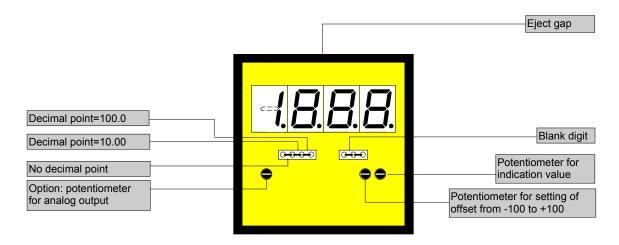
Alternating voltage, alternating current



- Option: analogue output
- Mounting into panels with thickness up to 50 mm





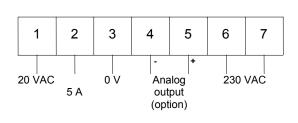
ORDER NUMBER OF TYPE

Standard

DV 3.004.850B

True effective value RMS

DV 3.104.850B



Power supply 24 VDC

Standard

DV 3.004.870B

galv. insulated - (7=plus, 6=minus)

True effective value RMS

DV 3.104.870B

Options

- green LED
- Protection IP54
- Protection IP65 (see reference)
- Plug in terminal with protection IP40
- Plug in terminal with protection IP54
- Pug in terminal with protection IP65 (see reference)

Reference: Decimal point and blank digit have to be pretended!

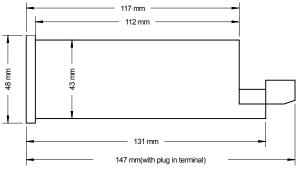
- Analog output 0-10 VDC/10 mA
- Analog output 0-20 mA/load 500 Ω
- Analog output 4-20 mA/load 500 Ω
- Analog output 0-10 VDC/10 mA (power supply 24 VDC galvanically insulated)
- Analog output 0-20 mA/load 500 Ω (power supply 24 VDC galvanically insulated)
- Analog output 4-20 mA/load 500 Ω (power supply 24 VDC galvanically insulated)
- Analog output with customer specified offset

(The measuring inputs are not galvanic insulated from the analogue output!)

- Dimension strip selectable (8 characters max.)
- Other supply voltages on demand

