



ETHERNET COUPLER BXF & BAF SERIES

Solexy's Patented (7,507,105) explosion-proof and intrinsically safe ethernet couplers allow for the transmission of ethernet into hazardous locations with a standard ethernet cable. With our ethernet coupler it's possible to connect any standard device located in hazardous or safe area.

The BXF is an EXd and EXi barrier and is certified for installation in hazardous location, it has been designed to be screwed directly into an explosion proof enclosure cable entry, without the need of a seal fitting and taking no internal space.

The BAF is an EXi barrier is suitable for installation in safe area or purged panels.

A BXF and/or BAF coupler is required on each end of the cable 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. Eliminate the need of costly seal fittings and reduce the chance of error associated with field sealing installation practices.

ENVIRONMENTAL PROTECTION

All the integrated circuitry is recessed and encapsulated against harsh environments; This is impossible with conventional sealing method.

CORROSION RESISTANT

The couplers, made from 300 series stainless, protect the fitting from corrosive environment.

INTERCHANGEABILITY

Ethernet cables can be HOT connected or disconnected without powering off the system. This is critical for temporary connections such as PLC or VFD programming.

INDUSTRIAL M12 "D" CONNECTION

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

APPROVALS



ATEX / IECEx CERTIFICATION

Zone 1, 2, 21 & 22

BAF

I (M1) [Ex ia Ma] I; II (1)G [Ex ia Ga] IIC; Ex II (1)D [Ex ia Da] IIIC

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

BXF

Ex I M2 (M1) Ex db mb [ia Ma] I Mb; Ex II 2 (1) G Ex db mb [ia Ga] IIC T5...T4 Gb; Ex II 2 (1) D Ex mb tb [ia Da] IIIC T100°C...T135°C Db

Ex db mb [ia Ma] I Mb; Ex db mb [ia Ga] IIA/IIB/IIC T5...T4 Gb; Ex mb tb [ia Da] IIIC T100°C...T135°C

USA & CANADA CERTIFICATION

BAF

Associated Apparatus for installation in non-hazardous location. Provides I.S Outputs for; Class I, Division 1 Groups ABCD; Class II, Division 1 Groups EFG; [Ex ia Ga] IIC; [Ex ia Da] IIIC; Tamb = -40°C to +85°C

BXF

Class I, Division 1 Groups ABCD; Class II, Division 1 Groups EFG; Associated Apparatus, provides I,S, Outputs for:

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

Tamb = -40°C to +60°C/+85°C

CONFIGURATION



BXF 3 S 01 01 XN 018
a b c d e f g

a - Barrier type

BXF Explosion proof and intrinsically safe layout

BAF Intrinsically safe layout

b - Thread

3 3/4" NPT

M M25x1.5

c - Material

S Stainless steel AISI 303

L Stainless steel AISI 316L

d - External side connector (HazLoc)

01 Shielded M12 Female "D" coded

e - Internal side connector (safe area)

01 RJ45 plug Male

02 Shielded M12 Male "D" coded

03 Shielded M12 Female "D" coded

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

g - Cable length (internal side, safe area)

018 18" (0,45 mt) CAT5e

040 40" (1 mt) CAT5e

*** Custom length

Length to be included in the 70 mt max

AVAILABLE ACCESSORIES

ETHERNET CABLE ASSEMBLY

CAT5e ethernet cable complete with two M12 "D" coded female connectors, suitable for the connection between 2 barriers.

Code:

E5ES-***...

***= length of the cable in inches



SPECIFICATIONS

GENERAL	
ATEX certification	nr. TÜV CY 18 ATEX 0206141 X Standards: EN 60079-0:2012/A11:2013, EN 60079-11:2012, EN 60079-1:2014, EN 60079-18:2015/A1:2017
IECEx certification	nr. IECEx MSC 18.0014X Standards: IEC 60079-0:2017, IEC 60079-11:2011, IEC 60079-1:2014-06, IEC 60079-18:2017 Suitable for Queensland mines
North America certification	nr. LT1504-2R1 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 CAN/CSA C22.2 No. 60079-18:2016 UL 60079-18, edition 4.0 CAN/CSA C22.2 No. 60950-1:2007 UL 60950-1, edition 2.0 CAN/CSA C22.2 No. 25-17 UL 1203, edition 5.0 CAN/CSA C22.2 No. 30-M1986
Electrical protection	50 mA
Maximum fault voltage	RMS 250V
Insertion loss	-5.5 dB
Total impedance	< 100 Ω
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	IEE 802.3 - 100BaseTX - 100Mbps (not suitable for POE connection)
Approximate weight	0,4 Kg (0.88 lb) with 1 mt of cable

