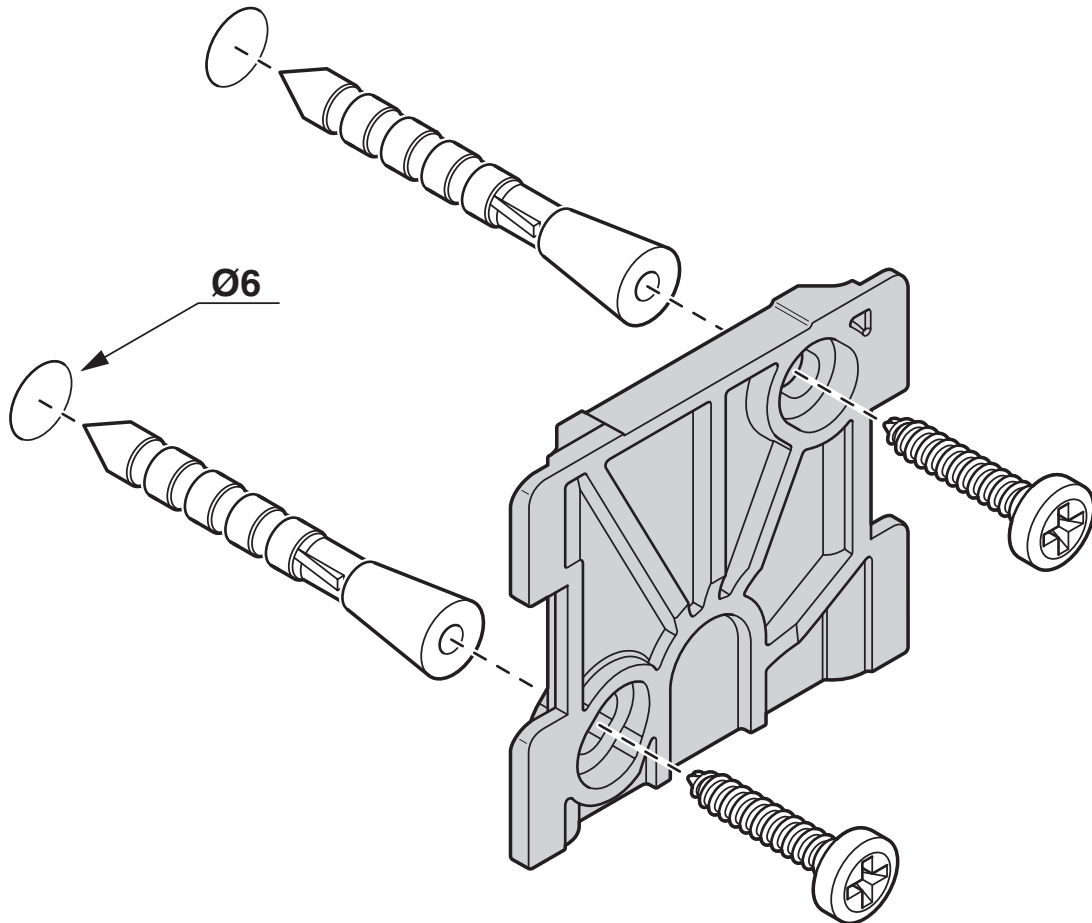
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Schematic diagram



