



ANTENNA COUPLER M SERIES

Solexy's M series is a patented multi-channel intrinsically safe barrier for RF signals. Designed for installation in the safe area (e.g. Control rooms/purged panels), allowing the installation of non-EX certified antennas in hazardous areas.

An integrated blocking circuit prevents hazardous energy from reaching the antenna if a radio, a modem or an access point failure occurs. It also allows for antenna removal in hazardous areas without turning off the device.

The coupler's compact design reduces the space required for installation and allows for connection to almost any radio system and its antennas, regardless of the radio protocol used. It is a highly flexible and cost effective solution to hazardous area radio infrastructures deployment.

Plate mounted and DIN rail available for ease of installation.



FEATURES

EXTENDED FREQUENCY RANGE

The M series covers a wide range of frequencies with only one version, starting from 300 MHz going up to 9 GHz with, minimal insertion losses across the its entire frequency range.

MULTIPLE CHANNELS, ONE DEVICE

Standard layout with 4 barriers and so for 4 different radio signals. Available with different amounts of barriers to fit the application perfectly

FLEXIBILITY

Permits a wide variety of passive antennas to be installed installed in hazardous locations, antennas may be removed and/or installed with power on.

CERTIFICATIONS

The M series is certified ATEX, IECEx, cQPS (USA & Canada), INMETRO (Brazil), JPN EX (Japan) as an apparatus, and therefore can be installed per the conditions of acceptability, without further assessment.

North America approval includes Class & Divisions and Zones.

IECEx certification is issued from an Australian notified body, therefore making the barrier suitable for Queensland mine installations.

SHORT CIRCUIT PROTECTION

Includes integrated blocking circuitry.

Mounting

Device available with wall mount design or DIN rail for ease of installation into cabinets

APPROVALS



ATEX / IECEx CERTIFICATION

Zone 1, 2, 21 & 22

Ex I (M1) [Ex ia Ma] I

Ex II (1) G [Ex ia Ga] IIA/IIB/IIC T

Ex II (1) D [Ex ia Da] IIIC

[Ex ia Ma] I; [Ex ia Ga] IIA/IIB/IIC; [Ex ia Da] IIIC

USA & CANADA CERTIFICATION

Associated Apparatus for installation in non-hazardous locations

Class I, Zone 1, [AEx ia Ga] IIA/IIB/IIC Zone 21, [AEx ia Da] IIIC, [Ex ia Ga] IIA/IIB/IIC [Ex ia Da] IIIC

[Ex ia Ga] CI I, Div 1, Groups ABCD

INMETRO CERTIFICATION

Zone 1, 2, 21 & 22

[Ex ia Ma] I; [Ex ia Ga] IIA/IIB/IIC; [Ex ia Da] IIIC

JPN CERTIFICATION

Zone 1, 2, 21 & 22

[Ex ia Ma] I; [Ex ia Ga] IIA/IIB/IIC; [Ex ia Da] IIIC

CONFIGURATION



M **4** **F** **0** **P** **02** **00** **H** **XN**
a b c d e f g

a - Number of channels

4 4 channels

3 3 channels

2 2 channels

b - Antenna side connector

N N Female (layout 2 only)

F RP-SMA Female (layout 1 only)

S SMA Female (layout 1 only)

c - Mounting design

P Wall mounting design

V DIN rail mounting design

d - Radio side connector

02 RP-SMA Female

04 SMA Female

e - Integrated coax lenght (radio side)

00 no cable (dual connector layout with connector on body)

f - Frequency range

H Optimized from 300 MHz to 9 GHz

g - Certification

X0 ATEX/IECEx zone 1/21 apparatus

N0 North America class 1 & Div 1 apparatus

XN ATEX/IECEx zone 1/21 and North America class 1 & Div 1 apparatus

B0 INMETRO zone 1/21 apparatus

XJ Japan/ATEX/IECEx zone 1/21 apparatus

AVAILABLE ACCESSORIES

HEAVY DUTY ANTENNAS

Heavy duty antennas available in different frequencies and layout already evaluated for installation in classified area

