

The BA488CF-F Fieldbus Display is an intrinsically safe instrument that can display up to eight fieldbus process variables. Eleven selectable standard screen formats contain one, two, three, four or eight variables, with units of measurement, tag descriptions and bargraphs on some screens.

**Selectable function blocks** allow the BA488CF-F fieldbus display to be used with all common system hosts. Configuration files may be downloaded from the Foundation fieldbus or the BEKA websites

**Powered by the fieldbus** the BA488CF-F only requires a 2-wire connection, no additional power supply Zener barriers or galvanic isolators are required. The high contrast 86 x 45mm liquid crystal display incorporates a green backlight that is also powered from the fieldbus enabling the display to be read in all lighting conditions from full sunlight to total darkness.

**Simple commissioning** results from the use of standard display formats. Apart from loading the BA488CF-F configuration files onto the system host and selecting the fieldbus variables to be displayed, no programming is required. Configuration of the BA488CF-F Fieldbus Display is performed via the fieldbus and the instrument front panel push buttons.

**ATEX, FM & IECEx intrinsic safety certification** allows the BA488CF-F to be installed in gas hazardous areas worldwide. The two fieldbus terminals comply with the Fieldbus Intrinsic Safety Concept (FISCO) simplifying system design and documentation, although connection to non-FISCO intrinsically safe segments is possible using the entity concept. This allows a BA488CF-F to be directly connected to almost any hazardous fieldbus providing the segment can supply the 25mA consumed by the display.

**Six optional local alarm outputs** may be linked to any of the displayed variables. Each isolated single pole solid state output may be conditioned as a combined high and low alarm, or as just a high or low alarm. All the outputs comply with the requirements for *simple apparatus* allowing them to switch any certified intrinsically safe load such as a sounder, lamp or solenoid valve. Alarm configuration and the alarm set point adjustment is performed via the BA488CF-F front panel push buttons, as the local alarms are not accessible from the fieldbus system host.

**Comprehensive documentation** includes a FOUNDATION™ fieldbus Interface Guide.

**For field mounting applications** see the BA484DF-F datasheet. This instrument has a similar electrical specification but is housed in a robust IP66 GRP enclosure suitable for external mounting.

# BA488CF-F

## FOUNDATION™ fieldbus

### Fieldbus display

### 8 variables

*Intrinsically safe for use in all gas hazardous areas*

- ◆ FOUNDATION™ fieldbus protocol.
- ◆ Compatible with most system hosts.
- ◆ High contrast display with backlight.
- ◆ Intrinsically safe ATEX, FM, cFM, INMETRO & IECEx certification FISCO compliant.
- ◆ Six optional local alarm outputs.
- ◆ IP66 front panel
- ◆ 3 year guarantee

[www.beka.co.uk/ba488cf-f](http://www.beka.co.uk/ba488cf-f)



# BEKA

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## SPECIFICATION

### Display

Type	120 x 64 pixel liquid crystal
Size	86.5mm x 45mm
Backlight	Powered from fieldbus
Screens	1, 2, 3, 4 or 8 variables plus bargraph can include:
Standard format	units of measurement tag information

### Controls

Front panel	Six push buttons scroll the indicator display between screens when the BA488CF-F is configured to display more variables than fit onto a single screen. Also used to configure optional local alarms.
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### Fieldbus communication

Voltage	9 to 32V (Limited by intrinsic safety parameters)
Current	25mA
Compliant with Protocol	EC61158-2 31.25kbits/s Voltage Mode FOUNDATION™ fieldbus
Function blocks	1 x MAO (Multiple Analogue Output) or 2 x IS (Input Selector) } Selectable on-site

### Intrinsic safety

#### Europe ATEX

Code	Group II Category 1G Ex ia IIC T5 Ga (Tamb = -40°C to 60°C)
Cert. No.	ITS04ATEX22779X <i>Special condition only apply for installations in Zone 0</i>

