



**Digital panel meter
3½-digit**

DV3, DT3

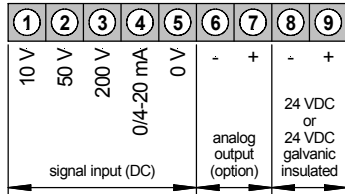
- Without setpoints
- Analog output

Digital panel meter

- Direct voltage
- Shunt
- Resistance
- PT100/PT1000
- Direct current
- Potentiometer
- Thermocouple

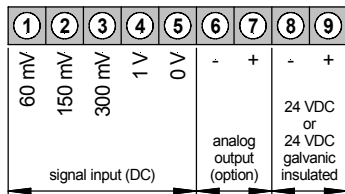


• Direct voltage, direct current

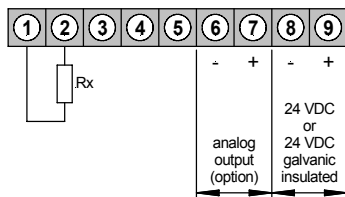


Transmitter connections see page 5

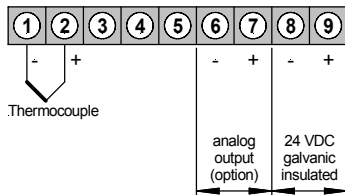
• Direct current (Shunt)



• Resistance, potentiometer



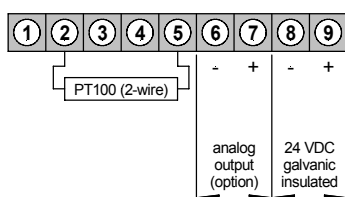
• Thermocouple L, J or K



Type L (FeCuNi - DIN) -50 up to +500°C
 Type J (FeCuNi - americ.) -50 up to +500°C
 Type K (NiCrNi) -100 up to +800°C

(Fill in the desired type of thermocouple in the order number instead of x)

• PT100 (2-wire)



ORDER NUMBER OF TYPE EUR
 (without options)

Power supply 24 VDC **DV 3.001.736B** 112,50

Power supply 24 VDC (galvanic insulated) **DV 3.001.776B** 127,80

Power supply 24 VDC **DV 3.002.736B** 122,70

Power supply 24 VDC (galvanic insulated) **DV 3.002.776B** 138,05

Power supply 24 VDC Measuring range $\leq 10K\Omega$ **DV 3.506.736B** 127,80

Measuring range $\leq 100K\Omega$ **DV 3.606.736B** 127,80

Measuring range $\leq 1M\Omega$ **DV 3.706.736B** 127,80

Power supply 24 VDC Measuring range $\leq 10K\Omega$ **DV 3.506.776B** 143,15

(galvanic insulated) Measuring range $\leq 100K\Omega$ **DV 3.606.776B** 143,15

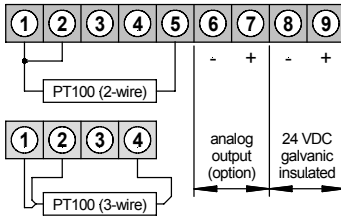
Measuring range $\leq 1M\Omega$ **DV 3.706.776B** 143,15

Power supply 24 VDC (galvanic insulated) **DT 3.40x.776B** 148,25

Power supply 24 VDC 2-wire (199.9°C) **DT 3.202.776B** 143,15

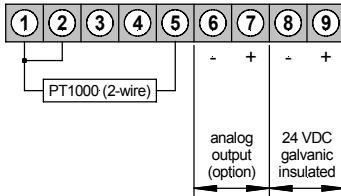
(galvanic insulated) 2-wire (600°C) **DT 3.206.776B** 143,15

• **PT100 (2- +3-wire)**



Power supply 24 VDC 3+2-wire (199.9°C) **DT 3.302.776B** 163,60
(galvanic insulated) 3+2-wire (600°C) **DT 3.306.776B** 163,60

• **PT1000 (2-wire)**



Power supply 24 VDC 2-wire (199.9°C) **DT 3.602.776B** 163,60
(galvanic insulated)
Power supply 24 VDC 2-wire (600°C) **DT 3.606.776B** 163,60
(galvanic insulated)

OPTIONS	DV 3.001... Direct voltage	DV 3.002... Shunt	DV 3.006... Resistance	DT 3.40x... Thermocouple	DT 3.x02.../3.x06... PT1000 (2 +3-wire)	Additional price
	EUR					
Green LED	X	X	X	X	X	
Protection IP54 at the front (standard plug in terminal)	X	X	X	X	X	6,15
Protection IP65 at the front (<i>see following table</i>) – standard plug in terminal	X	X	X	X	X	28,10
Analog output 0-10 VDC/2 mA	X	X	X	X	X	32,70
Analog output 0-20 mA/load 500 Ω	X	X	X	X	X	32,70
Analog output 4-20 mA/load 500 Ω	X	X	X	X	X	32,70
Analog output 0-10 VDC/2 mA (supply voltage 24 VDC galvanic insulated)	X	X	X	X	X	61,35
Analog output 0-20 mA/load 500 Ω (supply voltage 24 VDC galvanic insulated)	X	X	X	X	X	61,35
Analog output 4-20 mA/load 500 Ω (supply voltage 24 VDC galvanic insulated)	X	X	X	X	X	61,35
Analog output with customer specified offset (S26)	X	X	X	X	X	10,25
Dimension strip selectable (max. 8 signs)	X	X	X	X	X	
Other power supplies on demand	X	X	X	X	X	

