

## Digital Panel Meter

## DPM 24/96 - 2000 S

The **DPM 24/96-2000 S** are digital panel instruments for measurement of current DC and voltage DC with 9 measuring ranges. 3 ranges for power supply are available.

### Service:

The measuring ranges and zero point selectable using jumpers at the back. The choice of many factory pre-set measuring ranges is included, with user adjustments available for the zero and full scale values.

### Further DPM 24/96-2000 versions from the range:



<b>DPM 24/96-2000 D</b>	Digital panel meter for current and voltage measurement (DC), 4 ranges.
<b>DPM 24/96-2000 F</b>	Digital panel meter for voltage measurement, 4 ranges.
<b>DPM 24/96-2000 M</b>	Digital panel meter for current and voltage measurement, 1 range.
<b>DPM 24/96-2000 SN</b>	Digital panel meter for direct current and direct voltage measurement, 8 respectively 10 ranges.

### Technical data:

<b>Display</b>	Display range	1999	
	Decimal point position	selectable	
	Negative display indication	"-"	
	Digit height	14 mm / 7 segment digits	
	Overload indication	last 3 digits blank	
	Setting time	< 1 s (0 ... 99 %)	
<b>Measuring ranges</b>	Direct current (Voltage drop < 600 mV)	0 ... 1 mA	
		0 ... 20 mA	
		0 ... 200 mA	
	Direct voltage (input current < 300 µA)	0 ... 0.2 V	(1 V)
		0 ... 1 V	(5 V)
		0 ... 5 V	(25 V)
		0 ... 25 V	(100 V)
		0 ... 100 V	(300 V)
	0 ... 300 V		
	Range adjustment span	from 20 % to 100 %	
Zero offset (suppression)	up to -1000		
Accuracy	< 0,2 % + 1 digit		
Temperature coefficient	100 ppm / K plus 100 ppm / K zero point drift		
<b>Digital input</b>	HOLD (option)	„0“	
<b>Options</b>	Brightness adjustment		
	Zero point adjustment		
	Hold input		
<b>Power supply</b>	Direct voltage DC common mode voltage	5 V ±5 %	max. 0,6 W not isolated
		-0,5 V ... 1,5 V max.	
	Alternating voltage AC (47 - 60 Hz)	21 ... 30 V ±15 %	4,0 W approx.
		230 V +10 %, -15 %	1,3 W approx.
<b>Environmental conditions</b>	Climatic class	Class 2 to VDE / DIN 3540	
	Operating temperature	0 ... 50 °C	
	Storage temperature	-40 °C ... +80 °C	
	Safety class	II to IEC 348 / VDE 0411	
	Protection class	IP 20 to IEC EN 60 529	
	front	IP 54 (IP 65 on request)	
	Device safety	corresp. IEC EN 61 010	
	EMC immunity	corresp. DIN EN 61 000-4-1 to 4	
EMC radiated interference	corresp. DIN EN 50 081 class B		
<b>Dimensions and weights</b>	Front frame	24 mm x 96 mm to DIN 43 718	
	Panel cut-out	22,2 +0,3 mm x 92 +0,8 mm	
	Overall depth	72 mm	
	Weight	approx. 90 g (210 g if power supply >5 V DC)	
	<b>Sundry</b>	Connections	Plug-in screw terminal blocks

