

Loop powered  
Gas + Dust Ex- protection  
TÜV 99 ATEX 1488



## Properties

### 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
- Scaleable by keyboard and display, without reference current
- Fast bargraph for trend observation, option: limit bargraph

### Gas and Dust Explosion proof

- II 2 (1) G, Ex ia IIC T6 Gb
- II 2 D, IP65 T 70°C Db

### Display

- 4 ½-digits 7-Segment display 19999 Digits
- LC-Display up to 30 mm digit height, field housing 3½-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
- Field housing, dust Ex- proofed
  - (HxWxD) 140x140x72

### Ergonomics

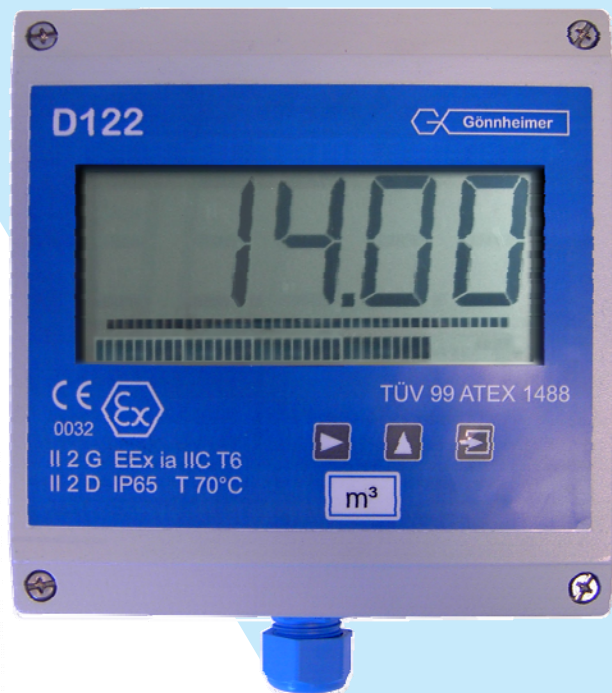
- µ-Processor technology for extensive configuration
- Separately scaleable bargraph (Zoom)
- Current control button
- Keeps the configuration by turn off
- Ability to change configuration during operation
- Exchangeable dimension signs

### Options

- Alarm monitoring: 2 intrinsically safe alarm outputs
- Additional limit bargraph
- Limit function with hysteresis and time delay
- Normal open or normal closed circuit principle
- Curve fitting, e.G. cubic tank level metering

### Service

- Customized calibration



## 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.

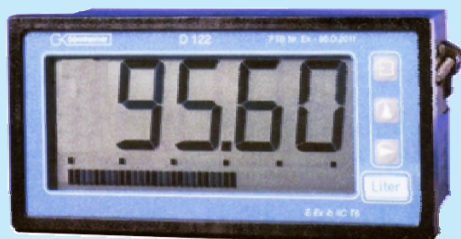
Additional the alarm limits appear graphically on a second bargraph. On one look you're sure that the measured value is in its limits.