COAX CABLE EXTENSIONS

Coax cable with custom connectors and lenght to connect barrier to radio device or to remote mounted antennas



SPECIFICATIONS

GENERAL																																								
ATEX certification	<div>nr. TÜV CY 18 ATEX 0206158 X</div> <div>Standards: EN IEC 60079-0:2018, EN 60079-11:2012</div>																																							
IECEx certification	<div>nr. IECEx MSC 19.0001X</div> <div>Standards: IEC 60079-0:2017, IEC 60079-11:2011</div> <div>Suitable for Queensland mines</div>																																							
North America certification	<div>nr. LT1504-3R2</div> <div>CAN/CSA C22.2 No. 60079-0:2015 UL 60079-0, edition 6.0 CAN/CSA C22.2 No. 60079-1:2016 UL 60079-1, edition 7.0 CAN/CSA C22.2 No. 60079-11:2014 UL 60079-11, edition 6.0 UL 508, edition 17</div>																																							
INMETRO certification	<div>nr. CPEx 22.0953 X</div> <div>Standards: IEC 60079-0:2020, IEC 60079-11:2013</div>																																							
Japan certification	<div>nr. CML 23JPN1169X</div> <div>Standards: IEC 60079-0:2017, IEC 60079-11:2011</div>																																							
Maximum fault voltage	250VDC, 250VAC 50-60 Hz																																							
Typical insertion loss @ 20°C (dB)	<table><tr><td>Frequency</td><td>433</td><td>900</td><td>1.9</td><td>2.4</td><td>3</td><td>3.5</td><td>4.6</td><td>5.8</td><td>6</td><td>7</td><td>8</td><td>9</td></tr><tr><td></td><td>MHz</td><td>MHz</td><td>GHz</td><td>GHz</td><td>GHz</td><td>GHz</td><td>GHz</td><td>GHz</td><td>GHz</td><td>GHz</td><td>GHz</td><td>GHz</td></tr><tr><td>H version</td><td>-1.2</td><td>-0.9</td><td>-0.5</td><td>-0.4</td><td>-0.9</td><td>-1</td><td>-0.5</td><td>-1.1</td><td>-0.9</td><td>-1.1</td><td>-1.7</td><td>-2.8</td></tr></table>	Frequency	433	900	1.9	2.4	3	3.5	4.6	5.8	6	7	8	9		MHz	MHz	GHz	GHz	GHz	GHz	GHz	GHz	GHz	GHz	GHz	GHz	H version	-1.2	-0.9	-0.5	-0.4	-0.9	-1	-0.5	-1.1	-0.9	-1.1	-1.7	-2.8
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Approximate weight	0,25 Kg (0,55lb)																																							
Max RF input	7W (38.4 dBm)																																							
Impedance	50 Ω																																							
Ambient temperature range	-40°C (-40°F) to +85°C (+185°F)																																							

