

Gönnheimer
Elektronik GmbH

Digital Indicator D 122.A

Loop powered
TÜV 99 ATEX 1488



- 👍 **Ex-Protection: II 2(1) E Ex ia IIC T6, for Ex-i 4...20 mA measure circuits**
- 👍 **4 ½ -digits 7-segment LCD, ±19999 Digits, internal 24 bit A/D conversion**
- 👍 **Field housing up to 50 mm figure height**
- 👍 **Fast bargraph for trend observation, Option: limit bargraph**
- 👍 **Voltage drop ca. 1V**
- 👍 **Scale by buttons and display, without reference current**

Short description

The digital Indicator D122 indicates measured values of intrinsically safe current circuits from 4 up to 20 mA in hazardous areas. The device is powered by measure circuit, therefore an extra power supply or batteries are unnecessary. The indicator measures the current, scales the measured value and displays finally the result on the LCD. The internal 24 bit A/D conversion achieves a stable indication even at 4½ -digit resolution.

For trend analysis, the measured signal is also be displayed on a 41 segment bargraph. It's possible to scale the bargraph separately. The indicator D122 is available in several housings.

Furthermore with alarm monitoring option the indicator has two intrinsically safe alarm outputs. These outputs change their state, when the measured value exceeds its alarm limits. It is possible to configure the outputs as normal open or normal closed circuits.

Additional the alarm limits appear graphically on a second bargraph. On one look you're sure that the measured value is in its limits.

Ex-i Indicator D 122.A in 4 ... 20 mA measure circuit

- Loop powered - trouble-free use in hazardous areas, without a separate power supply
- Connected like passive analogue indicators, voltage drop ca. 1V

Display

- 4 ½-digits 7-Segment display, ± 19999 Digits
- LC-Display up to 30 mm digit height, field housing 3 ½-digits up to 50 mm
- Fast bargraph for trend observation, (41 segments, refresh 4 times per second)



Housings

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

Ergonomics

- µ-Processor technology for extensive configuration
- Scaleable by keyboard and display, without reference current
- Separately scaleable bargraph (Zoom)
- Current control button
- Keeps the configuration by turn off
- Ability to change configuration during operation
- Exchangeable dimension signs

Options

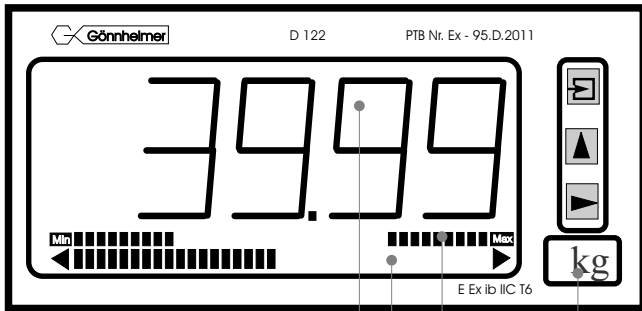
- Alarm monitoring: two intrinsically safe alarm outputs
- Additional limit bargraph
- Limit function with hysteresis and time delay
- Normal open or normal closed circuit principle
- Curve fitting

Service

- Customised calibration

Display

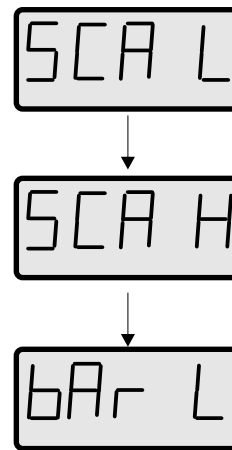
The measured value is easy to read on the lucid display. With one look on the bargraph you are sure that the measured value is in its limits. With an bargraph refresh rate of 4 times per second a trend observation is possible



