B00020-03

Antenna couplers

# SX SERIES with integrated surge protection

*Solexy's patented (7,057,577) Explosion-Proof Antenna Coupler permits the installation of non-Ex certified antenna in hazardous areas.*
*This coupler is designed to be used directly with listed explosion proof housings or conduit fittings.*

*An integrated blocking circuit prevents hazardous energy reaching the antenna if a radio, modem or access point failure occures. It also allows for antenna removal in hazardous areas.*

*The coupler's robust design allows for connection to practically any radio and antenna. It is a highly flexible and cost effective solution to hazardous area radio system deployment. The coupler can also be used as a cable bulkhead.*

*Fitting is approved for hazardous locations and can be installed with a simple wrench.*

## FEATURES

**SHORT CIRCUIT PROTECTION**
Includes integrated blocking circuitry.

**SURGE PROTECTION**
An integrated surge protection circuit, according to IEC61643-21 Category C2, protects the radio from potential surges *(patent pending).*

**ENVIRONMENTAL PROTECTION**
Fitting 300 series stainless steel construction and integral potting protects electronics from corrosive environments.

**CERTIFICATION**
The SX Series is certified Atex, IECEx and for North America as an apparatus, and can be installed per the conditions of acceptability, without further assessment.
North America approval (USA&Canada) includes class & divisions and zones.
IECex certification is issued from an Australian notified body, therefore SX can be installed in Queensland mines.

**NO SEALING FITTING REQUIRED**
Permits a wide variety of passive antennas to be installed in hazardous areas. Antennas may be removed and/or installed with power on.
Perfect for a cable bulkhead connection.

## NOMENCLATURE

| SX | N | 3 | S | 02 | 00 | R | X0 |
|---|---|---|---|---|---|---|---|
| | a | b | c | | dd | e | ff |

**a** **Antenna Side Connector**
- N — N Female

**b** **Thread Connection**
- 3 — 3/4" NPT
- M — M25x1.5

**c** **Housing Material**
- S — AISI 303
- L — AISI 316L

**dd** **Coax cable length radio side** *(optional on request)*
- 00 — no cable (with connector on body)

**e** **Version (frequency range)**
- R — optimized from 700 MHz to 3.9 GHz and from 4.6 GHz to 6 GHz

**ff** **Approval**
- N0 — USA&Canada apparatus (Class&Divisions and Zones)
- X0 — IECEx and ATEX apparatus
- XN — IECEx, ATEX, USA&Canada apparatus
- B0 — INMETRO apparatus
- XJ — IECEx, ATEX, JPEx (Japan)

**SOLEXY SRL**
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# SPECIFICATIONS

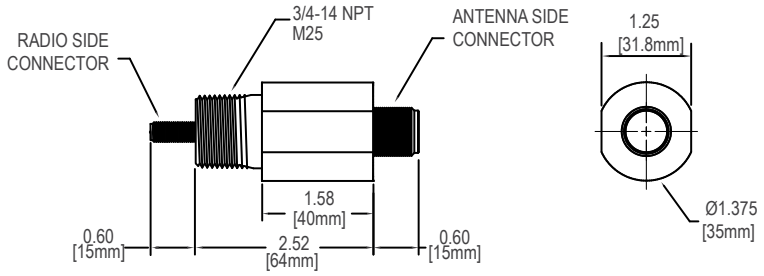
| | |
|---|---|
| **ATEX certification**<br>nr. TÜV CY 18 ATEX 0206158 X | Ex I M2 (M1) Ex db mb [ia Ma] I Mb<br>II 2 (1) G Ex db mb [ia Ga] IIA/IIB/IIC T5…T6 Gb<br>II 2 (1) D Ex mb tb [ia Da] IIIC T80°C…T100°C Db |
| **IECEx certification**<br>nr. IECEx MSC 19.0001X | Ex db mb [ia Ma] I Mb<br>Ex db mb [ia Ga] IIA/IIB/IIC T5….T6 Gb<br>Ex mb tb [ia Da] IIIC T80°….T100°C Db |
| **USA & Canada certification**<br>cQPSus nr. LR-1504-3 | Class I, Division 1, GROUP ABCD<br>Class II, Division 1, GROUP EFG<br>[Ex ia Ga] IIC<br>[Ex ia Da] IIIC<br>Class I, Zone 1, AEx db mb [ia Ga] IIA/IIB/IIC T6...T5 Gb<br>Zone 21, AEx mb tb [ia Da] IIIC T80°C...100°C Db<br>Ex db mb [ia Ga] IIA/IIB/IIC T6...T5 Gb<br>Ex mb tb [ia Da] IIIC T80°C...T100°C Db |
| **Maximum Fault Voltage** | 250VDC, 250VAC 50-60Hz |
| **Typical Insertion Loss @ 20°C (dB)** | |

| Frequency | 100 MHz | 500 MHz | 1.4 GHz | 1.7 GHz | 2.5 GHz | 3.9 GHz | 4.9 GHz | 5.4 GHz | 6.0 GHz |
|---|---|---|---|---|---|---|---|---|---|
| R version | - | - | 0.6 | 0.6 | 0.8 | 1.1 | 1.8 | 1.4 | 2.0 |

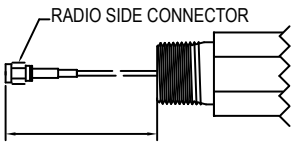
| | |
|---|---|
| **Approximate Weight** | 0.32 kg (70.6 lb) |
| **Minimum Dieletric Strength** | 1500V |
| **Impedance** | 50 Ω |
| **Housing Material** | 300 series stainless steel |
| **Ambient Temperature Range** | -40°C (-40°F) to +85°C (+185°F) when max RF input = 2W (T5)<br>-40°C (-40°F) to +80°C (+176°F) when max RF input = 6W (T5)<br>-40°C (-40°F) to +70°C (+158°F) when max RF input = 2W (T6)<br>-40°C (-40°F) to +65°C (+149°F) when max RF input = 6W (T6) |

## DIMENSIONAL DRAWINGS [inch]

SXN




SX Series with coax cable embedded (optional execution on request)




COAX LENGTH UP TO 30" ACCORDING TO CUSTOMER NEEDS