

## ● Characteristics (circular carrier)

12 - DIGITAL INDICATOR - ATEX - INTRINSICALLY SAFE -



- Input: 4...20 mA (current loop)
- Voltage across: approx. 3,2 V
- Display: range -999...9999, freely adjustable (keys or interface)
- Minimum/maximum memory
- Unit: 4<sup>th</sup> digit programmable as unit (°C/°F)
- Option: II 2G EEx ia IIC T6 / II 3G EEx nR T6
- Protection: front IP 67, electronics completely potted
- Accessories: Enclosures for mounting the display (page 3)

## ● Characteristics (angular carrier)



- Input: 4...20 mA (current loop)
- Voltage across: approx. 3,2 V
- Display: range -999...9999, freely adjustable (keys or interface)
- Minimum/maximum memory
- Unit: 4<sup>th</sup> digit programmable as unit (°C/°F)
- Option: II 2G EEx ia IIC T6
- Protection: front IP 67, electronics completely potted
- Accessories: Enclosures for mounting the display (page 3)

## ● Technical data

### Input

Current loop: 4...20 mA  
 Input resistance: Ri : <160 Ω (U <3,2 V)

### Accuracy

Resolution: -999...+9999 digit  
 Measuring fault: ±0,2% of measuring range, ±1 digit  
 Temperature drift: 100 ppm/K

### Indication

Display: 7 segments, 8 mm high, red, 4 digits  
 Overflow/Underflow: to HI / to LO  
 Time of indication: 0,1 s - 1 s - 10 s (adjustable)

### Ambient conditions

Operating temperature: standard: 0...+80°C / Ex-type: 0...+60°C  
 Storing temperature: -20...+80°C

### Programmable features

range of indication / time of indication / decimal point / unit (°C/°F) /  
 stabilisation zero point / locking of programming / calibration points / TAG number

### Homologation

EC Type Examination Certificate: ZELM 05 ATEX 0252  
 Attestation of conformity: ZELM 05 ATEX 3175X

## ● Applications

The current loop display is for use in ranges where the standard signal of 4...20 mA is still available. Due to several designs of the cases the display is suitable as a in situ indicator in the industrial application range.



## ● Technical data (continued)

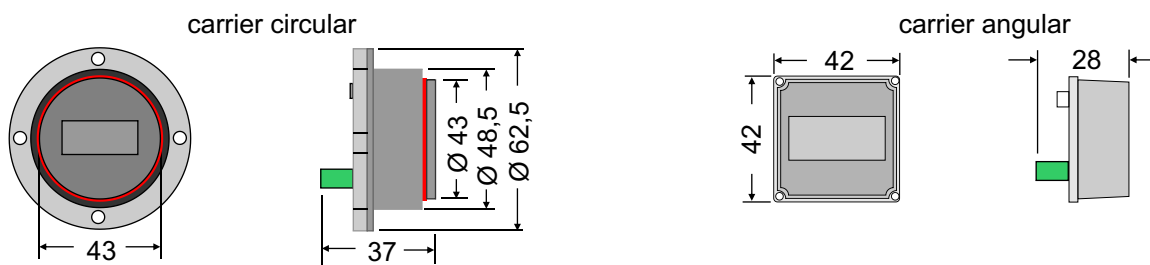
### Mechanics

Material enclosure:	Macrolon	
Protection:	Front: IP 67	Connection: IP 20
Connection:	open cable ends	plug-in connector up to 1,5 mm <sup>2</sup>
Carrier circular:	Dimension: Ø 43/48,5/62,5 mm x 37mm	
	Fastening: 4 mounting holes for M4	
	Weight: approx. 55 g	
Carrier angular:	Dimension: 42 x 42 x 28 mm	
	Fastening: 4 holes for 2 mm screws	
	Weight: approx. 45 g	

### Accessories (enclosures for mounting the display)

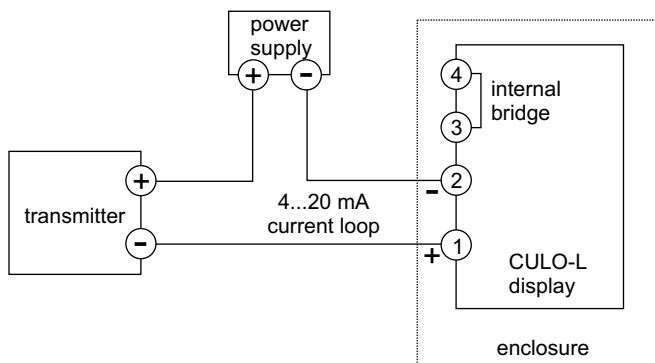
Variatons: Special enclosures for wall mounting, tube mounting  
(for more details see page 3)

