

Antenna barrier - BAR-ANT-N-N-EX - 2702198

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Antenna barrier for installation in Ex zone 2, separates and transmits RF signals with intrinsic safety (Ex i) to an antenna in zone 0, 1 or 2, 0.7 GHz ... 6 GHz frequency range, N (female) -> N (female), ATEX/IECEX approval

Product Description

By using the antenna barrier, HF outputs from wireless modules can be designed with intrinsic safety. The antenna barrier limits the ignition energy in the event of an error. The antenna barrier is ATEX and IECEx-certified and can be installed in zone 2 or in the safe area. The antenna barrier enables the inexpensive use of selected standard antenna in Ex zones 0, 1, and 2. The antenna barrier covers the 0.7 GHz ... 6 GHz frequency range. Selected standard antennas from the wireless accessories range can be connected.

Why buy this product

- Compact housing design
- International approvals (ATEX, IECEx)
- Use of standard antennas in the hazardous area of zone 0, 1, and 2
- Universal use (frequency range of 0.7 ... 6 GHz)
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- Inexpensive solution, as there is no need for expensive special antennas



Key Commercial Data

Packing unit	1 STK
Weight per Piece (excluding packing)	180.000 g
Custom tariff number	85177019
Country of origin	Taiwan

Technical data

Ambient conditions

Degree of protection	IP65
Ambient temperature (operation)	-40 °C ... 75 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C

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Technical data

General

Connection method	N (female)
	N (female)
Frequency range	700 MHz ... 6000 MHz
Impedance	50 Ω
Maximum HF output power P _i	2 W
Maximum error voltage U _m	253 V AC/DC
Maximum capacity	5.64 nF
Test voltage	2.1 kV AC (50 Hz / 2 s)
Conformance	CE-compliant
IECEX	[Ex ia Ma] I
	[Ex ia Ga] IIC
	[Ex ia Da] IIIC
	Ex nA [ia Ga] IIC T6 Gc X

Attenuation

400 MHz	< 3.5 dB (400 MHz)
868 MHz	< 1.2 dB (868 MHz)
900 MHz	< 0.9 dB (900 MHz)
2.4 GHz	< 0.2 dB (2.4 GHz)
5 GHz	< 0.5 dB (5.2 GHz)

Material data

Housing material	Nickel-plated brass
Housing surface material	Nickel
Inner conductor material	CuZn
Inner conductor surface material	Gold
Insulation body material	PTFE
Seal material	Silicon
Spring contact material	CuSn
Contact surface material	Au

Standards and Regulations

Conformance	CE-compliant
ATEX	# I (M1) [Ex ia Ma] I
	# II (1) G [Ex ia Ga] IIC
	# II (1) D [Ex ia Da] IIIC
	# II 3 (1) G Ex nA [ia Ga] IIC T6 Gc X
IECEX	[Ex ia Ma] I
	[Ex ia Ga] IIC

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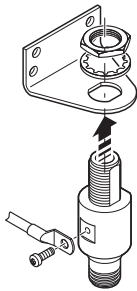
Technical data

