



Digital panel meter
3½-digit

DV3, DT3

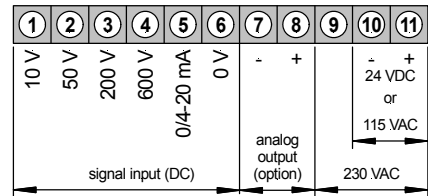
- Without setpoints
- Analog output

Digital panel meter

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



• Direct voltage, direct current



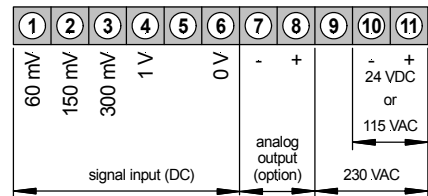
Transmitter connections see page 6

- Power supply 230/115 VAC
- Power supply 24 VDC
- Power supply 24 VDC (galv. insulated)

ORDER NUMBER OF TYPE
(without options)

- DV 3.001.610B
- DV 3.001.630B
- DV 3.001.670B

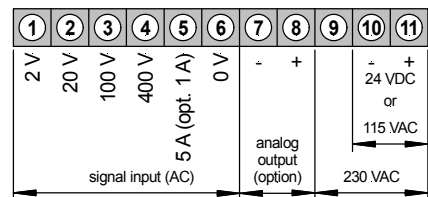
• Direct current (Shunt)



- Power supply 230/115 VAC
- Power supply 24 VDC
- Power supply 24 VDC (galv. insulated)

- DV 3.002.610B
- DV 3.002.630B
- DV 3.002.670B

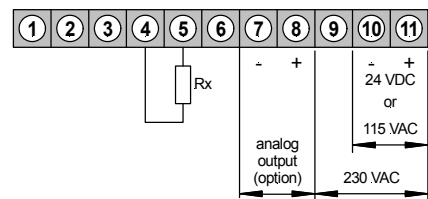
• Alternating voltage, alternating current



- Power supply 230/115 VAC
 - Power supply 24 VDC (galv. insulated)
- Standard
True effective value RMS
Standard
True effective value RMS

- DV 3.004.610B
- DV 3.104.610B
- DV 3.004.670B
- DV 3.104.670B

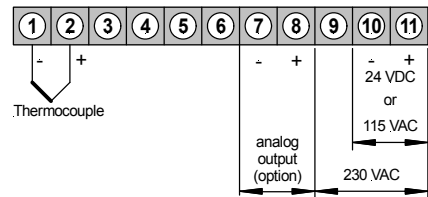
• Resistance, potentiometer



- Power supply 230/115 VAC
 - Power supply 24 VDC (galv. insulated)
- Measuring range ≤10kΩ
Measuring range ≤100kΩ
Measuring range ≤1MΩ
Measuring range ≤10kΩ
Measuring range ≤100kΩ
Measuring range ≤1MΩ
Measuring range ≤10kΩ
Measuring range ≤100kΩ
Measuring range ≤1MΩ

- DV 3.506.610B
- DV 3.606.610B
- DV 3.706.610B
- DV 3.506.630B
- DV 3.606.630B
- DV 3.706.630B
- DV 3.506.670B
- DV 3.606.670B
- DV 3.706.670B

• 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

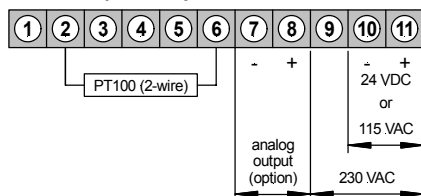
- Power supply 230/115 VAC
- Power supply 24 VDC (galv. insulated)

- DT 3.40x.610B
- DT 3.40x.670B

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

ORDER NUMBER OF TYPE
(without options)

• **PT100 (2 wire)**



Power supply 230/115 VAC

2 wire

DT 3.202.610B (199,9°C)

2 wire

DT 3.206.610B (600°C)

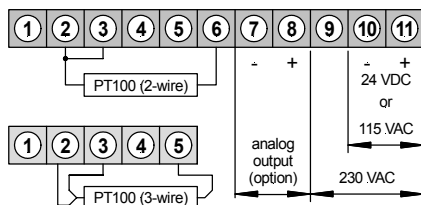
3+2 wire

DT 3.302.610B (199,9°C)

3+2 wire

DT 3.306.610B (600°C)

• **PT100 (2+3 wire)**



Power supply 24 VDC

2 wire

DT 3.202.670B (199,9°C)

(galv. insulated)

2 wire

DT 3.206.670B (600°C)

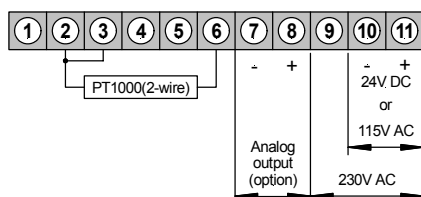
3+2 wire

DT 3.302.670B (199,9°C)

3+2 wire

DT 3.306.670B (600°C)