• **Settings ex works with protective system IP65, adjustable on rear side**

Settings deviating from the standard settings must be indicated in the order description.	Standard	As desired	DV 3.001... Direct voltage	DV 3.002... Shunt	DV 3.006... Resistance	DT 3.40x... Thermocouple	DT 3.x02.../3.x06... PT1000 (2 +3-wire)
	Blanking	no	yes	X	X	X	
Decimal point	100.	without	X	X	X		
		10.00	X	X	X		

Technical data

for all units of the DV3, DT3 series, if not indicated otherwise

Dimension	Housing Assembly cut out Fastening Housing material Protective system	W 48 x H 24 x D 91 mm (D= 101 mm, including plug in terminal) 45.0 ^{+0.6} x 22.2 ^{+0.3} mm special quick plastic clamp proper to fix in wall thickness up to 50 mm PC/ABS-plastic blend, colour black, UL94V-0 at the front IP40 connection IP00
For all versions	Weight Connection	approx. 75 g at the rear via terminals up to 1.5 mm ²
Input DV3.001... Direct voltage, direct current	Measuring range Input resistance	0-10 V, 50 V, 200 V, 0/4-20 mA – all ranges selectable via connection terminal Offset adjustment supported by offset potentiometer (-500 up to +500) Ri with 10 V = ~93 kΩ 200 V = ~2.2 MΩ 50 V = ~550 kΩ 20 mA = ~100 Ω

