Gönnheimer
Elektronic GmbH

Totalizer with current input

D 122.Z

Loop powered

TÜV 99 ATEX 1488

- **Ex-Protection: II 2(1) E Ex ia IIC T6, for Ex-i 4...20 mA measure circuits**
- **5-digit 7-segment LCD, 99999 Digits, height up to 30 mm**
- **Instantaneous-value bargraph Option: limit bargraph**
- **Voltage drop ca. 1V**
- **Scale by buttons and display, without reference current**

Short description

The 5-digit totalizer D122.Z operates in hazardous area and indicates the sum of measured values of a 4 up to 20 mA current circuit. The device gets its energy from the measure circuit, therefore an extra power supply or batteries are unnecessary. The totalizer measures the current, scales it, adds it to the previous values, and displays the sum finally on the LCD.
The present measured signal is also be displayed on a 41 segment bargraph. It's possible to scale the bargraph separately. The totalizer D122 is available in several housings.
Furthermore with alarm monitoring option the totalizer its two intrinsically safe alarm outputs. These outputs change their state, when the measured value exceeds his alarm limits. It is possible to configure the outputs as normally open or normally closed circuits.
The alarm monitoring can refer to the sum or to the present measured value. In the last case the limits are displayed on a second bargraph. On one look you're sure that the measured value is in its limits.

Ex-i totalizer D 122.Z in 4 ... 20 mA measure circuit

- Loop powered - trouble-free use in hazardous areas, without an additional power supply

Display

- 5-digit 7-Segment display, 99999 Digits
- LC-Display digit height up to 30 mm
- Fast bargraph for present value (41 segments, refresh 4 times per second)

Housings

- Short control panel housing, protection class up to IP 55
  - (HxWxD) 48x96x62
  - (HxWxD) 72x144x80
- Field housing, protection class IP 65
  - (HxWxD) 133,5x138x64
  - (HxWxD) 138x184x64

Ergonomics

- µ-Processor technology for complete configurability
- Scaleable by keyboard and display, without any reference current
- Separately scaleable bargraph (Zoom)
- Present value control button
- Keeps the configuration after power off
- Ability to change configuration during operation
- Exchangeable dimension signs

Options

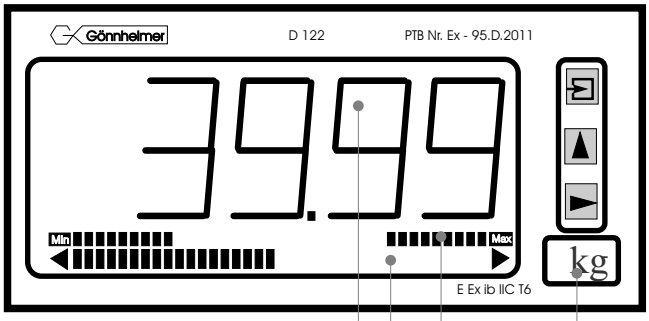
- Alarm monitoring: two intrinsically safe alarm outputs
- Additional limit bargraph
- Limit function with hysteresis and time delay
- Normally open or normal closed circuit principle
- Curve fitting

Service

- Customised calibration before shipping

Display

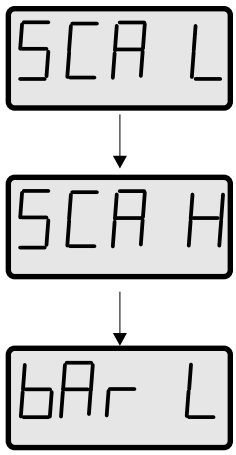
The measured value is easy to read on the lucid display. With one look on the bargraph you are sure that the measured value is in its limits.
With an bargraph refresh rate of 4 times per second a trend observation is possible



