

## ● Characteristics

12 - DIGITAL INDICATOR - BUILT-ON - LIMITING VALUE CONTACT



- Input 1: 4...20 mA (current loop)
- Supply 1: out of current loop
- Input 2: (0)4...20 mA / 0...10 V (external supply)
- Supply 2: 115/230 VAC / 24 VDC (no galvanical insulation)
- Limit contacts: 2 open collectors / 2 relays
- Display range: -999...9999
- Memory: minimum/maximum
- Unit: dimension strip (fixed under front foil)
- Enclosure: ABS/FR / diecast aluminium
- Protection: IP 66 (enclosure)
- Measuring fault:  $\pm 0,2\%$  of range,  $\pm 1$  digit

## ● Technical data

### Input

- Current loop: 4...20 mA (input resistance:  $R_i$  :  $\sim 450 \Omega$  ( $U = 9 \text{ V}$ ) /  $R_i$  :  $\sim 800 \Omega$  ( $U = 17 \text{ V}$ )
- With external supply: 4...20 mA / 0...20 mA,  $R_i$  :  $\sim 10 \Omega$  / 0...10 V,  $R_i$  :  $\sim 100 \text{ k}\Omega$

### Accuracy

- Resolution: -999...+9999 digit
- Temperature drift: 100 ppm/K
- Measuring fault:  $\pm 0,2\%$  of measuring range,  $\pm 1$  digit
- Measuring principle: ramp conversion

### Indication

- Display: 7 segments, 14 mm high, red, 4 digits
- Time of indication: 0,1 s - 1 s - 10 s (adjustable)
- Overflow/Underflow: to HI / to LO
- Memory: minimum / maximum values

### Limiting contacts

- Electronically: 2 open collectors (36 VDC, 150 mA) / leakage current: approx. 0,1 mA
- Mechanically: 2 relays (changeover contact) / switching voltage: min. 10 V AC/DC, max. 125 VDC / 250 VAC  
switching current: VA: 0,1...1250 / W: 0,1...120 / continuous current: 5 A
- Indication: limiting value reached: LED red, limiting value not reached: LED green
- Adjustment: limiting value, hysteresis value and delay times with 3 keys
- Fail-safe function: voltage supply "ON" = contacts active

### Ambient conditions

- Operating temperature: 0...+60°C
- Storing temperature: -20...+80°C

### Supply

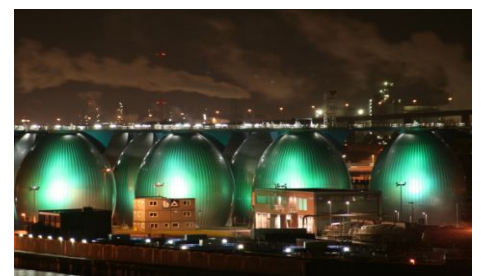
- Current loop: 4...20 mA (9 or 17 VDC voltage across, adjustable with jumper)
- External supply: DC: 24 V  $\pm 5\%$  (maximum 50 mA), without galvanical insulation  
AC: 115/230 VAC, power consumption: 1,5 VA

### Programmable features

range of indication / time of indication / decimal point / unit ( $^{\circ}\text{C}/^{\circ}\text{F}$ ) / stabilisation zero point / limit value 1 / hysteresis value 1 / delay times 1 / limit value 2 / hysteresis value 2 / delay times 2 / locking of programming / calibration points / TAG number

## ● Applications

The current loop display is particularly for use in ranges where a standard signal of 4...20 mA is still available. Due to the robust enclosure the device is suitable in the whole industrial area.



