Ex eb and *Ex tb*

Field mounting loop powered 4/20mA indicators

for use in **Zones 1, 2, 21 & 22**

www.beka.co.uk

- > *Less expensive than flameproof Ex d indicators*
- > *Larger easier to read displays*
- > *Gas and dust certification*
- > *No Zener barrier or isolator required*
- > *Now with even lower voltage drop*

BEKA associates

Less expensive alternatives for flameproof Ex d indicators with larger displays

This innovative range of 4/20mA loop powered indicators employ multiple explosion protection techniques to replicate the safety features and utilise the simple installation rules for flameproof Ex d indicators. The new models may be used in exactly the same way as flameproof indicators, but have the following advantages:

- > Less expensive
- > Larger displays
- > May be safely connected in an Ex d, Ex e, Ex p or Ex m loop
- > Only require low cost Ex e glands
- > May be installed in gas and dust atmospheres
- > Tactile push buttons can be used in hazardous area
- > Lighter than most equivalent Ex d indicators

The two models feature:

> **IECEx, ATEX and cETL certification**
Ex eb protection permits installation in Zone 1 or 2
Ex tb protection permits installation in Zones 21 or 22

> **Large easy to read display:**
4 digits 34mm high
5 digits 29mm high with 31 segment bargraph

> **Selectable root extractor, lineariser and tare function**

> **Robust IP66 impact resistant GRP or stainless steel enclosure.**

> **Optional loop powered backlight**

> **Optional pipe and panel mounting kits**

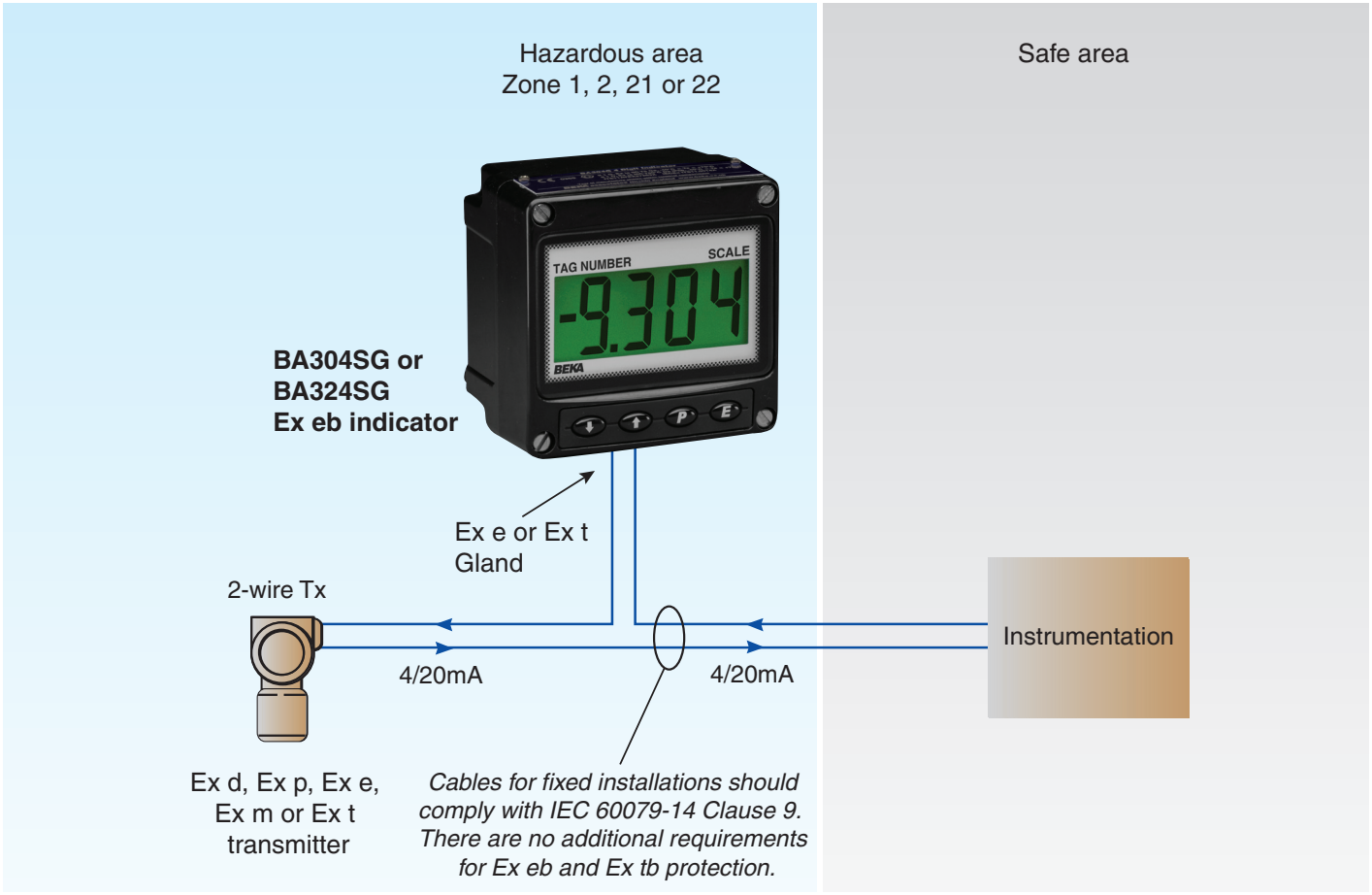
These indicators are supported by a 3 year guarantee and application guide AG320 which describes the multiple protection concept and certification.

