



**Digital panel meter
3½-digit**

DV3, DT3

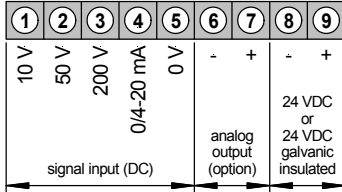
- Without setpoints
- Analog output

Digital panel meter

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

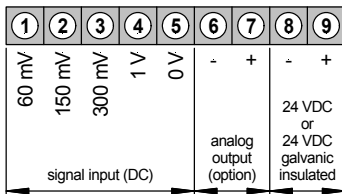


• Direct voltage, direct current

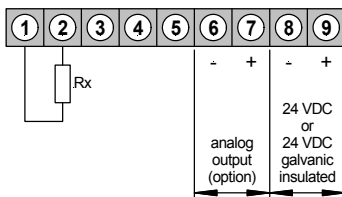


Transmitter connections see page 5

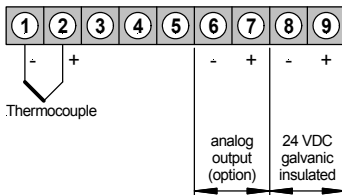
• Direct current (Shunt)



• Resistance, potentiometer



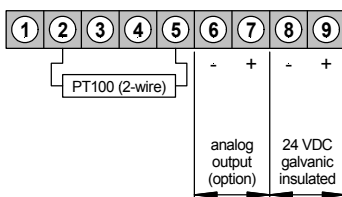
• Thermocouple L, J or K



Typ L (FeCuNi - DIN) -50 up to +500°C
 Typ J (FeCuNi - americ.) -50 up to +500°C
 Typ 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
(without options)

Power supply 24 VDC

DV 3.001.736B

Power supply 24 VDC (galv. insulated)

DV 3.001.776B

Power supply 24 VDC

DV 3.002.736B

Power supply 24 VDC (galv. insulated)

DV 3.002.776B

Power supply 24 VDC

Measuring range $\leq 10K\Omega$

DV 3.506.736B

Measuring range $\leq 100K\Omega$

DV 3.606.736B

Measuring range $\leq 1M\Omega$

DV 3.706.736B

Power supply 24 VDC

Measuring range $\leq 10K\Omega$

DV 3.506.776B

(galvanic insulated)

Measuring range $\leq 100K\Omega$

DV 3.606.776B

Measuring range $\leq 1M\Omega$

DV 3.706.776B

Power supply 24 VDC (galvanic insulated)

DT 3.40x.776B

Power supply 24 VDC

2 wire (199,9°C)

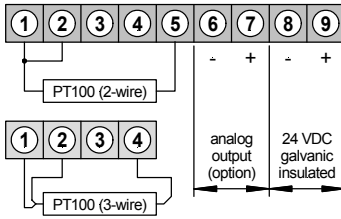
DT 3.202.776B

(galvanic insulated)

2 wire (600°C)

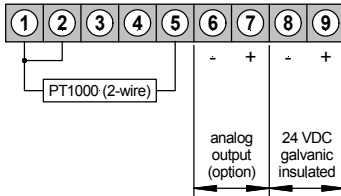
DT 3.206.776B

• **PT100 (2+3 wire)**



Power supply 24 VDC 3+2 wire (199,9°C) **DT 3.302.776B**
(galvanic insulated) 3+2 wire (600°C) **DT 3.306.776B**

• **PT1000 (2 wire)**



Power supply 24 VDC 2 wire (199,9°C) **DT 3.602.776B**
(galvanic insulated)

Power supply 24 VDC 2 wire (600°C) **DT 3.606.776B**
(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 rearside**

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	100,0	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

B48 x H24 x T91 mm (T=101mm, 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-bBlend, 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 mm²

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)
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DT3.x02.... PT100	Sensor	2-wire, 3-wire
	Measuring range	-50,0 bis 199,9°C
	Sensor current	approx. 1 mA

DT3.x06.... PT100	Sensor	2-wire, 3-wire
	Measuring range	-100 up to + 600°C
	Sensor current	approx. 1 mA

DT3.602.... PT1000	Sensor	2-wire
	Measuring range	-50 up to + 199,9°C
	Sensor current	approx. 0.1 mA

