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	DNC6Z3
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

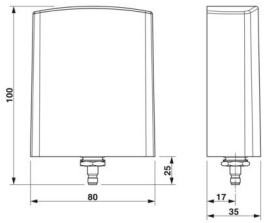
Connection method	N (female)
Outside diameter	25 mm ... 85 mm (Mast)

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

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	Ⓔx 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

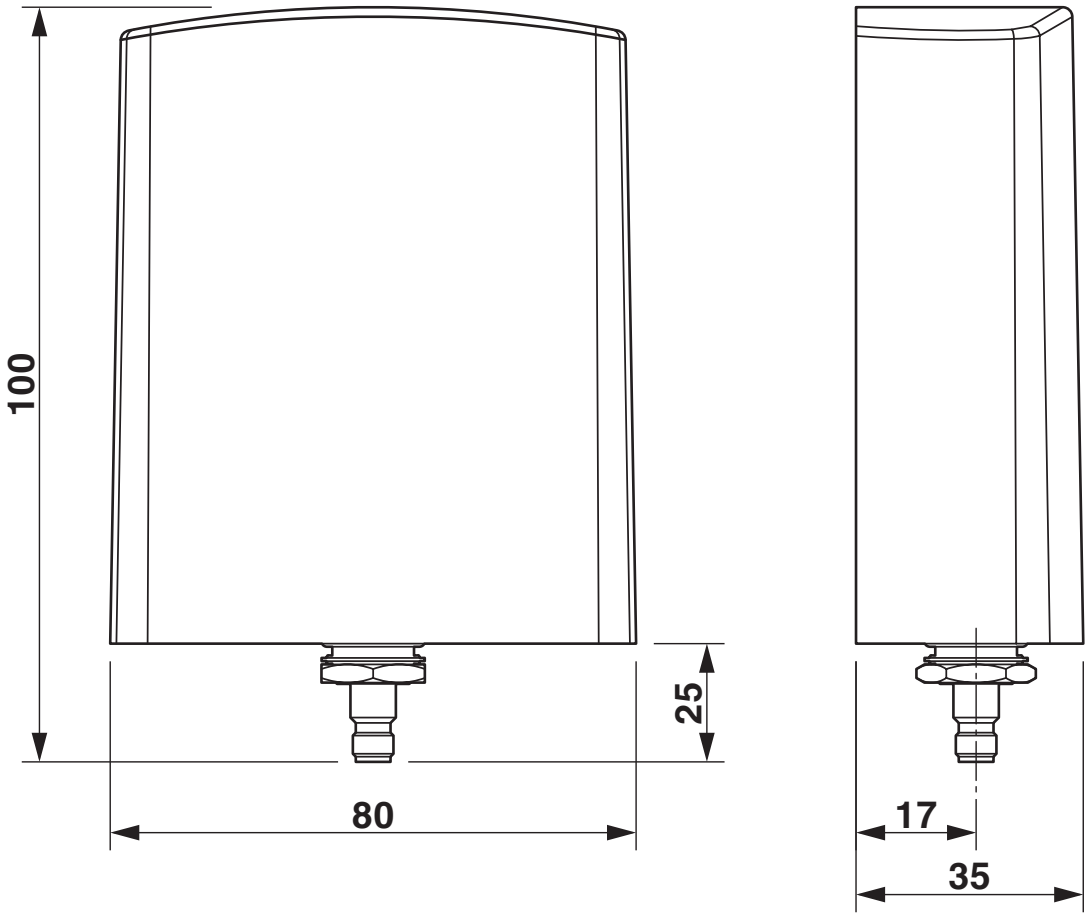
Standards/specifications	EN 45545-2
	NFPA 130
	BS 6853
Note	Fire protection on railway vehicles