## ● Dimensions carrier

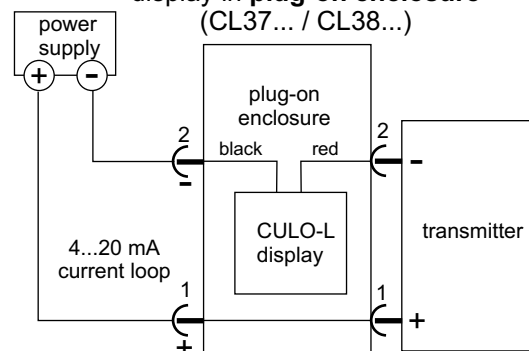


## ● Example standard connection

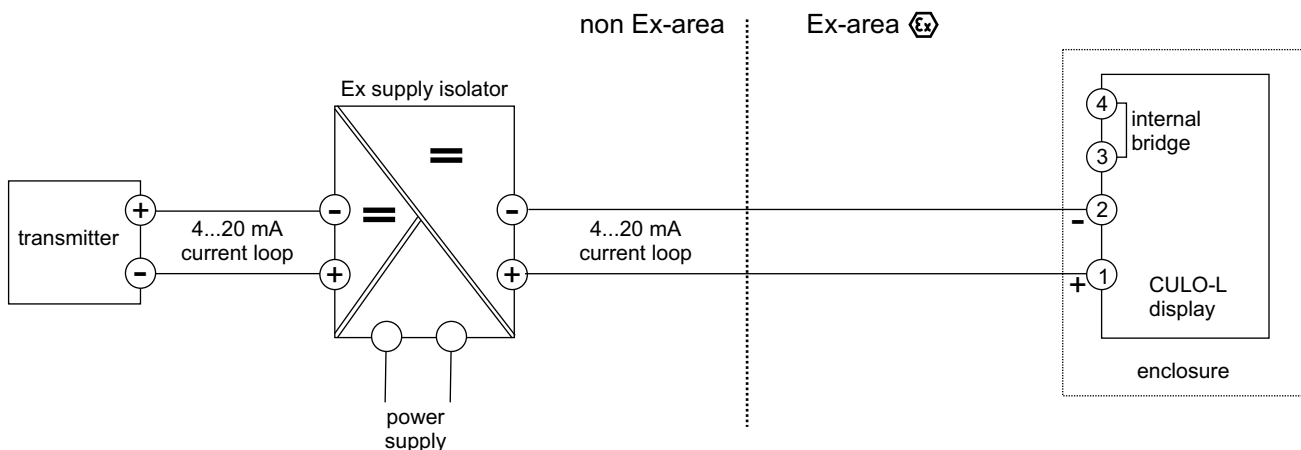
standard connection current loop display (except for plug-on enclosure)



standard connection current loop display in **plug-on enclosure** (CL37... / CL38...)



## ● Example standard connection (except plug-on enclosure)



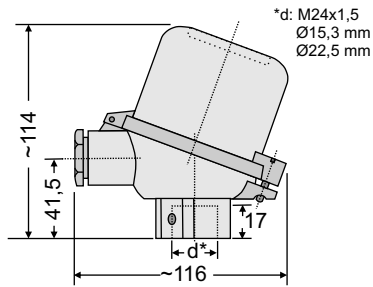
## ● Important notice



Observe the manual when mounting, initiating and operating this indicator. In case of Ex-type observe in addition related the EC Type Examination Certificate or Attestation of Conformity .

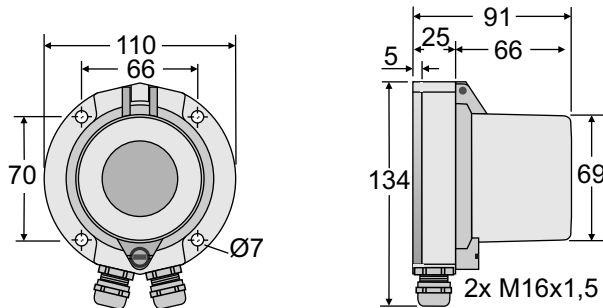


● **Special enclosure DIN BUZ-H**



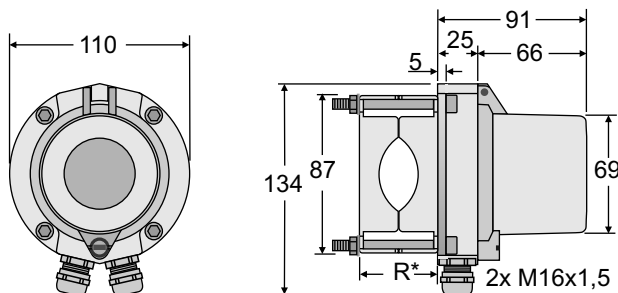
Special model  
 Connections process: M24x1,5  
 Ø15,3 mm  
 Ø22,5 mm  
 Material: diecast aluminium with powder coating  
 Screwed cable gland: 1x M20x1,5  
 Protection: IP67  
 Weight: approx. 350 g  
 Homologation: II 2G Ex ia IIC T6  
 II 3G Ex nR T6

