BA688CF

Fieldbus display 8 variables

General purpose

Standard display formats: 1, 2, 3 or 4 variables some with bargraphs

- ◆ **FOUNDATION fieldbus™ & Profibus PA models**

- ◆ **Compatible with most system hosts**

- ◆ **High contrast display with backlight**

- ◆ **Six operator push buttons & six optional alarm outputs**

- ◆ **IP66 front panel**

- ◆ **3 year guarantee**

The BA688CF Fieldbus Display is a general purpose instrument that can display up to eight fieldbus process variables. Nine selectable standard screen formats contain one, two, three or four variables, with units of measurement, tag descriptions and bargraphs on some screens. The use of standard screens simplifies commissioning, but if required dedicated screens tailored to an individual application can be constructed.

FOUNDATION fieldbus™ and Profibus PA versions of the BA688CF are available and have been registered by both organisations. The Foundation fieldbus™ version now has selectable function blocks allowing use with most popular system hosts. Configuration files may be downloaded from the appropriate Fieldbus Foundation™or Profibus sites, or from www.beka.co.uk
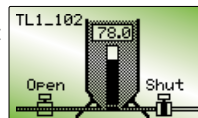
Powered by the fieldbus the BA688CF only requires a 2-wire connection, no additional power supply is required. The high contrast 86 x 45mm liquid crystal display incorporates a green backlight that is also powered from the fieldbus enabling the display to be read in all lighting conditions from full sunlight to total darkness.

Simple commissioning results from the use of standard display formats. Apart from loading the BA688CF configuration files onto the system host and selecting the fieldbus variables to be displayed, no programming is required. Configuration of the BA688CF Fieldbus Display is performed via the fieldbus and the instrument front panel push buttons; simple menus enable the required standard display format to be selected and the units of measurement and tag information for each variable to be entered.

Six optional alarm outputs may be linked to any of the displayed variables. Each isolated single pole solid state output, which will switch a low voltage dc load, may be conditioned as a combined high and low alarm, or as just a high or low alarm.

BA688CF applications vary from a simple single variable display using a standard format, to providing an operator interface with a custom display and control inputs via external buttons.

Custom display screens dedicated to a specific application may be created by writing to the transducer block parameters. Custom displays can contain text in five different font sizes plus lines, boxes, bargraphs, simple graphics and fieldbus process variables. Free programming utilities to assist with screen development are available via the BEKA web site.

Typical custom display

The six push buttons on the front of the instrument may be used for returning operator acknowledgments or controls by reading a transducer block parameter. If larger industrial switches are required for these acknowledgements, up to six external push buttons may be connected to the BA688CF. 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 Foundation fieldbus™ and Profibus Interface Guides and a Programming Guide that explains how to create custom display screens.

For field mounting applications see the BA684DF datasheet. This instrument has a similar electrical specification but is housed in a robust IP66 GRP enclosure suitable for external mounting.

If flammable atmospheres are present, the intrinsically safe BA488CF fieldbus display should be used.

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 or 4 variables plus bargraph can include:
	units of measurement
	tag information
Custom format	See Programming Guide
Characters	ASCII character set, 5 font sizes each with 4 computer definable soft characters.
Hidden screen	May be written to at any time and displayed when required.

Controls

Front panel	Six push buttons which select the displayed screen . May be used for returning operator acknowledgements by reading transducer block parameters.
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
Current	25mA
Compliant with	IEC61158—2 Clauses 11 and 22
Protocol	FOUNDATION fieldbus™ or Profibus PA
Function blocks	
FOUNDATION fieldbus™	1 x MAO (Multiple Analogue Output)
or	2 x IS (Input Selector)
Profibus PA	8 x AO (Analogue Output)

