

The BA448CF-F Fieldbus Indicator is an intrinsically safe instrument that can display up to eight fieldbus process variables within a hazardous area. A numeric annunciator on the left hand side of the screen shows which variable is being displayed. This version of the instrument supports FOUNDATION™ fieldbus protocol; for PROFIBUS PA systems an alternative version is available - please see the BA448CF-P PROFIBUS datasheet.

**Configuration as a fieldbus Node or Listener** allows the indicator to be tailored to suit local requirements. As a FOUNDATION™ fieldbus Node the indicator is configured by the fieldbus host and the displayed variable is selected from the eight pre-configured fieldbus variables using the indicator's push buttons.

When configured as a Listener, the indicator is not visible to the fieldbus host; may not be subject to a Node Licence Fee and is configured and controlled by the indicator's push buttons.

The liquid crystal display has large 20mm high digits providing maximum contrast and a wide viewing angle, allowing the BA448CF-F indicator to be read easily in most lighting conditions. The five digits, with four decimal points and a negative sign, may be configured to display any variable between -99999 and 99999. The 31 segment bargraph, which provides a bold analogue indication of the fieldbus variable, may be conditioned to any starting or finishing values within the fieldbus variable's range.

The instrument front panel provides IP66 protection and a neoprene gasket seals the joint between the fieldbus indicator and the panel, making it suitable for use in areas that will be cleaned with a hose. To simplify installation and maintenance, the indicator has a removable terminal block that allows panel wiring to be completed before the BA448CF-F indicator is installed.

**ATEX intrinsic safety certification** allows the BA448CF-F to be installed in all gas hazardous areas. The two fieldbus terminals comply with the Fieldbus Intrinsic Safety Concept FISCO simplifying system design and documentation. Separate Ex ia and Ex ic entity input safety parameters also allow connection to most non-FISCO intrinsically safe systems. A BA448CF-F indicator may therefore be connected to almost any intrinsically safe FOUNDATION™ fieldbus segment, provided the segment can supply 13mA to power the instrument.

**FM, cFM and IECEx approvals** allow installation in the USA, Canada plus the growing number of countries accepting IECEx certificates. All approvals incorporate FISCO certification.

**Units of measurement** can be marked onto the display escutcheon prior to despatch and the tag number or application thermally printed onto the rear panel adjacent to the terminals.

**For field mounting applications** see the BA444DF-F FOUNDATION™ fieldbus datasheet. This instrument has a similar electrical specification but is housed in an IP66 field mounting enclosure.

# BA448CF-F FOUNDATION™ fieldbus Fieldbus Indicator 8 variables

*Intrinsically safe for use  
in all gas hazardous areas*

- ◆ Large 5 digit display with bargraph.
- ◆ FOUNDATION™ fieldbus protocol.
- ◆ Displays up to 8 fieldbus variables.
- ◆ Selectable Node or Listener modes.
- ◆ Intrinsically safe ATEX, FM, cFM & IECEx.
- ◆ Entity Ex ia & ic parameters, FISCO compliant.
- ◆ 144 x 72mm DIN enclosure.
- ◆ IP66 front
- ◆ 3 year guarantee



# BEKA associates

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## SPECIFICATION

### Display

Type	Liquid crystal 5 digit 20mm high (-99999 to 99999) 31 segment bargraph
Variables	8

### Fieldbus communication

Voltage	9 to 32V (Limited by intrinsic safety input safety parameters)
Current	13mA.
Compliant with Protocol	IEC61158-2 31.25kbits/s Voltage Mode. FOUNDATION™ fieldbus
Function blocks	2 x IS (input selector) 6 x DI (digital input)
Function	Fieldbus Node or Listener selected by front panel push buttons.

### Intrinsic safety

#### Europe ATEX

Code	Group II Category 1G Ex ia IIC T4 Ga FISCO field device Ex ia IIC T4 Ga Group II Category 3G Ex ic IIC T4 Gc Ta = -40°C to 70°C
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Input parameters	FISCO	Ex ia entity	Ex ic entity
Ui	17.5V	22.0V	32V
Ii	380mA	250mA	125mA
Pi	5.32W	1.2W	1W

Location Zone 0, 1 or 2

Cert. No. ITS06ATEX25314X

#### USA FM

Standard Code 3610 Entity  
CL I: Div 1  
GP A, B, C & D  
T4 @ 70°C

Standard Code 3611 Nonincendive  
CL I: Div 2  
GP A, B, C & D  
T4 @ 70°C

File 3027031

#### Canada cFM

File 3027031C

#### International IECEx

Code As ATEX code shown above  
Cert. No. IECEx ITS 06 0013X

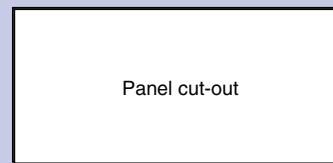
### Environmental

Operating temp	-20 to 70°C (ATEX, FM & IECEx certification -40°C to 70°C)
Storage temp	-40 to 85°C
Humidity	To 95% @ 40°C
Enclosure	Front IP66, rear IP20
EMC	In accordance with EU Complies with EMC Directive 2014/30/EU

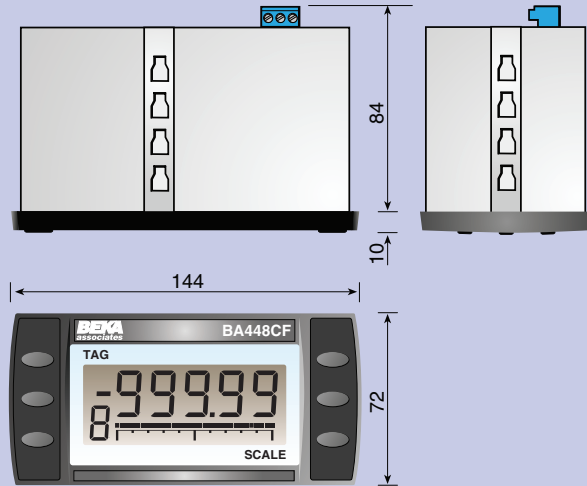
### Mechanical

Terminals	Removable with screw clamp for 0.5 to 1.5mm <sup>2</sup> cable.
Weight	0.7kg

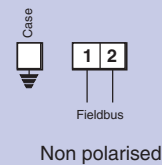
## DIMENSIONS (mm)



**Recommended panel cut-out**  
To achieve an IP65 seal between the instrument and the panel  
136.0 +0.5/-0.0 x 66.2 +0.5/-0.0  
Four panel mounting clips must be used  
DIN 43 700  
138.0 +1.0/-0.0 x 68.0 +0.7/-0.0



## TERMINAL CONNECTIONS



### Accessories

Scale legend	Units of measurement marked onto display escutcheon.
Tag legend	Tag number or application marked onto display escutcheon.
Tag strip	Tag number or application thermally printed onto rear of the instrument.
FOUNDATION™ Fieldbus interface guide.	May be downloaded from <a href="http://www.beka.co.uk">www.beka.co.uk</a>

## HOW TO ORDER

### Please specify

Model number BA448CF-F FOUNDATION™ fieldbus

### Accessories

### Please specify if required

Escutcheon markings	
Scale	Legend
Tag	Legend
Tag strip	Legend