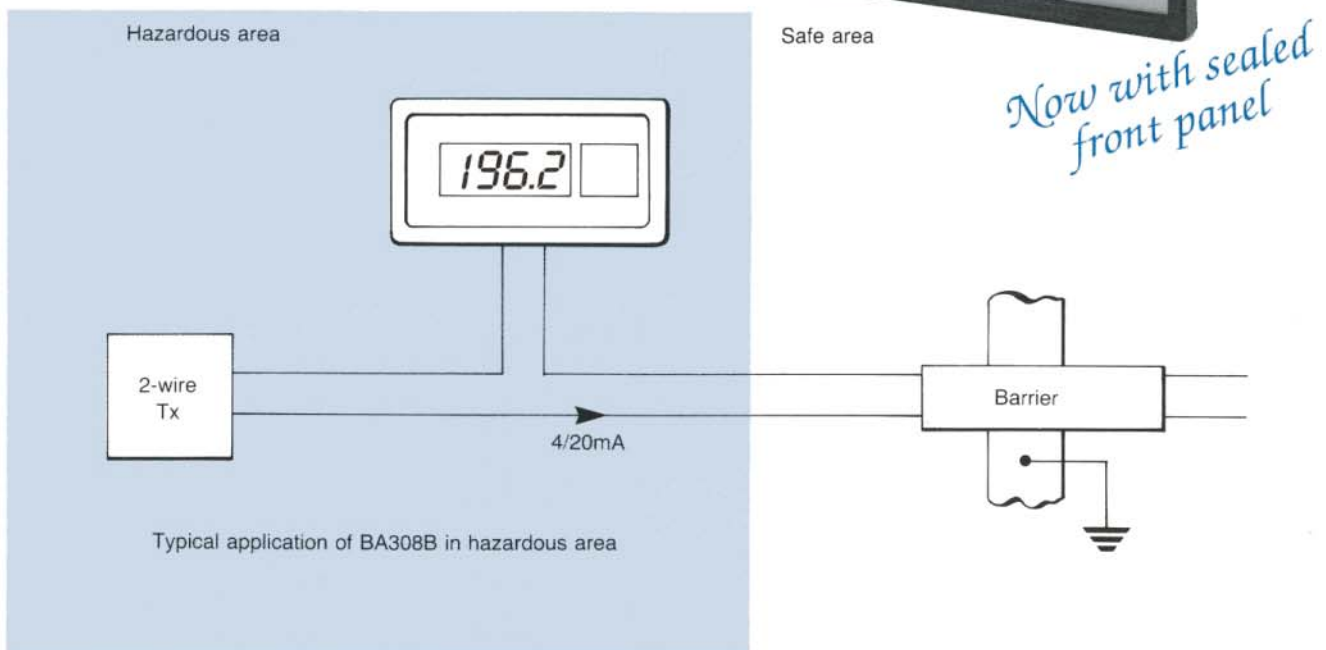


BEKA associates

BA308B 2-wire 4/20mA 3½ digit indicator

Intrinsically safe for use in all hazardous areas

- Loop powered less than 1.1V drop
- Intrinsically safe, certified by BASEEFA, FM and SA
- 25mm high, ± 1999 liquid crystal display
- IP65 sealed front panel
- Panel mounting 144 × 72 DIN Case
- Three year guarantee



The BA308B 2-wire digital indicator displays the current flowing in a 4/20mA process loop in meaningful engineering units. It is powered from the live zero signal, but only introduces a 1.1V drop which allows it to be installed into almost any 4/20mA current loop. The BA308B has a 25mm high, easy to read liquid crystal display, and incorporates an automatic polarity indicator plus three decimal point positions which are selectable by an internal link.

Main application of the BA308B is to display a measured variable or control signal in the process area. The zero and span of the display are independently adjustable so that the indicator can be calibrated to display any linear variable represented by the 4/20mA signal, such as temperature, pressure, level or actuator position.

The intrinsic safety of the BA308B indicator allows it to be installed in hazardous areas without the need for a purged or flameproof enclosure. The BA308B indicator, which has been certified intrinsically safe by BASEEFA to the CENELEC standard, appears as a non energy-storing device and may therefore be connected to most intrinsically safe circuits without the need for additional certification. Full details of compatible Zener barriers are shown in Application Guide AG300 which is available from BEKA Associates. This flexible

certification, together with the very low voltage drop, make the BA308B indicator ideal for use with intrinsically safe transmitters.

The front panel is sealed by a scratch resistant IP65 polyester membrane, and the joint between the instrument and the panel by a neoprene gasket allowing the BA308B to be installed in process panels without the need for additional protection or covers. The instrument enclosure, which is moulded in glass filled Noryl, is inserted into the panel aperture from the front and secured by two removable clips. To simplify installation the BA308B has a removable terminal block so that panel wiring may be completed before the indicator is installed.

