B00003-02

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.

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

RX	N	3	S	02	00	J	X0
	a	b	c	dd	ee	f	gg

a **Antenna Side Connector**
- F RP-SMA Female
- N N Female
- S SMA Female
- 1 N Female (ground isolated)

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

c **Housing Material**
- S AISI 303 (standard)
- L AISI 316L

dd **Radio Side Connector**
- 02 RP-SMA Female (RXF and RXN only)
- 04 SMA Female (RXS only)

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

f **Version (frequency range)**
- J optimized from 100 MHz to 3 GHz
- R optimized from 500 MHz to 3.9 GHz and from 4.6 GHz to 6 GHz
- L optimized from 3.9 GHz to 4.6 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
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
Standard Ref.	CAN/CSA C22.2 No. 60079-0 UL 60079-0 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 CAN/CSA C22.2 No. 94.2-15 UL 50E NEMA 250-2014
Maximum Fault Voltage	250VDC, 250VAC 50-60Hz

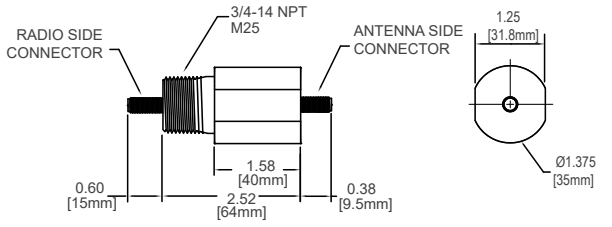
Typical Insertion Loss @ 20°C (dB)

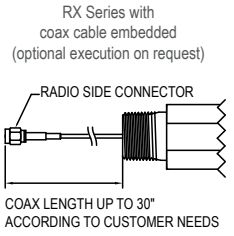
Frequency	**100** MHz	**169** MHz	**433** MHz	**500** MHz	**900** MHz	**1.9** GHz	**2.4** GHz	**3** GHz	**3.5** GHz	**4.6** GHz	**5.8** GHz	**6** GHz
J version	-1.1	-0.6	-0.5	-0.6	-0.6	-0.7	-0.8	-1	-	-	-	-
R version	-	-	-	-1.5	-1.2	-0.5	-0.7	-0.7	-1.6	-1.2	-2.4	-2.1

Approximate Weight	0.32 kg (70.6 lb)
NEMA rating	Provides a NEMA 4X connection when connected to a NEMA 4X rated enclosure
Impedance	50 Ω
Ambient Temperature Range	-40°C (-40°F) to +85°C (+185°F) when max RF input = 2W (T5) -40°C (-40°F) to +80°C (+176°F) when max RF input = 6W (T5) -40°C (-40°F) to +70°C (+158°F) when max RF input = 2W (T6) -40°C (-40°F) to +65°C (+149°F) when max RF input = 6W (T6)

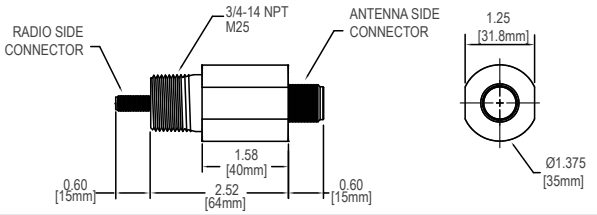
DIMENSIONAL DRAWINGS [inch]

RXF
RXS

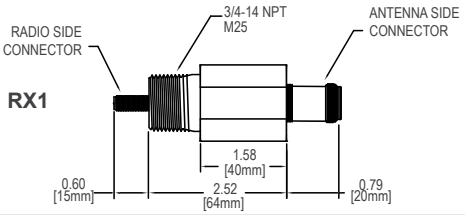




RXN



RX1



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