



Also available in black.
Please specify separately.



Digital measuring instruments

4 digit, 96 x 48 mm
for direct and alternating current and voltage
(True RMS)

Type:
DSM 96



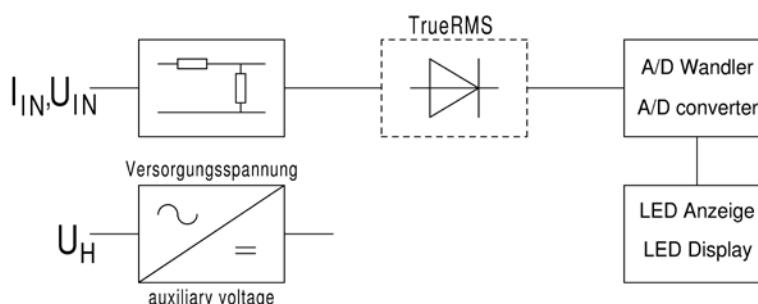
Application

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 13mm, 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
Resolution	maximum display +/- 9999 digit
Sampling rate	approx. 3 measurements per second
Measuring principle	Dual Slope integration
Accuracy	± 0,1 % of measured value ± 1 digit for direct voltage ± 0,2 % of measured value ± 2 digit for direct current ± 0,2 % of measured value ± 2 digit 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 °C to +20 °C to +30 °C to +55 °C
Temperature influence	< 0,05 % at 10 K
Overload capacity	voltage 10-fold, max. 850 V, current 10-fold up to 20 mA, above 2-fold
Test voltage	4 kV between measuring input and auxiliary voltage
IP code	Housing IP 50, terminals IP 10
Connection	plug-in 12-pin terminal block, screw terminal max. 2,5 mm ²
Auxiliary voltage	
Standard	230 V AC ± 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



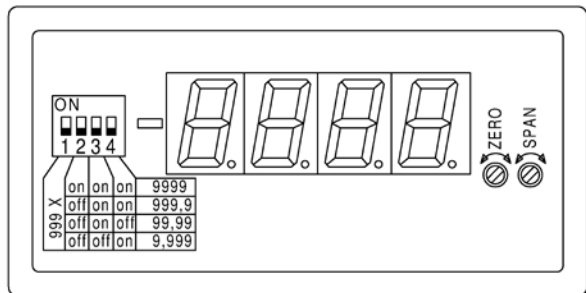
Types and variants

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		
Type of current	Measuring range	Display	Internal resistance
Direct voltage DC	± 60 mV	1000 bis 9999	> 100 M Ω
	± 100 mV	1000 bis 9999	> 100 M Ω
	± 1 V	1000 bis 9999	> 1 M Ω
	± 10 V	1000 bis 9999	1 M Ω
	± 100 V	1000 bis 9999	1 M Ω
	± 600 V	1000 bis 9999	1 M Ω
Direct current DC	± 1 µA	1000 bis 9999	100 k Ω
	± 10 µA	1000 bis 9999	10 k Ω
	± 100 µA	1000 bis 9999	1 k Ω
	± 1 mA	1000 bis 9999	100 Ω
	± 10 mA	1000 bis 9999	10 Ω
	± 20 mA	1000 bis 9999	10 Ω
	4 - 20 mA	1000 bis 9999	10 Ω
	± 100 mA	1000 bis 9999	1 Ω
	± 1 A	1000 bis 9999	0,1 Ω
± 5 A	1000 bis 9999	0,02 Ω	
Direct and alternating voltage DC + AC True RMS	0 - 100 mV	1000 bis 9999	> 100 M Ω
	0 - 1 V	1000 bis 9999	100 k Ω
	0 - 10 V	1000 bis 9999	1 M Ω
	0 - 100 V	1000 bis 9999	1 M Ω
	0 - 600 V	1000 bis 9999	1 M Ω
Direct and alternating current DC + AC True RMS	0 - 1 mA	1000 bis 9999	100 Ω
	0 - 10 mA	1000 bis 9999	10 Ω
	0 - 100 mA	1000 bis 9999	1 Ω
	0 - 1 A	1000 bis 9999	0,1 Ω
	0 - 5 A	1000 bis 9999	0,02 Ω
Surcharges	Outside of standard series		
	Different measuring unit (e.g. mm/h)		
	Auxiliary voltage	24 V DC	
		6-30 V AC + DC	
		36-265 V AC + DC	



Connection

Front view
(without front panel)



Rear view