Data contained in this specification are subject to change without notice

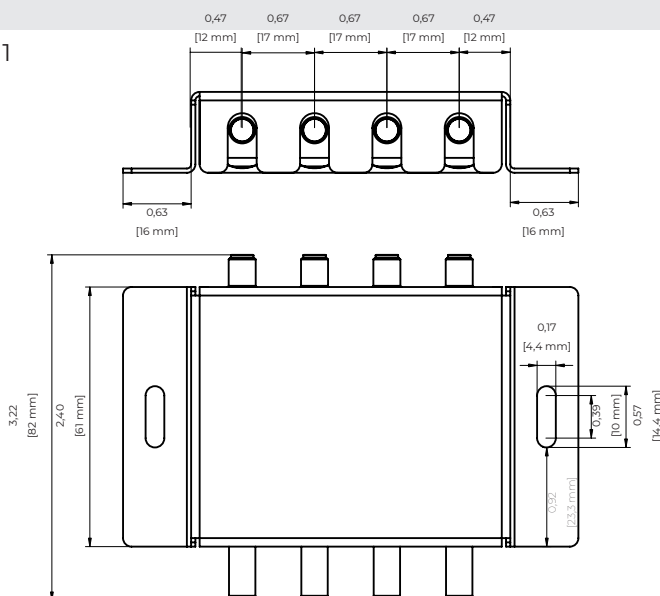
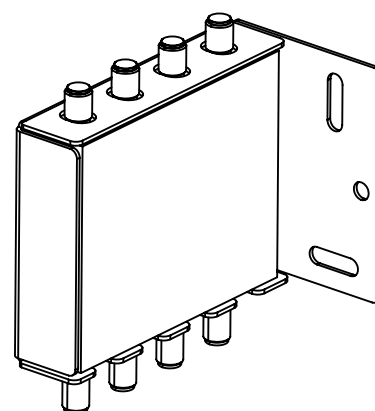


DIMENSIONAL DRAWINGS

In inches

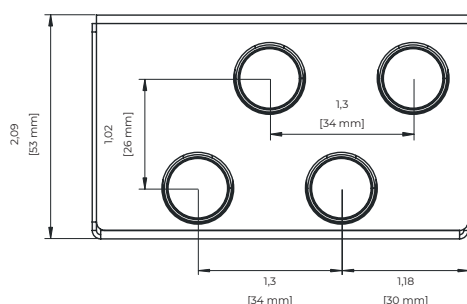
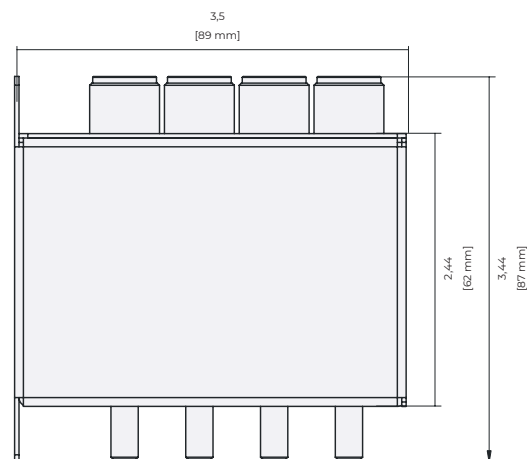


Layout 1



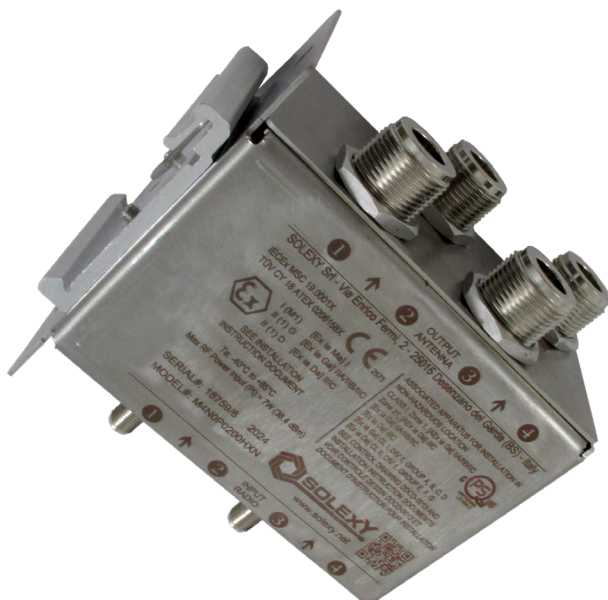
Layout 1 with DIN rail

Layout 2



INSTALLATION EXAMPLE

The barrier thanks to the DIN rail mounting can be easily fitted inside an electrical cabinet, nearby the radio module



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