• **PT1000 (2 wire)**



Power supply 230/115 VAC

2 wire

DT 3.602.610B (199,9°C)

Power supply 24 VDC

2 wire

DT 3.602.670B (199,9°C)

(galv. insulated)

Power supply 230/115 VAC

2 wire

DT 3.606.610B (600°C)

Power supply 24 VDC

2 wire

DT 3.606.670B (600°C)

(galv. insulated)

OPTIONS

	DV 3.001... Direct voltage	DV 3.002... Shunt	DV 3.004... Alternating voltage	DV 3.006... Resistance	DT3.40x... Thermocouple	DT3.x02.../3.x06... PT100/0 (2 + 3 wire)	Additional price
							EUR
Green LED	x	x	x	x	x	x	
Protection IP54 at the front	x	x	x	x	x	x	6,15
Protection IP65 at the front (see following table)	x	x		x			28,10
Plug in terminal	x	x	x	x		x	9,20
Analog output 0-10 VDC/2 mA (supply voltage 230/115 VAC)	x	x	x	x	x	x	32,70
Analog output 0-20 mA/load 500 Ω (supply voltage 230/115 VAC)	x	x	x	x	x	x	32,70
Analog output 4-20 mA/load 500 Ω (supply voltage 230/115 VAC)	x	x	x	x	x	x	32,70
Analog output 0-10 VDC/2 mA (supply voltage 24 VDC galv. insulated)	x	x	x	x	x	x	61,35
Analog output 0-20 mA/load 500 Ω (supply voltage 24 VDC galv. insulated)	x	x	x	x	x	x	61,35
Analog output 4-20 mA/load 500 Ω (supply voltage 24 VDC galv. insulated)	x	x	x	x	x	x	61,35
Analog output with customer specified offset (S26)	x	x	x	x	x	x	10,25
Analog output and protection IP65	See type PVE						
Measuring range 0-1 mA (S10)	x						15,35
Measuring range 1 A on demand (S108)			x				
Dimension strips are selectable (max. 7 signs)	x	x	x	x	x	x	
Other power supplies on demand	x	x	x	x	x	x	
Setpoints	See type PVE						

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

	Standard	As desired	DV 3.001... Direct voltage	DV 3.002... Shunt	DV 3.004... Alternating voltage	DV 3.006... Resistance	DT3.40x... Thermocouple	DT3.x02.../3.x06... PT100/0 (2 + 3 wire)
			x	x	x	x	x	
Plus sign	Active	Inactive						
Blanking	no	yes						
Decimal point	100,0	no	x	x	x	x	x	
		10,00	x	x		x		

Technical data

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

Dimensions

Housing
Assembly cut out
Fastening
Housing material
Protective system

Weight
Connection

B72 x H36 x T97 mm, including screw terminal (T=115 mm, including plug in terminal)
68.0^{+0.7} x 33.0^{+0.6} mm
special quick plastic clamp proper to fix in wall thickness up to 50 mm
PC/ABS-blend, colour black, UL94V-0
at the front IP40
connection IP00
approx. 0,19 kg
at the rear via terminals up to 2,5 mm²

Input

DV3.001....
Direct voltage,
direct current

Measuring range

0-10 V, 50 V, 200 V, 600 V, 0-20 mA - 4-20 mA ,0-200 mA
All ranges selectable via connection terminal.
Offset adjustment supported by offset potentiometer (-500 up to +500).
Ri with 10 V = ~55 kΩ 600 V = ~4.7 MΩ
50 V = ~290 kΩ 20 mA = ~100 Ω
200 V = ~1.8 MΩ

Input resistance

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)
Ri with 60 mV = ~15 kΩ 300 mV = ~75 kΩ
150 mV = ~39 kΩ 1 V = ~320 kΩ

Input resistance

DV3.004....
Alternating voltage,
Alternating current

Measuring range

0-2 V, 20 V, 100 V, 400 V, 1 A (Option), 5 A – all ranges selectable via connection terminal
Offset adjustment supported by offset potentiometer (-100 up to +100).
Ri with 2 V = ~20 kΩ 400 V = ~4M Ω
20 V = ~200 kΩ 1 A = ~276 mΩ
100 V = ~1 MΩ 5 A = ~56 mΩ

Input resistance

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....
Thermoelement

L FeCuNi (DIN)
J FeCuNi (americ.)
K NiCrNi

-50 up to + 500°C
-50 up to + 500°C
-100 up to + 800°C

Output

For all versions

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)
Not changeable, offset analogue output corresponds to 0 digit, see options!
Adjustable to 10 V or 20 mA, within the indication range 350 to 1999.
(The measuring inputs are not galv. insulated from the analog output!)