● **Wall mounting enclosure, built-on enclosure with magnetic holder**



Top BUZ-H special model  
 Material: diecast aluminium with powder coating  
 Bottom part: aluminium with powder coating  
 Magnetic holder: embedded foil  
 Screwed cable gland: 2x M16x1,5  
 Protection: IP67  
 Weight: approx. 500 g  
 Homologation: II 2G EEx ia IIC T6  
 II 3G EEx nR T6

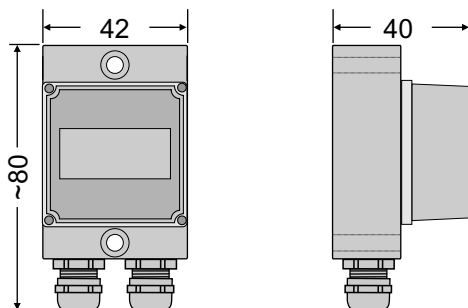
● **Enclosure with holder for tubes**



Top BUZ-H special model  
 Material: diecast aluminium with powder coating  
 Bottom part: aluminium with powder coating  
 Holder for tube: sheet steel, mirror finish galvanized  
 Diameter of tube: 42...60 mm  
 Screwed cable gland: 2x M16x1,5  
 Protection: IP67  
 Weight: approx. 950 g  
 Homologation: II 2G EEx ia IIC T6  
 II 3G EEx nR T6

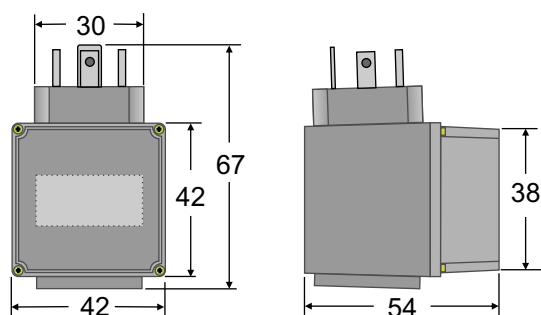
\*R = overall diameter of tube = 42...60 mm

● **Built-on enclosure**



Dimensions: 80x42x40 mm  
 Material: aluminium anodized natural  
 Mounting: 2 holes for 4 mm  
 Screwed cable gland: 2x M12x1,5  
 Protection: IP63  
 Weight: approx. 120 g  
 Homologation: II 2G EEx ia IIC T6

● **Plug-on enclosure**



Dimensions: 43x46x54 mm  
 (without plug components)  
 Plugable with: DIN 43650 (valve) M12x1  
 Material: Macrolon  
 Protection: IP 62  
 Weight: approx. 110 g  
 Homologation: II 2G EEx ia IIC T6

● **Important notice**



The enclosures, which can be used with the Ex-types, are given in the table of page 4.



● **Ordering code**

C L X X X X X X - X X X

<b>Type:</b>	standard circular carrier	0
	II 2G Ex ia IIC T6 (circular carrier)	1
	II 3G Ex nR T6 (circular carrier)	2
	standard angular carrier	3
	II 2G Ex ia IIC T6 (angular carrier)	6

<b>Enclosure:</b>	without enclosure	0
	special-DIN BUZ-H - M24x1,5	1
	wall mounting	2
	for tube mounting up to 2"	3
	with magnetic mounting (K)	4
	special DIN BUZ-H - Ø 15,3 mm	5
	special DIN BUZ-H - Ø 22,5 mm	6
	plug-on DIN 43650 (valve)	7
	plug-on M12x1	8
	built-on aluminium	A

<b>Connection:</b>	terminal strip	0
	open cable ends	1

<b>Range of indication:</b>	factory-set*	0
	adjusted (please indicate)	1


**Other / accessories:** special model

\*factory-set: indication: 0...250°C / time of indication: 1 s / decimal point: without / unit: °C / stabilisation zero point: 2 / locking of programming: without / calibration points: without / TAG number: 0

● **Models (relation carrier - enclosure - connection)**

	standard circular carrier	II 2G Ex ia IIC T6	II 3G Ex nR T6	standard angular carrier
Without enclosure	K + O	K + O	-	K + O
<b>Circular carrier with BUZ-H top part</b>				
BUZ-H - M24x1,5	K + O	K + O	K	-
wall mounting enclosure	K + O	K + O	K	-
For tube mounting 2"	K + O	K * O	K	-
with magnetic holder	K + O	K + O	-	-
BUZ-H - Ø15,3	K + O	K + O	-	-
BUZ-H - Ø22,5	K + O	K + O	-	-
<b>Angular carrier and plug-on enclosure</b>				
Valve (DIN43650)	-	S	-	S
M12x1	-	S	-	S
<b>Angular carrier with small enclosure</b>				
Built-on aluminium	-	K + O	-	K + O
Screwed cable gland	standard	blue	black	black
Connection: K = plug in terminal strip    O = open cable ends    S = plugable				

● **Important notice**

 Observe the manual when mounting, initiating or operating this indicator. In case of Ex-type observe in addition the related EC Type Examination Certificate or Attestation of Conformity .