Intrinsic safety parameters	$U_i = 17.5V$ $I_i = 380mA$ $P_i = 5.32W$	FISCO compliant
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Location	Zone 0, 1 or 2
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#### USA FM

Standard Code	3610 Entity CL I; Div 1; GP A, B, C & D T4 @ 60°C 3022546
Standard Code	3611 Nonincendive CL I; Div 2; GP A, B, C & D T4 @ 60°C 3022546

#### International IECEx

Code	Group II Category 1G Ex ia IIC T5 Ga (Tamb = -40°C to 60°C)
Cert. No.	IECEx ITS 05.0007X <i>Special condition only apply for installations in Zone 0</i>

#### Brazil INMETRO

NCC 12.0833X

### Environmental

Operating temp	-20 to 60°C (certified for use at -40°C)
Storage temp	-40 to 85°C
Humidity	To 95% @ 40°C
Enclosure	Front IP66, rear IP20
EMC	In accordance with EU Directive 2004/108/EC BS EN 61326:1998
Immunity	Operates normally with conducted 3Vrms interference between 0.15kHz and 80MHz, or radiated 10V/m interference between 80MHz and 1GHz.
Emissions	CISPR 16-1/2 Class A

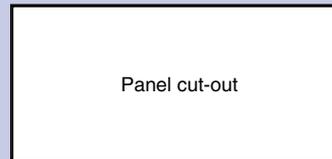
### Mechanical

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

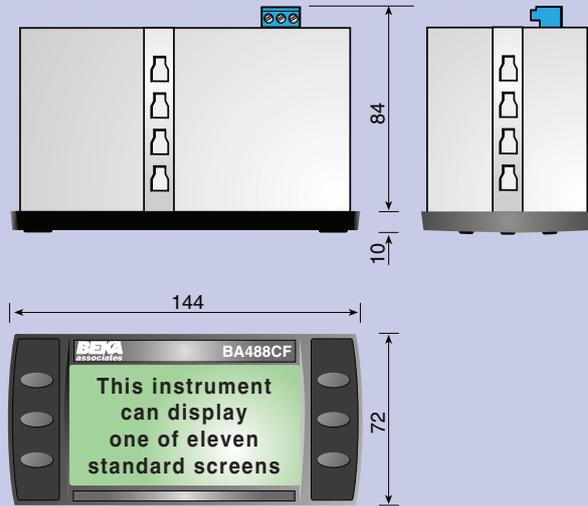
### Accessories

Alarms	Six galvanically isolated outputs which may be linked to displayed variables. Each alarm is configurable from instrument push buttons as: combined high and low alarm high or low alarm <b>Note:</b> Alarms are not accessible from the fieldbus system host
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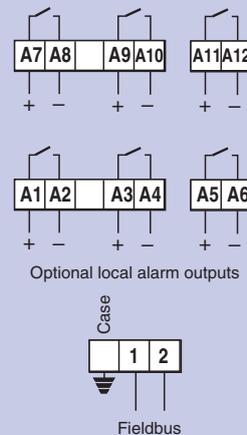
## DIMENSIONS (mm)



**Recommended panel cut-out**  
 DIN 43 700  
 138.0 +1.0/-0.0 x 68.0 +0.7/-0.0  
 To achieve an IP66 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



## TERMINAL CONNECTIONS



Contacts	Isolated single pole solid state switch certified as simple apparatus. $R_{on}$ less than $5\Omega + 0.7V$ $R_{off}$ greater than $1M\Omega$
Intrinsic safety parameters	$U_i = 28Vdc$ $I_i = 200mA$ $P_i = 0.84W$
Tag number	Thermally printed strip on rear of instrument.
FOUNDATION™ fieldbus interface guide	May be downloaded from <a href="http://www.beka.co.uk">www.beka.co.uk</a>

## HOW TO ORDER

Model number	Please specify BA488CF-F
Accessories	Please specify if required
Certification	INMETRO
Six alarms	Alarms
Tag strip	Legend