

Ethernet couplers

BXF & BAF SERIES

Solexy's patented (7,507,105) Explosion-Proof/ intrinsically Safe Ethernet Coupler allows for the transmissions of Ethernet into hazardous areas with a standard RJ45 connector.

With the Solexy Ethernet coupler it's possible to connect any standard Ethernet devices located in a hazardous or safe area.

The BXF explosion proof and intrinsically safe barrier is certified for installation in hazardous areas and BAF intrinsically safe barrier is suitable for installation in safe areas and purged systems.

The BXF is designed to be used with any UL, CSA, MSHA, ATEX or IECEx listed explosion proof housing without the need of a seal fitting taking up no internal space.

The BAF is designed to be used in safe areas directly with any CAT5 or CAT5e cable system.

The BAF is also designed to be used with air purge panel systems.

A BXF and/or BAF coupler is required on each end of a cable installation for full protection of both the RX and TX lines.



FEATURES

✓ NO SEALING FITTING REQUIRED

BXF couplers are pre-approved for hazardous locations and can be installed with a simple wrench and no potting compounds. Eliminates the need for costly seal fittings, and reduces the chance of error associated with field installed sealing practices.

✓ CORROSION RESISTANT

The BXF series, made from 300 series stainless, protects the fitting from corrosive environments, sealing fittings are typically constructed of aluminium or galvanized steel, neither being well suited for the process industry.

✓ ENVIRONMENTAL PROTECTION

All required circuitry is recessed into fitting and encapsulated against harsh environments; this is impossible with conventional sealing methods.

✓ INTERCHANGEABILITY

Ethernet cables can be Hot Connected or Disconnected without powering down the system. This is critical for temporary connections such as PLC or VFD programming

✓ INDUSTRIAL M12 "D" CONNECTION

With this secure weather proof industrial connection, cable installation and removal can be accomplished without removing power.

NOMENCLATURE

aaa Barrier Type

BXF	Explosion Proof / Intrinsically Safe suitable for hazardous area
BAF	Intrinsically Safe suitable for safe area and UL purge panels

b Thread Connection

3	3/4" NPT
M	M25x1.5
S	1 1/8"-12 UNF (MSHA only)

c Housing Material

S	AISI303 stainless steel
L	AISI316L stainless steel

dd Housing Connector

01	Shielded M12 Female "D" coded
----	-------------------------------

ee Cable Connector

01	RJ45 Plug Male
02	Shielded M12 Male "D" coded
03	Shielded M12 Female "D" coded

ff Approval

N0	USA&Canada (Class&Divisions and Zones)
X0	IECEX and ATEX apparatus marking
XN	IECEX, ATEX, USA&Canada
M0	MSHA

ggg Cable Length (included in the 70 mt max)

018	18" (0,45 mt) CAT5e
040	40" (1 mt) CAT5e
***	custom lenght

BXF	3	S	01	01	N0	018
aaa	b	c	dd	ee	ff	ggg

SPECIFICATIONS

ATEX certification nr. TUV CY 18ATEX 0206141X Standard Ref.	BAF  I (M1) [Ex ia Ma] I II (1)G [Ex ia Ga] IIC II (1)D [Ex ia Da] IIIC	BXF3S & BXFMS  I M2 (M1) Ex db mb [Ia Ma] I Mb II 2(1)G Ex db mb [ia Ga] IIC T5...T4 Gb II 2(1)D Ex mb [ia Da] IIIC T100°C...T135°C Db EN 60079-0, EN 60079-1, EN 60079-11, EN 60079-18
IECEx certification nr. IECEx MSC 18.0014X Standard Ref.	BAF [Ex ia Ma] I [Ex ia Ga] IIC [Ex ia Da] IIIC IEC 60079-0, IEC 60079-1, IEC 60079-11, IEC 60079-18	BXF3S & BXFMS Ex db mb [Ia Ma] I Mb Ex db mb [ia Ga] IIC T5...T4 Gb Ex mb [ia Da] IIIC T100°C...T135°C Db
USA & Canada certification cQPSus nr. LR1504 Standard Ref.	BAF <i>Associated Apparatus for installation in non-hazardous location provides I.S. output for:</i> Class I, Division 1, Groups ABCD Class II, Division 1 Groups EFG [Ex ia Ga] IIC [Ex ia Da] IIIC The BAF & BXF provide a NEMA 4X connection CAN/CSA C22.2 No. 60079-0 CAN/CSA C22.2 No. 60079-1 CAN/CSA C22.2 No. 60079-11 CAN/CSA C22.2 No. 60079-18 CAN/CSA C22.2 No. 60950-1 CAN/CSA C22.2 No. 25-17 CAN/CSA C22.2 No. 94.2-15 CAN/CSA C22.2 No. 30-M1986	BXF3S & BXFMS Class I, Division 1 Groups ABCD Class II, Division 1 Groups EFG <i>Associated Apparatus, provides I.S. output for:</i> Class I, Division 1 Groups ABCD, Class II, Division 1 Groups EFG Class I, Zone 1, AEx db mb [ia Ga] IIC T5...T4 Gb Zone 21, AEx mb [ia Ga] IIC T5...T4 Gb Ex mb [ia Da] IIIC T100°C...T135°C Db UL 60079-0 UL 60079-1 UL 60079-11 UL 60079-18 UL 60950-1 UL 1203 UL 50E NEMA 250-2014
Current Protection	50 mA	
Maximum Fault Voltage	RMS 250 V	
Insertion loss	-5.5 dB	
Total impedance	< 100 Ohm	
Protection	3.6 V	
Ambient Temperature Range	-40°C (-40°F) to +85°C (+185°F) (T4) -40°C (-40°F) to +60°C (+140°F) (T5)	
Ethernet connection	IEEE 802.3 - 100BaseTX - 100 Mbps (not suitable for POE connection)	
Data connector (Haz Loc external side)	M12 Industrial "D" coded connector	
Weight	Approximate 0,4 kg (0.88 lb) with 1 mt of CAT5e cable	