Technical data, handling

Fastening Housing material Protective system Weight Connection Measuring input Measuring range O-20 V, 5 A (option 1 A) - offset adjustment supported by offset potentiometer all ranges are selectable via connection terminal Input resistance Ri with 20 V = 200 K\Omega 5 A = 56 m\Omega O-10 VDC/10 mA (0.1 % of measuring value, +/-0.05 % of full scale) O-20 mA, 4-20 mA - load 500 Ohm (0.1 % of measuring value, +/-0.05 % of full scale) Accuracy Resolution Temp. drift Measuring principle Frequency range Measuring fault No 3.0x4.8xxB Measuring (input) No 3.1x4.8xxB Measuring fault Measuring (input) Measuring	Dimensions	Housing	$48 \times 48 \times 131$ mm, including screw terminal $45.0^{+0.6} \times 45.0^{+0.6}$ mm		
Housing material Protective system Weight Protective system Weight Connection at the front IP40, connection IP40 approx. 0.180 kg at the rear side via screw terminal up to 2.5 mm² at the rear si		Assembly cut out			
Protective system Weight Connection P40 approx. 0.180 kg aprox. 0.180 kg					
Weight Connection Approx. 0.180 kg at the rear side via screw terminal up to 2.5 mm²					
Connection at the rear side via screw terminal up to 2.5 mm²		,			
Measuring range 0-20 V, 5 A (option 1 A) - offset adjustment supported by offset potentiometer all ranges are selectable via connection terminal Input resistance Ri with 20 V = 200 KΩ 5 A = 56 mΩ					
all ranges are selectable via connection terminal Input resistance Ri with 20 V = 200 KΩ 5 A = 56 mΩ 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 Ohm (0.1 % of measuring value, +/-0.05 % of full scale) VCCUTACY Resolution Temp. drift Measuring principle Frequency range Prequency range The measuring fault NP 3.0x4.8xxB Measuring fault NP 3.1x4.8xxB Measuring finput) Measuring fault NP 3.1x4.8xxB Measuring fault	Massuring input				
Input resistance Ri with 20 V = 200 K\Omega 5 A = 56 m\Omega					
Analogue output Analogue output O-10 VDC/10 mA (0.1 % of measuring value, +/-0.05 % of full scale) O-20 mA, 4-20 mA - load 500 Ohm (0.1 % of measuring value, +/-0.05 % of full scale) Temp. drift Measuring principle Frequency range Measuring fault Measuring fault Measuring (input) W 3.1x4.8xxB Measuring fault Measuring f		Input resistance			
Accuracy Resolution Temp. drift Measuring principle Frequency range NV 3.0x4.8xxB Measuring fault NV 3.0x4.8xxB Measuring finput) NV 3.1x4.8xxB Measuring finput) NV 3.1x4.8xxB Measuring fault NV 3.1x4.8xxB NV 3.1x4.8xxB Measuring fault NV 3.1x4.8xxB NV 3.1x4.8xxB Measuring fault NV 3.1x4.8xxB NV	Output	•	* * * * * * * * * * * * * * * * * * *		
Resolution Temp. drift Measuring principle Frequency range NV 3.0x4.8xxB Measuring fault DV 3.1x4.8xxB Measuring finput) NV 3.1x4.8xxB Measuring finput) NV 3.1x4.8xxB Measuring finput) Measuring finput) Measuring finput) NV 3.1x4.8xxB Measuring finput) Measuring (input) Measuring (inp	o alpai	, maiogao oaipat			
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Measuring principle Frequency range Measuring fault Measuring fault Measuring fault Measuring fault Measuring (input) Measuring fault Measuring fault Measuring (input) Measuring fault An ange: 1/-0.5 % of measuring value +/-1digit Measuring value, crestfactor 3 0 - 1 A range: 1/-0.5 % of measuring value, crestfactor 3 0 - 1 A range: 1/-0.5 % of measuring value, crestfactor 3 Measuring value, crestfactor 3 1 - 5 A range: 1 - 6.5 % of measuring value, crestfactor 3 No true effective value RMS N		Temp. drift			
Prequency range Measuring fault Measuring fault Measuring fault Measuring fault Measuring (input) Measuring fault Measuring (input) Measuring fault Measuring fault Measuring (input) Measuring fault Note of measuring value +/-1digit Note of measuring value, crestfactor 3 Measuring value, crestfactor 3 (option) 1 - 5 A range: +/-0.5 % of measuring value, crestfactor 3 (option) 1 - 5 A range: +/-0.5 % of measuring value, crestfactor 3 (o - 1 A range: +/-0.5 % of measuring value, crestfactor 3 (o - 1 A range: +/-0.5 % of measuring value, crestfactor 3 (o - 1 A range: +/-0.5 % of measuring value, crestfactor 3 (o - 1 A range: -/-0.5 % of measuring value, crestfactor 3 (o - 1 A range: -/-0.5 % of measuring value, crestfactor 3 (o - 1 A range: -/-0.5 % of measuring value, crestfactor 3 (o - 1 A range: -/-0.5 % of measuring value, crestfactor 3 (o - 1 A range: -/-0.5 % of measuring value, crestfactor 3 (o - 1 A range: -/-0.5 % of measuring value, crestfactor 3 (o - 1 A range: -/-0.5 % of measuring value, crestfactor 3 (o - 1 A range: -/-0.5 % of measuring value, crestfactor 3 (o - 1 A range: -/-0.5 % of measuring value, cr		•			
Measuring fault range:		Frequency range	nominal precision 40 Hz up to 1000 Hz		
Measuring (input) Measuring fault Measuring value +/-0.5 % of measuring value, crestfactor 3 Measuring value,	DV 3.0x4.8xxB	Measuring fault			
Measuring (input) Measuring fault Measuring (input) Measuring		_	0 – 1 A range: +/-0.5 % of measuring value +/-1digit (option)		
Measuring fault range:			1 – 5 A range: +/-0.5 % of measuring value +/-1digit		
