Nokeval

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2-wire temperature transmitter 620S
for Pt100 sensors

- **Input range -200...+700°C**
- **High accuracy ±0.05 % of span**
- **Leadwire compensation up to 100 ohms**
- **Linearization**
- **Small case 22.5 mm**
- **Mounting on DIN-rail**

Our model 620S temperature transmitter is designed to meet the most exacting temperature measuring requirements. Extreme accuracy is obtained by linearizing the measurement signal with an accuracy of 0.05 % to the temperature. Thus one transmitter can now replace several of narrower range without reducing accuracy. Leadwire resistance automatic compensation up to 50 ohms makes possible long transfer distances with small-crossarea signel cables. Range can easily be varied by changing the range resistors located under the front plate. Normally transmitters are delivered calibrated according to customer range requirements.

Specifications:

Input	Pt100 according to DIN 43760
Accuracy	±0.05 % of span
Linearizing accuracy	±0.05 % of span
Ambient temperature effect	
- Span <100°C	±0.01 %/°C
- Span >100°C	±0.005 %/°C
Supply voltage effect	±0.005 %/V
Repeatability	0.05 %
Response time	0.25 s
External leadwire resistance effect	±0.002 %/ohm typical max. 50 ohm / wire
Supply voltage range	12..40 VDC, reverse polarity protected
Output	4..20 mA
Min. output	3.8 mA
Current limitation	27 mA
Sensor current	0.7 mA
Operating temperature	0..55 °C
Storage temperature	-10..+70 °C

Wall and DIN 46277 rail mountings
Terminal board for 2 x 1.5 mm²

Module width 22.5 mm
Housing polycarbonate, IP10
Weight 200 g
Temperature range -200..+800°C
Min. span 50°C
Max. span 800°C

How to order

Model	**620S - Pt100 - 0 / 200**
Sensor	
Output 4 mA (°C)	
Output 20 mA (°C)	

For example, range 0-100°C, type 620S-Pt100-0/100

Connection diagram

Model 620S
3-wire input

Power supply
12..40 VDC

- +

RL

Ø 3   6 Ø
Ø 2   5 Ø
Ø 1   4 Ø

Pt100

2-wire input

Ø 3   6 Ø
Ø 2   5 Ø
Ø 1   4 Ø
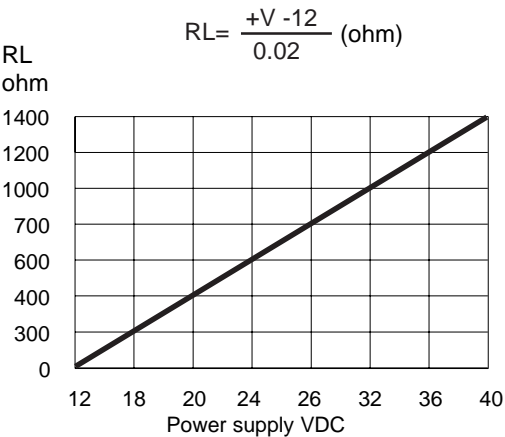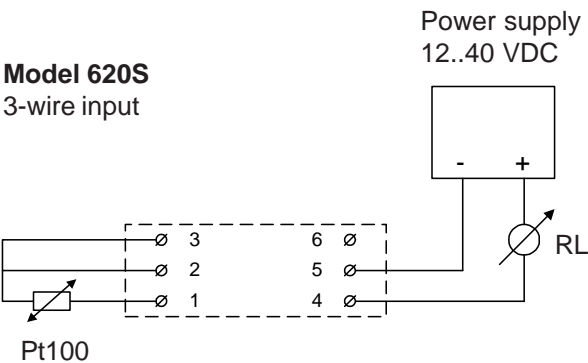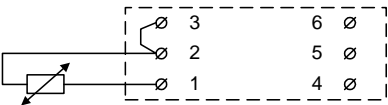
Difference measurement (special order)

Ø 3   6 Ø
Ø 2   5 Ø
Ø 1   4 Ø
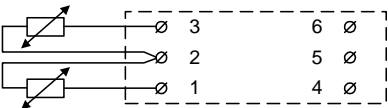
Potentiometer (special order)

Ø 3   6 Ø
Ø 2   5 Ø
Ø 1   4 Ø

Max. loop resistance RL

$$RL = \frac{+V -12}{0.02} \ (ohm)$$

RL
ohm

1400
1200
1000
700
600
400
300
0

12 18 20 24 26 32 36 40
Power supply VDC

Dimensions

99

82

22.5
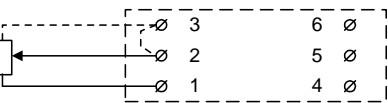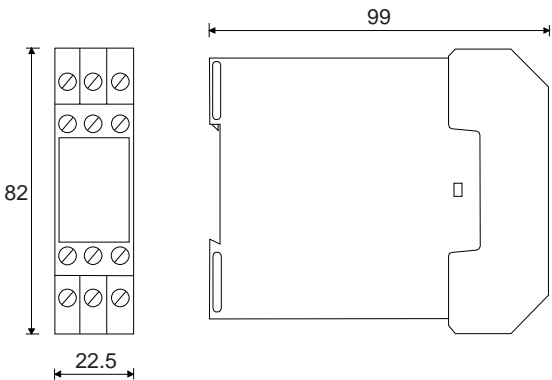
Connectors 2 x 2.5 mm
Mounting DIN 46277