Mounting

Mounting type	Panel mounting
	Mast mounting
Assembly note	Outdoors and indoors

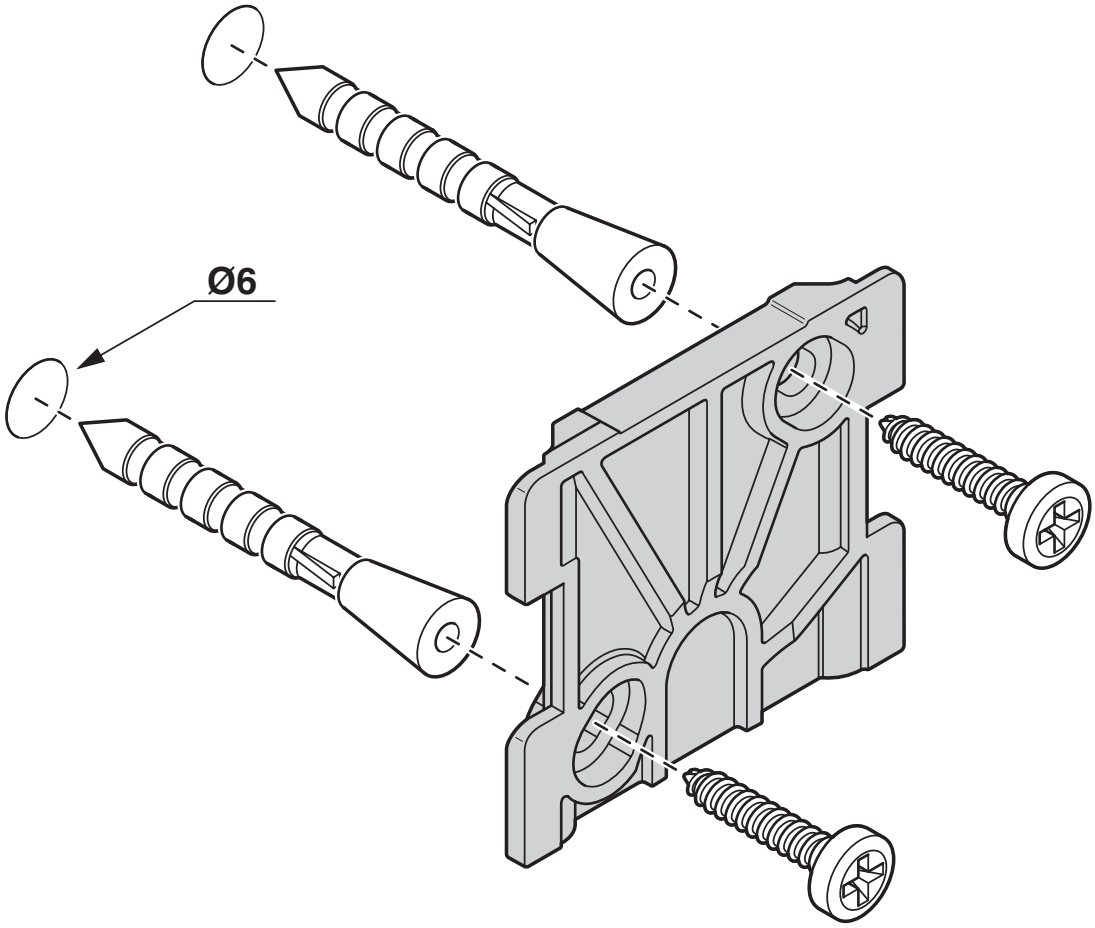
Drawings

Dimensional drawing



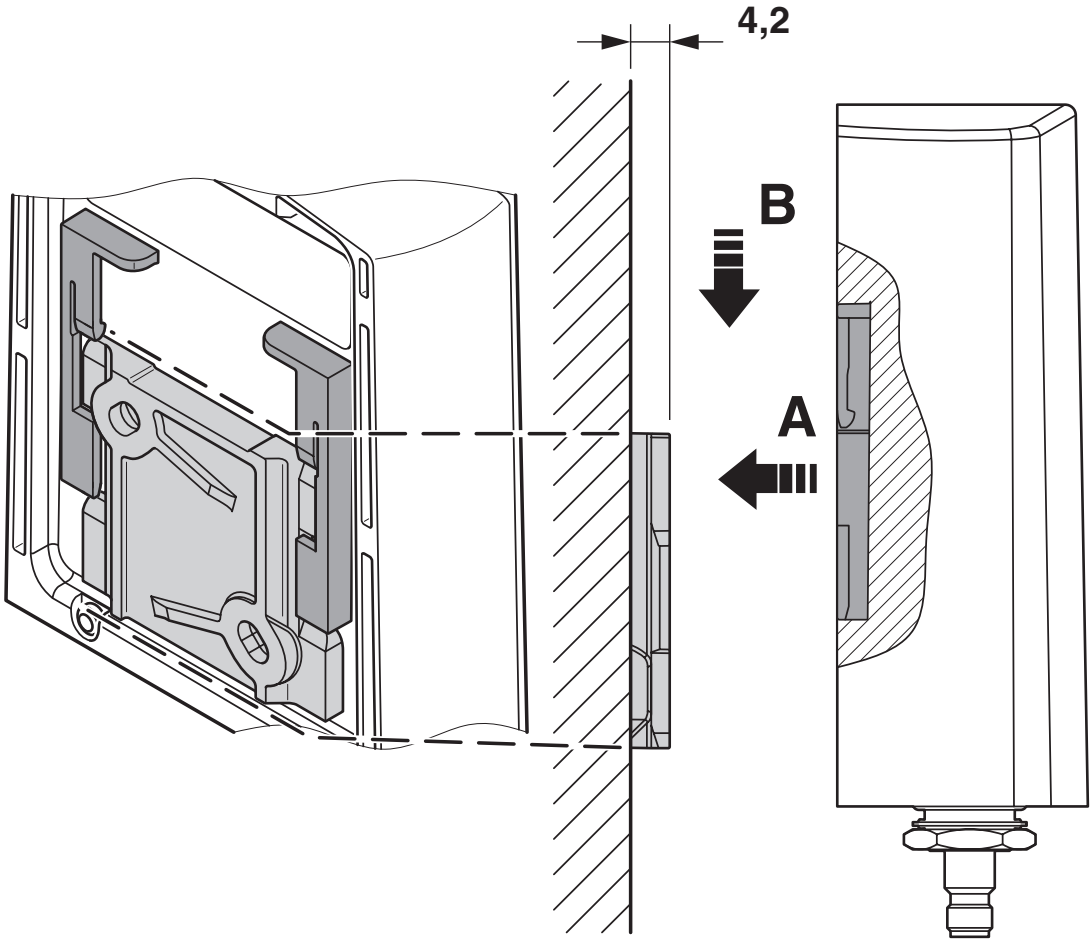
