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 environments.

CERTIFICATION

The RX Series is certified Atex, IECEx and for USA&Canada 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 RX 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.

S ISOLATED ANTENNA GROUND

Optional antenna ground isolation (RX1) from housing ground, combined with a capacitive circuit, solves ground loop issues in case of remote mounted antennas and prevents potential ground noise to interfeare with RF signal (patent pending).

NOMENCLATURE

а **Antenna Side Connector**

N Female

N Female (ground isolated) 1

b **Thread Connection**

3/4" NPT Μ M25x1.5

Housing Material C

AISI 303 (standard)

AISI 316L

Coax cable length radio side (optional on request) dd

no cable (with connector on body)

е Version (frequency range)

optimized from 100 MHz to 3 GHz J R optimized from 500 MHz to 3.9 GHz

and from 4.6 GHz to 6 GHz

RX Ν 3 S 02 00 **X0** dd

ff **Approval**

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

XN IECEx, ATEX, USA&Canada apparatus

B0 **INMETRO** apparatus IECEx, ATEX, JPEx (Japan) ΧJ

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	100 MHz	169 MHz	433 MHz	500 MHz	900 MHz	1.9 GHz	2.4 GHz	3 GHz	3.5 GHz	4.6 GHz	5.8 GHz	6 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)

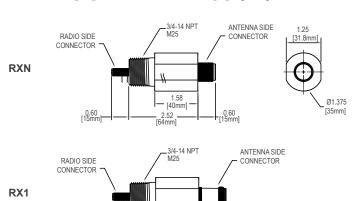
NEMA rating Provides a NEMA 4X connection when connected to a NEMA 4X rated enclosure

Impedance 50Ω

Ambient Temperature Range

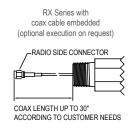
 -40° C (-40° F) to $+85^{\circ}$ C ($+185^{\circ}$ F) when max RF input = 2W (T5) -40° C (-40° F) to $+80^{\circ}$ C ($+176^{\circ}$ F) when max RF input = 6W (T5) -40° C (-40° F) to $+70^{\circ}$ C ($+158^{\circ}$ F) when max RF input = 2W (T6) -40° C (-40° F) to $+65^{\circ}$ C ($+149^{\circ}$ F) when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

■ DIMENSIONAL DRAWINGS [inch]



1.58 [40mm]

2.52 [64mm]





in

0.60 [15mm

0.79 [20mm]