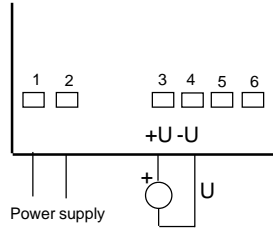
**Connections**

**Rating plate**

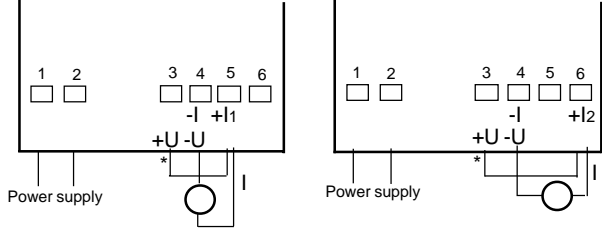
<input type="checkbox"/> DPM 24/96-2000 S <input type="checkbox"/> DPM 48/96-2000 S 14 <input type="checkbox"/> DPM 48/96-2000 S 20  		<b>Range:</b> U <sub>H</sub> : DC AC <input type="checkbox"/> 5V ±5% / 200mA <input type="checkbox"/> 24V <input type="checkbox"/> 21...30V / 100mA <input type="checkbox"/> 115V } +10%/ -15% <input type="checkbox"/> 230V			
Full-Scale = 1999	Jumper	Input	Full-Scale = 1999	Jumper	Input
Auto Zero					
U <sub>in</sub> :		i <sub>in</sub> :			
0,2.....1V	2	1,0.....4,0 mA	2		
1.....5V	3	4,0.....16,0 mA	3		
5.....25V	4	16,0.....64,0 mA	2;8		
25.....100V	5	64,0.....100,0 mA	3;8		
100.....300V	6	100,0.....300,0 mA	2		
⌀ - Adj (Live Zero): <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> 8 <input type="checkbox"/> 9 <input type="checkbox"/> 10 <input type="checkbox"/> 11 <input type="checkbox"/> 12					
U <sub>H</sub> L <sub>1</sub> N		Input		-U -1 +1 +2	
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	

**Measuring input**

**Voltage measurement**



**Current measurement**



\*) For current measurement, the user has to externally link terminals 3 (+U) and 5 (+I1), or terminals 3 (+U) and 6 (+I2).

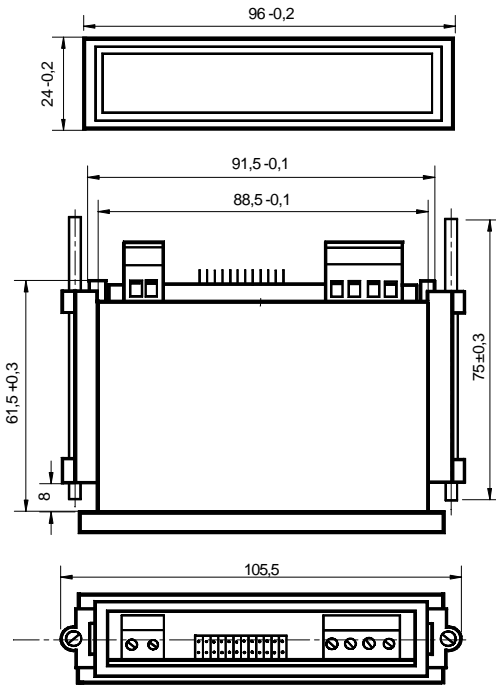
**Note:**

In order to avoid errors or an unstable readout, the measuring circuits be shielded or at least twisted.

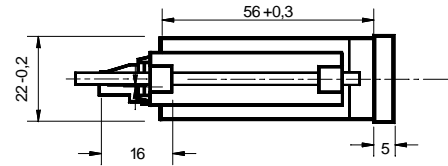
**Operation**

To set the basic range, first remove the safety cover over the pin connector at the rear of the instrument. To set the basic range and decimal point, plug in jumpers according to the assignment table. A zero shift is possible up to 25 % of the full-scale range.

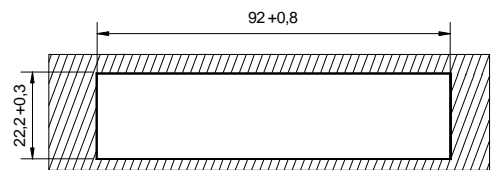
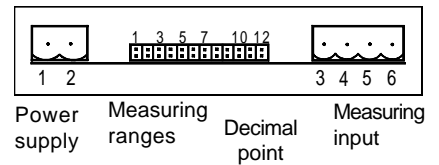
**Design and installation**



Panel cut-out



**Connections**



We reserve the right to make alterations !  
 III/98  
 Item no.: 2786688601/2

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