Housing dimensions

Schematic diagram



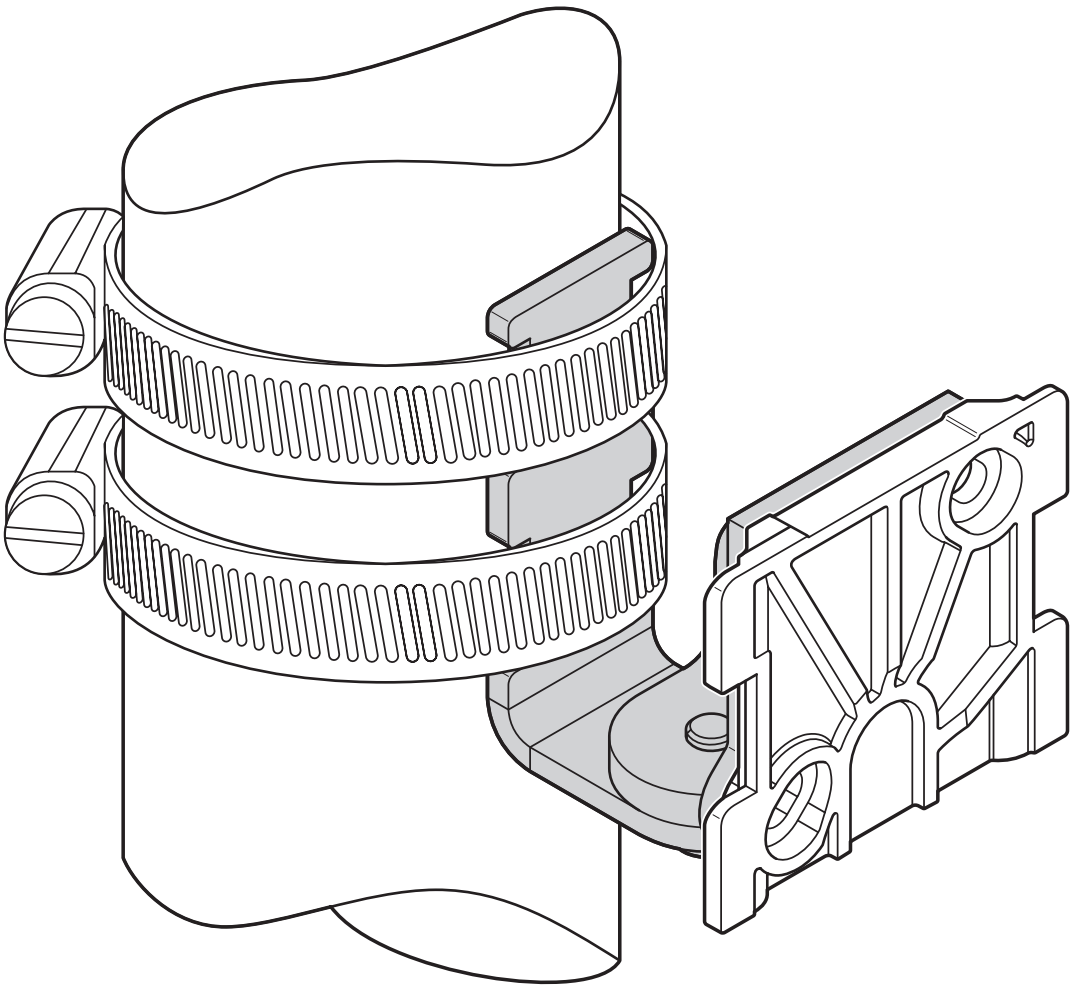
Mounting panel

Schematic diagram



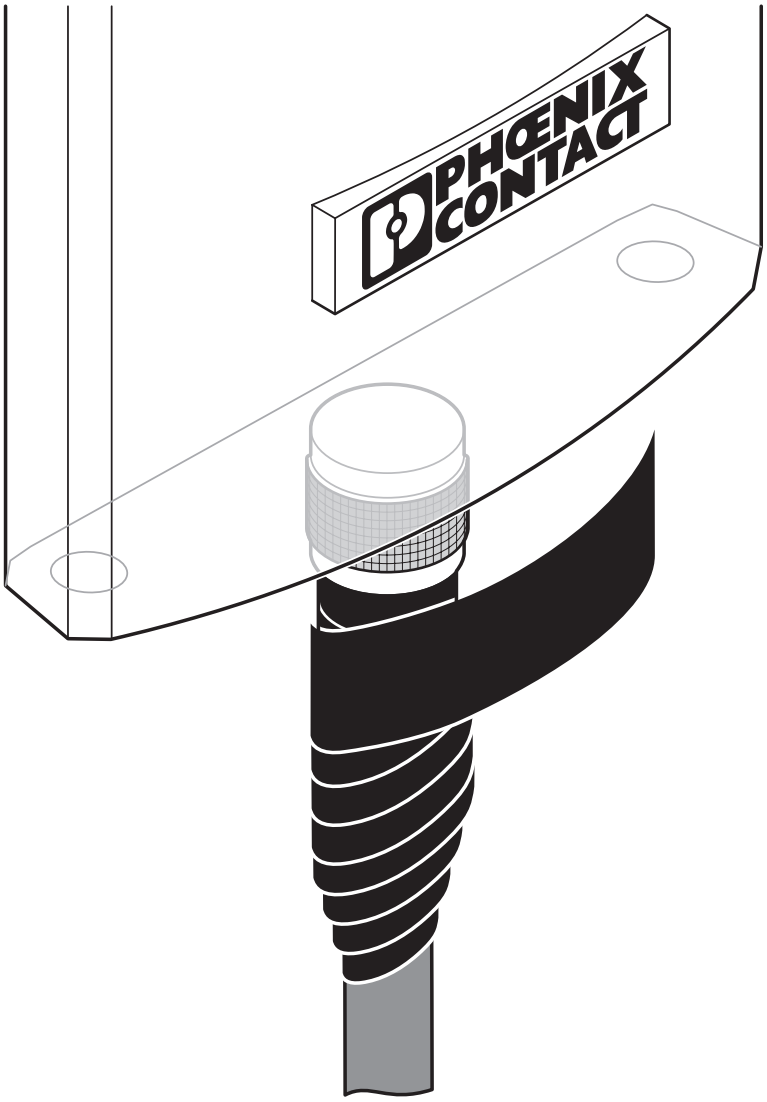
Panel mounting

