

Description

Field and panel mounting intrinsically safe, 4/20mA loop-powered digital indicators which display the input current in engineering units.

Model	Mounting	Digits	Enclosure material	Panel cut-out mm	
BA304G	Field mounting	4 x 34mm high	GRP	N/A	
BA304G-SS			316 SS		
BA324G		5 x 29mm high + bargraph	GRP		
BA324G-SS			316 SS		
BA307E	Panel mounting 96 x 48mm	4 x 15mm high	Noryl	90.0 +0.5/-0 x 43.5 +0.5/-0	
BA327E		5 x 12.7mm high + bargraph			
BA308E	Panel mounting 144 x 72mm	4 x 34mm high		316 SS	136 +0.5/-0 x 66.2 +0.5/-0
BA328E		5 x 29mm high + bargraph			
BA307E-SS	Panel mounting 105 x 60mm	4 x 15mm high	316 SS		90.0 +0.5/-0 x 43.5 +0.5/-0
BA327E-SS		5 x 12.7mm high + bargraph			

Intrinsic safety IECEX, ATEX and UKCA gas and dust certification. Other approvals, such as cFM and cETL are available, please refer to full instruction manuals for details.

Code:
 II 1 G Ex ia IIC T5 Ga
 Ex ia IIIC T80°C Db IP66 field mounting
 II 2 D Ex ia IIIC T80°C Db IP20 panel mounting
 -40°C ≤ Ta ≤ +70°C

Parameters:

Circuit	Input parameters			Output parameters
	Ui	li	Pi	
4/20mA input with or without loop powered backlight	30V	200mA	0.84W	Comply with requirements for Simple Apparatus
Optional alarms				
Optional backlight separately powered				

Special conditions for safe use - see certificates

BA304G BA324G	When installed in Zone 0, installation shall be such that an ignition due to impact between aluminium label and iron/steel is excluded.
BA307E BA308E BA327E BA328E	When used in a Group IIIC conductive dust environments instrument terminals shall have at least IP6X protection. To avoid an electrostatic charge instrument enclosure should only be cleaned with a damp cloth.
BA307E-SS BA327E-SS	When used in a Group IIIC conductive dust environments instrument terminals shall have at least IP6X protection. When installed in an Ex ta, tb px, py, pz or e enclosure, the indicator will not invalidate the enclosure certification, but the indicator must be powered by a suitably rated Zener barrier or galvanic isolator.

Repair

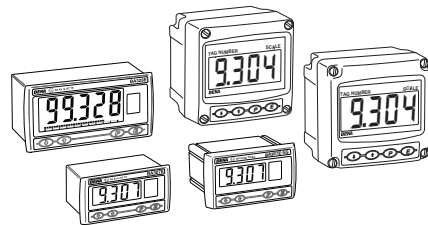
No attempt should be made to repair a faulty indicator, it should be returned to BEKA associates or to your local agent.

Disposal

Indicators should be correctly disposed of, not in household rubbish.

Essential Health & Safety Requirements for loop powered 4/20mA indicators
BA304G, BA304G-SS, BA324G, BA324G-SS, BA307E, BA307E-SS, BA327E, BA327E-SS, BA308E & BA328E

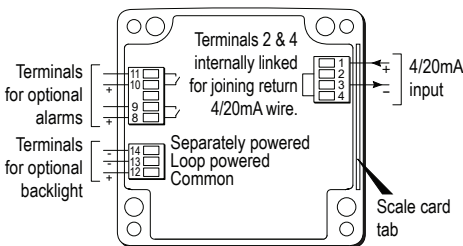
UK



Issue 1
28th February 2023

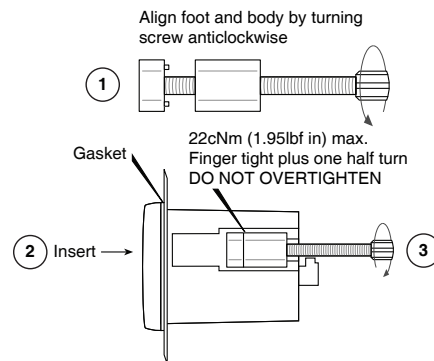
BEKA associates Ltd. Old Charlton Rd, Hitchin, Hertfordshire, SG5 2DA, UK Tel: +44(0)1462 438301 e-mail: sales@beka.co.uk web: www.beka.co.uk