O – 1 A range: +/-0.5 % of measuring value, crestfactor 3 (option) 1 – 5 A range: +/-0.5 % of measuring value, crestfactor 3 Measuring (input) true effective value RMS Power Unit Supply voltage 230/115 VAC +/- 10 % (50-60 Hz), 24 VDC +/-10 % galvanic insulated approx. 2 VA Display LED with 7 segments, 10 mm high, red 3½-digit = indication 1999 Measuring time 1 second Overflow by showing "1" on the fourth digit pecimal point adjustable by bridging on front side Blanking blanking out of last digit (selectable by bridge) Working temp. 0 up to + 60 °C conditions Storing temp20 up to + 80 °C			via rectifier – (effective value with sine waveform only)		
Measuring (input) Measuring (input) Supply voltage Power Unit Display Measuring time Overflow Decimal point Blanking Blanking Blanking Bunking temp. 1 – 5 A range: +/-0.5 % of measuring value, crestfactor 3 true effective value RMS 230/115 VAC +/- 10 % (50-60 Hz), 24 VDC +/-10 % galvanic insulated approx. 2 VA LED with 7 segments, 10 mm high, red 3½-digit = indication 1999 1 second by showing "1" on the fourth digit adjustable by bridging on front side blanking out of last digit (selectable by bridge) Working temp. 1 – 5 A range: +/-0.5 % of measuring value, crestfactor 3 true effective value RMS 230/115 VAC +/- 10 % (50-60 Hz), 24 VDC +/-10 % galvanic insulated approx. 2 VA 1 second 3½-digit = indication 1999 1 second Overflow by showing "1" on the fourth digit adjustable by bridging on front side blanking out of last digit (selectable by bridge) Oup to + 60 °C -20 up to + 80 °C	DV 3.1x4.8xxB	Measuring fault			
Measuring (input) Supply voltage Power consumption Display Measuring time Overflow Decimal point Blanking Bl					
Power Unit Supply voltage Power consumption Powe					
Power consumption approx. 2 VA Indication Display LED with 7 segments, 10 mm high, red 3½-digit = indication 1999 Measuring time 1 second Overflow by showing "1" on the fourth digit Decimal point adjustable by bridging on front side Blanking blanking out of last digit (selectable by bridge) Measuring time 1 second Overflow by showing "1" on the fourth digit conditions Decimal point adjustable by bridging on front side blanking out of last digit (selectable by bridge) O up to + 60 °C Storing temp. -20 up to + 80 °C		3 ()			
Addication Display LED with 7 segments, 10 mm high, red 3½-digit = indication 1999 Measuring time Overflow Decimal point Blanking Blanking Working temp. Oup to + 60 °C conditions LED with 7 segments, 10 mm high, red 3½-digit = indication 1999 1 second yellow by showing "1" on the fourth digit adjustable by bridging on front side blanking out of last digit (selectable by bridge) Oup to + 60 °C conditions LED with 7 segments, 10 mm high, red 3½-digit = indication 1999 1 second yellow by showing "1" on the fourth digit adjustable by bridge) Oup to + 60 °C conditions	Power Unit				
3½-digit = indication 1999 Measuring time 1 second Overflow by showing "1" on the fourth digit Decimal point adjustable by bridging on front side Blanking blanking out of last digit (selectable by bridge) Marbient Working temp. 0 up to + 60 °C Conditions Storing temp20 up to + 80 °C			·		
Measuring time Overflow Decimal point Blanking Morking temp. Oup to + 60 °C Storing temp. 1 second by showing "1" on the fourth digit adjustable by bridging on front side blanking out of last digit (selectable by bridge) Oup to + 60 °C Conditions 1 second by showing "1" on the fourth digit adjustable by bridge blanking out of last digit (selectable by bridge) Oup to + 60 °C Conditions	Indication	Display			
Overflow by showing "1" on the fourth digit Decimal point adjustable by bridging on front side Blanking blanking out of last digit (selectable by bridge) Marbient Working temp. 0 up to + 60 °C Conditions Storing temp20 up to + 80 °C			G .		
Decimal point adjustable by bridging on front side Blanking blanking out of last digit (selectable by bridge) Marbient Working temp. 0 up to + 60 °C Conditions Storing temp20 up to + 80 °C		•			
Blanking blanking out of last digit (selectable by bridge) Marking temp. 0 up to + 60 °C Conditions Storing temp20 up to + 80 °C					
Ambient Working temp. 0 up to + 60 °C conditions Storing temp20 up to + 80 °C		· · · · · · · · · · · · · · · · · · ·	, , , , , , , , , , , , , , , , , , , ,		
onditions Storing temp20 up to + 80 °C	A 11 4				
		0 1			
iousing:		Storing temp.	-20 up to + 80 °C		
	nousing:				



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.

Important reference!

During attitude as well as in the case of connection in the reverse field of the device, the corresponding precautions are to be taken concerning ESD in order to preclude a harm of the device.

Setting

- Connect the instrument according to the wiring diagram and turn power on.
- Adjustment of indication value: Remove the front pane by using the eject gap.
- Set the maximum input voltage/current and adjust the desired indication value by means of the potentiometer.
- In order to achieve the maximum value indication of 1999, the following minimum input voltages are required at the various measuring inputs:

Measuring input	20 V	5 A
U/I min	10 V	2.5 A
U/I max	30 V	5 A

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