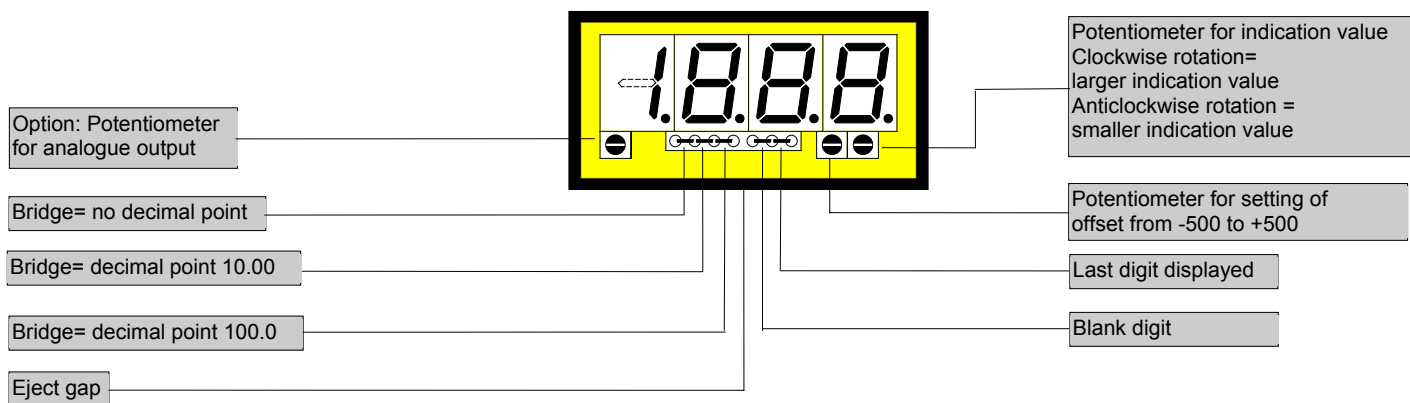
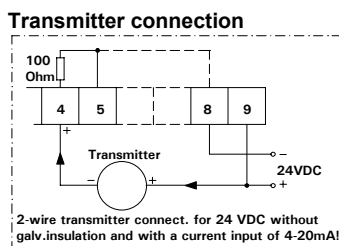
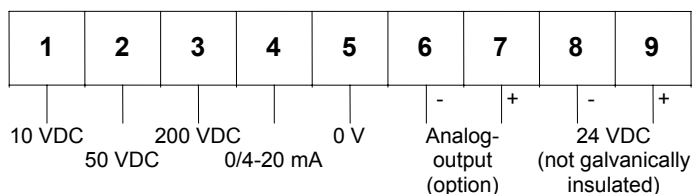


Direct voltage, direct current Option: Analogue output

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



ORDER NUMBER OF TYPE **DV 3.001.736B**



Power supply 24 VDC
- **galvanically insulated** (9=plus, 8=minus)

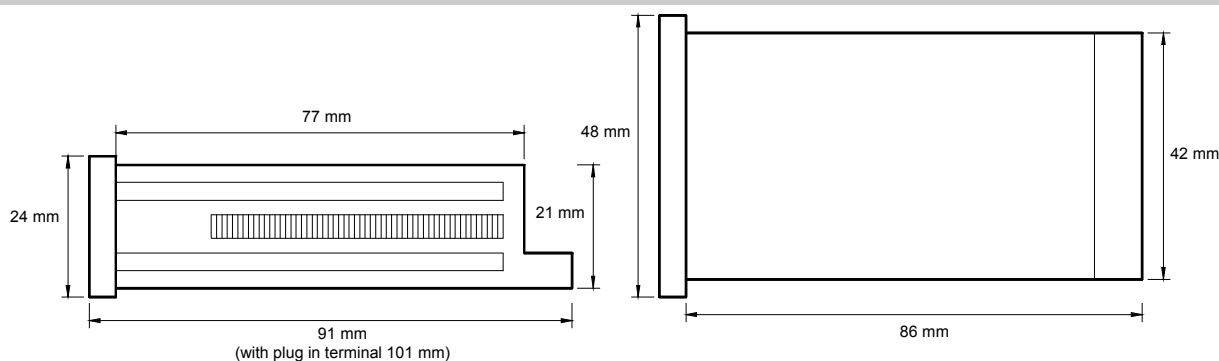
DV 3.001.776B

Options

- green LED
 - Protection: IP54
 - Protection: IP65 (see reference)
- Reference: Decimal point and blank digit 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/10mA (power supply 24 VDC galvanically insulated)
 - Analog output 0-20 mA /load 500 Ω (power supply 24 VDC galvanically insulated)
 - Analog output 4-20 mA /load 500 Ω (power supply 24 VDC galvanically insulated)
 - Analog output with customer specified offset
 - Dimension strip selectable (8 characters max.)
 - Set points see type PVE 4.001.7xx

Technical data, handling

Dimensions	Housing	48 x 24 x 91 mm
	Assembly cut out	45.0 ^{+0.6} x 22.2 ^{+0.3} mm
	Fastening	special quick plastic clamp proper to fix in wall thickness up to 50 mm
	Housing material	PC/ABS-blend, colour black, UL94V-0
	Protective system	at the front IP40 connection IP00
	Weight	approx. 75 g
	Connection	at the rear side via plug in connector up to 1.5 mm ²
Input	Measuring range	0-10 V, 50 V, 200 V, 0-20 mA - 4-20 mA - offset adjustment supported by offset potentiometer all ranges are selectable via connection terminal
	Input resistance	Ri with 10 V = 93 KΩ 200 V = 2.2 MΩ 50 V = 550 KΩ 20 mA = 100 Ω
Output	Analogue output	0-10 VDC/10 mA (0.1% of measuring value, +/-0.05% of full scale) 0-20 mA, 4-20 mA - load 500 Ω (0.1% of measuring value, +/-0.05% of full scale)
	Offset	fixed on zero point
	Final value	10 V or 20 mA are adjustable for indication range 350 to 1999 The measuring inputs are not galvanically insulated from the analog output!
Accuracy	Resolution	+/- 1999 digit
	Nonlinearity	+/-0.1% of measuring value, +/- 1 digit
	Temp. drift	100 ppm/K
	Measuring principle	Dual-Slope-Integration
Power Unit	Supply voltage	24 VDC (18-30 V) not galvanic insulated, 24 VDC +/-10 % galvanic insulated
	Power consumption	approx. 2 VA
Indication	Display	LED with 7 segments, 10 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)
	Indication time	1 second
Ambient conditions	Working temp.	0 up to + 60 °C
	Storing temp.	-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)

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

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

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

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

Observe the operational sign!