Installation & connections: Field mounting models BA304G, BA304G-SS, BA324G, BA324G-SS

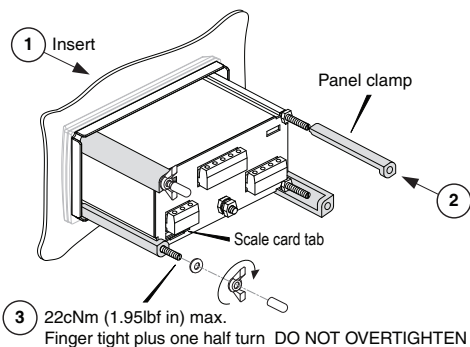


Back-box has four M6 clearance holes for surface mounting and two threaded M20 x 1.5 holes for cable entries.

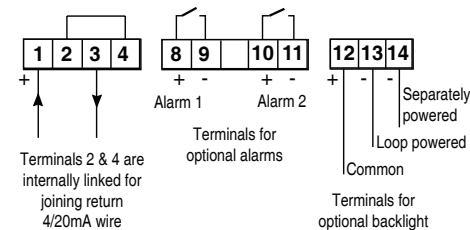
Installation: Panel mounting models BA307E, BA327E, BA308E & BA328E



Installation: Panel mounting models BA307E-SS & BA327E-SS



Connections: Panel mounting models BA307E, BA327E, BA308E, BA328E, BA307E-SS and BA327E-SS



Combined EU Declaration of Conformity

Description of Electrical Apparatus
 BA304G, BA304G-SS 4 digit; BA324G, BA324G-SS 5 digit field mounting (Intrinsically safe 4/20mA loop powered indicators)

BA307E, BA307E-SS, BA308E 4 digit; BA327E, BA327E-SS, BA328E 5 digit panel mounting (-SS models have a stainless steel enclosure)

Manufactured by
 BEKA associates Ltd, Old Charlton Road, Hitchin, Herts. UK. SG5 2DA

Council Directives this equipment complies with:
2014/34/EU (ATEX Directive)
 Relating to equipment and protective systems intended for use in potentially explosive atmospheres.

Provisions of the Directive fulfilled by the equipment:
 Ex Group II Category 1G Ex ia IIC T5 Ga Ta -40°C to +70°C
 Group II Category 2D Ex ia IIIC T80°C Db (IP66 field IP20 panel) Ta -40°C to +70°C

Notified Body for EU-Type Examination and production
 INTERTEK ITALIA SPA 2575 Via Guido Miglioli, 2/A 20063 Cernusco sul Naviglio (MI) Italy.

EU-Type Examination Certificates
 ITS11ATEX27253X Issue 2 12th August 2015.
 ITS11ATEX27254X Issue 4 16th October 2017.
 ITS14ATEX28077X issue 1 19th August 2014.

Standards used:
 Compliant with EN IEC 60079-0:2018; EN 60079-11:2012 except in respect of those requirements referred to at item 16 of the Schedule.

2014/30/EU (EMC Directive)
 Standards used:
 EN 61326-1:2013

2011/65/EU (RoHS Directive) relating to hazardous substances in electronic and electrical equipment.

2015/863/EU additional substances added by amending Annex II to Directive 2011/65/EU as regards the list of restricted substances.

