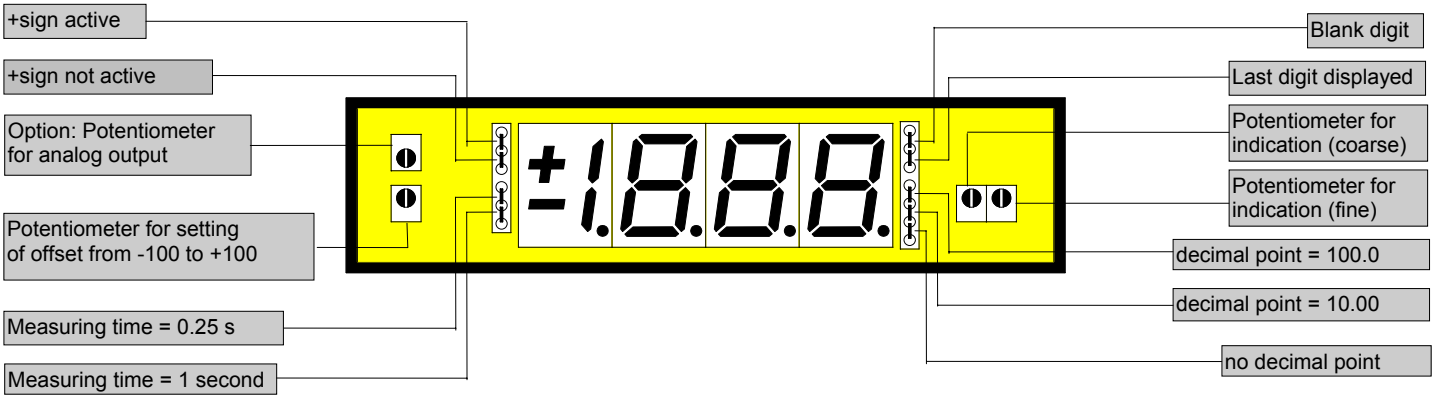
# Direct voltage 60 mV – 150 mV – 300 mV – 1 V

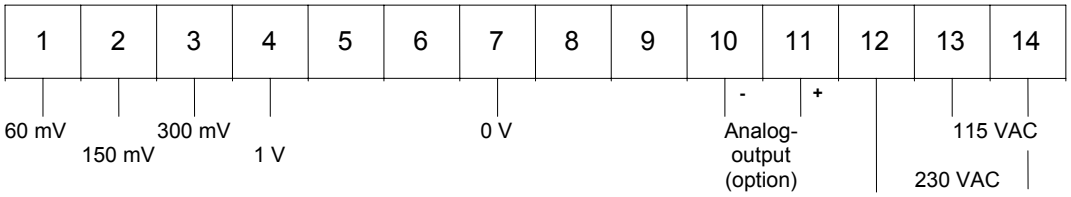
**- Option: analogue output**
**- Allows to be placed side by side in grid and mosaics systems**
**- Mounting into panels with thickness up to 50 mm**

**96x24**

1888




ORDER NUMBER OF TYPE **DV 3.002.310B**




Power supply 24 VDC **DV 3.002.330B**
**- galvanic not insulated -** (14=plus, 13=minus)

Power supply 24 VDC **DV 3.002.370B**
**- galvanic insulated -** (14=plus, 13=minus)

## Options

- green LED
- Protection: IP54
- Protection: IP65 **(see reference)**
- Plug in terminal with protection IP40
- Plug in terminal with protection IP54
- Plug in terminal with protection IP65 **(see reference)**

**Reference: Decimal point, plus sign, blank digit, measuring time have to be pretended!**

- Analog output 0-10 VDC/10 mA
- Analog output 0-20 mA/load 500 Ω
- Analog output 4-20 mA/load 500 Ω
- Analog output 0-10 VDC/10 mA *(power supply 24 VDC galvanic insulated)*
- Analog output 0-20 mA/load 500 Ω *(power supply 24 VDC galvanic insulated)*
- Analog output 4-20 mA/load 500 Ω *(power supply 24 VDC galvanic insulated)*
- Analog output with customer specified offset