Schematic diagram



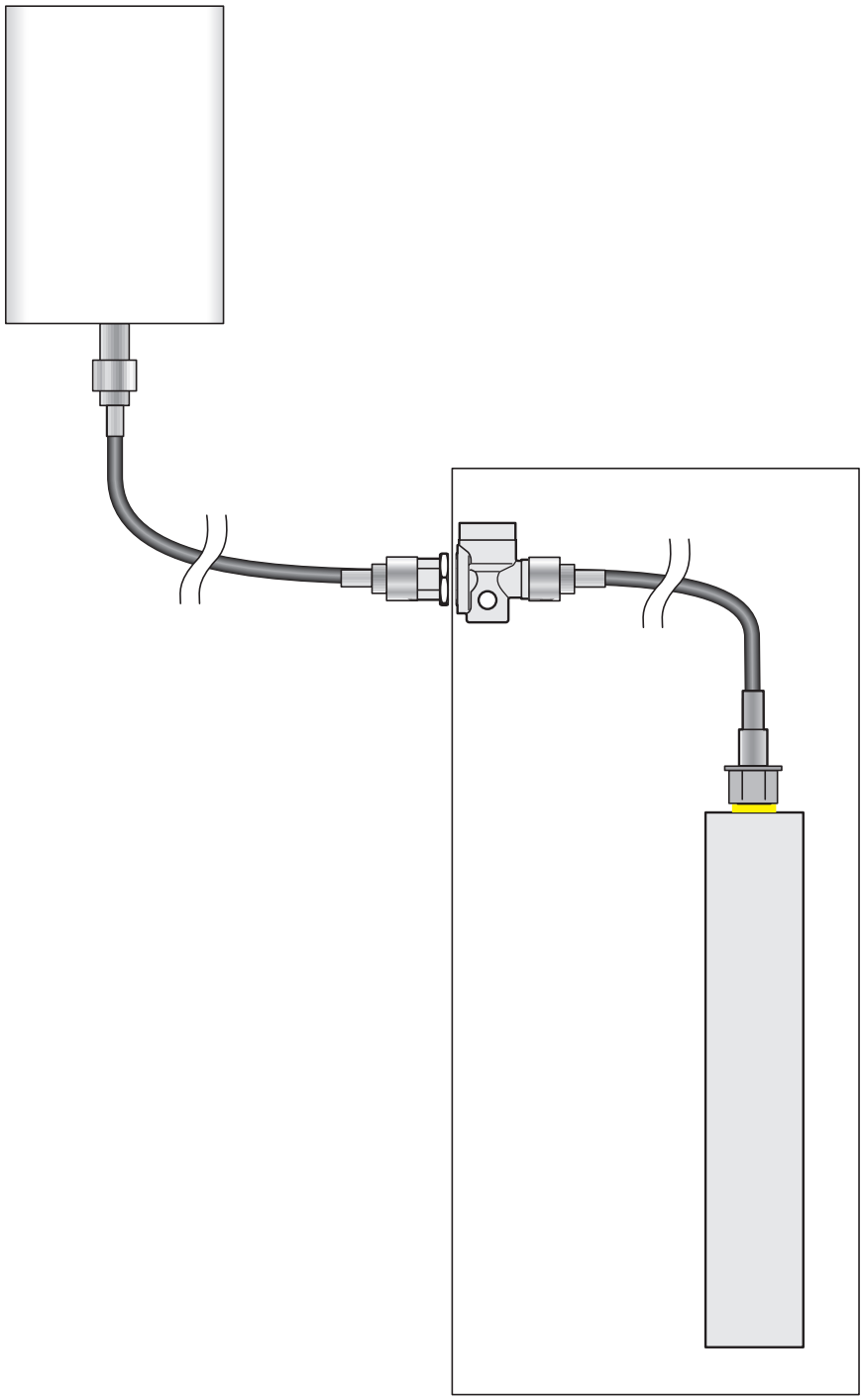
Mast mounting

Schematic diagram



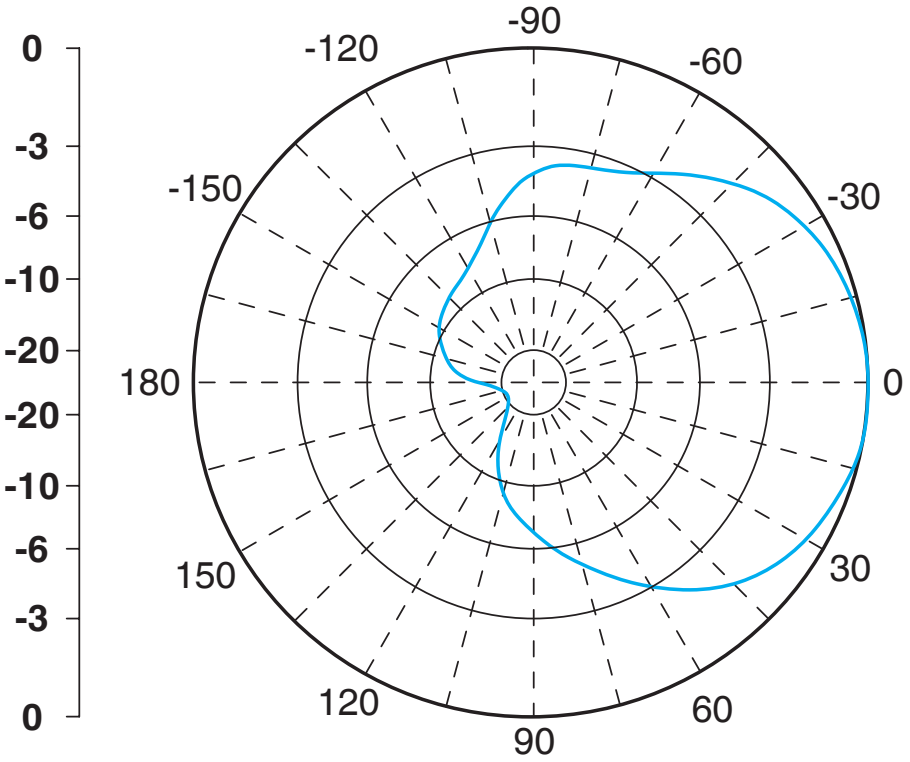
Sealing tape available as an accessory

Schematic diagram



