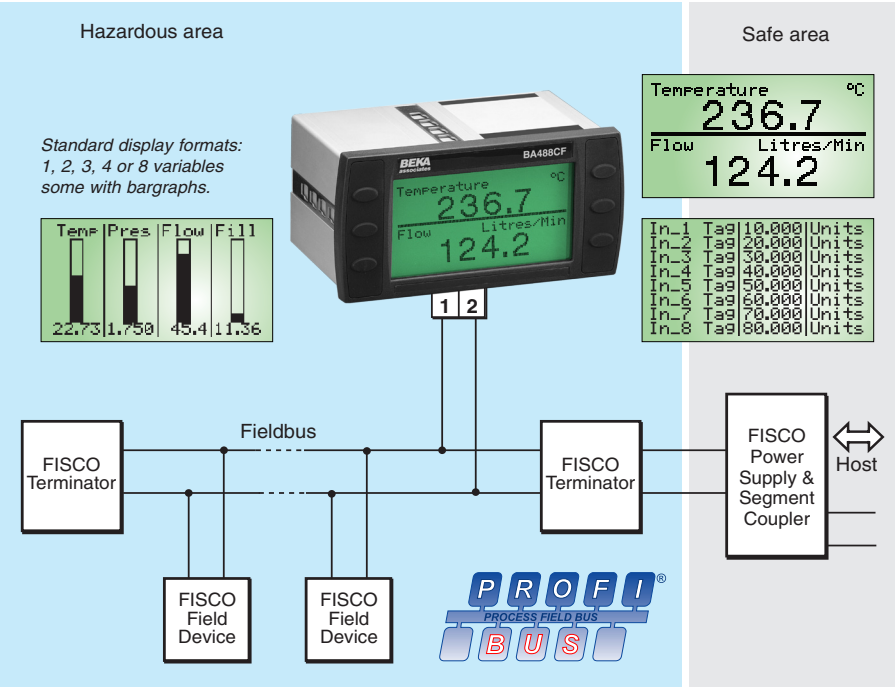

BA488CF-P

PROFIBUS PA Fieldbus display 8 variables

Intrinsically safe for use in all gas hazardous areas

- **PROFIBUS PA protocol**
- **Compatible with most system hosts.**
- **High contrast display with backlight.**
- **Intrinsically safe**
- **FISCO compliant**
- **Six operator push buttons & six optional local alarm outputs.**
- **IP66 front panel**
- **3 year guarantee**

www.beka.co.uk/ba488cf-p

The BA488CF-P 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.

Powered by the fieldbus the BA488CF-P 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-P configuration files onto the system host and selecting the fieldbus variables to be displayed, no programming is required. Configuration of the BA488CF-P Fieldbus Display is performed via the fieldbus and the instrument front panel push buttons.

International intrinsic safety certification allows the BA488CF-P 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-P 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-P front panel push buttons, as the local alarms are not accessible from the fieldbus system host

The six push buttons on the front of the instrument may be used for returning operator acknowledgments or controls to the fieldbus host. If larger industrial switches are required for these operator controls, up to six external push buttons may be connected to the BA488CF-P. When the external switches are activated, the front panel push buttons may be disabled or operated in parallel with the external switches.

Comprehensive documentation includes a PROFIBUS Interface Guide.

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

For FOUNDATION™ fieldbus systems, please see the datasheet for the equivalent BA488CF-F fieldbus display.

BEKA associates

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SPECIFICATION

Display

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

Controls

Front panel	Six push buttons scroll the indicator display between screens when the BA488CF-P is configured to display more variables than fit onto a single screen. Also used to configure optional local alarms and may be used to return operator inputs to the system host.
External switches	Control may be transferred to six external switches; front panel buttons may be inhibited or operated in parallel.
Switch cable	5m max length.

