

Head transmitters for resistance thermometers

Head transmitters transform the measured unit of a sensor, eg. temperature, into a normed analog, most electrical signal. Ludwig Schneider offers special head transmitters for resistance thermometers. Ludwig Schneider offers two special head transmitters for resistance thermometers: an economic version with fixed settings (type 1) and the free programmable type 2. Furthermore the product program covers head transmitters with Hart® protocol, Foundation™-Fieldbus communication and Profibus®-PA-Technology.

Technical data of head transmitters for resistance thermometers



Head transmitter	Type 1	Type 2
	economical	free programmable
General specifications		
Supply voltage	6.5 V to 32 V (DC)	7.2 V to 35 V (DC)
Electrical insulation	—	1500 V (AC)
Linearity error	± 0.1%	≤ 0.05%
Response time	≤ 0.2 s	1 s to 60 s (programmable)
EEProm error check	—	< 3.5 s (≤ 3.5 mA)
Conductor cross section (max.)	1.5 mm ²	
Weight	40 g	50 g
Dimensions	Ø 44 x H 17 mm	Ø 44 x H 20.2 mm
Operating temperature	-40 °C to 85 °C	
Relative air humidity	0 to 95 %	
Suitable connection heads	Form B or larger size	
Input specifications		
Temperature span for Pt 100	-50 °C to 600 °C	-200 °C to 850 °C
Temperature span for Ni 100	—	-60 °C to 250 °C
Measuring span (min.)	50 °C	25 °C
Temperature range	Pt 100 (fixed setting)	Free programmable
Suitable sensors	Pt 100	Pt 100/500/1000 or Ni 100
Wire connection	2- and 3-wire connection	2-, 3- and 4-wire connection
Resistor current	1.1 mA	0.2 mA
Lead resistance (max.)	10 Ω	5 Ω
Accuracy	± 0.3 °C	± 0.2 °C
Output specification		
Current signal	4 to 20 mA	4 to 20 mA/20 to 4 mA