

Barrier unit - BZ-500

Interactive fire detection systems
Product datasheet

Declaration of conformity 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

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 detectors, call points, etc. depending on gas group 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-Oslo-Norway ID no. 0470
EX certificates	NEMKO 03ATEX230 IECEX NEM 11.0008
Directive and standards	94/9/EC (ATEX) IEC 60079-0:2007 IEC 60079-11:2006 EN 60079-0:2009 EN 60079-11:2007 2004-108/EC (EMC) Emission: EN 50081-1:1992 Immunity: EN 50130-4:1995 EN 61000-6-2:1999
Ex parameters	⊕ Ex II (1) G [Ex ia Ga] IIC Co gas group IIC * 0,48µF Co gas group IIB * 2,88µF Co gas group IIA * 11,6µF Uo 15,75 V Io 63,5 mA Po 0,44 W Lo 1,26 mH

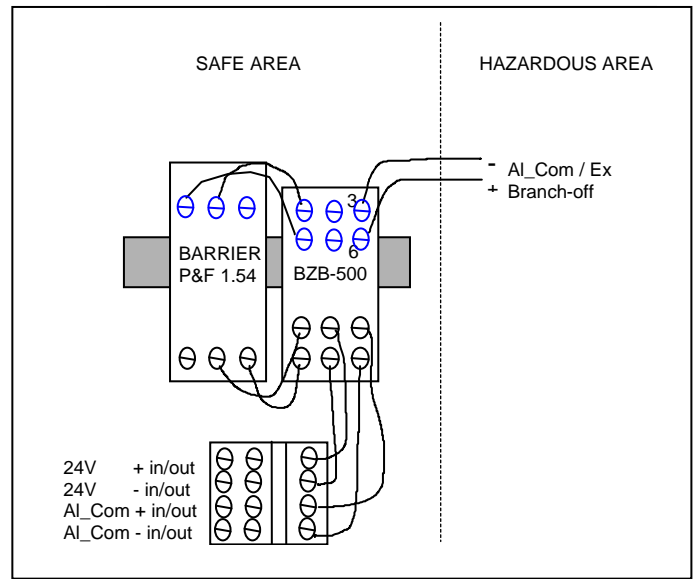


* Ex demands: The total capacitance in the cable and the C_i of the detectors must not exceed C_0 . Capacitance in the cable varies with the cable type. When cable type is unknown, 200pF per metre may be used as a maximum.

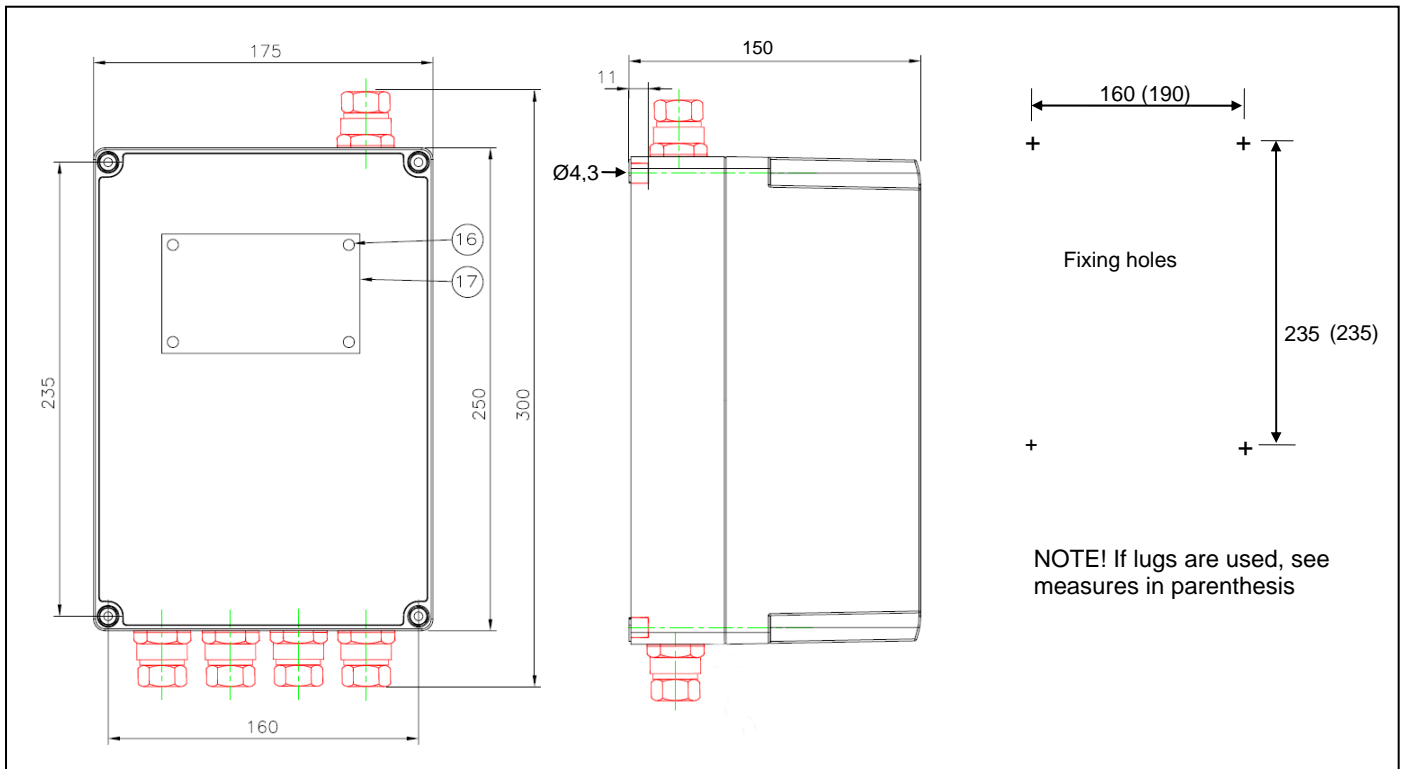
Due to the electrical characteristics of the barrier, cable limitations must also be followed. The limitations are: $R_{cable} \max = 20 \text{ Ohm}$; $C_{cable} \max = 250 \text{ nF}$.

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

Connections



Dimensions (mm)



Managing director, Mr. Frode Lund

AUTRONICA FIRE AND SECURITY AS

Head office, NO-7483 Trondheim, Norway Tel: +47 73 58 25 00, fax: +47 73 58 25 01, e-mail: info@autronicafire.no
 Oil and Gas division, Stavanger, Norway Tel: +47 51 84 09 00, fax: +47 51 84 09 99
 Maritime division, Spikkestad, Norway Tel: +47 31 29 55 00, fax: +47 31 29 55 01

Visit Autronica Fire and Security AS' website: www.autronicafire.com