DT3.606.... PT1000	Sensor	2-wire
	Measuring range	-100 up to + 600°C
	Sensor current	approx. 0.1 mA

DT3.40x.... Thermocouple	<u>L</u> FeCuNi (DIN)	-50 up to + 500°C
	<u>J</u> FeCuNi (americ.)	-50 up to + 500°C
	<u>K</u> NiCrNi	-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 analog 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 analog 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
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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
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Accuracy

<i>For all versions</i>	Measuring principle	Dual-Slope-Integration
DV3.001....	Temp. drift	~ 100 ppm/K
DV3.002....		~ 150 ppm/K
DV3.006....		~ 100 ppm/K
DT3.40x....		~ 100 ppm/K
DT3.x02....		~ 100 ppm/K
DT3.x06....		~ 100 ppm/K

<i>For all versions</i>	Measuring fault	+/-0.1% of measuring value, +/-1 digit
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DT3.x02....	Measuring fault	max. +/-0.5°C, +/-1 digit
DT3.x06....	Measuring fault	max. +/-1°C, +/-1 digit
DT3.60x....	Measuring fault	R _L ≤ 10 Ω = +/-1K R _L > 10 Ω ≤ 20 Ω = +/-2K
DT3.40x....	Measuring fault type J, L	max. 5°C
	Measuring fault type K	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
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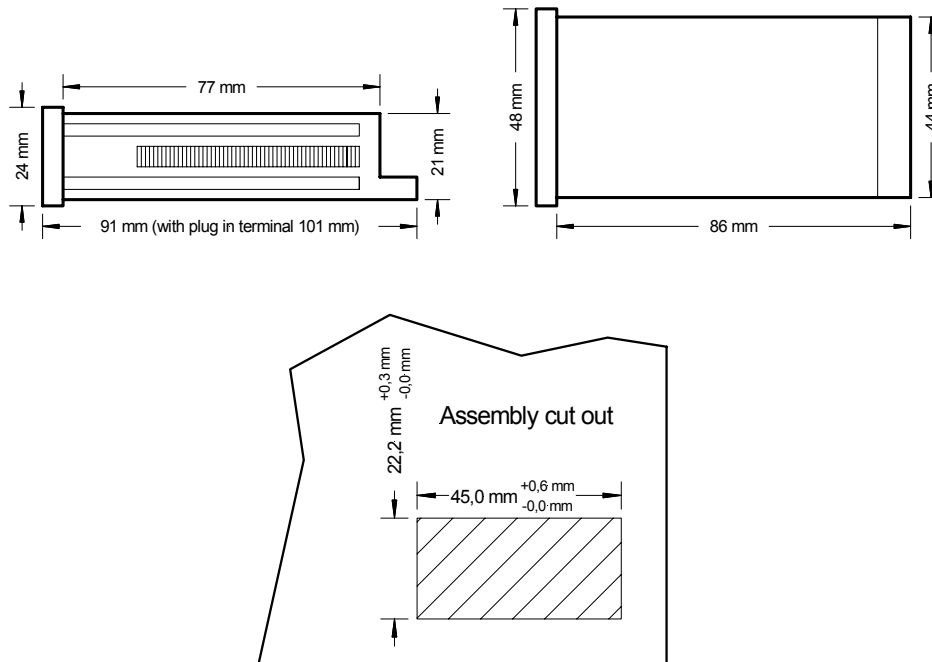
DT3.x02....		0.1°C
DT3.x06....		1°C
DT3.40x....		1°C

Power unit	Supply voltage	24 VDC (18-30 V), 24 VDC (+/-10%) galvanic insulated
	Power consumption	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 sec.
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

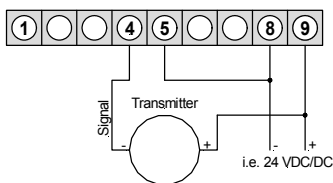
Housing:



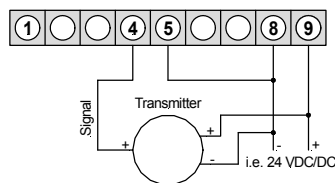
Connection diagrams

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