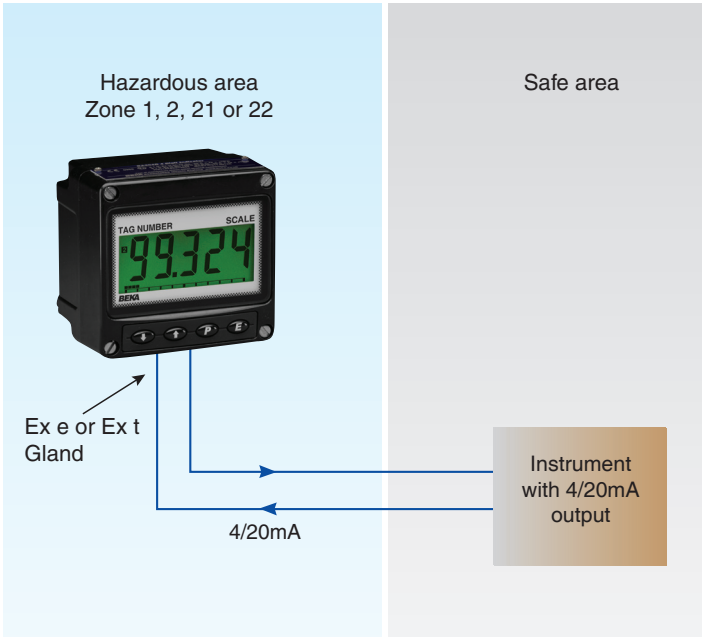
'SG' instrument attached to pipe using BA393G pipe mounting kit.

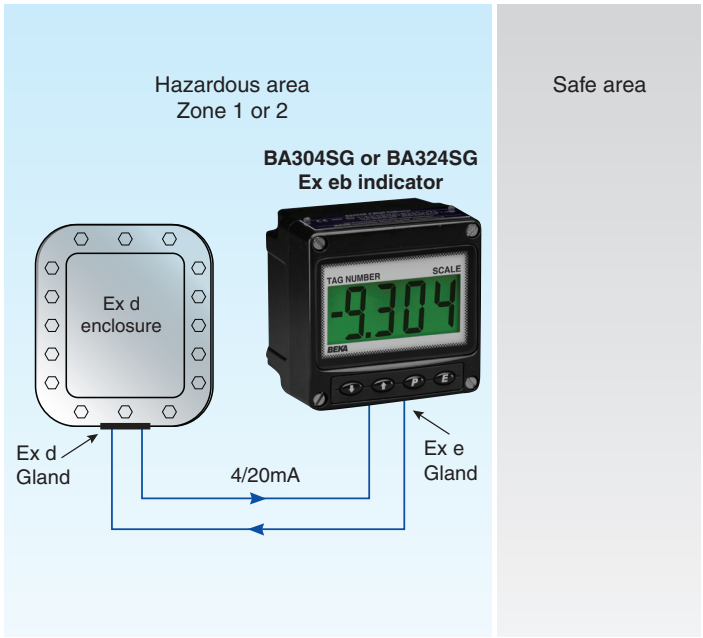
Slide-in scale card can be supplied printed with customer specified information for no extra charge.

Typical applications

The BA304SG and BA324SG may be used in place of a flameproof Ex d indicator in almost any 4/20mA hazardous area applications including those containing Ex d, Ex p, Ex e or Ex m instruments.







Both models may be driven from a safe area instrument with a 4/20mA output to provide a remote display within a Zone 1 or 2 gas hazardous area or a Zone 21 or 22 dust hazardous area.

