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).

## **O 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

a Antenna Side Connector

F RP-SMA Female
N N Female
S SMA Female

b Thread Connection

3 3/4" NPTM M25x1.5

c Housing Material

S AISI 303 L AISI 316L

dd Radio Side Connector

02 RP-SMA Female (SXF and SXN only)

04 SMA Female (SXS only)

ee Coax cable length radio side (optional on request)

00 no cable (with connector on body)

| SX | N | 3 | S | 02 | 00 | R | X0 |
|----|---|---|---|----|----|---|----|
|    | а | b | С | dd | ее | f | gg |

f Version (frequency range)

R optimized from 700 MHz to 3.9 GHz and from 4.6 GHz to 6 GHz

gg Approval

N0 USA&Canada apparatus (Class&Divisions and Zones) X0 IECEx and ATEX apparatus

XN IECEx, ATEX, USA&Canada apparatus

# **SPECIFICATIONS**

**ATEX** certification

nr. TÜV CY 18 ATEX 0206158 X



Ex I M2 (M1) Ex db mb [ia Ma] I Mb

II 2 (1) G Ex db mb [ia Ga] IIA/IIB/IIC T5...T6 Gb

II 2 (1) D Ex mb tb [ia Da] IIIC T80°C...T100°C Db

**IECEx** certification

nr. IECEx MSC 19.0001X

Ex db mb [ia Ma] I Mb

Ex db mb [ia Ga] IIA/IIB/IIC T5....T6 Gb

Ex mb tb [ia Da] IIIC T80°....T100°C Db

**USA & Canada certification** 

cQPSus nr. LR-1504-3

Class I, Division 1, GROUP ABCD

Class II, Division 1, GROUP EFG

[Ex ia Ga] IIC

[Ex ia Da] IIIC

Class I, Zone 1, AEx db mb [ia Ga] IIA/IIB/IIC T6...T5 Gb

Zone 21, AEx mb tb [ia Da] IIIC T80°C...100°C Db

Ex db mb [ia Ga] IIA/IIB/IIC T6...T5 Gb 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** 

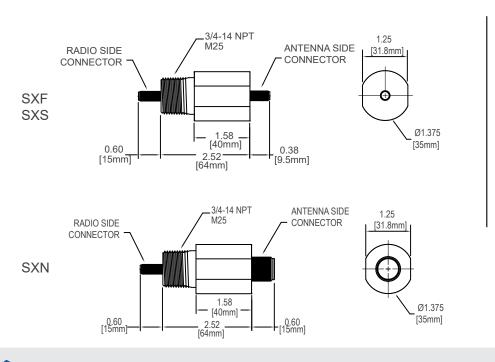
 $-40^{\circ}$ C ( $-40^{\circ}$ F) to  $+85^{\circ}$ C ( $+185^{\circ}$ F) when max RF input = 2W (T5)

 $-40^{\circ}$ C ( $-40^{\circ}$ F) to  $+80^{\circ}$ C ( $+176^{\circ}$ F) when max RF input = 6W (T5)

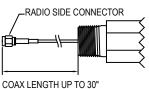
 $-40^{\circ}$ C ( $-40^{\circ}$ F) to  $+70^{\circ}$ C ( $+158^{\circ}$ F) when max RF input = 2W (T6)

 $-40^{\circ}$ C ( $-40^{\circ}$ F) to  $+65^{\circ}$ C ( $+149^{\circ}$ F) when max RF input = 6W (T6)

# **DIMENSIONAL DRAWINGS** [inch]







COAX LENGTH UP TO 30" ACCORDING TO CUSTOMER NEEDS