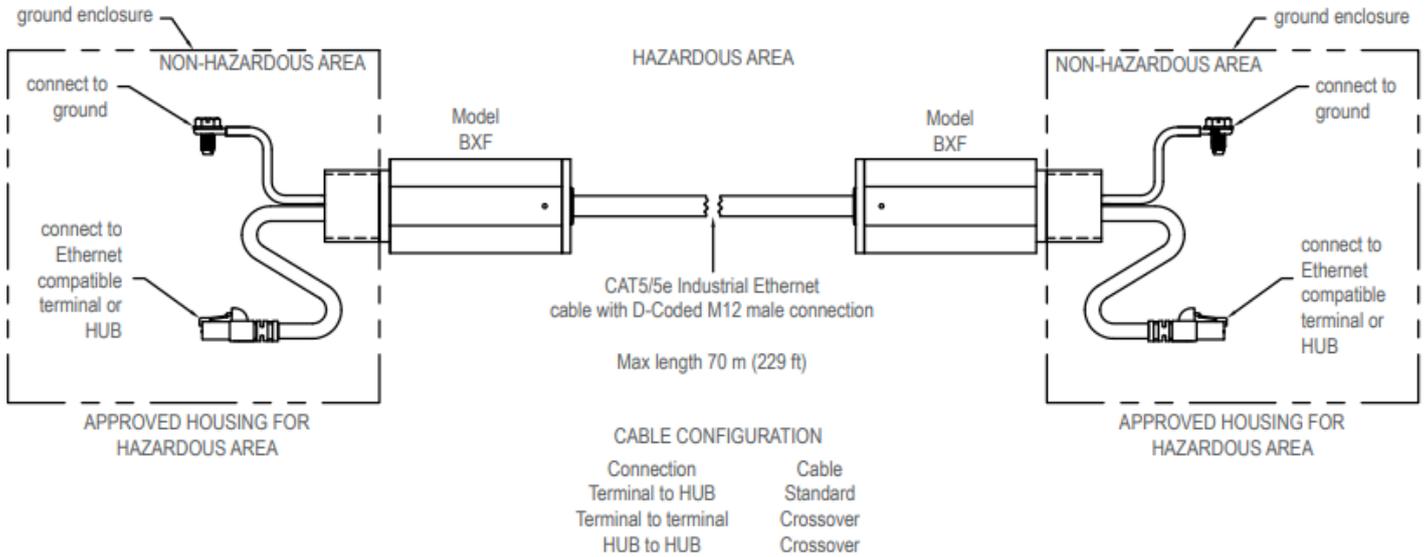
Data contained in this specification are subject to change without notice