Mounting panel

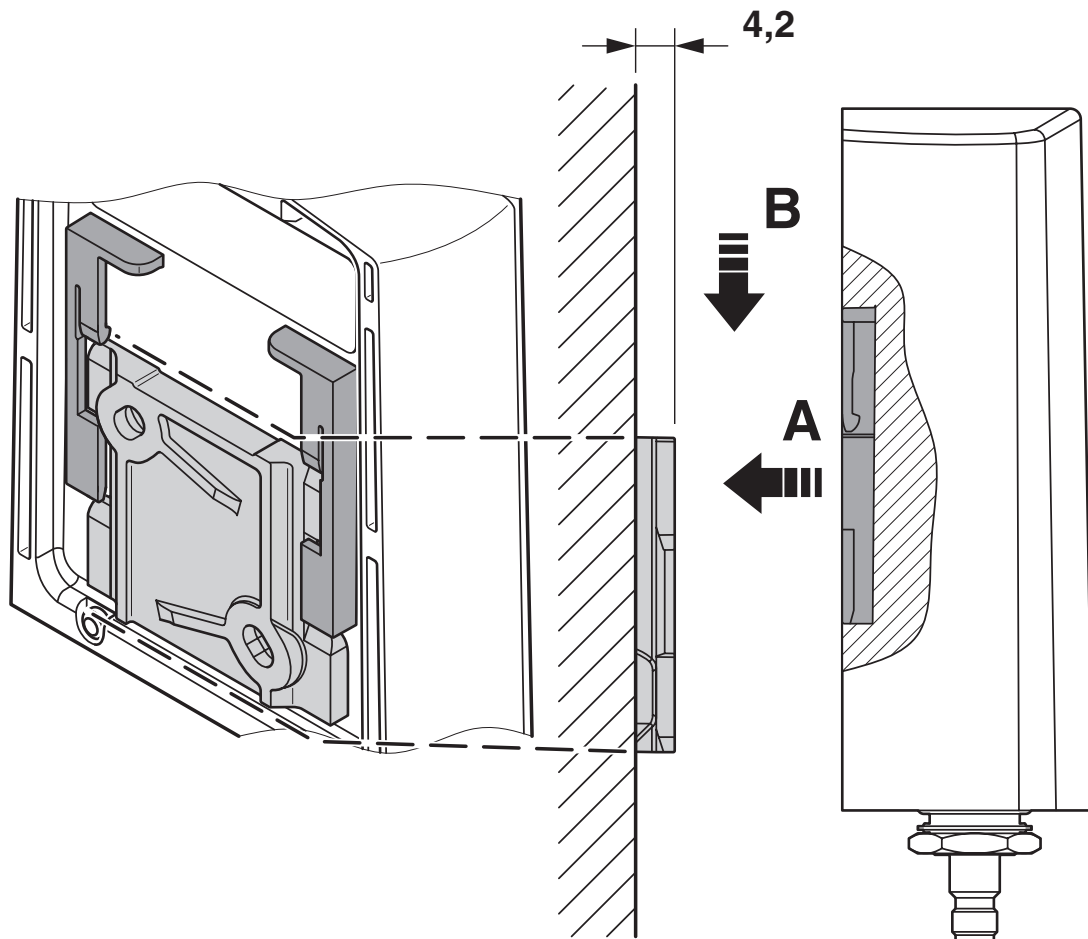
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Schematic diagram



Panel mounting

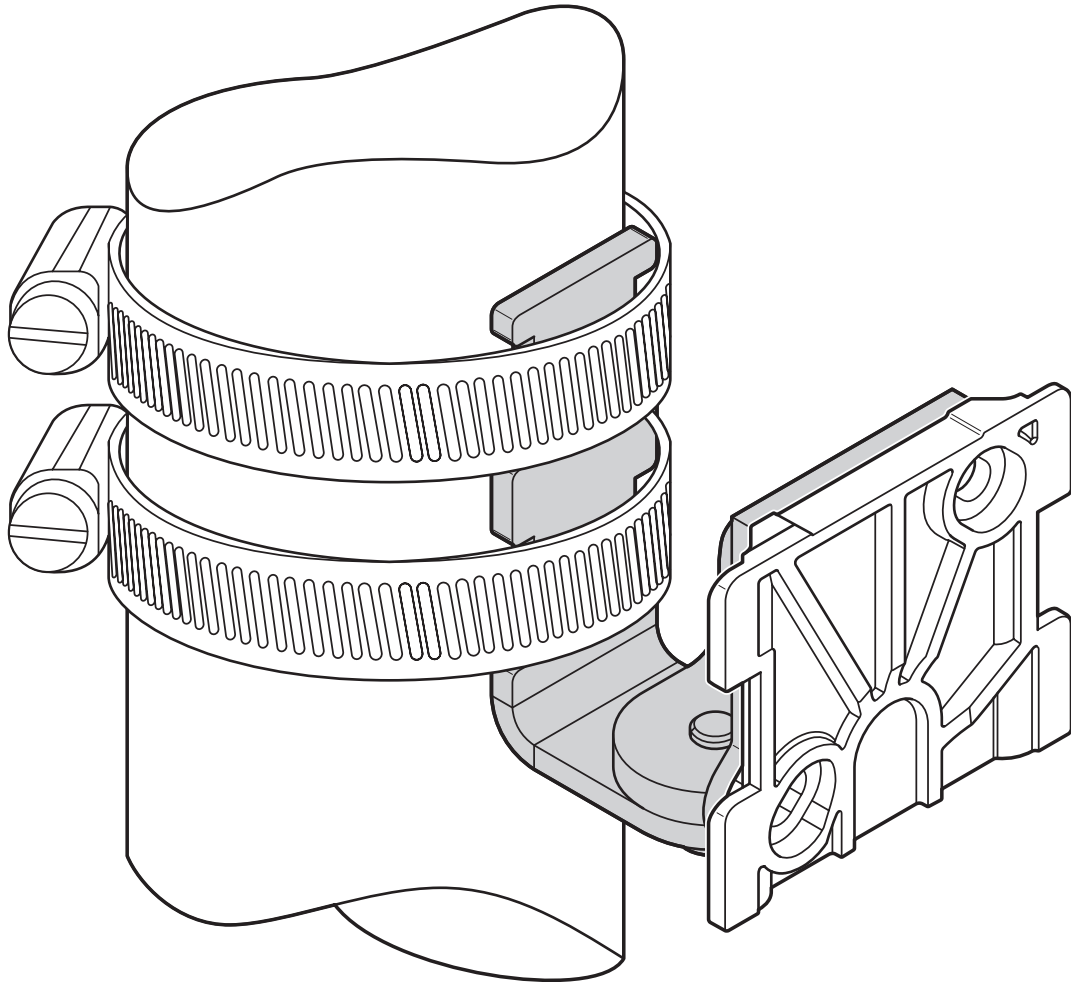
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Schematic diagram