Selectable on-site

Environmental

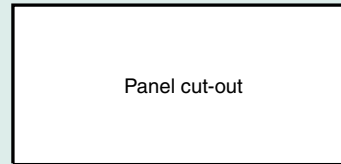|	
Operating temp	-20 to +60˚C
Storage temp	-40 to +85˚C
Humidity	To 95% @ 40˚C
Enclosure	Front IP65, rear IP20
EMC	In accordance with EU Directive 89/336/EEC
Immunity	BS EN 61326:1998
	Operates normally with conducted 3Vrms interference between 0.15kHz and 80MHz, or radiated 10V/m interference between 80MHz and 1GHz.
Emissions	CISPR 16-1/2 Class A

Mechanical

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

Accessories

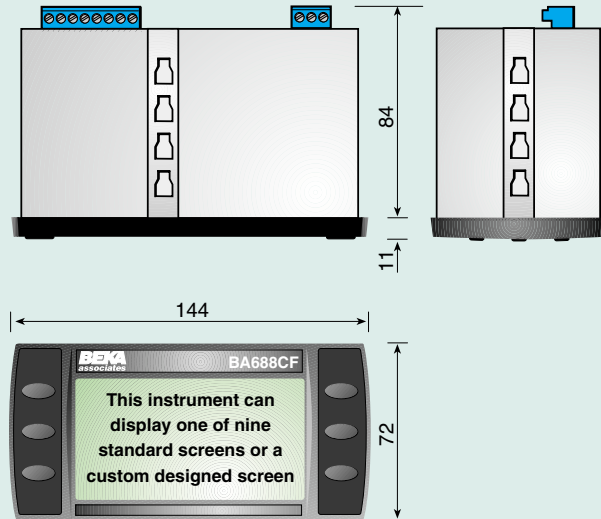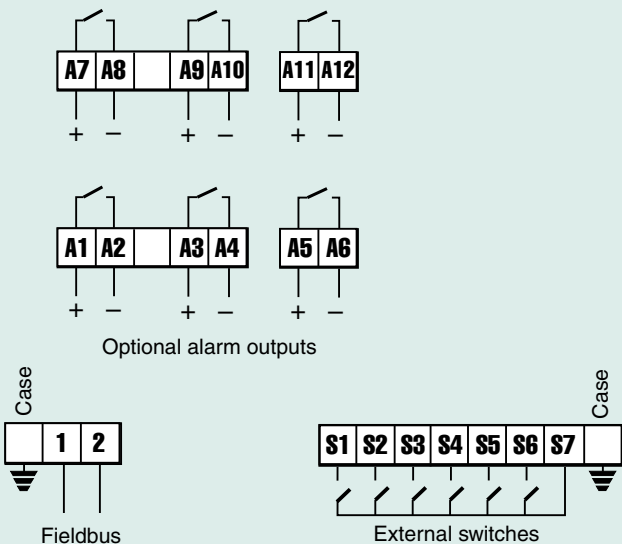|	
Alarms	Six galvanically isolated outputs which may be linked to displayed variables. Configurable as:
	combined high and low alarm
	high or low alarm
Contacts	Isolated single pole solid state switch.
	Ron less than 5Ω + 0.7V
	Roff greater than 1MΩ
	Vmax = 30V dc
	Imax = 200mA
Tag number	Thermally printed strip on rear of instrument.
Programming guide	May be downloaded from *www.beka.co.uk*
Fieldbus interface guides	May be downloaded from *www.beka.co.uk*

DIMENSIONS (mm)

Panel cut-out

Recommended panel cut-out

DIN 43 700
138.0 +1.0/ -0.0 x 68.0 +0.7/ -0.0

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

84

11

144

72

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This instrument can display one of nine standard screens or a custom designed screen

TERMINAL CONNECTIONS

A7	A8		A9	A10		A11	A12
+	−		+	−		+	−

A1	A2		A3	A4		A5	A6
+	−		+	−		+	−

Optional alarm outputs

Case

1	2

Fieldbus

S1	S2	S3	S4	S5	S6	S7

Case

External switches

HOW TO ORDER

	Please specify
Model number	BA688CF
Type of fieldbus	FOUNDATION fieldbus™ or Profibus PA

Accessories	**Please specify if required**
Six alarms	Alarms
Tag strip	Legend