

Operating Manual

The **RISH DPM 48/96 B** is a digital standard instrument for measurement of direct current with 2 ranges. Seven ranges for power supply are available.

Operation:

The measuring ranges are selectable using terminals on the back. The full scale value will be adjusted with potentiometer, in the range 1:10 at the back of the instrument, like wise zero point can be adjusted. The decimal point can be set by means of jumpers.

Further RISH DPM 48/96 versions from the series:

RISH DPM 48/96 A	Instrument for DC current measurement, 3 ranges.
RISH DPM 48/96 C	Instrument for DC voltage measurement, 2 ranges.
RISH DPM 48/96 F	Instrument for DC voltage measurement, 4 ranges.
RISH DPM 48/96 AC	Instrument for AC voltage and AC current measurement, 3 ranges.
RISH DPM 48/96 T	Instrument for Temperature measurement with PT100, 2 ranges.

Technical data

Display	Display range	1999	
	Decimal point position	Selectable by rear jumper position	
	Negative display indication	„-“	
	Digit height	14 mm / 7-segment digits	
	Overload indication	last 3 digits blank	
Measuring ranges (Max. overload 20 % of full-scale value)	Current DC	0 ... 20 mA	
	(Voltage drop < 600 mV)	4 ... 20 mA	
	Accuracy	< 0.1 % of range + 1 digit	
	Temperature coefficient	100 ppm / °C, Plus	
	Zero point drift	100 ppm / °C	
Power supply	Range adjustment span	From 10% to 100% of range	
	Direct voltage DC	5 V ±5 %	max. 1W, non isolated.
		Common mode voltage	-0.5... 1.5 V max
	Alternating voltage (47 - 60 Hz)	24V +/- 15%	max. 5.5 W
		48V +/- 15%	max. 5.5 W
110V +/- 15%		max. 5.5 W	
24V +10%, -15%		max. 5.5 W	
115 V +10 %, -15 %		max. 5.5 W	
230 V +10 %, -15 %	max. 5.5 W		
Environmental conditions	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 50 (IP 54 on request)	
	Device safety	According to IEC EN 61 010	
	EMC immunity	According to DIN EN 61 000-4-1 to 4	
EMC radiated interference	According to DIN EN 50 081 class B		
Dimensions and weight	Front bezel size	96 mm x 48 mm (DIN 43 718)	
	Panel cut-out	92 +0.8 mm x 43.5 +0.6 mm	
	Overall depth	138 mm	
	Weight	500 g approx.	
Sundry	Connections	Plug-in screw terminal blocks	

Connections

Rating plate

RISHABH RISH DPM 48/96 B	
Ser.- Nr.:	
Power supply	A + <input type="checkbox"/> 230 V AC <input type="checkbox"/> 115 V AC <input type="checkbox"/> 24 V AC B - <input type="checkbox"/> 5 V DC <input type="checkbox"/> 24 V DC
Input	1 LO Common
	2 HI 0 ... 20 mA DC
	3 HI 4 ... 20 mA DC
	4 NC
	5 HI
Decimal point	6 LO
	7 LO Common
	8 HI X .XXX
	9 HI XX .XX
10 HI XXX .X	

Zero Span \pm $-$

10 9 8 7 6 5 4 3 2 1 B A

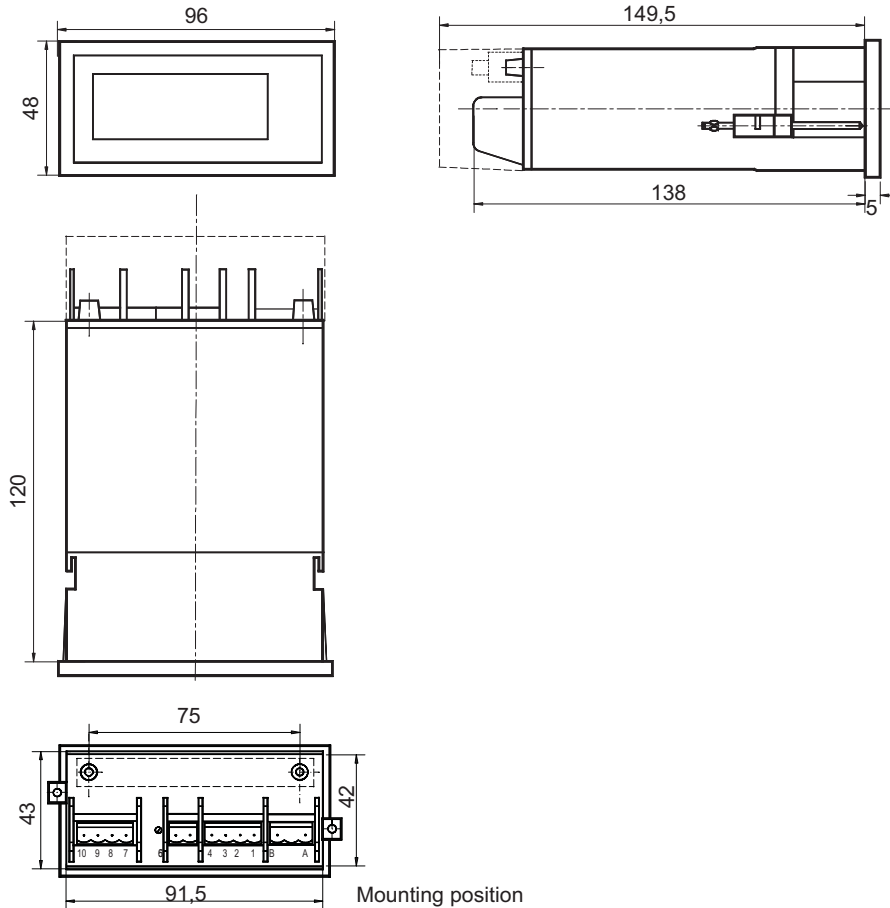
Measuring input

Current DC

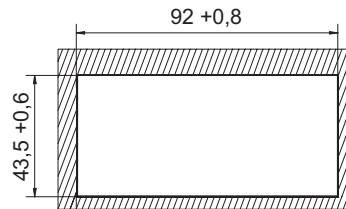
0 ... 20 mA: Terminals **1** and **2**
 4 ... 20 mA: Terminals **1** and **3** plus
 Jumper between terminals **5** and **6**
 Terminals **7** to **10** (with jumpers)

Setting the decimal point

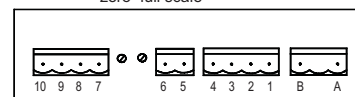
Design and installation



Installation cut-out



Adjusting zero full scale



Decimal point Measuring input Power supply

Connections