INSTALLATION SCHEMES

DEVICES INSTALLED IN HAZARDOUS AREA

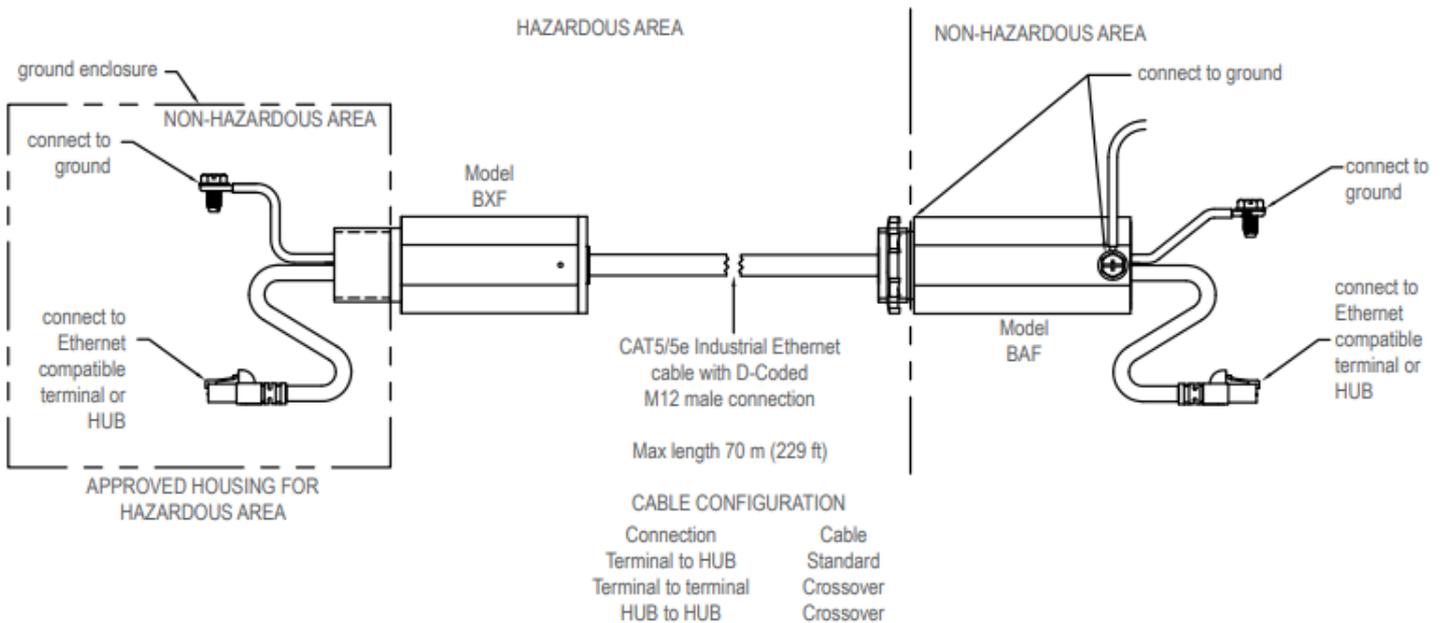
A BXF coupler must be used at either end of the ethernet cable to ensure the safety of the system. The BXF must be securely mounted and grounded within a certified explosion proof enclosure.



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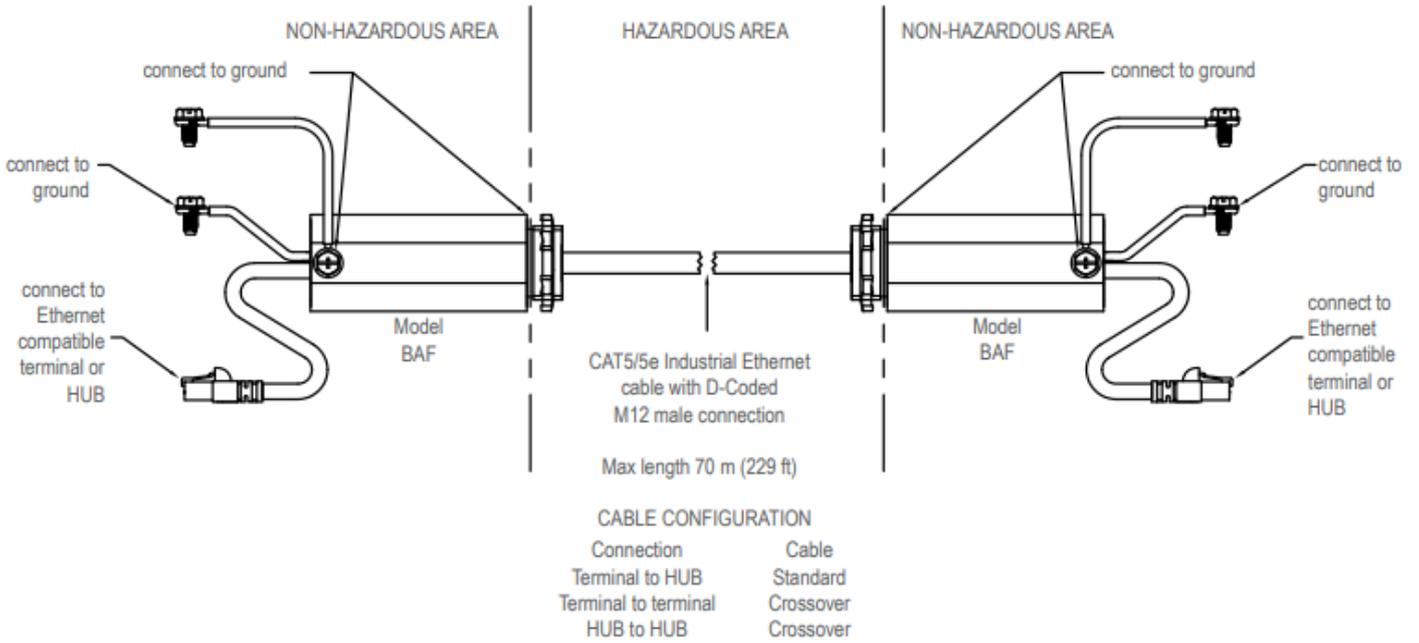
DEVICES INSTALLED IN BOTH HAZARDOUS AREA AND SAFE AREA