The BA304SG and the BA324SG also provide a convenient way of monitoring a 4/20mA process variable in hazardous area equipment protected by a flameproof Ex d enclosure.

A similar technique may be used to monitor equipment protected by a pressurised Ex p enclosure.

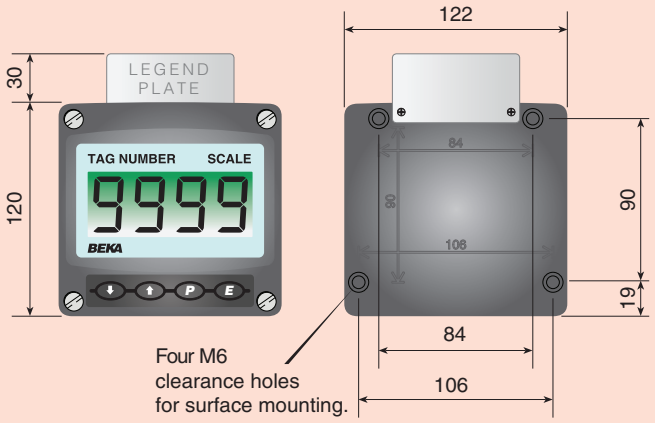
Models available

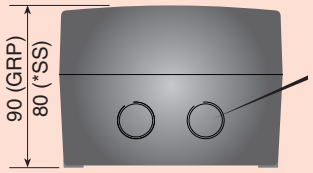
Model	Mounting	Number of digits	Display height	31 Segment Bargraph
BA304SG **BA304SG-SS**	Field	4	34mm	No
BA324SG **BA324SG-SS**	Field	5	29mm	Yes

Certification

For gas Zones 1 & 2		For dust Zones 21 & 22
IECEx	Ex eb ib mb IIC T5 Gb	Ex ib mb tb IIIC T80˚C Db
ATEX	II 2G Ex eb ib mb IIC T5 Gb	II 2D Ex ib mb tb IIIC T80˚C Db
cETL	AEx eb ib mb IIC T5 Gb	-
cETL	Ex eb ib mb IIC T5 Gb	-

Dimensions





Two cable entries

M20 x 1.5 thread.
Supplied with one Ex e and Ex t certified IP66 stopping plug and one temporary hole plug.

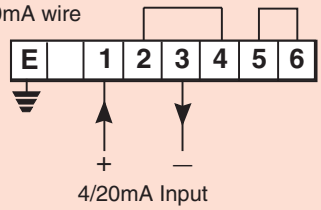
Shown with optional legend plate

**Stainless steel enclosure*

Terminal Connections

Terminals 2 & 4 internally linked for joining return 4/20mA wire

Terminals 5 & 6 internally linked for joining cable screens.



OPTIONS:

Enclosure
GRP or stainless steel

Backlight
Loop powered

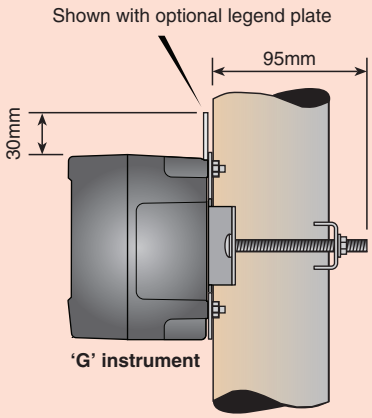
Scale card replacement
Slide-in card with printed legend replacement showing custom units of measurement.

Legend plate
Stainless steel, can be supplied laser engraved with customer specified information.

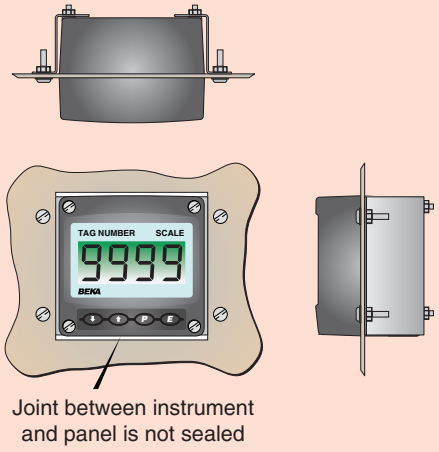
Pipe mounting kit BA393G 'G'
316 stainless steel for mounting indicator to vertical or horizontal pipe,

Panel mounting kit BA394 'G'
316 stainless steel for mounting indicator in panel aperture.

BA393G 316 Stainless Steel pipe mounting kit



BA394G 316 Stainless Steel panel mounting kit



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