

GENERAL CHARACTERISTICS



The panel digital indicator DP series is used for the measurement of the most common signals used in industrial processes. The instrument has small dimensions and is suitable for installation both on a panel and on control unit.

The indicator is programmable, and has been designed for use with signals 0/4 ÷ 20mA, 0/2 ÷ 10Vdc, potentiometer with range value from 1kΩ to 100kΩ and temperature measurements with PT100 and PT1000.

The configuration of the measurement can be selected from the outside without opening the instrument. The input signal is galvanically isolated from the power.



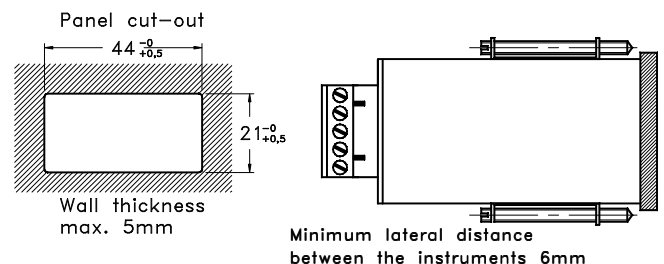
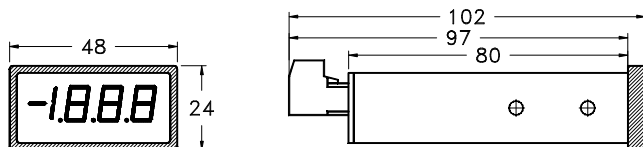
- Programmable input signals.
0/4 ÷ 20mA, 0/2 ÷ 10Vdc, potentiometer 1kΩ ÷ 100kΩ.
- Measurement range adjustable from -1999 to +1999 digit.
- PT100 measuring ranges -100.0 ÷ +199.9 °C or 0 ÷ +600 °C.
- PT1000 measuring range -50.0 ÷ +100.0 °C.
- Programmable decimal point.
- Green or Red display.
- Power supply: 10,8 ... 30 Vdc / 17 ... 30 Vac.
- Galvanic isolation between input signal and power supply.

TECHNICAL DATA

Tab.1

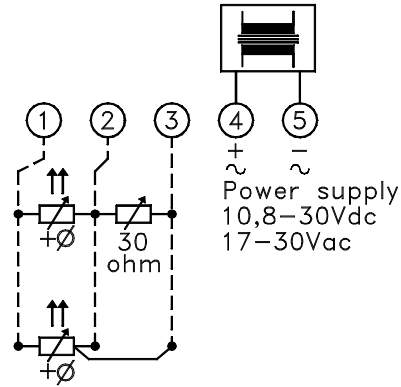
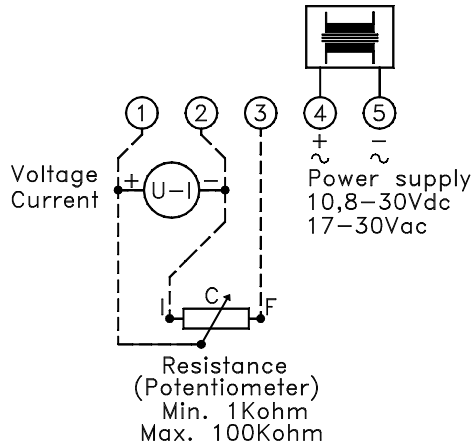
Description		Characteristics		Code	
Type	Digital panel indicator			DPA	
Power supply	Power supply	10.8 ÷ 30 Vdc	17 ÷ 30 Vac	-	
	Frequency	47 ÷ 63 Hz			
	Power consumption	1,2 VA			
	Temperature range	-10° ÷ +60° C / 14 ÷ 140 °F			
	Test voltage	500 Vdc			
	Reference standard	EN55022, IEC61000-4-2/4/11			
Input signals	Voltage	IR = 40 KΩ	Overload 48 V max.	10	
	Current	IR = 125 Ω	Overload 60 mA max.		
	Potentiometer	Min. 1 KΩ	Max. 100 KΩ	50	
	Pt100	Measuring current 1,0 mA (not self heating)			
	Pt1000	Measuring current 0,2 mA (not self heating)		55	
	Accuracy	< 0,05 % ±1 digit		-	
	Temperature coefficient	< 50 ppm / K			
	Linearization error	< 0,1 %			
Display	Digit	3 ½ - 7,6 mm. height	Red color	1	
			Green color	2	
	Measuring unit	Indicated on front panel	To be specified in order	°C	
	Conversion rate	About 2 / s			
	Decimal point	Selectable			
Overflow indicator	Negative " □ □ "	Positive " □ "		-	
Housing	Front panel degree of protection	IP54		1	
		IP65 - On request		2	
	Slide-in Type	According with DIN 43700 - Noryl GFN 2 SE 1			
	Electrical connection	plug-in terminals	IP20 (BGV A3)	max. 1,5mm ²	-
	Dimensions	48 x 24 mm	Panel cut-out 44 x 21 mm		
	Weight	100 g			

DIMENSIONS mm.



WIRING

Tab.2



For sensors PT100 - PT1000 with 2-wires connection

It is necessary line compensation (30Ω).

Not necessary in the presence of trimmer inside the instrument.

For sensors PT100 - PT1000 with 3-wires connection

The line is automatically compensated up to 10Ω.

STANDARD INPUTS = Code 10

PT100 = Code 50

PT1000 = Code 55

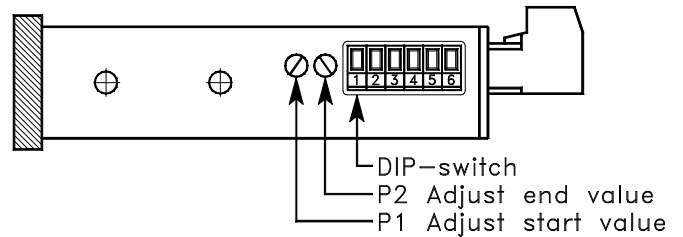
CONFIGURATION

Tab.3

Side view

Functions of the DIP-switch S4 ... S6

- S4 ON ► 3 decimals (display **1.888**)
- S5 ON ► 2 decimals (display **18.88**)
- S6 ON ► 1 decimal (display **188.8**)



Standard inputs		DIP-switch settings		
Code	10	S1	S2	S3
Input				
0 ÷ 2,5 Vdc		OFF	OFF	OFF
2 ÷ 10 Vdc		ON	OFF	ON
(*) 0 ÷ 10 Vdc		ON	OFF	OFF
4 ÷ 20 mA		OFF	ON	ON
0 ÷ 20 mA		OFF	ON	OFF
0 ÷ 1/100 KΩ		OFF	OFF	OFF

(*) Standard configuration

PT100		DIP-switch settings		
Code	50	S1	S2	S3
Measuring range				
-100 °C ÷ +199,9 °C		ON	OFF	ON
-100 °C ÷ +600, °C		OFF	ON	OFF

Range of adjustment	Standard signals		PT100 – PT1000	
	Code	10	Codes	50 - 55
Initial value	-1999 ... 1999		± 10/5 °C	
Final value	0 ... 3999		90 ... 110 %	

NOMENCLATURE

DPA	10	1	°C	IP54
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		•		
			•	
				•

Tab.1	Digital panel indicator
Tab.1-2-3	Input signal – Electrical connection - Configuration
Tab.1	LED display color
Tab.1	Front panel measuring unit – To be specified
Tab.1	Degree of protection