Antenna couplers

# RX SERIES

Solexy's patented (7,057,577) Explosion-Proof Antenna Coupler permits the installation of non-Ex certified antennas 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.
- ENVIRONMENTAL PROTECTION All required circutry is recessed into fitting and encapsulated against harsh envi ronments.
- CERTIFICATION

The RX Series is certified Atex, IECEx and for USA&Canada as an apparatus, and can be installed per the conditions of acceptabilit y, without further assessment.

North America app roval (USA&Canada) includes class & divisions and zones.

IECEx certification is issued f rom an Australian notified bod y, the refore RX can be installed in Queensland mines.

NO SEALING FITTING REQUIRED

Permits a wide variety of passive antennas to be installed in haza rdous a reas. Antennas may be removed and/or installed with power on.

Perfect for a cable bulkhead connection.

ISOLATED ANTENNA GROUND

Optional antenna g round isolation (RX1) f rom housing ground, combined with a capacitive ci rcuit, solves ground loop issues in case of remote mounted antennas and p revents potential g round noise to interfea re with **RF signal** (patent pending).

#### NOMENCLATURE

а **Antenna Side Connector** 

**N Female** 

1 N Female (g round isolated)

b **Thread Connection** 

3/4" NPT M M25x1.5

С **Housing Material** 

AISI 303 (standa rd)

**AISI 316L** 

dd Coax cable length radio side (optional on request)

no cable (with connector on body)

е Version (frequency range)

optimized f rom 100 MHz to 3 GHz J

optimized f rom 500 MHz to 3.9 GHz R

and from 4.6 GHz to 6 GHz

RX Ν 3 S 02 00 J **X0** dd ff

ff **Approval** 

NO **USA&Canada apparatus** (Class&Divisions and Zones)

XO **IECEx and ATEX apparatus** 

IECEx, ATEX, USA&Canada apparatus XN

BO **INMETRO** apparatus

IECEx, ATEX, JPEx (Japan) X.I

**Extensions** 

-13 Max RF input 6W (see ambient temperature range section)

(standard max RF input is 2W)

## **SPECIFICATIONS**

**ATEX** certification nr. TÜV CY 18 ATEX

0206158 X

 $\langle \xi_x \rangle$  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

Standard Ref. EN 60079-0, EN 60079-1, EN 60079-11, EN 60079-18, EN 60079-31

**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

Standard Ref. IEC 60079-0, IEC 60079-1, IEC 60079-11, IEC 60079-18, IEC 60079-31

**USA & Canada** certification cQPSus 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

CAN/CSA C22.2 No. 60079-0 UL 60079-0 Standard Ref.

CAN/CSA C22.2 No. 60079-1 UL 60079-1 CAN/CSA C22.2 No. 60079-11 UL 60079-11 CAN/CSA C22.2 No. 60079-18 UL 60079-18 CAN/CSA C22.2 No. 60079-31 UL 60079-31 CAN/CSA C22.2 No. 60950-1 UL 60950-1 CAN/CSA C22.2 No. 25-17 UL 1203

CAN/CSA C22.2 No. 30-M1986

CAN/CSA C22.2 No 157 UL 913 **UL 508** 

**UL 50E** NEMA 250-2014 CAN/CSA C22.2 No. 94.2-15

**Maximum Fault Voltage** 

250VDC, 250VAC 50-60Hz

**Typical Insertion Loss @** 20°C (dB)

Frequency	<b>100</b> MHz	<b>169</b> MHz	<b>433</b> MHz	<b>500</b> MHz	<b>900</b> MHz	<b>1.9</b> GHz	<b>2.4</b> GHz	<b>3</b> GHz	<b>3.5</b> GHz	<b>4.6</b> GHz	<b>5.8</b> GHz	<b>6</b> GHz
J version	-1.1	-0.6	-0.5	-0.6	-0.6	-0.7	-0.8	-1	-	-	-	-
R version	-	-	-	-1.5	-1.2	-0.5	-0.7	-0.7	-1.6	-1.2	-2.4	-2.1

**Approximate Weight** 0.32 kg (70.6 lb)

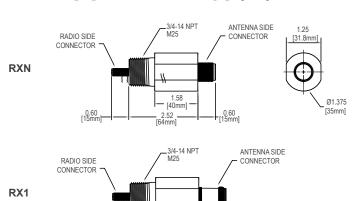
**NEMA** rating Provides a NEMA 4X connection when connected to a NEMA 4X rated enclosure

**Impedance**  $50 \Omega$ 

**Ambient Temperature** Range

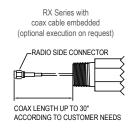
 $-40^{\circ}$ C ( $-40^{\circ}$ F) to  $+85^{\circ}$ C ( $+185^{\circ}$ F) when max RF input = 2W (T5)  $-40^{\circ}$ C ( $-40^{\circ}$ F) to  $+80^{\circ}$ C ( $+176^{\circ}$ F) when max RF input = 6W (T5)  $-40^{\circ}$ C ( $-40^{\circ}$ F) to  $+70^{\circ}$ C ( $+158^{\circ}$ F) when max RF input = 2W (T6)  $-40^{\circ}$ C ( $-40^{\circ}$ F) to  $+65^{\circ}$ C ( $+149^{\circ}$ F) when max RF input = 6W (T6)

### ■ DIMENSIONAL DRAWINGS [inch]



1.58 [40mm]

2.52 [64mm]





in

0.60 [15mm

0.79 [20mm]