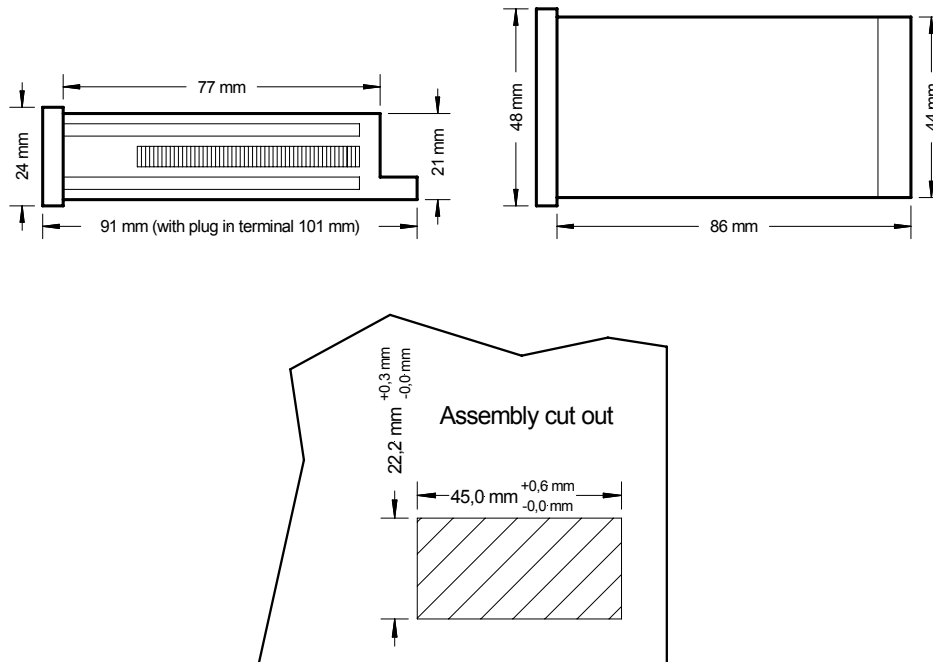
Technical data

DV3.002.... Direct voltage (Shunt)	Measuring range	0-60 mV, 150 mV, 300 mV, 1 V – all ranges selectable via connection terminal Offset adjustment supported by offset potentiometer (-100 up to +100)
	Input resistance	R _i with 60 mV = ~15 kΩ 300 mV = ~75 kΩ 150 mV = ~39 kΩ 1 V = ~220 kΩ
DV3.006.... Resistance	Measuring range	≤10 kΩ, ≤100 kΩ, ≤1 MΩ Offset adjustment supported by offset potentiometer (-100 up to +100)
DT3.x02.... PT100	Sensor Measuring range Sensor current	2-wire, 3-wire -50.0 up to 199.9°C approx. 1 mA
DT3.x06.... PT100	Sensor Measuring range Sensor current	2-wire, 3-wire -100 up to + 600°C approx. 1 mA
DT3.602.... PT1000	Sensor Measuring range Sensor current	2-wire -50 up to + 199.9°C approx. 0.1 mA
DT3.606.... PT1000	Sensor Measuring range Sensor current	2-wire -100 up to + 600°C approx. 0.1 mA
DT3.40x.... Thermocouple	<u>L</u> FeCuNi (DIN) <u>J</u> FeCuNi (americ.) <u>K</u> NiCrNi	-50 up to + 500°C -50 up to + 500°C -100 up to + 800°C
Output		
<i>For all versions</i>	Analog output	0-10 VDC/2 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	Not changeable, offset analogue output corresponds to 0 digit, see options
	Final value	Adjustable to 10 V or 20 mA, within the indication range 350 to 1999 (The measuring inputs are not galvanic insulated from the analogue output!)
DT3.x02.... DT3.x06....	Final value 200°C Final value 600°C	10 V or 20 mA adjustable for range from 35.0°C up to 199.9°C 10 V or 20 mA adjustable for range from 200°C up to 600°C
DT3.40x....	Final value 500°C Final value 800°C	10 V or 20 mA adjustable for range from 200°C up to 500°C 10 V or 20 mA adjustable for range from 200°C up to 800°C
Accuracy		
<i>For all versions</i>	Measuring principle	Dual-Slope-Integration
DV3.001.... DV3.002.... DV3.006.... DT3.40x.... DT3.x02.... DT3.x06....	Temp. drift	~ 100 ppm/K ~ 150 ppm/K ~ 100 ppm/K ~ 100 ppm/K ~ 100 ppm/K ~ 100 ppm/K
<i>For all versions</i>	Measuring fault	+/-0.1% of measuring value, +/-1 digit
DT3.x02.... DT3.x06.... DT3.60x....	Measuring fault Measuring fault Measuring fault	max. +/-0.5°C, +/-1 digit max. +/-1°C, +/-1 digit R _L ≤ 10 Ω = +/-1K R _L > 10 Ω ≤ 20 Ω = +/-2K
DT3.40x....	Measuring fault type J, L Measuring fault type K	max. 5°C Range from -100°C up to -50°C max. 15°C Range > -50°C up to 600°C max 5°C Range > 600°C up to 800°C max 15°C
<i>For all versions</i>	Resolution	+/-1999 digit
DT3.x02.... DT3.x06.... DT3.40x....		0.1°C 1°C 1°C
Power unit	Supply voltage Power consumption	24 VDC (18-30 V), 24 VDC (+/-10%) galvanic insulated max. 2 VA

Technical Data

Indication	Display	LED with 7 segments, 10 mm high, red
	Overflow	3½-digit = indication 1999 by showing „1“ on the 4. digit
<i>For all versions</i>	Measuring time	1 second
DV3.001.... DV3.002.... DV3.006....	Decimal point Blanking	adjustable by bridging on front side blanking out of last digit (selectable by bridge on front side)
Ambient conditions	Working temperature	0 up to + 60 °C
	Storing temperature	-20 up to + 80°C

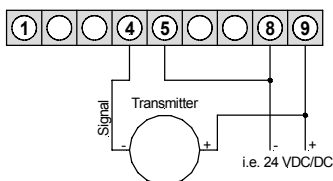
Housing:



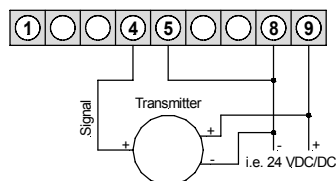
Connection diagrams

DV3.001....

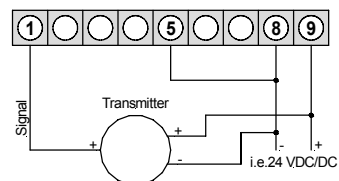
2-wire: 4-20 mA



3-wire: 0-20 mA
4-20 mA



3-wire: 0-10 V / 0-5 V
0-1 V / 1-6 V



Ordering code DV, DT

Digital panel meter

D V 3 0 0 1 7 7 6 B

Basic model		Internal index	
Voltage metering	V	Mechanical Options	
Temperature metering	T	5	Plug in terminal, protection IP54
		6	Plug in terminal, protection IP40
		7	Plug in terminal, protection IP65
Number of digits 3½ digits	3	Power supply	
		3	24 VDC
		7	24 VDC (galvanic insulated)
Sensor supply No sensor supply	0	Size of housing	
		7	48x24
Temperature device		Measuring input	
PT100 2-wire	2	1	Direct voltage, direct current
PT100 3-wire	3	2	Direct voltage, shunt measuring
PT1000 2-wire	6	6	Resistance
Thermocouple	4	2	Range PT100/1000 (199,9°C) – for DT
		6	Range PT100/1000 (600°C) –for DT
Resistance		L	Thermocouple type L – for DT
Measuring range up to 10 kΩ	5	J	Thermocouple type J – for DT
Measuring range up to 100 kΩ	6	K	Thermocouple type K – for DT
Measuring range up to 1 MΩ	7		
Outputs			
No output	0		
0-10 V	1		
0-20 mA	2		
4-20 mA	3		