

The BA444DF-F FOUNDATION™ 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 indicator supports FOUNDATION™ fieldbus protocol; for PROFIBUS PA systems an alternative version is available – please see the BA444DF-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 BA444DF-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 enclosure which is moulded in glass reinforced Polyester (GRP) has stainless steel fittings, silicone gaskets and an armoured glass window. Its robust construction provides IP66 protection which has been independently assessed by Intertek Testing Services. A separate

terminal compartment allows the instrument to be installed and terminated without exposing the indicator electronics. To further simplify wiring and subsequent inspection, the terminal cable entries and clamping screws are forward facing. The indicator may also be mounted onto a vertical or horizontal pipe using one of the accessory kits.

ATEX intrinsic safety certification allows the BA444DF-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 entity input safety parameters also allow connection to most non-FISCO intrinsically safe systems. A BA444DF-F may therefore be connected to almost any intrinsically safe fieldbus segment that can supply an additional 13mA to power the instrument.

FM, cFM and IECEx approvals allow installation in the USA, Canada plus the many countries accepting international IECEx certificates. All approvals incorporate FISCO certification. Details of the versions available are shown in the How to Order section on the reverse of this datasheet.

Units of measurement and the instrument's application or tag number can be economically marked onto the display escutcheon prior to despatch or after installation on-site. Alternatively, for customers who prefer a stainless steel label, the indicator can be supplied with a removable blank or custom etched stainless steel plate mounted on the front of the enclosure.

For panel mounting applications see the BA448CF-F FOUNDATION™ fieldbus indicator datasheet. This instrument has a similar electrical specification but is housed in a 144 x 72 panel mounting enclosure.

BA444DF-F

FOUNDATION™ fieldbus Fieldbus Indicator 8 variables

Intrinsically safe for use in gas and dust 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 gas
 or ATEX gas & dust
 or FM, cFM & ATEX gas

All versions have IECEx certification

- Entity parameters & FISCO compliant
- IP66 field mounting GRP enclosure
- 3 year quarantee



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SPECIFICATION

Display

Controls

Liquid crystal Type

> 5 digit plus sign, 20mm high (-99999 to 99999)

31 segment bargraph

Variables

Four push buttons for selecting Front panel

displayed variable and configuration.

Fieldbus communication

Voltage 9 to 32V (Limited by intrinsic safety

input safety parameters)

Current 13mA Compliant with IEC61158

FOUNDATIONTM fieldbus Protocol 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**

Group II Category 1G Code

Ga Ex ia IIC T4

FISCO Field Device Ex ia IIC T4

 $Ta = -40 \text{ to } +70^{\circ}C$

or Group II Category 1GD

Ga Ex ia IIC T4

FISCO Field Device Ex ia IIC T4

Ex iaD 20 T100°C IP66

 $Ta = -20 \text{ to } +60^{\circ}\text{C}$

Location

Gas Zone 0, 1 or 2 Zone 20, 21 or 22 Dust Cert. No. ITS06ATEX25313

USA FM

Standard 3610 Entity Code CL I, II, III: Div 1

GP A, B, C, D, E, F & G

T4 at 70°C

Standard 3611 Nonincendive CL I, II, III: Div 2 Code

GP A, B, C, D, E, F & G

T4 at 70°C

File 3027031

Canada cFM

File 3027031C

International IECEx

Ex ia IIC T4 Ga Code

FISCO Field Device Ex ia IIC T4

Ta - -40 to +70°C or Ex ia IIC T4 Ga

FISCO Field Device Ex ia IIC T4 Ex ia IIIC T100°C Da IP66

 $Ta = -20 \text{ to } +60^{\circ}\text{C}$ IECEx ITS 06.0012

Environmental

Cert. No.

-20 to +60°C Operating temp

ATEX & IECEx certification Gas -40 to +70°C Dust -20 to +60°C

-40 to +85°C Storage temp To 95% @ 40°C Humidity

Enclosure IP66

EMC In accordance with EU Directive

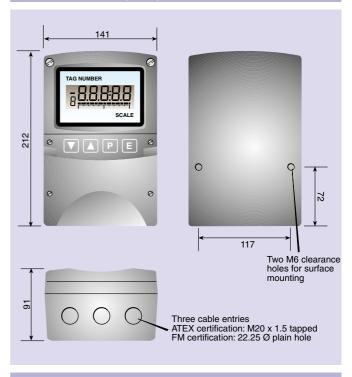
2004/108/EC

Mechanical

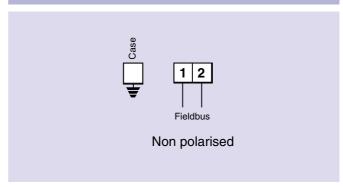
Terminals Screw clamp for 0.5 to 1.5mm2 cable.

Weight 1.6kg

DIMENSIONS (mm



TERMINAL CONNECTIONS



Accessories

Scale legend Units of measurement marked onto

display escutcheon.

Tag legend Tag number or application marked onto

display escutcheon.

Stainless steel plate etched with tag Stainless legend Plate.

number or application attached

to front of the instrument.

Pipe mounting kit BA392D or BA393

HOW TO ORDER

Please specify

BA444DF-F FOUNDATION™ fieldbus Model number

Certification ATEX gas or ATEX gas and dust

or FM, cFM and ATEX gas

All versions have IECEx certification.

Note: Cable entries differ for FM & ATEX versions

Accessories Please specify if required

Escutcheon markings

Scale Tag

Stainless legend plate

Pipe mounting kit

Scale legend Tag legend Legend

BA392D or BA393