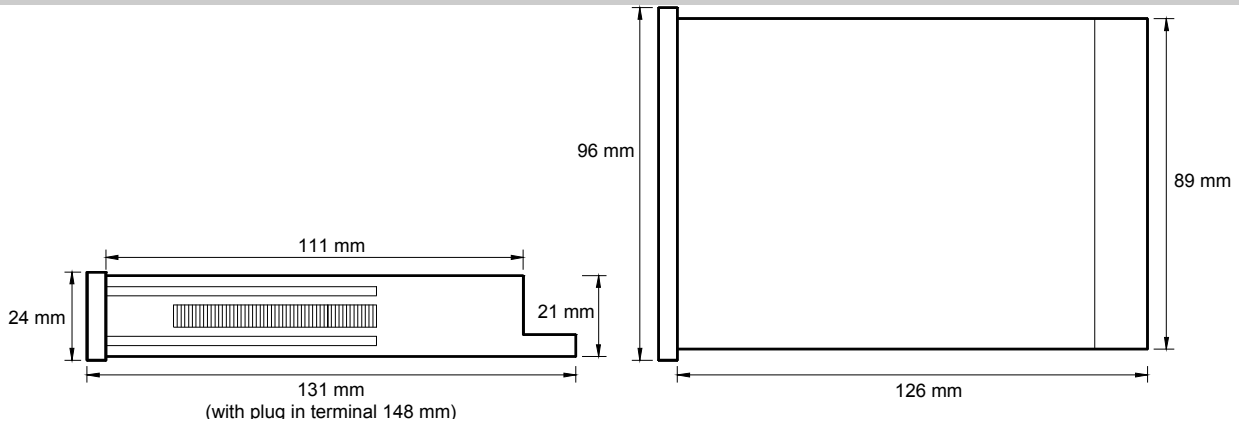
**The measuring inputs are not galvanic insulated from the analog output!**

- Power supplies 24/48 VAC
- Relay contacts see type PVE4.0x2.3xx

# Technical data, handling

| | | |
|---|---|---|
| **Dimensions** | Housing | 96 x 24 x 131 mm, including screw terminal |
| | Assembly cut out | $92.0^{+0.8}$ x $22.0^{+0.6}$ mm |
| | Fastening | special quick plastic clamp proper to fix in wall thickness up to 50 mm |
| | Housing material | PC/ABS-plastic blend, colour black, UL94V-0 |
| | Protective system | at the front IP 40<br>connection IP00 |
| | Weight | approx. 0.290 kg |
| | Connection | at the rear side via terminals up to 2.5 $mm^2$ |
| **Input** | Measuring range | 0-60 mV, 150 mV, 300 mV, 1 V<br>all ranges are selectable via connection terminal / offset adjustment supported by offset potentiometer |
| | Input resistance | Ri with 60 mV = 15 KΩ 300 mV = 75 KΩ<br>150 mV = 39 KΩ 1 V = 220 KΩ |
| **Output** | Analogue output | 0-10 VDC/10 mA (0.1 % of measuring value, +/-0.05 % of full scale)<br>0-20 mA, 4-20 mA - load 500 Ohm (0.1 % of measuring value, +/-0.05 % of full scale) |
| **Accuracy** | Resolution | +/- 1999 digit |
| | Nonlinearity | +/-0.1 % of measuring value, +/- 1 digit |
| | Temp. drift | 150 ppm/K |
| | Measuring principle | Dual-Slope-Integration |
| **Power Unit** | Supply voltage | 230/115 VAC +/- 10 % (50-60 Hz), 24 VDC (18-30 V), 24 VDC +/-10 % galvanic insulated |
| | Power consumption | approx. 5 VA |
| **Indication** | Display | LED with 7 segments, 14 mm high, red<br>3½-digit = indication 1999 |
| | Measuring time | selectable 0.25 and 1 second |
| | Overflow | by showing "**1**" on the fourth digit |
| | Decimal point | adjustable by bridging on front side |
| | Blanking | blanking out of last digit (selectable by bridge) |
| | Plus sign | selectable by bridging on front side |
| **Ambient conditions** | Working temperature | 0 up to + 60 °C |
| | Storing temperature | -20 up to + 80 °C |

**Housing:**




**CE-sign**
For unlimited use of the instrument within the directives for electromagnetic compatibility 89/336/EC analogue input wires have to be used with shielded cable and cable's shield connected to earth ground at one end only.

**Setting**

1. Connect the instrument according to the wiring diagram and turn power on.
2. Adjustment of indication value: Detach the front pane with a small screwdriver leading between front panel and housing frame.
3. Set the maximum input voltage and adjust the desired indication value by means of the potentiometer.
4. In order to achieve maximum value indication of 1999, the following minimum input voltages are required at the various measuring inputs:

| Measuring input | 60 mV | 150 mV | 300 mV | 1 V |
|---|---|---|---|---|
| U min | 30 mV | 60 mV | 150 mV | 300 mV |
| U max | 80 mV | 180 mV | 360 mV | 1.2 V |

5. With input voltages smaller than $U_{min}$, maximum value indication is not available!