Standards and Regulations

	[Ex ia Da] IIIC
	Ex nA [ia Ga] IIC T6 Gc X

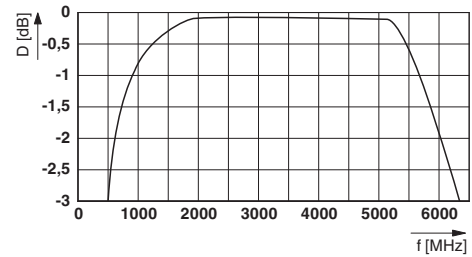
Drawings

Schematic diagram



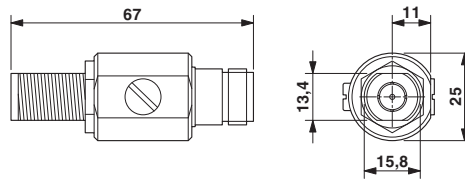
Mounting plate

Diagram



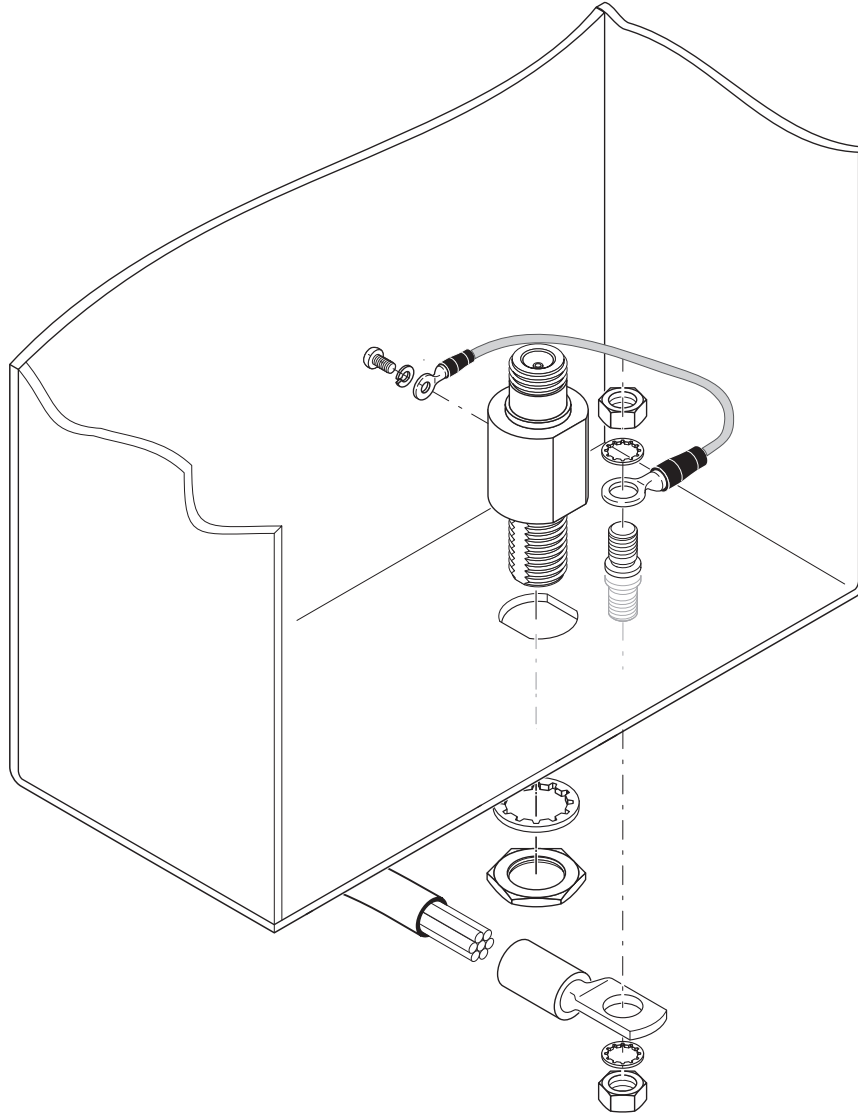
Attenuation

Dimensional drawing



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Schematic diagram



Control cabinet feed-through

Classifications

eCl@ss

eCl@ss 5.1	27142001
eCl@ss 6.0	27142001
eCl@ss 8.0	19070102

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Classifications

ETIM

ETIM 5.0	EC000416
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Accessories

Accessories

Antenna

Antenna - ANT-OMNI-868-01 - 2702136



Omnidirectional antenna, 868 MHz, 4 dBi, linear vertical, N (female), opening angle h/v 360°/30°, IP67, salt water resistant, incl. mounting bracket and mast clips for 30 mm ... 45 mm diameter, stainless steel, ATEX and IECEx approval

Antenna - RAD-ISM-2400-ANT-OMNI-6-0 - 2885919



Omnidirectional antenna, 2.4 GHz, 6 dBi, linear vertical, opening angle h/v 360°/30°, N (female), IP55, incl. mounting bracket and mast clips for 45 mm - 100 mm diameter, stainless steel, ATEX & IECEx approval

Antenna - ANT-DIR-868-01 - 2702137



Panel antenna, 868 MHz, 3.5 dBi, circular polarized, N (female), IP67, incl. mounting bracket and mast clips for 25 mm ... 85 mm diameter, stainless steel, ATEX and IECEx approval

Antenna - ANT-DIR-2459-01 - 2701186



Panel antenna, 2.4/5 GHz, 9 dBi, linear vertical, N (female), IP67, incl. mounting bracket and mast clips for 25 mm - 85 mm diameter, stainless steel, ATEX & IECEx approval

Coaxial cable

Antenna barrier - BAR-ANT-N-N-EX - 2702198

Accessories

Antenna cable - RAD-PIG-RSMA/N-0.5 - 2903263



Antenna cable, 0.5 m in length; N (male) -> RSMA (male), impedance 50 ohms

Antenna cable - RAD-PIG-RSMA/N-1 - 2903264



Antenna cable, 1 m in length; N (male) -> RSMA (male), impedance 50 ohms

Antenna cable - RAD-PIG-RSMA/N-2 - 2903265



Antenna cable, 2 m in length; N (male) -> RSMA (male), impedance 50 ohms

Antenna cable - RAD-PIG-RSMA/N-3 - 2903266



Antenna cable, 3 m in length; N (male) -> RSMA (male), impedance 50 ohms

Antenna cable - RAD-PIG-RSMA/N-5 - 2702140



Antenna cable, 5 m in length; N (male) -> RSMA (male), impedance 50 ohms

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Accessories

Antenna cable - RAD-CAB-EF393- 3M - 2867649



Antenna cable, 3 m in length, N (male) -> N (male), 50 Ω impedance

Antenna cable - RAD-CAB-EF393- 5M - 2867652



Antenna cable, 5 m in length, N (male) -> N (male), 50 Ω impedance

Antenna cable - RAD-CAB-EF393-10M - 2867665



Antenna cable, 10 m in length, N (male) -> N (male), 50 Ω impedance

Antenna cable - RAD-CAB-EF393-15M - 2885634



Antenna extension cable, 15 m in length, N (male) -> N (male), 50 Ω impedance

Mounting material

Weather protection tape - RAD-TAPE-SV-19-3 - 2903182



Vulcanizing sealing tape for external protection of adapters, cable connections, etc. against the effects of weather, roll length: 3 m

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Accessories

Power supply

Power supply unit - MINI-PS-100-240AC/24DC/1.5/EX - 2866653



Primary-switched power supply MINI POWER for DIN rail mounting, input: 1-phase, output: 24 V DC/1,5 A, for the potentially explosive area

Trusted Wireless device

Wireless module - RAD-2400-IFS - 2901541



2400 MHz wireless transceiver with RS-232, RS-485 2-wire interface, expandable with I/O extension modules, with screw connection, antenna connection:RSMA (female), including DIN rail connector, without antenna

Wireless module - RAD-868-IFS - 2904909



868 MHz wireless transceiver with RS-232, RS-485 2-wire interface, expandable with I/O extension modules, with screw connection, antenna connection: RSMA (female), including DIN rail connector, without antenna.
