

## Informator with microprocessor

4-digit LED-display

with and without limit contacts

Type:    **attachable indicator**  
           **panel mount case**



### Description

Indicators are electronic devices designed for digital display of sensor signals.

The indicators can be set to the desired measuring range on site by program-control. The programming is done via flush mounted keys below the front cover.

A programmable damper ensures a precise readability of the indicating value in case of pulsation or if pressure peaks occur.

### Attachable indicator

The attachable indicator provides an ideal solution for local indication with simultaneous signal transmission. Due to its universal programmability and simple mounting the attachable indicator can be retrofitted even to pressure or temperature sensors which are already in use. The LED-type enables process monitoring by a built in limit contact.

### Panel mount case

The multitude of feasible input signals and the compact design make this indicator suitable for various applications.

Limit contacts provide information on the status of the process being monitored.

### Features

- Freely programmable by microprocessor
- Range setting on site, no external calibration equipment needed

### Attachable indicator

- for sensors with 4...20 mA - output and rectangle plug acc. to EN 175 301-803, type A
- one limit contact: contact function and hysteresis freely programmable
- protection type IP65
- simple handling

### Panel mount case

- input freely selectable: 0/4...20 mA, 0...10 V, 0...1 V
- input PT 1000, PT 100 or thermocouple type K
- two limit contacts: contact function and hysteresis freely programmable
- compact design

### Applications

chemical and petrochemical industry,

pharmaceutical industry,

food and beverage

machine tool and injection moulding presses,

development and testing fields

Model: E1999

## Technical data

Model	E1999X100	E1999X200	E1999X500
<b>Type</b>	<b>attachable indicator</b>	<b>attachable indicator</b>	<b>panel mount case</b>
<b>Display</b>	7-segment-LCD-display 10 mm	7-segment LED-display 7 mm	7-segment-LED-display 10 mm
- height			
- range	-1999...9999 (4 digits)	-1999...9999 (4 digits)	-1999...9999 (4 digits)
- accuracy	0,2% of F.S. ± 1 digit	0,2% of F.S. ± 1 digit	0,2% of F.S. ± 1 digit
- conversion rate	5 /sec.	50 / sec.	100/sec. ( 4/sec for temperature measurements )
<b>Measuring ranges</b>	program controlled adjustable	program controlled adjustable	program controlled adjustable
<b>Input</b>	4...20 mA, 2-wire	4...20 mA, 2-wire  0 ... 10 VDC on request	selectable: 4...20 mA 0...20 mA 0...10 VDC 0...1 VDC 0...2 VDC PT1000 /2-wire PT100 /3-wire thermo couple type K
- input resistance			for current input 50 Ω for voltage input 0...1 V 30 kΩ for voltage input 0...10 V: 300 kΩ
- temperature influence	≤ 0,1% of F.S./10K	≤ 0,1% of F.S./10K	≤ 0,25% of F.S./10K
<b>Filter function</b>	selectable in 3 steps	selectable in 3 steps	2/3 sec. selectable
<b>Limit contacts</b>		1 transistor switching output n-switching limit contacts as Hi or Low programmable by selecting the hysteresis program controlled adjustable within the adjusted display range program controlled adjustable within the whole display range	2 transistor switching outputs - n-switching limit contacts as Hi or Low programmable by selecting the hysteresis program controlled adjustable within the adjusted display range program controlled adjustable within the whole display range Low-side 28 VDC / 1A High-side Ub / 200 mA adjustable from 0...99 sec.
- function			
- switching point			
- hysteresis			
- load			
- response time			
<b>Power supply</b>	sensor is supplied by the 4...20 mA current loop max. 40 mA 3 V	sensor is supplied by the 4...20 mA current loop - <5,5V	9...28 VDC max. 30 mA
- power consumption			
- voltage drop			
<b>Electrical connection</b>	plug acc. to EN 175 301 803 type A	plug acc. to EN 175 301 803 type A	screw terminals, max. 1,5 mm <sup>2</sup>
<b>Temperature ranges</b>	0...50 °C	-20...+50°C	-20...50 °C
<b>Protection type</b>	IP 65	IP 65	front panel IP54; clamps IP20
<b>Case</b>	Dimensions 50x50x35	Dimensions 50x50x35	see drawings for dimensions
- panel cut out			21,7+0,5 x 45+0,5 (HxW)
- material	ABS	ABS	glass fibre strengthened Noryl
- window	Polycarbonate	Polycarbonate	Polycarbonate
- mounting			spring clamp
<b>Weight</b>	approx. 0,08 kg	approx. 0,08 kg	approx. 0,05 kg