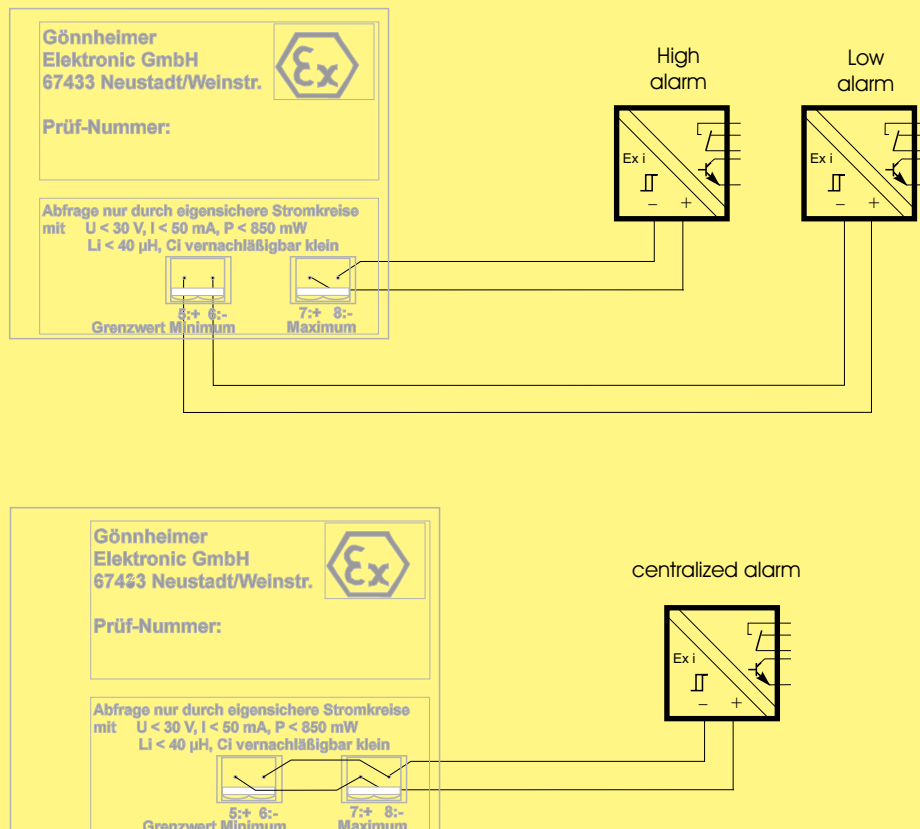
- Measurement value
- Bargraph
- Limit bargraph
- Dimension symbol

Menu-guided configuration

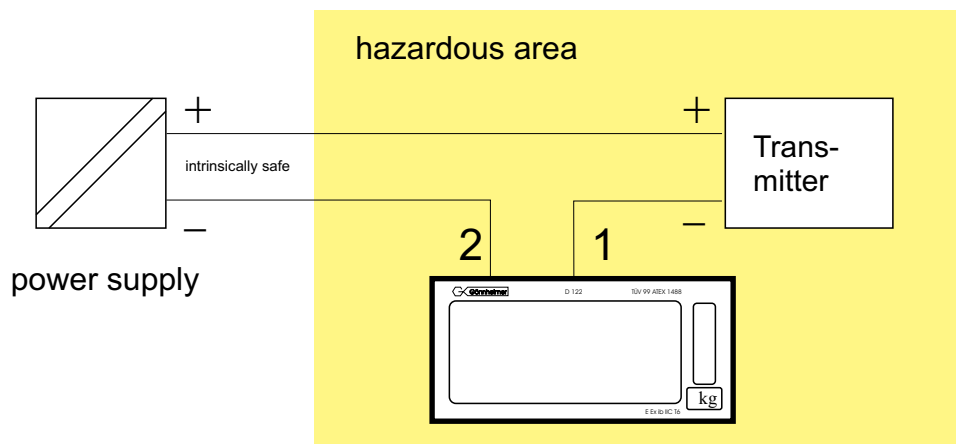
It is easy to configure the totalizer. The programming of the parameters happens in a dialog of device and customer



