



Also available in black.  
Please specify separately.



## Digital measuring instruments

4 digit, 96 x 48 mm  
with two adjustable limit values  
for temperature and resistance

Type:  
**DSMG 96 Pt, DSMG 96 W**



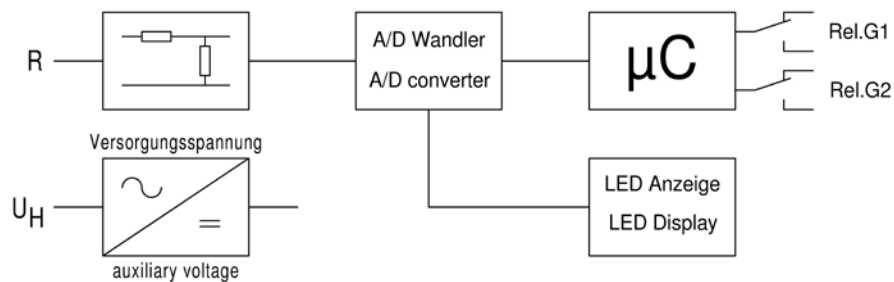
### Application

The digital measuring instrument DSMG 96 Pt may be used for measuring and monitoring two limit values during temperature measurements in connection with a resistance thermometer Pt 100. Type DSM 96 W is designed for measuring resistances.



### Function

The measurand is converted into a direct voltage in an evaluation circuit and fed to a 4-digit A/D converter. The conversion is made following the „Dual Slope“ principle. The values are indicated by 7-segment low-power LED displays. In case of line breakage of the Pt 100, the LED flashes. The measurement may be done in two-wire or three-wire technique. The measurand is continuously compared to the set limit values. As soon as the limit values are reached, the related limit value contacts are switched. The programming of the limit values is done via the front panel using membrane keys. The measuring instrument is equipped with a min/max value memory. 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
Sensor current	max. 3 mA
Sensor voltage	max. 4 V
Two-wire technique	max. input lead resistance 10 Ω (adjustment using „ZERO“ potentiom.)
Three-wire technique	max. 100 Ω input lead resistance symmetrical
Polarity	by negative ( - ) display
Overflow	flashing LED
Resolution	maximum display +/- 9999 digit
Sampling rate	approx. 3 measurements per second
Measurement principle	Dual-Slope integration
Accuracy	± 0,2 %, ± 2 digit of measuring range
Temperature range	-15 °C to +20 °C to +30 °C to +55 °C
Temperature influence	< 0,05 % at 10 K
Test voltage	4 kV between measuring input and auxiliary voltage
<b>Limit values</b>	
Switching accuracy	± 0 digit
Switching time	< 400 ms for 10 % limit value exceedance
Hysteresis	adjustable from 0-10 % off limit value
Switching delay	adjustable from 0-150 s
Relay contacts	2 changeover contacts
Switching capacity	max. 8 A, 250 V AC, 2000 VA
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 <sup>2</sup>

<b>Auxiliary voltage</b>	Standard	230 V AC $\pm$ 20 %, 45-65 Hz, 3 VA
	Options	24 V DC, -15 % at +25 %, 2,5 W
		6-30 V AC + DC or 36-265 V AC + DC, 2,5 VA



## Types and variants

<b>Type</b>	DSMG 96 Pt / W	
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	

<b>DSMG 96 Pt 4-digit</b>	Measuring range	Display
Temperature measurement Pt 100	-60 to +850 °C	-60,0 to +850,0 °C

<b>DSMG 96 W4-digit</b>	Measuring range	Display
Resistance measurement		
3-wire circuit	an arbitrary value between 0-100 $\Omega$ to 0-10 k $\Omega$	1000 to 9999
2-wire circuit	0-100 $\Omega$ 0-1 k $\Omega$ 0-10 k $\Omega$	1000 to 9999 1000 to 9999 1000 to 9999

<b>Surcharges</b>	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	

In case of resistance measurement: Please specify 2-wire or 3-wire circuit in order!



## Connection

