

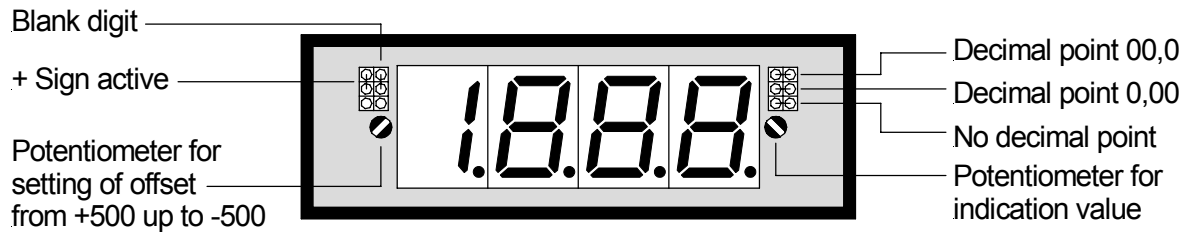
# Direct voltage, direct current

Allow to be placed side by side in grid and mosaics systems

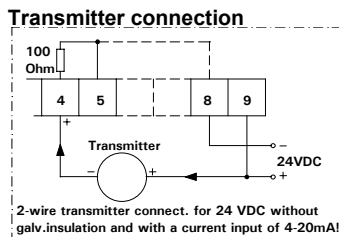
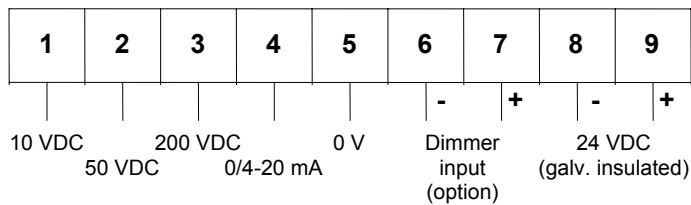
Mounting into panels with thickness up to 50 mm

72x24

1888



ORDER NUMBER OF TYPE **DV 3.001.570B**



## Options

- Protection IP54 – screw terminal standard
- Protection IP65 – screw terminal standard (**see reference**)
- Protection IP54 – plug in terminal
- Protection IP65 – plug in terminal (**see reference**)

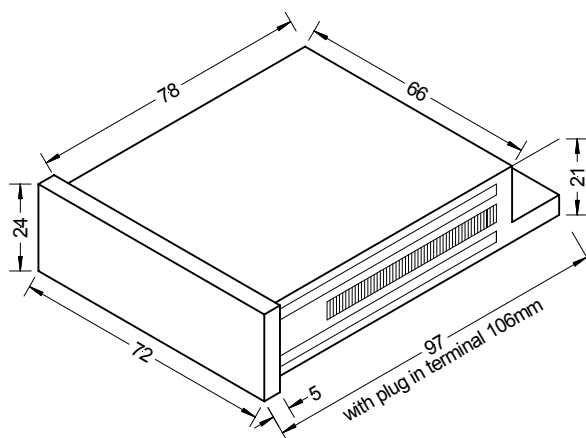
**Reference: Decimal point, plus sign and blank digit have to be pretended!**

- Brightness control with DIM device

# Technical data, handling

<b>Dimensions</b>	Housing	72 x 24 x 99 mm (WxHxD), with screw terminal (D = 106 mm including plug in terminal)
	Assembly cut out	68 <sup>+0.7</sup> x 22.2 <sup>+0.3</sup> mm (WxH)
	Fastening	special quick plastic clamp proper to fix in wall thickness up to 50 mm
	Housing material	PC/ABS-plastics blend, colour black, UL94V-0
	Protective system	at the front IP40 connection IP00
	Weight	approx. 110 g
	Connection	at the rear side via terminals up to 2.5 mm <sup>2</sup>
<b>Input</b>	Measuring range	0-10 V, 50 V, 200 V, 0-20 mA - 4-20 mA supported by offset potentiometer all ranges are selectable via connection terminal
	Input resistance	Ri at 10 V = 93 K $\Omega$ 200 V = 2.2 M $\Omega$ 50 V = 550 K $\Omega$ 20 mA = 100 $\Omega$
	Indication control	brightness control with DIM device (option)
<b>Accuracy</b>	Resolution	+/- 1999 Digit
	Measuring fault	+/-0.1% of measuring value, +/- 1 digit
	Temp. drift	100 ppm/K
	Measuring principle	Dual-Slope-Integration
<b>Power unit</b>	Supply voltage	24 VDC +/-10 % galvanic insulated
	Power consumption	approx. 2 VA
<b>Indication</b>	Display	7-Segment-LED, 14 mm high, red 3½-digit = indication 1999
	Overflow	by showing of „1” on the fourth digit
	Decimal point	adjustable by bridging on front side
	Blanking	blanking out of first digit (selectable by bridge)
	Plus sign	adjustable by bridging on front side
	Indication time	1 second
<b>Ambient conditions</b>	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. Setting of indication value: Remove the front pane using the eject gap.
3. Set the maximum input voltage/current 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	10 V	50 V	200 V	20 mA
U/I min	2.0 V	10 V	40 V	15.5 mA
U/I max	20 V	100 V	400 V	25 mA

5. With input voltages smaller than U/I min, maximum value indication is not available!

6. Example of offset calculation for open measuring input:

AA=initial indication value (-200)

MA=initial measuring value (2 V)

AE= final indication value (600)

ME =final measuring value (10 V)

$$\text{Offset} = AA - \left( \frac{AE - AA}{ME - MA} \right) \times MA$$

$$\text{Offset} = -200 - \left( \frac{600 - (-200)}{10V - 2V} \right) \times 2V = -400$$

7. Simplified calculation with 4-20 mA:  
(only for indication 0=4 mA)

$$\text{Offset} = -\left( \frac{AE}{4} \right)$$

**Observe the operational sign!**