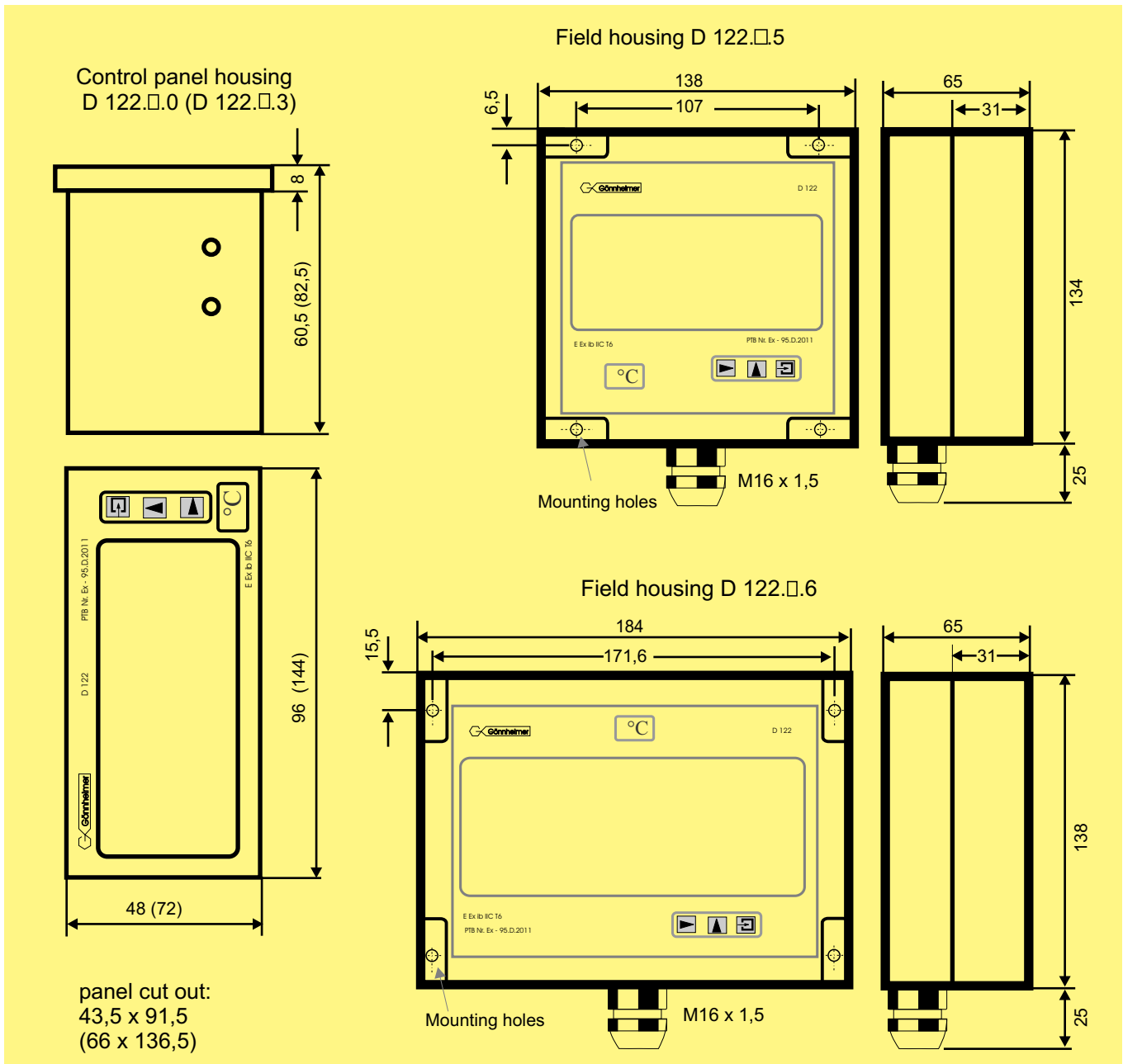
Wiring Examples



Wiring the measurement circuit



Dimensions



Technical Data

	D 122			
	D 122.A.0	D 122.A.3	D 122.A.5	D 122.A.6
Display	4 ½-digits seven-segment LCD			3½-digits
Digit height	15mm	30mm	30mm	50mm
Display range	-19999 ... +19999			-1999 ... +1999
Dimension symbols	Selectable with defined symbols			
Decimal points	Selectable by keyboard			
Bargraph	41 segments			/
Alarm limits display Versions D122.A.□.2	- Via bargraph - Flashing 'max.' or 'min' display			
Limit monitoring Version D122.A.□.2	By means of intrinsically safe control circuits (e.g. NAMUR or DIN 19234)			
Current control button	Direct display of the current in measurement circuit			
Measurement circuit	Intrinsically safe measurement circuit 4 ...20 mA, Voltage drop ca. 1V			
Measurement circuit limits	No-load voltage $U_i = 65 \text{ V}$, short-circuit current $I_i = 160 \text{ mA}$ Internal inductance: 40 μH , internal capacitance: 10 nF, see certificate TÜV 99 ATEX 1488			
Alarm monitoring terminals limits	By intrinsically safe control circuits, no-load voltage $U_i = 30 \text{ V}$; short-circuit current $I_i = 160 \text{ mA}$ P_i not greater than 850 mW; Internal inductance: 40 μH Internal capacitance is negligible, see certificate TÜV 99 ATEX 1488			
Housing	Acc. to control-panel standard DIN 43700		-	
Protection class	Front panel up to IP 55		IP 65	
Dimensions HxWxD [mm]	48x96x62	72x144x80	134x138x64	138x184x64
Panel cut out	43,5 x 91,5			
Material	glass fibre strengthened Noryl		ABS	
Measuring error	0,1% \pm 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 output3			
Additional option: Internal zener barrierBM
(not for D122.x.0.x)					

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