One BXF and one BAF coupler must be used at opposite ends of the ethernet cable to ensure the safety of the system.



DEVICES INSTALLED IN SAFE AREA (CABLE IN HAZARDOUS AREA)

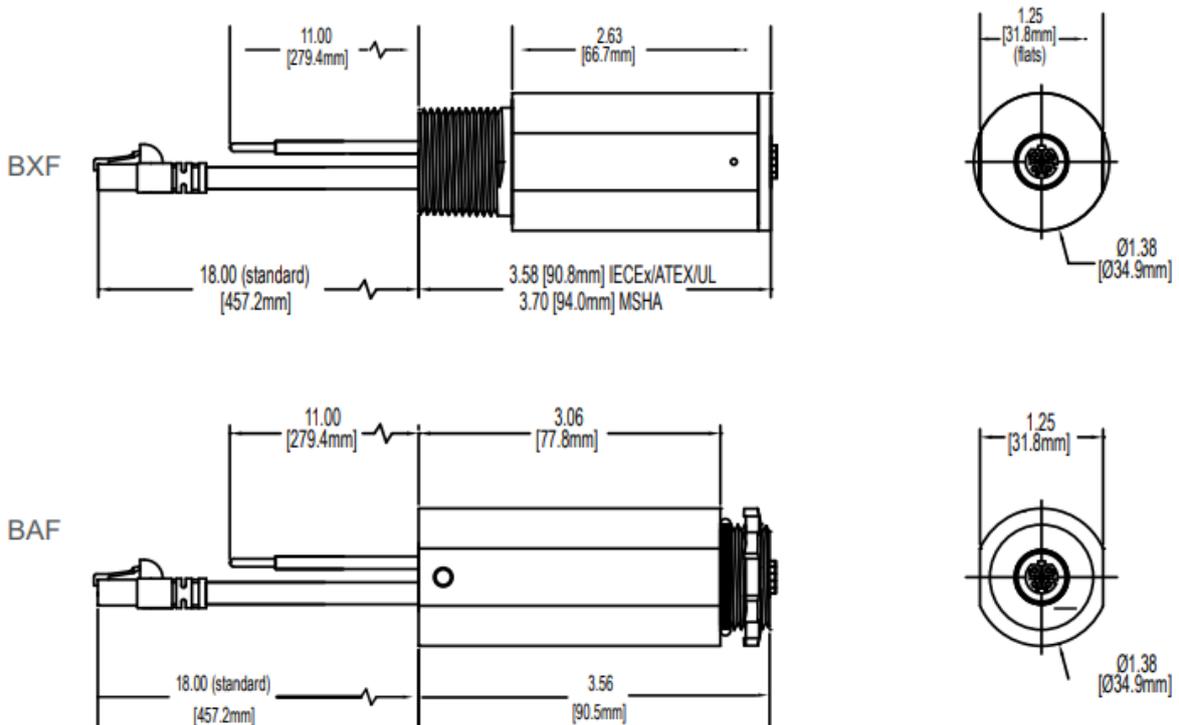
A BAF coupler must be used at either end of the ethernet cable to ensure the safety of the system.



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DIMENSIONAL DRAWINGS

In inches





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