Fieldbus communication

Voltage	9 to 32V (Limited by intrinsic safety parameters)
Current	25mA
Compliant with	EC61158-2 31.25kbits/s Voltage Mode
Protocol	PROFIBUS PA
Function blocks	
PROFIBUS PA	8 x AO (Analogue Output) 6 x DI (Digitl Input)

Intrinsic safety

International IECEx

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

Europe ATEX and UKEX

Code	Group II Category 1G Ex ia IIC T5 Ga (Tamb = -40°C to 60°C)
Cert. No.s	ITS04ATEX22779X ITS21UKEX0083X *Special condition only apply for installations in Zone 0*
Intrinsic safety parameters	Ui = 17.5V Ii = 380mA Pi = 5.32W FISCO compliant
Location	Zone 0, 1 or 2

USA FM

Standard	3610 Entity
Code	CL I; Div 1; GP A, B, C & D T4 @ 60°C
File No	3022546
Standard	3611 Nonincendive
Code	CL I; Div 2; GP A, B, C & D T4 @ 60°C
File No	3022546

China CCC — As IECEx - see certificate

India CCOE/PESO — As ATEX - see certificate

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	Complies with EU and UK Directives

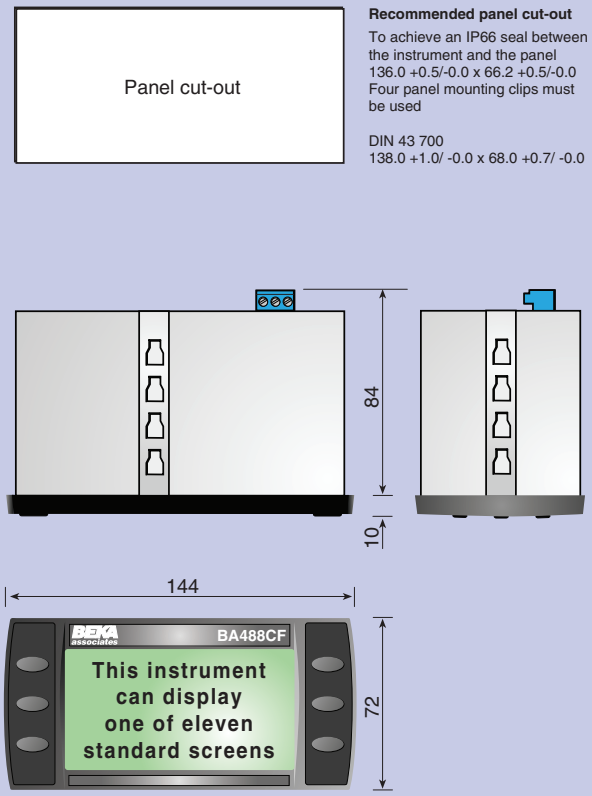
Mechanical

Terminals	Removable with screw clamp for 0.5 to 1.5mm^2 cable.
Weight	0.7kg

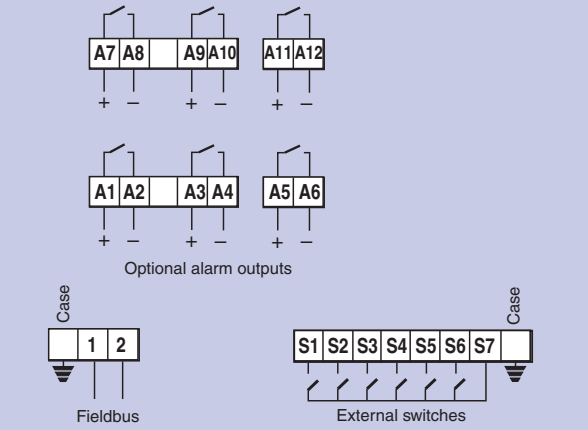
Accessories

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 ***Note**: Alarms are not accessible from the fieldbus system host*

DIMENSIONS (mm)



TERMINAL CONNECTIONS



Contacts	Isolated single pole solid state switch certified as simple apparatus. Ron less than 5Ω + 0.7V Roff greater than 1MΩ
Intrinsic safety parameters	Ui = 28Vdc Ii = 200mA Pi = 0.84W
Tag number	Thermally printed strip on rear of instrument.
Interface guide	May be downloaded from www.beka.co.uk

HOW TO ORDER

	Please specify
Model number	BA488CF-P
Accessories	**Please specify if required**
Six alarms	Alarms
Tag strip	Legend