● **Technical data (continued)**

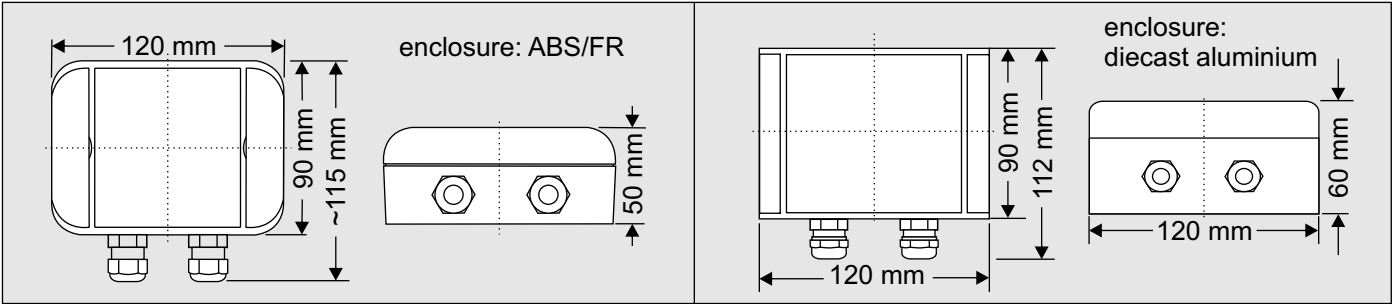
**Mechanics**

- Enclosure: starCase SC90 (120 x 90 x 50 mm) / aluCase AC90 (120 x 90 x 60 mm)
- Material enclosure: starCase: ABS/FR (halogen free) / aluCase: diecast aluminium
- Color: starCase: light grey (RAL 7035) / aluCase: aluminium white (RAL 9006)
- Weight: starCase: approx. 250 g / aluCase: approx. 700 g
- Mounting: 4 screw channels
- Protection: IP 66 (enclosure)
- Connection: plug-in terminal strip up to 1,5 mm<sup>2</sup> / Screwed cable gland: 2x M16x1,5

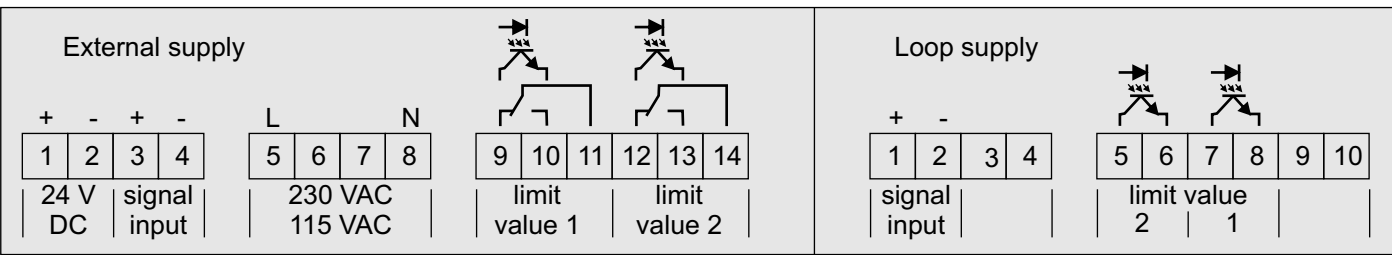
**Possibilities of indication**

Programming the decimal point and unit the following scope of representation is possible:  
 xxxx / xxx.x / xx.xx / x.xxx / xxx°C / xxx°F

● **Dimensions**



● **Connection**



● **Ordering code**

**C F X X X X X X - X X X**

<b>Supply:</b>	current loop (input 4...20 mA)	1																		
	230 VAC	2																		
	115 VAC	3																		
	24 VDC	4																		
<b>Input:</b>	4...20 mA																			0
	0...20 mA																			1
	0...10 V																			2
<b>Limit contacts:</b>	2 open collectors																			0
	2 relays (only with external supply)																			1
<b>Enclosure:</b>	starCase SC90 (120x90x50)																			0
	aluCase AC90 (120x90x60)																			1
<b>Connection:</b>	plug-in terminal strip																			0
<b>Dimension strip:</b>	please indicate																			0
<b>Programming:</b>	without (factory-set) <sup>1)</sup>																			0
	with (please indicate) <sup>2)</sup>																			1
<b>Other / accessories:</b>	special model																			0
	programming set (adaptor, cable, software)																			1

1) indication: 0...250°C / time of indication: 1 s / decimal point: without / unit: °C / stabilisation zero point: 1 / limit value 1: 110°C / delay time: 0 s / hysteresis value 1: 90°C / delay time: 5 s / limit value2: 40°C / delay time: 0 s / hysteresis value 2: 60°C / delay time: 1 s / locking of programming: without / calibration points: without / TAG number: 0  
 2) the possibilities of the technical data can be selected