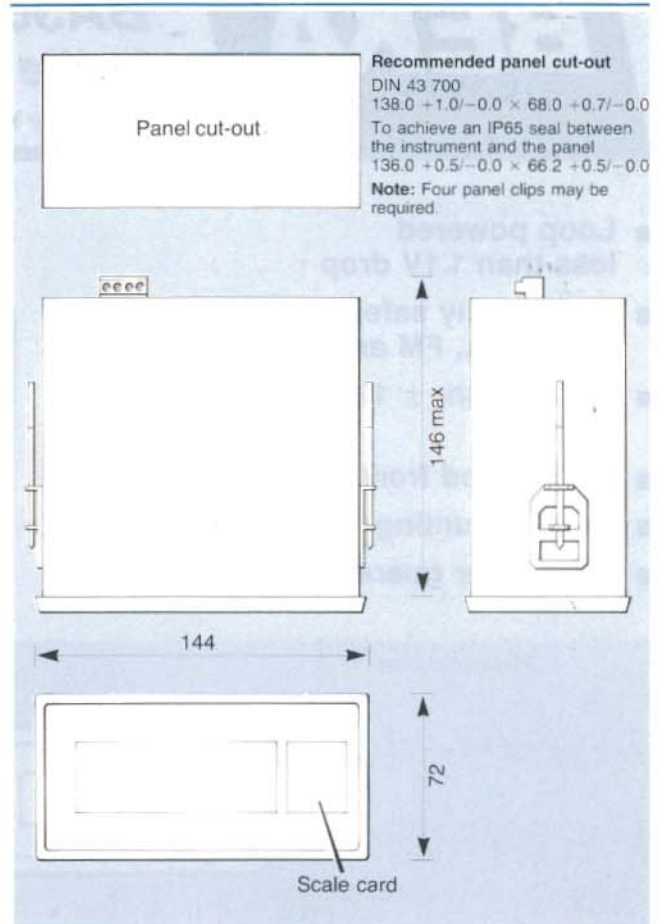
Reliability is ensured by BEKA Associates BS5750 approved quality control system. An 'instrument quality' liquid crystal display is used, and the printed circuit boards are coated to minimise the effect of high humidity. The BA308B is protected from input overrange currents and incorporates radio frequency filtering to reduce interference from portable transceivers operating to within a few feet of the indicator. All BEKA indicators are guaranteed for three years.

Complementary indicators for use in safe and hazardous areas are available. Please refer to BEKA Associates catalogue or datasheets for the full range.

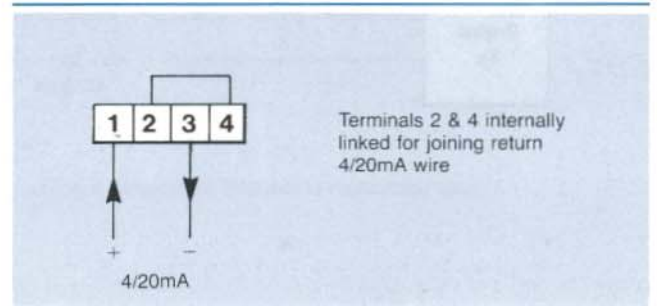
SPECIFICATION

Input	
Current	4 to 20mA
Voltage drop at 20mA	Less than 1V @ 20°C Less than 1.1V @ -20°C
Overrange	±300mA will not cause damage
Display	
Type	3½ digits (-1999 to 1999) Liquid crystal 25mm high
Span	Adjustable between: 050 & 1000 for 4 to 20mA input
Zero	Adjustable between: -1000 & 1000 with 4mA input
Polarity	Automatic minus sign
Decimal point	1 of 3 positions, selected by link
Reading rate	2.5 per second
Overrange	3 least significant digits are blanked
Accuracy	
@ 20°C	±1 digit
Temperature effect on:	
Span	Typ 50ppm, max 100ppm/°C
Zero	Typ 0.05 digit + 100ppm/°C Max 0.1 digit + 200ppm/°C
Series mode rejection	Typ 1 digit error for 1mA pk to pk 50Hz signal
Intrinsic safety	
Europe (BASEEFA)	
Standard	BS5501:Part 7:1977:EN50.020
Code	EEx ia IIC T4
Certificate No.	BAS Ex832399
Output parameters	
U _{max} : out	1.2V
I _{max} : out	75mA
W _{max} : out	20mW
Ce _q	15nF
Le _q	2µH
Location	Zone 0, 1 or 2
Installation	The BA308B may be connected to any certified intrinsically safe circuit whose output parameters do not exceed: I _{max} : out 215mA W _{max} : out 1.1W See certificate and AG300 for full details
Australia (SA)	
Standard	AS1829-1981
Code	Ex ia IIC T4
Certificate No.	Ex 1083
USA (FM)	
Standard	3610 Entity
Code	CL. 1, Div. 1, GP. A, B, C & D
File No.	OQ2A9.AX
Standard	3611 Non-incendive
Code	CL. 1, Div. 2, GP. A, B, C & D
File No.	OQ2A9.AX
Environmental	
Operating temperature	-20 to +60°C
Humidity	To 95% @ 40°C
Case	Rear IP20 Front IP65. ERA test report due in July 1994
Mechanical	
Terminals	Screw clamp for 0.5 to 1.5mm cables. Terminal block removable
Weight	0.4kg
Accessories	
Typeset scale card	Specify legend required (Note: blank scale card supplied if typesetting is not requested)
Tag plate	Thermally printed tag strip screwed to rear of indicator

DIMENSIONS (mm)



Terminal Connections



HOW TO ORDER: please specify

Model number	BA308B
Display reading at 4mA	XXXX include position of
at 20mA	XXXX decimal point if required,
	and sign if negative*
Accessory items:	
Scale card	Specify legend required (Note: blank scale card supplied if typesetting is not requested)
Tag plate	Specify legend required
*Will be set to display 00.0 at 4mA and 100.0 at 20mA if calibration information is not supplied	
Example:	
Model number	BA308B
Display reading at 4mA	30.0
20mA	125.0
Scale card	BAR G
Tagging plate	Outlet stack A