



Digital measuring instruments

4-digit, 96 x 48 mm

for direct and alternating current (True RMS)



Also available in black.
Please, specify separately.



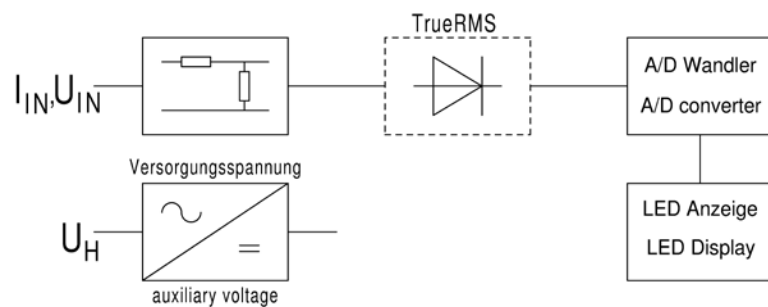
Application

The digital measuring instrument DSM 96 is used for measuring direct current, direct voltage, alternating current and alternating voltage as well as for indicating transformed non-electrical variables.



Function

The measurand is sent to a 4-digit A/D converter via series resistors and shunts (in case of alternating current via an rms rectifier). The conversion is made following the „Dual Slope“ principle. The values are indicated by 7-segment low-power LED displays. A hold function may be achieved by connecting two ports. The zero point compensation is done automatically. Decimal points, dark switching of the last digit, zero point as well as display range may be changed after removing the front panel.



Technical data

Display	LED seven-segment low-power, height 13 mm, red, 4-digit
Decimal points	adjustable, on front panel using DIP switch
Dark switching	of last digit, on front panel using DIP switch
Polarity	by negative (-) display
Overflow	flashing LED
Resolution	maximum display ± 9999 digit
Sampling rate	approx. 3 measurements per second
Measuring principle	Dual Slope integration
Accuracy	$\pm 0.1\%$ of measured value ± 1 digit for direct voltage $\pm 0.2\%$ of measured value ± 2 digits for direct current $\pm 0.2\%$ of full scale ± 2 digits for alternating current variables of arbitrary waveform, rms value up to crest factor 4, DC, 40-1000 Hz
Hold function	by connecting terminals 1 + 4
Temperature range	$-15\text{ }^\circ\text{C}$ to $+20\text{ }^\circ\text{C}$ to $+30\text{ }^\circ\text{C}$ to $+55\text{ }^\circ\text{C}$
Temperature influence	$< 0.05\%$ at 10 K
Overload capacity	Voltage 10-fold, max. 850 V, current 10-fold up to 20 mA, above that value 2-fold
Test voltage	4 kV between measuring input and auxiliary voltage
IP code	Housing IP50, terminals IP 10
Connection	plug-in 12-pin terminal block, screw terminal max. 2.5 mm ²
Auxiliary voltage	AC 230 V AC $\pm 20\%$, 45-65 Hz, 3 VA
Options	24 V DC, -15% to $+25\%$, 2.5 W 6-30 V AC + DC or 36-265 V AC + DC, 2.5 VA

€ Price

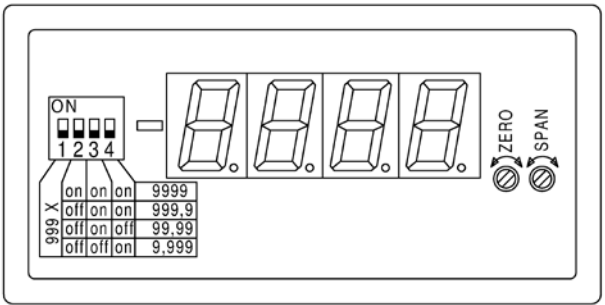
Type	DSM 96 4-digit
Front panel (mm)	96 x 48
Housing (mm)	90 x 42.5
Cut-out (mm)	92 x 45
Installation depth (mm)	118
Weight (kg)	0.35

from 1. April 2018
plus 3.8 %
surcharge

Type of current	Measuring range	Display	Internal resistance	€	
Direct voltage	+ / - 60 mV	1000 to 9999	> 100 M Ω		
DC	+ / - 100 mV	1000 to 9999	> 100 M Ω		
	+ / - 1 V	1000 to 9999	> 1 M Ω	166.10	
	+ / - 10 V	1000 to 9999	1 M Ω		
	+ / - 100 V	1000 to 9999	1 M Ω		
	+ / - 600 V	1000 to 9999	1 M Ω		
Direct current	+ / - 1 μA	1000 to 9999	100 k Ω		
DC	+ / - 10 μA	1000 to 9999	10 k Ω		
	+ / - 100 μA	1000 to 9999	1 k Ω		
	+ / - 1 mA	1000 to 9999	100 Ω		
	+ / - 10 mA	1000 to 9999	10 Ω		
	+ / - 20 mA	1000 to 9999	10 Ω	166.10	
	4 - 20 mA	1000 to 9999	10 Ω		
	+ / - 100 mA	1000 to 9999	1 Ω		
	+ / - 1 A	1000 to 9999	0.1 Ω		
	+ / - 5 A	1000 to 9999	0.02 Ω		
Direct and alternating voltage	0-100 mV	1000 to 9999	> 100 M Ω		
DC + AC True RMS	0-1 V	1000 to 9999	100 k Ω		
	0-10 V	1000 to 9999	1 M Ω	178.00	
	0-100 V	1000 to 9999	1 M Ω		
	0-600 V	1000 to 9999	1 M Ω		
	0-800 V	1000 to 9999	> 1 M Ω	208.00	
Direct and alternating current	0-1 mA	1000 to 9999	100 Ω		
DC + AC True RMS	0-10 mA	1000 to 9999	10 Ω		
	0-100 mA	1000 to 9999	1 Ω	178.00	
	0-1 A	1000 to 9999	0.1 Ω		
	0-5 A	1000 to 9999	0.02 Ω		
Surcharges	Outside of the standard series			6.00	
	Different measuring unit (e.g. mm/h)			6.00	
	Auxiliary voltage	24 V DC			31.00
		6-30 V AC + DC			52.00
	36-265 V AC + DC			44.50	

Connection

Front side (without front panel)



Rear side