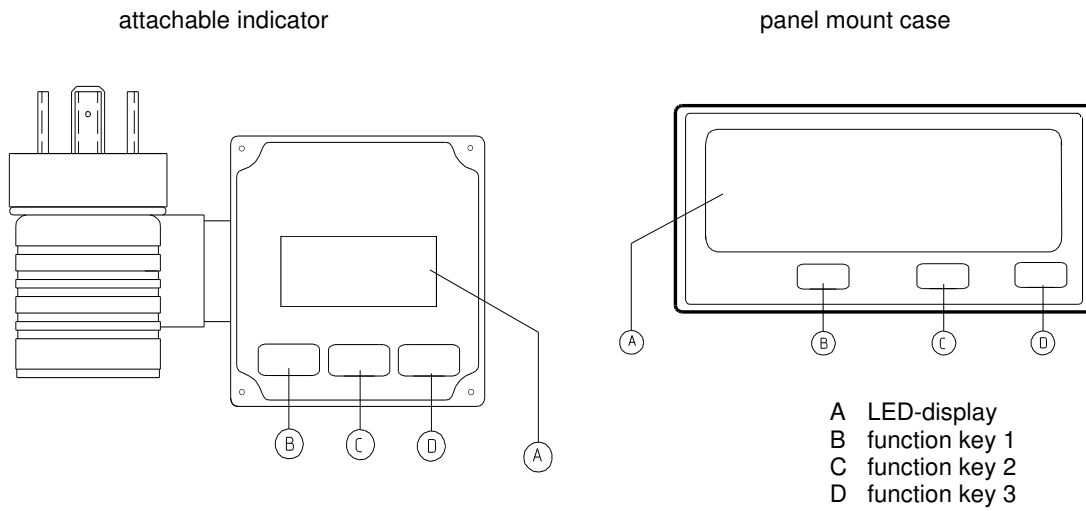
## Options

Model	E1999X100	E1999X200	E1999X500
<b>Protection type</b>	-----	1 transistor switching output n-switching	front panel IP 65