## Product photos

### Short control panel housing



Digital Indicator D122.A.0.x.x

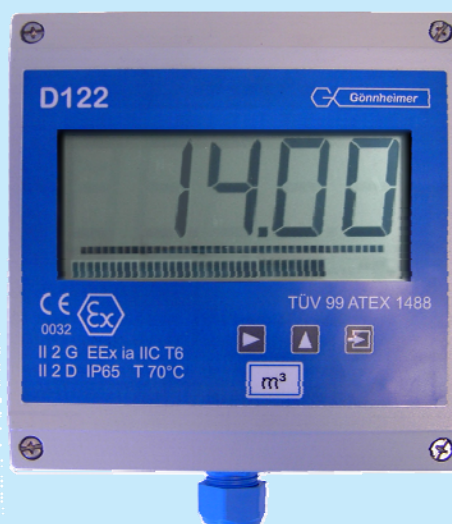


Digital Indicator D122.A.3.x.x

### Field housing



Digital Indicator D122.A.5.x.x

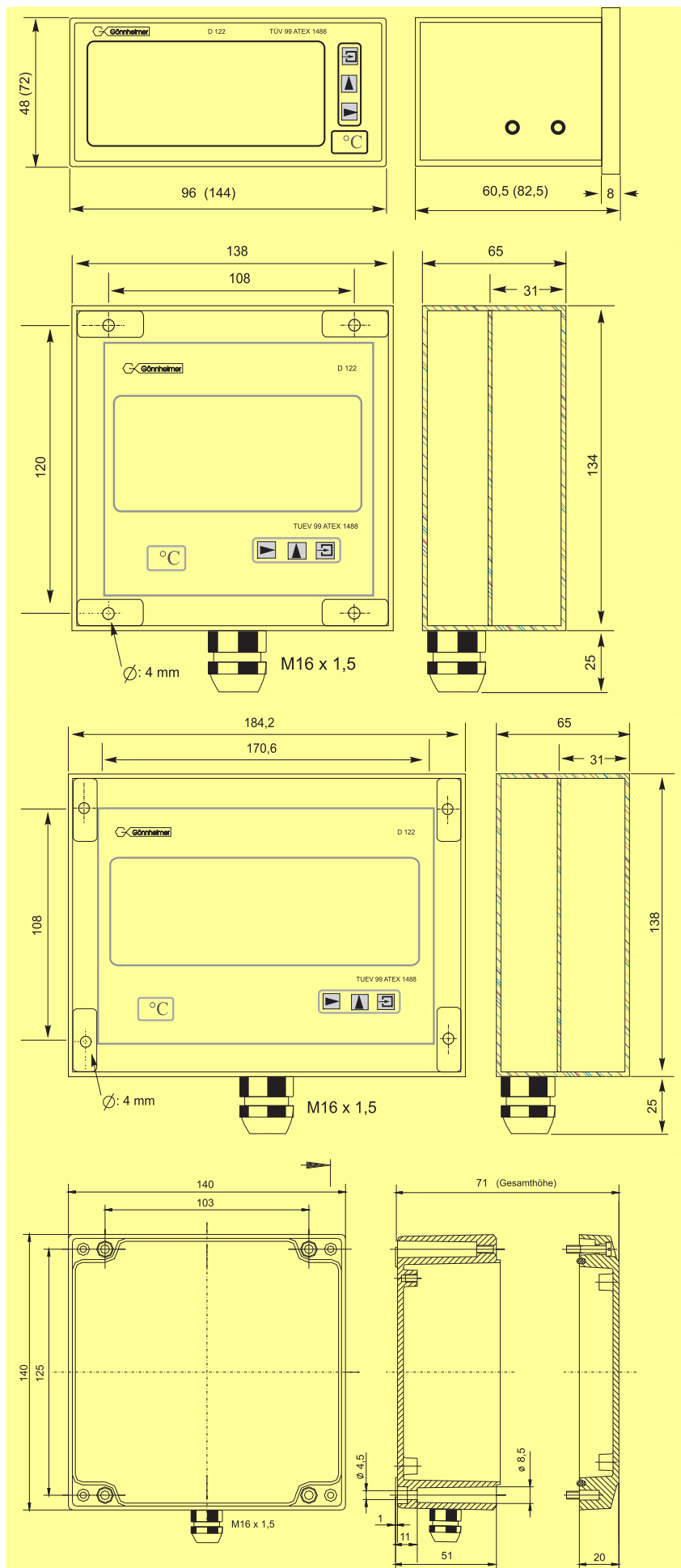


Digital Indicator D122.A.7.x.x



Digital Indicator D122.A.6.x.x

# Dimensions



**Digital Indicator  
D122.A.0.x.x / (D122.A.3.x.x)**

**Digital Indicator D122.A.5.x.x**

**Digital Indicator D122.A.6.x.x**

**Digital Indicator D122.A.7.x.x**

# Technical Details

	D122.A.				
	D122.A.0	D122.A.3	D122.A.5	D122.A.6	D122.A.7
Ex- Protection	II 2 (1) G, Ex ia IIC T6 Gb				See left + II 2 D, Ex tb IIC IP65 T70°C Db
EC- type certificate	TÜV 99 ATEX 1488				
Display	4 ½-digits seven-segment LCD			3 ½-digits	4 ½-digits
Digit height	15mm	30mm	30mm	50mm	30mm
Display range	-19999 ... +19999			-1999 ... +1999	-19999 ... +19999
Dimensions symbols	Selectable with defined symbols				
Decimal points	Selectable by keyboard				
Bargraph	41 segments			/	41 segments
Alarm limits display Versions D122.A.x.2.x	- Via bargraph - Flashing 'max.' or 'min' display			/	like D122.A.5
Limit monitoring	(D122.A.x.2.x only ) 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 $U_i = 65$ V, short-circuit current $I_i = 160$ mA Internal inductance: 40 $\mu$ H, internal capacitance: 10 nF, see certificate TÜV 99 ATEX 1488				
Housing	Acc. to control-panel std. DIN 43700		-		
Protection class	Front panel up to IP 55			IP 65	
Dimensions HxWxD[mm]	48x96x62	72x144x80	133,5x138x64	138x184x64	140x140x72
Panel cut out	43,5 x 91,5	66 x 136,5			
Material	glass fiber strengthened Noryl		ABS		Aluminum
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 II		-10°C ...+60°C for temperature class 5 Indicators for -20°C ambient temperature on inquiry		

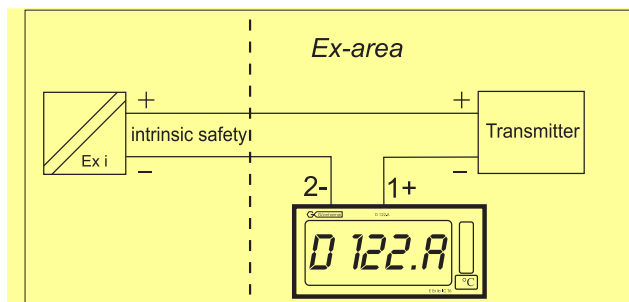
## Type code D122 series

Digital indicator D122	.X	.X	.X	.X
<b>Type:</b>				
Indicator .....	.A			
Indicator + curve fitting .....	.AS			
Totalizer .....	.Z			
Totalizer + curve fitting .....	.ZS			
Transmitter .....	.T			
<b>Housings:</b>				
Control panel housing 48 x 96 mm (II 2 G) .....	.0			
Control panel housing 72 x 144 mm (II 2 G) ....	.3			
Field housing (30 mm digit height) (II 2 G).....	.5			
Field housing (50 mm digit height) (II 2 G).....	.6			
Field housing 140 x 140 for (II 2 GD) .....	.7			
<b>Digital output terminals:</b>				
without .....	.0			
with 2 digital output terminals.....	.2			
with a reset input and a pulse output terminal.....	.3			
<b>Additional Options:</b>				
Internal zener barrier1 .....	.BM			
Internal Pt100- transmitter <sup>2</sup> .....	.MU			

1: The zener barrier can not be placed into D122.x.0.x

2: Field housings only; zener barrier and Pt100 exclude themselves

## Connection diagram



# Gönnheimer Elektronik GmbH

Zertifiziertes

Qualitäts-

Managementsystem

nach

DIN EN ISO 9001