Mast mounting

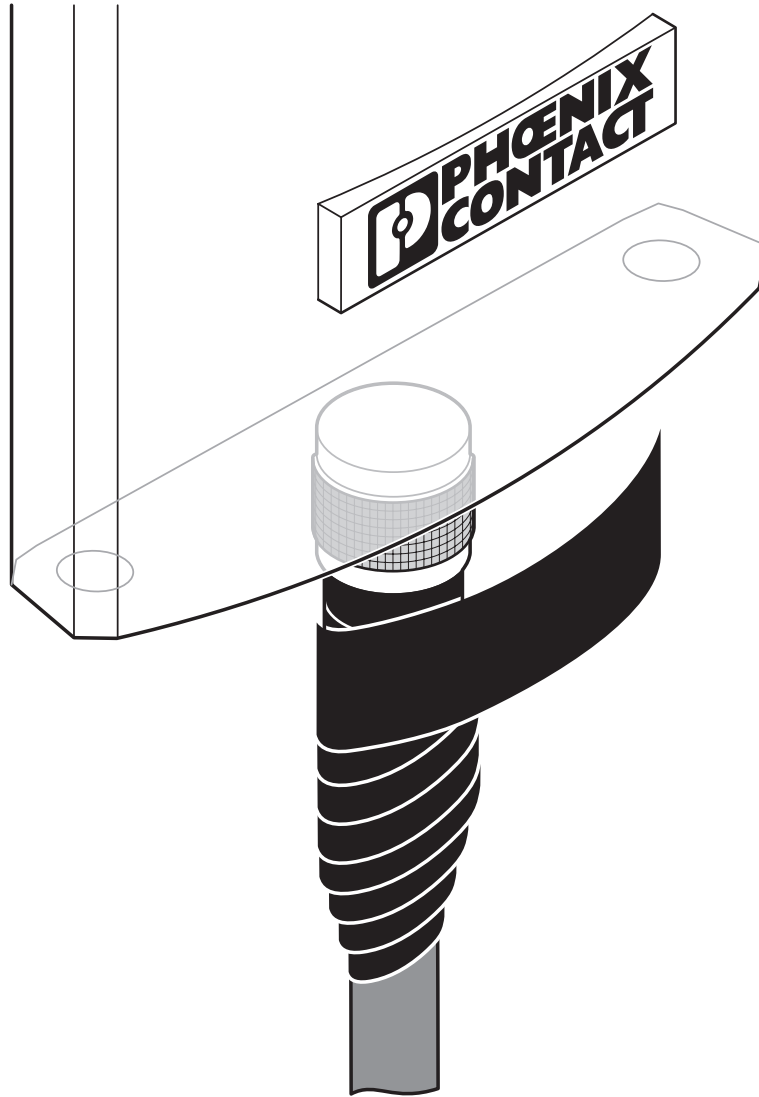
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Schematic diagram