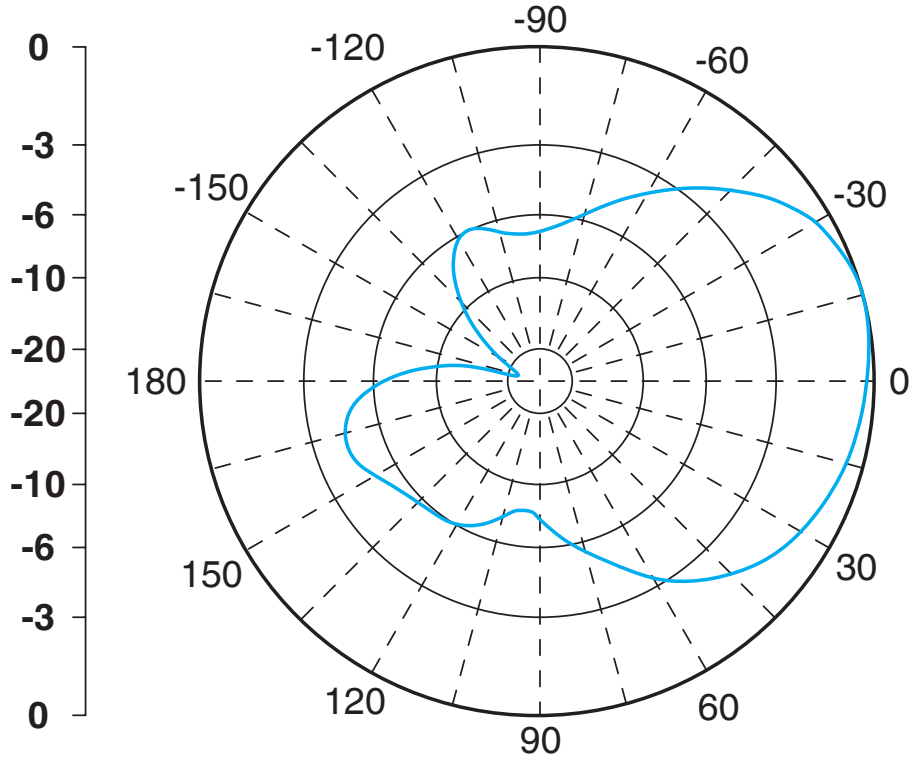
Installation example

Diagram



Horizontal

Diagram



Vertical

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

Classifications

ECLASS

ECLASS-13.0	19070105
ECLASS-15.0	19070105

ETIM

ETIM 10.0	EC001698

UNSPSC

UNSPSC 21.0	43223100

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%

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