

BARRIER UNIT - BZ-500

Interactive fire detection systems
Product Datasheet

Technical specifications and instructions

Features

- Interactive
- Covers EX zones 0, 1, 2
- Ex ia IIC approval
- Galvanic isolator
- NO PE conductor required
- Can accommodate up to 20 loop units
- For use with Autronica's interactive detectors, call points and I/O units

Description / Application

BZ-500 is a barrier unit designed for intrinsically safe installation of detectors in hazardous area zone 0, 1 or 2. The barrier is a galvanic isolator; hence the installation requires no PE conductor.

BZ-500 must be installed in safe area and is connected to the AI_Com detector loop.

Also a separate 24 V supply is required. If BZ-500 is supplied from the panel, an optional 24 V DC/DC converter must be used to regulate the power (see part no. overleaf). The loop branch off into the hazardous area accepts 1-20 loop units depending on cable type and loop unit type. All loop units must be Exi approved.



Schedule Drawing

No modifications permitted
without reference to the
Notified Body

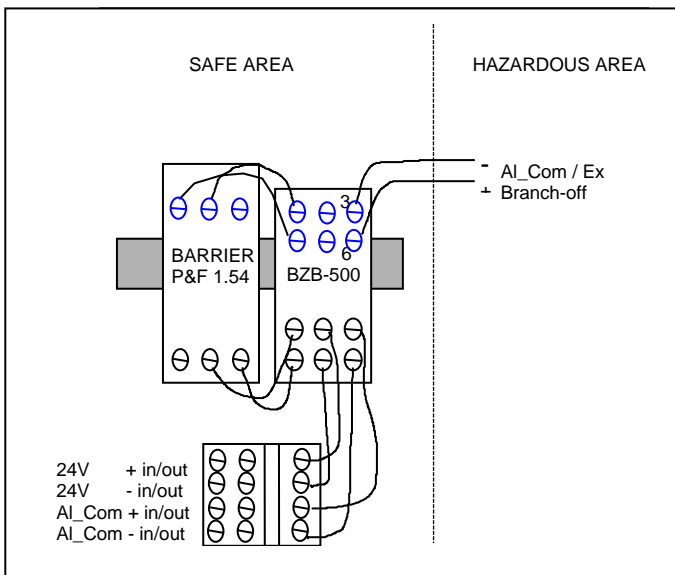
Technical specifications	
Weight	1840 g
Material	Polycarbonate
Colour	Light grey
Degree of protection	IP55
Temperature	-20 - +60 °C
Humidity (non condensing)	Max. 95 %
Supply voltage	23 - 27 VDC
Current consumption	50 mA
Maintenance	None
Service	Replace if faulty
Environmental requirement	EN 50020
Certificates	See website
Barrier certificate	BAS 00 ATEX 7087 IECEx BAS 08.0079
Barrier	Pepperl+Fuchs KFD0-CS-Ex1.54
Notified body	NEMKO ID no. 0470 CSA
EX certificates	NEMKO 03ATEX230 IECEx NEM 11.0008
Directive and standards	2014/34/EU (ATEX) EN 60079-0:2012 EN 60079-11:2012 IEC 60079-0:2011 IEC 60079-11:2011 2014/30/EU (EMC) Emission: EN 61000-6-3:2001 Immunity: EN 50130-4:2011 CAN/CSA-C22.2 No. 0-10 CAN/CSA-C22.2 No. 205-12 CAN/CSA-60079-0-11 CAN/CSA-60079-1-11 CAN/CSA-60079-11-11 CAN/CSA-C22.2 No. 60529-05 UL 60079-0, 5 th Edition UL 60079-1, 6 th Edition UL 60079-11, 5 th Edition ANSI/IEC 60529:2004 ANSI/ISA-60079-26: 2011
Ex parameters	Ex II (1) G [Ex ia Ga] IIC Class I, Zone 0, [AEx ia Ga]IIC Uo 15,75 V Io 63,5 mA Po 0,44 W Lo 1,26 mH Co 0,48 uF

The total capacitance in the cable and the C_i of the detectors must not exceed C_0 . Capacitance in the cable varies with the cable type. When cable type is unknown, 200pF per metre may be used as a maximum.

Due to the electrical characteristics of the barrier, cable limitations must also be followed. The limitations are: $R_{cable\ max} = 20\ \Omega$; $C_{cable\ max} = 250\ nF$.

Product Name	Part number	Description
BZ-500	116-BZ-500	Complete unit
BZ-500/01	116-BZ-500/01	Spare part, interface unit + barrier
Optional		DC/DC converter
	116-4660-055.0001	SD-150B-24 6.3 A
	116-4660-009.0004	24 VDC/24 VDC 3 A
	116-4660-016.0001	24 VDC/24 VDC 1 A, DIN rail mount.

Connections



Dimension Drawing (mm)