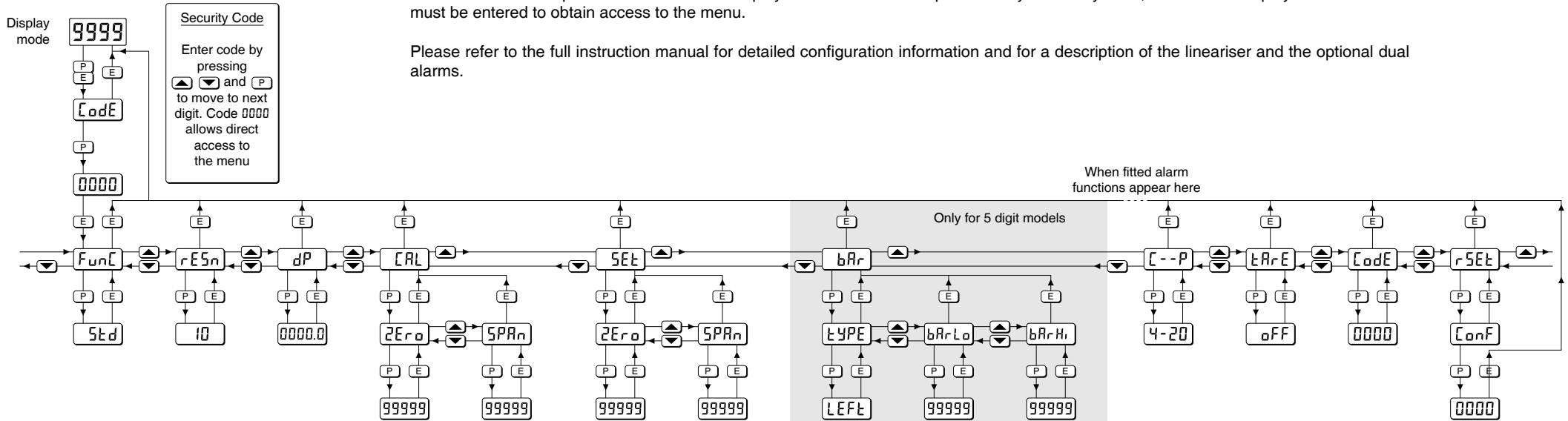
CE mark first affixed in 2011
 Authorised Signatory: Issue 1 19th October 2022

 Olivier Lebreton CEng MIET
 Managing Director

CONFIGURATION

Access to the configuration menu is obtained by pressing the **[P]** and **[E]** buttons simultaneously. If the indicator security code is set to the default 0000 the first parameter **Func** will be displayed. If the indicator is protected by a security code, **Code** will be displayed and the code must be entered to obtain access to the menu.

Please refer to the full instruction manual for detailed configuration information and for a description of the lineariser and the optional dual alarms.



Function
 ▲ or ▼ to select
 Std for standard function.
 root for root extractor.
 Lin for lineariser

Resolution
 ▲ or ▼ to select resolution of least significant digit

Decimal point
 ▲ or ▼ to select position of dummy decimal point

Calibration using external current source (Preferred method)
 With accurate 4mA input current set required zero display by pressing ▲ or ▼ and [P] to move to the next digit
 Similarly, using accurate 20mA input current set required full scale display
 Any current between 4 and 20mA may be used providing difference is > 4mA

Calibration using internal references (Input current may be any value)
 Using ZEro function set required display at 4mA by pressing ▲ or ▼ and [P] to move to the next digit
 Similarly, using SPAn function set required display at 20mA


Select type of bargraph display and define start and finish relative to digital display
 Using the tYPE function select required bargraph justification by pressing ▲ or ▼
 Using the bARLo function set the digital display at which the bargraph is required to start by pressing ▲ or ▼ and [P] to move to the next digit. Similarly using the bARHi function set digital display at which the bargraph is required to finish

Function of [P] button in display mode
 Press ▲ or ▼ to toggle between 4-20mA and % of span

Tare Function
 Press ▲ or ▼ to turn tArE on or oFF

Define Security Code
 Enter by pressing ▲ or ▼ and [P] to move to next digit

Reset indicator configuration
 Press ▲ or ▼ to select ConF to reset indicator or tArE to reset lineariser to default configuration.
 Confirm selection by entering SurE by pressing ▲ or ▼ and [P] to move to next digit



Manuals, certificates and data-sheets can be downloaded from <https://www.beka.co.uk/lpi01>