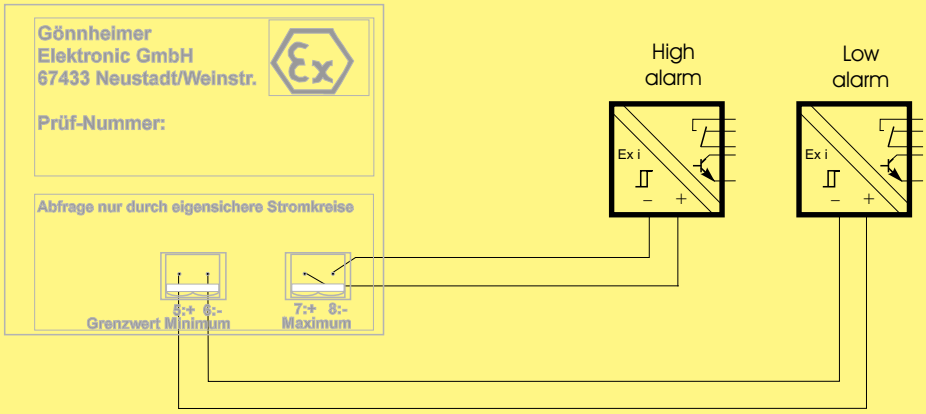
Measurement value
Bargraph
Limit bargraph
Dimension symbol

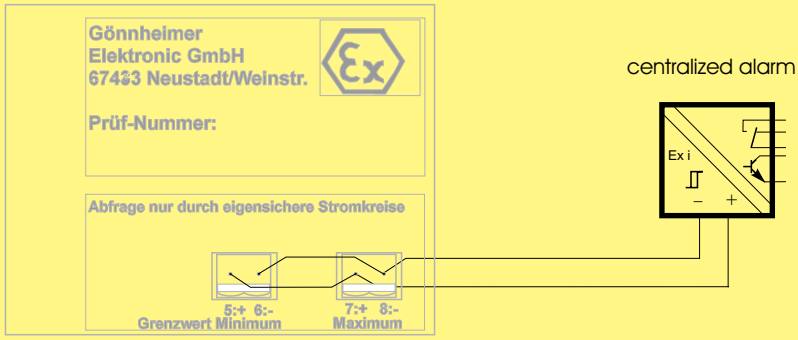
Menu-guided configuration

It is easy to configure the totalizer.
The programming of the parameters happens in a dialog of device and customer