Sealing tape available as an accessory

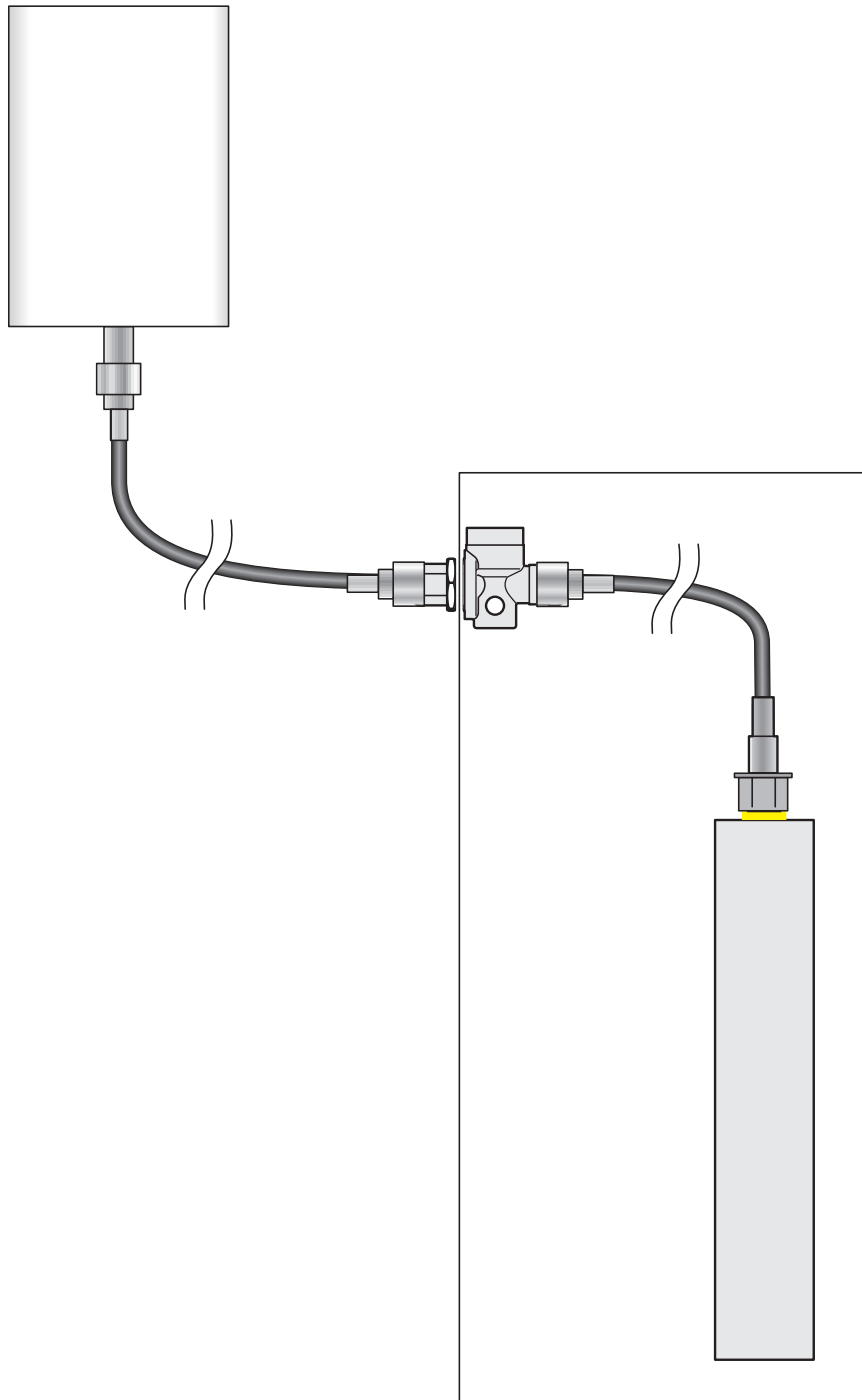
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Schematic diagram

