

The **BA484DF-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 BA484DF-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 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 BA484DF-P configuration files onto the system host and selecting the fieldbus variables to be displayed, no programming is re-quired. Configuration of the BA484DF-P Fieldbus Display is performed via the fieldbus and the instrument front panel push buttons.

international intrinsic safety certification allows the BA484DF-P to be installed in gas and dust 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 systems is possible using the entity concept. This allows a BA484DF-P display to be directly connected to almost any hazardous fieldbus segment, provided that 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 BA484DF-P front panel push buttons, as the local alarms are not accessible from the fieldbus system host.

The four 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 BA484DF-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 panel mounting applications see the BA488CF-P datasheet. This instrument has a similar electrical specification but is housed in a 144 x 72 panel mounting enclosure.

For FOUNDATION™ fieldbus systems, please see the datasheet for the equivalent BA484DF-F fieldbus display.

BA484DF-P

PROFIBUS PA

Fieldbus display

8 variables

Intrinsically safe for use in gas and dust hazardous areas

- ◆ **PROFIBUS PA protocol.**
- ◆ **Compatible with most system hosts.**
- ◆ **High contrast display with backlight.**
- ◆ **Intrinsically safe**
- ◆ **FISCO compliant**
- ◆ **Four operator push buttons & six optional local alarm outputs.**
- ◆ **IP66 field mounting GRP enclosure.**
- ◆ **3 year guarantee**

www.beka.co.uk/ba484df-p



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	Four push buttons scroll the indicator display between screens when the BA484DF-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	Length 5m max

Fieldbus communication

Voltage	9 to 32V (Limited by intrinsic safety parameters)
Current	25mA
Compliant with Protocol	IEC61158-2 31.25kbits/s Voltage Mode PROFIBUS PA
Function blocks	
PROFIBUS PA	8 x AO (Analogue Output) 6 x DI (Digital Input)

Intrinsic safety

International IECEx

Code	Ex ia IIC T5 Ga (Tamb = -40 to 60°C)
or	Ex ia IIC T80°C Db (Tamb = -40 to 60°C) IP66
Cert. No	IECEx ITS 05.0006

Dust option, see How to order

Europe ATEX and UKEX

Code	Group II Category 1G Ex ia IIC T5 Ga (Tamb = -40 to 60°C)
or	Group II Category 2D Ex ia IIC T80°C Db (Tamb = -40 to 60°C) IP66
Cert. Nos.	ITS04ATEX22778 & ITS21UKEX0082

Dust option, see How to order

Intrinsic safety parameters	<table> <tr> <td>Ui = 17.5V</td><td rowspan="3">FISCO compliant</td></tr> <tr> <td>Ii = 380mA</td></tr> <tr> <td>Pi = 5.32W</td></tr> </table>	Ui = 17.5V	FISCO compliant	Ii = 380mA	Pi = 5.32W
Ui = 17.5V	FISCO compliant				
Ii = 380mA					
Pi = 5.32W					

Location	Gas Zone 0, 1 or 2: Dust Zone 21 or 22
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USA FM

Standard Code	Option, see How to order 3610 Entity CL I, II, III: Div 1: GP A, B, C, D, E, F & G T4 @ 60°C
File	3022546
Standard Code	3611 Nonincendive CL I: Div 2: GP A, B, C & D, T4 @ 60°C CL II, III: Div 2: GP F & G, T4 @ 60°C
File	3022546

Environmental

Operating temp	-20 to 60°C (ATEX gas certification -40 to 60°C)
Storage temp	-40 to 85°C
Humidity	To 95% @ 40°C
Enclosure	IP66
EMC	Complies with EU and UK Directives
Immunity	BS EN 61326:1998 Operates normally with conducted 3Vrms interference between 0.15kHz and 80MHz, or radiated 10V/m interference between 80MHz and 1GHz.
Emissions	CISPR16-1/2 Class A

Mechanical

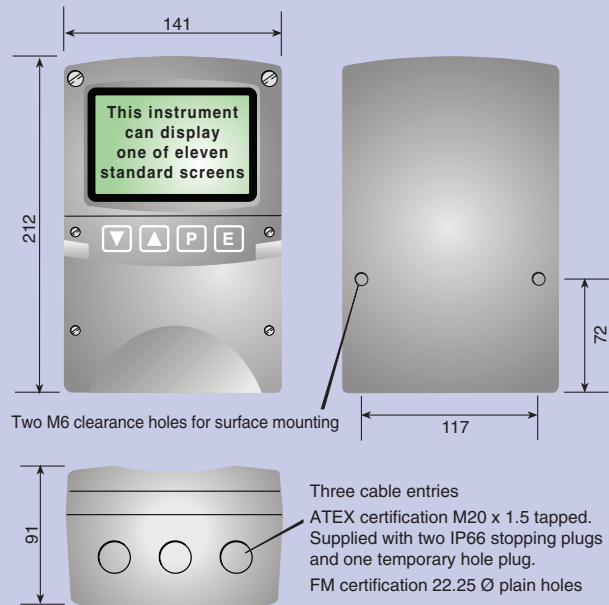
Terminals	Screw clamp for 0.5 to 1.5mm ² cable.
Weight	1.6kg

Accessories

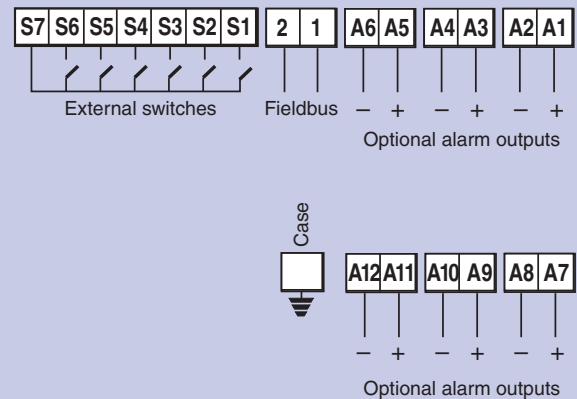
Alarms	Six galvanically isolated outputs which may be linked to displayed variables. Each alarm is configurable from instrument push buttons as: combined high and low alarm high or low alarm
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Note: Alarms are not accessible from the fieldbus system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

DIMENSIONS (mm)



TERMINAL CONNECTIONS



Contacts	Isolated single pole solid state switch certified as simple apparatus. Ron less than $5\Omega + 0.7V$ Roff greater than $1M\Omega$
Intrinsic safety parameters	Ui = 28Vdc Ii = 200mA Pi = 0.84W
Tag strip	Printed legend behind the display window
Tag plate	Engraved stainless steel plate attached to the side of the instrument.
Pipe mounting kit	BA392D or BA393
Interface guide	May be downloaded from www.beka.co.uk

HOW TO ORDER

Model number	Please specify BA484DF-P				
Certification	<table> <tr> <td>ATEX & UKEX gas</td><td rowspan="3">All models have IECEx certification. Note: Cable entries differ for FM & ATEX models</td></tr> <tr> <td>ATEX & UKEX gas & dust</td></tr> <tr> <td>ATEX, UKEX & FM gas</td></tr> </table>	ATEX & UKEX gas	All models have IECEx certification. Note: Cable entries differ for FM & ATEX models	ATEX & UKEX gas & dust	ATEX, UKEX & FM gas
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ATEX & UKEX gas & dust					
ATEX, UKEX & FM gas					
Accessories	Please specify if required				
Six alarms	Alarms				
Tag strip	Tag strip legend				
Tag plate	Tag plate legend				
Pipe mounting kit	BA392D or BA393				