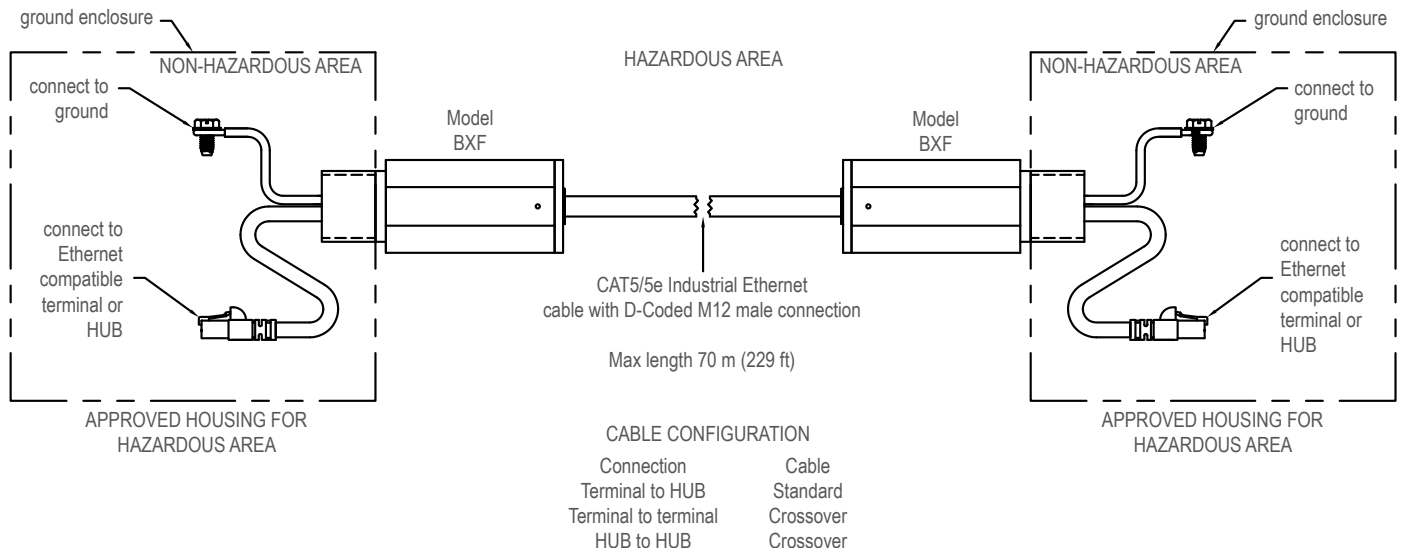


INSTALLATION SCHEMES

DEVICES INSTALLED IN A HAZARDOUS AREA

A BXF Coupler must be used at either end of the Ethernet cable to ensure the safety of this system.