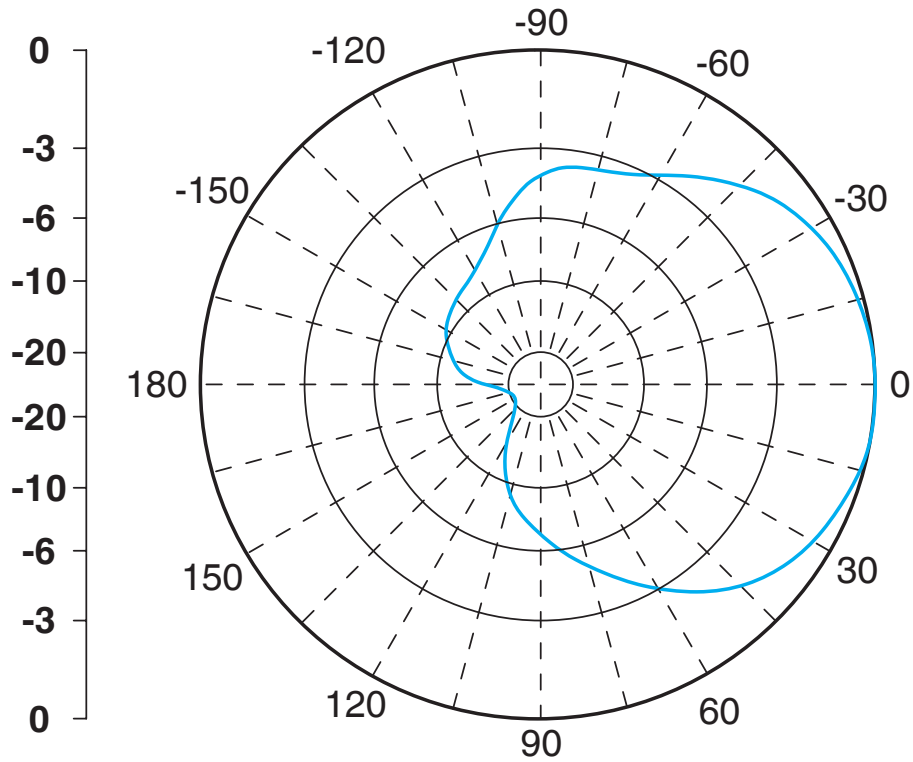


Installation example

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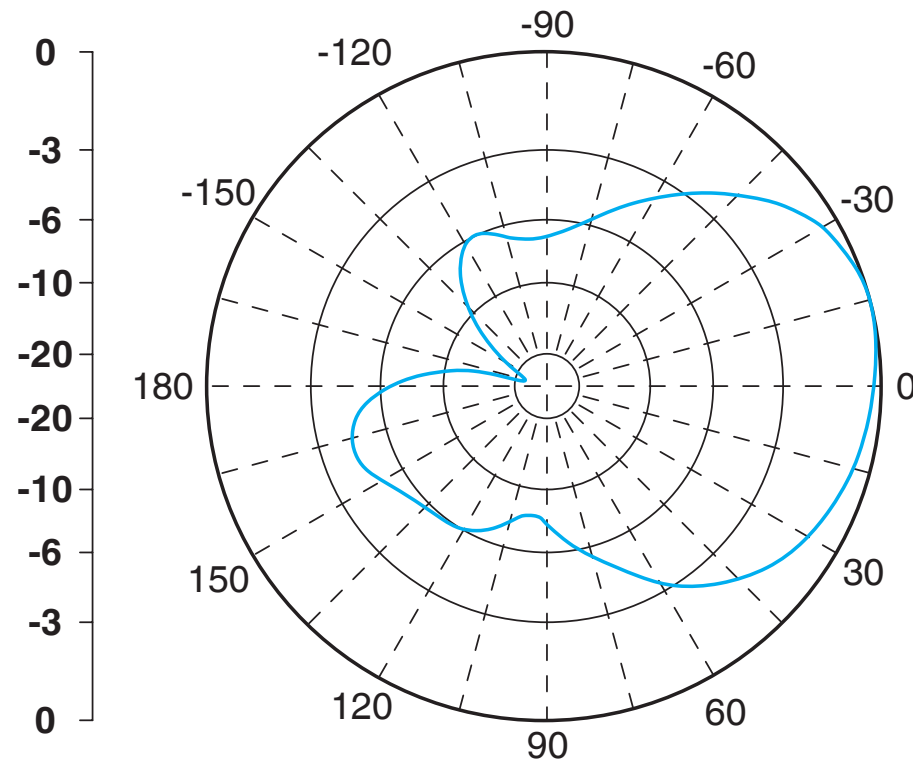
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Diagram



Horizontal

Diagram



Vertical

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## 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

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## Classifications

### ECLASS

ECLASS-13.0	19070105
ECLASS-15.0	19070105

### ETIM

ETIM 10.0	EC001698
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### UNSPSC

UNSPSC 21.0	43223100
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## Environmental product compliance

### EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
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### 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%
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### EF3.1 Climate Change

CO2e kg	12.529 kg CO2e
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Phoenix Contact USA  
586 Fulling Mill Road  
Middletown, PA 17057, United States  
(+717) 944-1300  
[info@phoenixcon.com](mailto:info@phoenixcon.com)