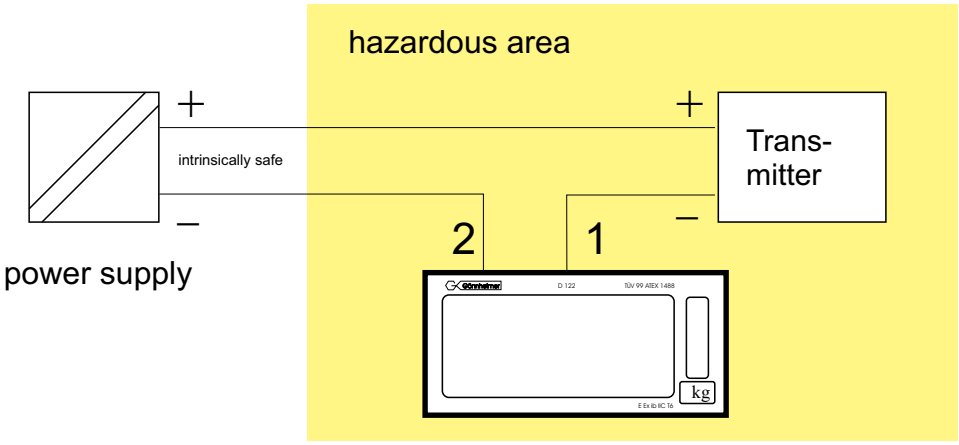


Wiring Examples



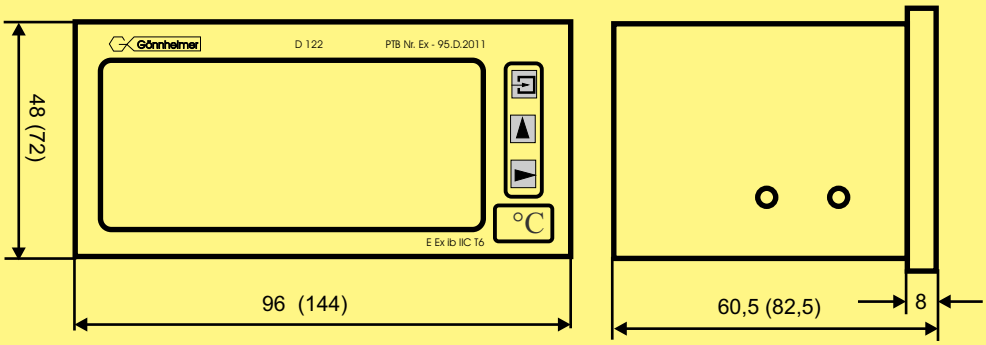


Wiring the measurement circuit

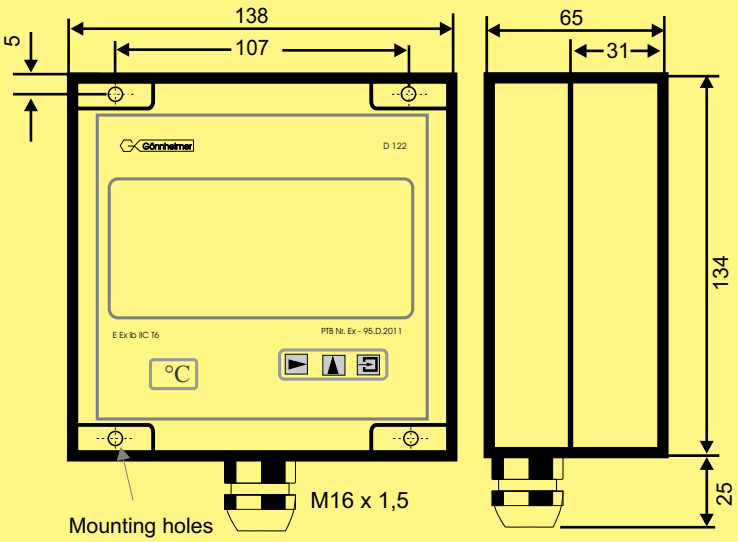


Dimensions

Control panel housing D 122.□.0 (D 122.□.3) panel cut out: 43,5 x 91,5 (66 x 136,5)



Field housing D 122.□.5



Technical Data

	D 122.Z.		
	Z.0	Z.3	Z.5
Display	5-digit seven-segment LCD		
Digit height	15mm	30mm	30mm
Display range	00000 ... +99999 for the sum		
Dimension symbols	Selectable with defined symbols		
Decimal points	Selectable by keyboard		
Bargraph	41 Segments		
Alarm limits display Versions D122.Z.☐.2	- Via bargraph - Flashing 'max' or 'min' sign		
Limit monitoring Version D122.A.☐.2	By means of intrinsically safe control circuits (e.g. NAMUR or DIN 19234)		
Present measure value button	Direct display of present measure value in measurement circuit		
Measurement circuit	Intrinsically safe measurement circuit 4 ...20 mA; Voltage drop ca. 1V		
Measurement circuit limits	No-load voltage U_i = 65 V, short-circuit current I_i = 160 mA Internal inductance: 40 µH, internal capacitance: 10 nF, see certificate TÜV 99 ATEX 1488		
Alarm monitoring limits	By intrinsically safe control circuits, no-load voltage U_i = 30 V; short-circuit current I_i = 160mA P_i not greater than 850 mW; Internal inductance: 40 µH Internal capacitance is negligible, see certificate TÜV 99 ATEX 1488		
Intrinsically safe input	By intrinsically safe control circuits, no-load voltage U_i = 30 V; Internal inductance: 40 µH Internal capacitance is negligible, see certificate TÜV 99 ATEX 1488		
Explosion protection	E Ex ib IIC T6 at ambient temperature 45°C or E Ex ia IIC T5 at ambient temperature 60°C		
Housing	Acc. to control-panel standard DIN 43700		-
Protection class	Front panel up to IP 55		IP 65
Dimensions HxWxD [mm]	48x96x62	72x144x80	134x138x64
Material	glass fibre strengthened Noryl		ABS
Measuring error	0,1% ± 2 digits referring to measure range		
Temperature coefficient	< 0,01% of measure range / K		
Ambient temperature limit	10°C ...+45°C for temperature class 6 or -10°C ...+60°C for temperature class 5 Indicators for -20°C ambient temperature on inquiry		

Type code

Device series D122		·	·	·
Device: Indicator		**.A**		
Indicator with curve fitting option		**.AS**		
Totalizer		**.Z**		
Totalizer with curve fitting option		**.ZS**		
Housing:	Control panel housing 48 x 96 mm		**.0**	
	Control panel housing 72 x 144 mm		**.3**	
	Field housing (30 mm figure height)		**.5**	
	Field housing (50 mm figure height)		**.6**	
Digital output:	without			**.0**
	with 2 digital outputs			**.2**
	with reset input and pulse output			**.3**
Additional option:	Internal zener barrier			**.BM**

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Zertifiziertes Qualitäts-Managemantsystem nach DIN EN ISO 9001

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