of F.S. = of full scale value

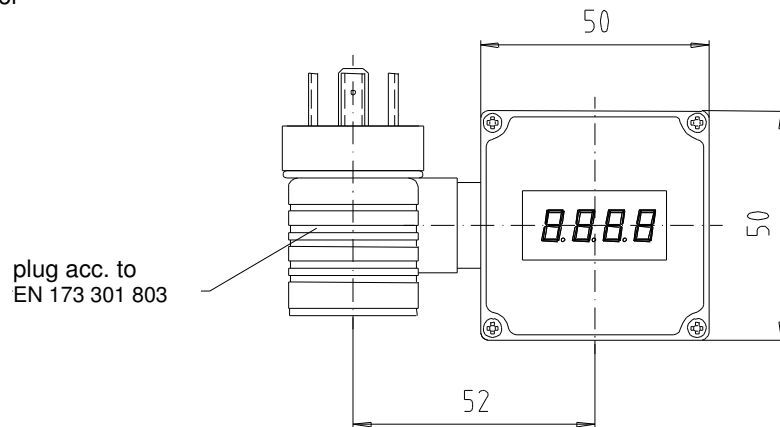
# Operating and connection elements

## Front view below cover

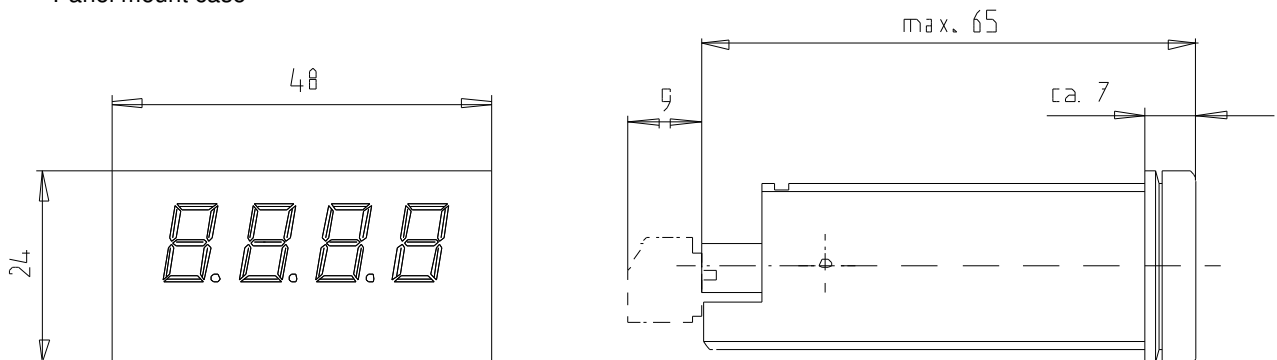


## Dimensions (mm)

### attachable indicator



### Panel mount case



## Configuration of connection terminals model E1999X500 (panel mount case)

### Connection terminal

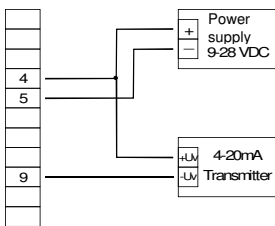
switching output 1  
 switching output 2  
 switching output GND  
 mains supply+Uv  
 mains supply GND

input: 0-10 V  
 input: GND, Pt100, Pt1000  
 input: 0-50 mV  
 thermo couple, Pt100  
 input: 0-1 V, 0-2 V, mA  
 frequency, Pt100, Pt1000

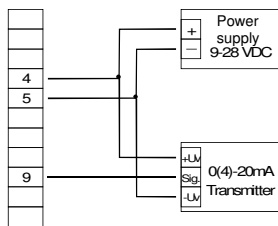
### Connection examples (panel mount case)

#### Signal input

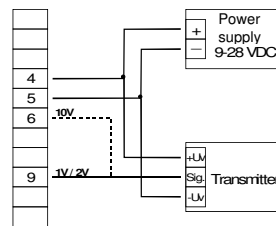
4...20 mA - 2-wire



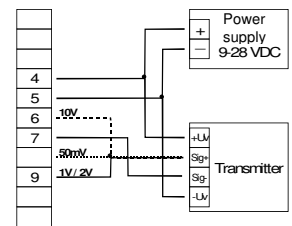
0/4...20 mA - 3-wire



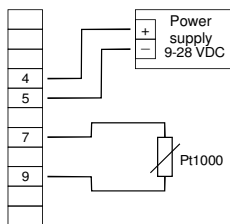
0...1/10 V - 3-wire



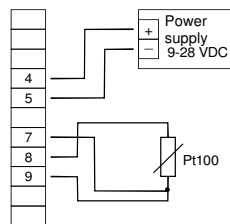
0...1/10 V - 4-wire



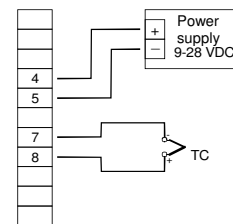
PT 1000 /2-wire



PT 100 /3-wire

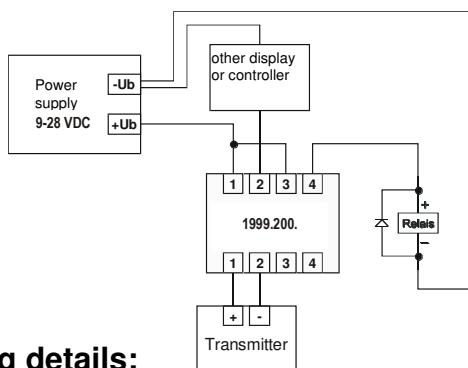


Thermocouple Type K

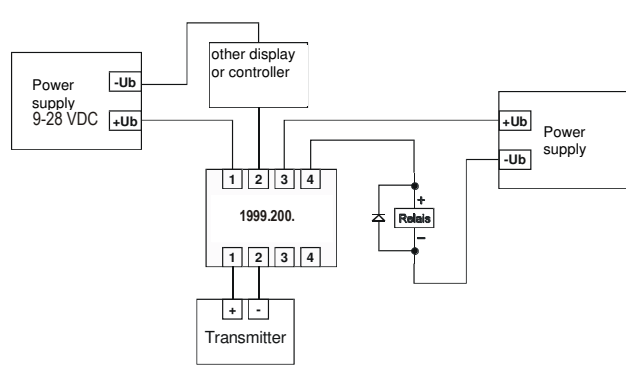


## Assignment right-angle plug LED- attachable indicator with switching output E1999X200

combined power supply measuring / switching



separate power supply measuring / switching



### Ordering details:

1. Model
2. Options

Subject to technical alternations