Offset

Final value

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

For all versions

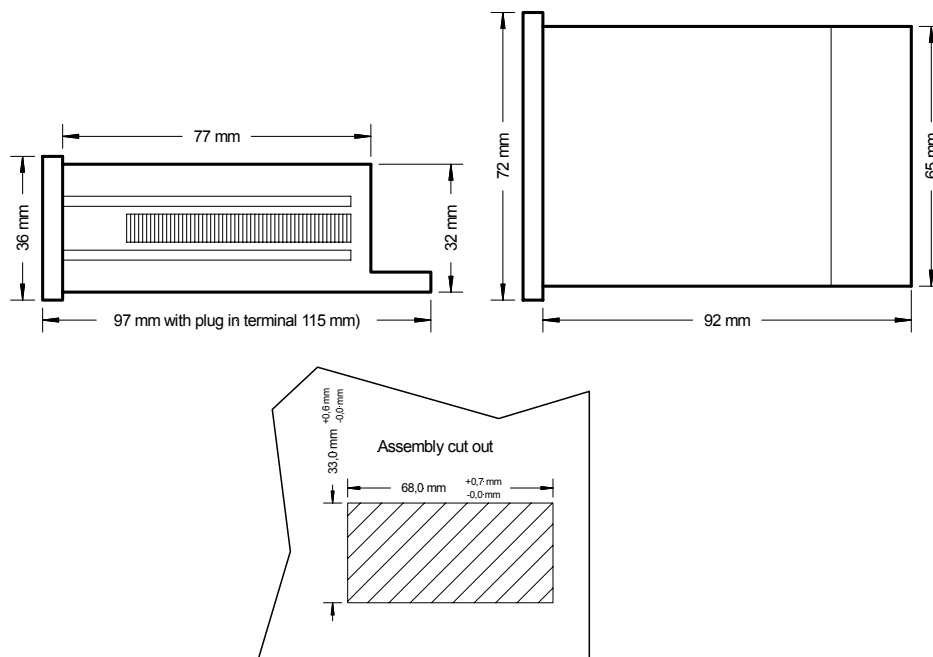
Measuring principle
Temp. drift

Dual-Slope-Integration
~ 100 ppm/K
~ 150 ppm/K
I ~ 200 ppm/K / **U** ~ 100 ppm/K
~ 100 ppm/K
~ 100 ppm/K
~ 100 ppm/K
~ 100 ppm/K

Technical data

<i>For all versions</i>	Measuring fault	+/-0.1% of measuring value, +/-1 digit
DV3.0x4....	Frequency range	Nominal precision 40 Hz up to 1.000 Hz
	Measuring fault	Voltage range: +/-0.5% of measuring value, +/-1 digit 1 A range: +/-0.5% of measuring value, +/-1 digit 5 A range: +/-0.5% of measuring value, +/-1 digit
	<i>Measuring principle (input)</i>	Via rectifier – effective value with sine waveform only
DV3.1x4....	Frequency range	Nominal precision 40 Hz up to 1.000 Hz
	Measuring fault	Voltage range: +/-0.5% of measuring value, +/-1 digit, crest factor 3 1 A range: +/-0.5% of measuring value, +/-1 digit, crest factor 3 5 A range: +/-0.5% of measuring value, +/-1 digit, crest factor 3
	<i>Measuring principle (input)</i>	True effective value RMS
DT3.x02....	Measuring fault	max. +/-0.5°C, +/-1 digit
DT3.x06....	Measuring fault	max. +/-1°C, +/-1 digit
DT3.60x....	Measuring fault	$R_L \leq 10 \Omega = +/-1 K$ $R_L > 10 \Omega \leq 20 \Omega = +/-2 K$
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	+/-1.999 digit
DT3.x02....		0,1°C
DT3.x06....		1°C
DT3.40x....		1°C
Power unit	Supply voltage	230/115 VAC +/- 10% (50-60 Hz), 24 VDC (18-30 V), 24 VDC (+/-10%) galv. insulated
	Power consumption	max. 5 VA
Indication	Display	LED with 7 segments, 14 mm high, red 3½-digit = indication 1.999
	Overflow	by showing „1“ on the fourth digit
DV3.001....		
DV3.002....		
DV3.006....	Decimal point	adjustable by bridging on front side
	Measuring time	1 sec.
	Blanking	blanking out of last digit (selectable by bridge)
	Plus sign	adjustable by bridging on front side
DV3.004....	Decimal point	adjustable by bridging on front side
	Measuring time	1 sec.
	Blanking	blanking out of last digit (selectable by bridge)
DT3.xx2....		
DT3.xx6....	Measuring time	1 sec.
Ambient conditions	Working temperature	0 up to + 60 °C
	Storing temperature	-20 up to + 80°C

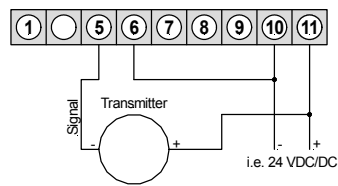
Housing:



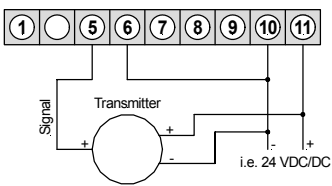
Wiring diagrams

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