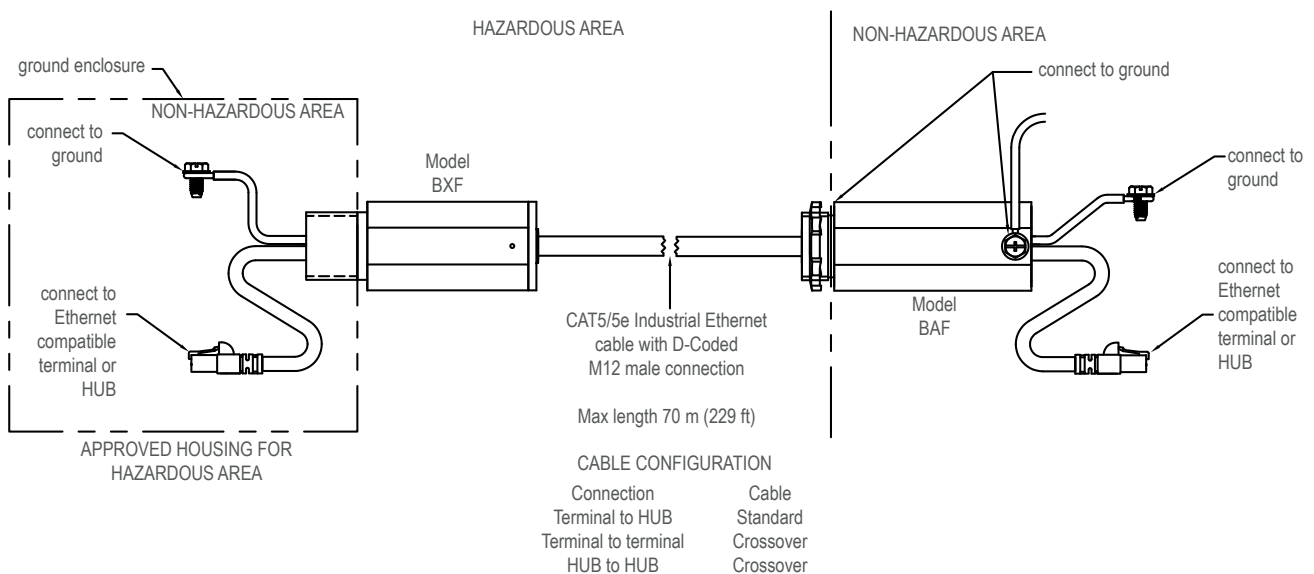
The BXF must be securely mounted and grounded within a UL/CSA (or equivalent), MSHA or ATEX/IECEx approved explosion proof enclosure.



DEVICES INSTALLED IN BOTH AN HAZARDOUS AND A SAFE AREA

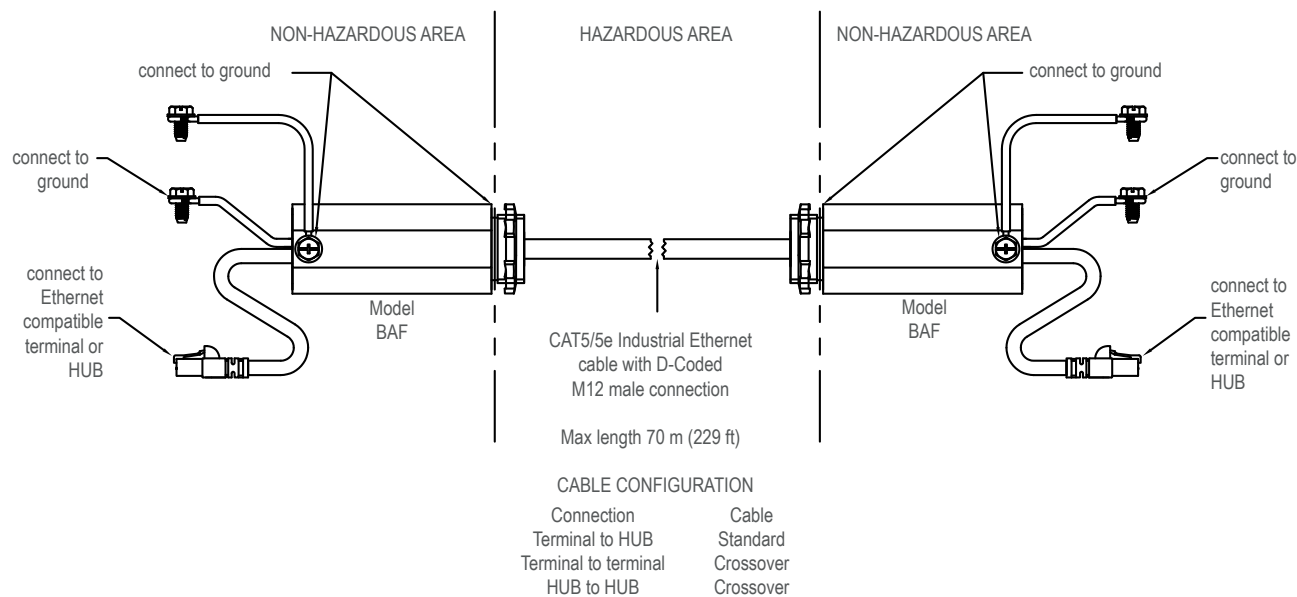
One BAF and one BXF Coupler must be used at opposite ends of the Ethernet cable to ensure the safety of this system.

The BXF must be securely mounted and grounded within a UL/CSA (or equivalent), MSHA or ATEX/IECEx approved explosion proof enclosure.



DEVICES INSTALLED IN A SAFE AREA (CABLE IN A HAZARDOUS AREA)

A BAF Coupler must be used at either end of the Ethernet cable to ensure the safety of this system.



DIMENSIONAL DRAWINGS [inch]

