

The **BA444NDF-F FOUNDATION™ fieldbus indicator** is a Type n instrument that can display up to eight fieldbus process variables within a Zone 2 or 22 hazardous area. A numeric annunciator on the left hand side of the screen shows which variable is being displayed. This version of the instrument supports FOUNDATION™ fieldbus protocol; for PROFIBUS PA systems an alternative version is available - please see the BA444NDF-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 BA444NDF-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's electronics. To further simplify wiring and subsequent inspection, the terminal cable entries and clamping screws are forward facing. The instrument may also be mounted onto a vertical or horizontal pipe using one of the accessory kits.

**ATEX Type n and tD certification** allows the BA444NDF-F to be installed in Zone 2 gas and Zone 22 dust hazardous areas. The two fieldbus terminals comply with the Fieldbus Non-incendive Concept FNICO simplifying system design and documentation. Separate entity input safety parameters also allow connection to most non-FNICO Type n systems. A BA444NDF-F may therefore be connected to almost any Type n fieldbus segment that can supply an additional 13mA to power the instrument.

**IECEx approval** permits installation in the many countries already accepting international IECEx certificates. The approval incorporate FNICO certification and dust approval for use in Zone 22.

**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 nonincendive applications in the USA and Canada please see datasheet for the BA444DF FOUNDATION™ fieldbus™ Listener which has FM and cFM nonincendive approval.

# BA444NDF-F FOUNDATION™ fieldbus Fieldbus indicator 8 variable

*Type n certified for use in  
Zones 2 and 22*

- ◆ Large 5 digit display with bargraph.
- ◆ FOUNDATION™ fieldbus protocol.
- ◆ Displays up to 8 fieldbus variables.
- ◆ Selectable Node or Listener modes.
- ◆ Type n ATEX & IECEx certification for gas & dust.
- ◆ Entity parameters & FNICO compliant.
- ◆ IP66 field mounting GRP enclosure.
- ◆ 3 year guarantee



# BEKA associates

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## SPECIFICATION

### Display

Type	Liquid crystal 5 digit plus sign, 20mm high (-99999 to 99999)
Variables	31 segment bargraph 8

### Controls

Front panel	Four push buttons for selecting displayed variable and configuration.
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### Fieldbus communication

Fieldbus communication	
Voltage	9 to 32V
Current	13mA.
Compliant with	IEC61158-2 31.25kbits/s Voltage Mode.
Protocol	FOUNDATION™ fieldbus
Function blocks	2 x IS (input selector) 6 x DI (digital input)
Function	Fieldbus Node or Listener selected by front panel push buttons.

### Type n and tD certification

#### Europe ATEX

Code	Group II Category 3GD FNICO Field Device Ex nL IIC T4 Ex tD A22 IP66 T100°C Ta = -20 to 60°C
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#### Location

Gas	Zone 2
Dust	Zone 22
Cert. No.	ITS06ATEX45315

#### International IECEx

Code	Ex nL IIC T4 FNICO Field Device Ex nL IIC T4 Ex tD IIIC T100°C Dc IP66 Ta = -20 to 60°C
Cert. No.	IECEx ITS 06.0015

### Environmental

Operating temp	-20 to 60°C
Storage temp	-40 to 85°C
Humidity	To 95% @ 40°C
Enclosure	IP66

#### EMC

In accordance with EU Directive 2004/108/EC

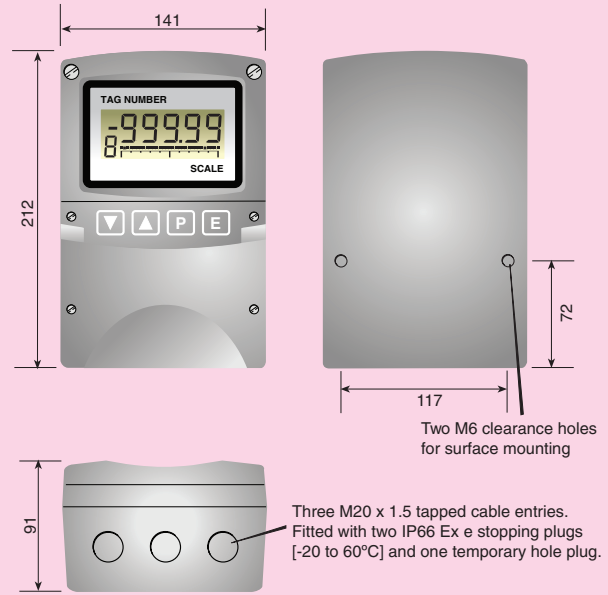
### Mechanical

Terminals	Screw clamp for 0.5 to 1.5mm <sup>2</sup> cable.
Weight	1.6kg

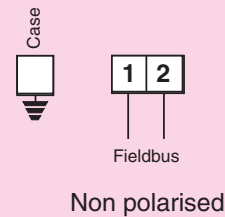
### Accessories

Scale legend	Units of measurement marked onto display escutcheon.
Tag legend	Tag number or application marked onto display escutcheon.
Stainless legend plate	Stainless steel plate etched with tag number or application attached to front of the instrument.
Pipe mounting kit	BA392D or BA393

## DIMENSIONS (mm)



## TERMINAL CONNECTIONS



## HOW TO ORDER

	<b>Please specify</b>
Model number	BA444NDF-F FOUNDATION™ fieldbus
	<b>Please specify if required</b>
<b>Accessories</b>	
Escutcheon markings	
Scale	Scale legend
Tag	Tag legend
Stainless legend plate	Legend
Pipe mounting kit	BA392D or BA393