



GLASS WIRE WOUND SENSOR TYPE GX

RTD Temperature Sensor

SPECIFICATIONS

- **Temperature sensor**
- **Large temperature range**
From -200°C to +400°C
- **No hysteresis**
- **High vibrations resistant**
- **Resistant to external forces and pressures**
- **Small dimensions**
- **High temperature stability**
- **Short response time**

One or two platinum bands layout are wounded on a glass tube and are protected from environment by a glass layer

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FEATURES

- Nominal value: 100 Ω at 0°C
Tolerance according to IEC 60751: class W 0.3, W 0.15 and W 0.1
Temperature coefficient $\alpha = 3850$ ppm/K
Closer tolerances in restricted temperature range
- Connection wires: Platinum coated nickel
- The lead wires connection is pull up force resistant
- Housing advise: To be used preferably in dry environment
- Options: - Lead wires length
- Extension cable

APPLICATIONS

- Environments subject to high vibrations
- Cryogenics
- Accurate temperature measurement with high temperature gradient
- Limited mounting space required
- Food industry
- H.V.A.C.

PERFORMANCE SPECIFICATIONS

| Type | Designation | Reference | Nominal reference (Ohm at 0°C) | L WL D AL1 AL2 A (Dimensions in mm) | | | | | | Self-heating in air (K/mW) | Response time (s) | | | |
|--|-------------|------------|-----------------------------------|--|---|------------------|----|----|------|-------------------------------|-------------------|------|------|----|
| | | | | Water v = 0,4 m/s | | Air v = 1 m/s | | | | | | | | |
| | | | | | | | | | | t0,5 | t0,9 | t0,5 | t0,9 | |
| Tolerance Class W 0.3 = $\pm (0.3+0.005 \text{ Itl})$ From -196°C to + 400°C | | | | | | | | | | | | | | |
| 1Pt100 | GX 518 | 32 205 108 | 100 | 5 | 3 | 1,8 | 10 | - | 0,20 | 0,36 | 0,14 | 0,35 | 8 | 30 |
| 1Pt100 | GX 1013 | 32 205 113 | 100 | 10 | 6 | 1,3 | 10 | - | 0,20 | 0,39 | 0,4 | 1,30 | 4 | 12 |
| 1Pt100 | GX 1018 | 32 205 118 | 100 | 10 | 6 | 1,8 | 10 | - | 0,20 | 0,36 | 0,14 | 0,35 | 8 | 30 |
| 1Pt100 | GX 1218 | 34 015 120 | 100 | 12 | 3 | 1,8 | 6 | - | 0,20 | 0,36 | 0,14 | 0,35 | 8 | 30 |
| 1Pt100 | GX 1513 | SB0921 | 100 | 15 | 6 | 1,3 | 10 | - | 0,20 | 0,39 | 0,4 | 1,3 | 4 | 12 |
| 2Pt100 | GX 1528 | 32 205 228 | 100 | 15 | 7 | 2,8 | 10 | 12 | 0,25 | 0,20 | 0,3 | 1,0 | 12 | 45 |
| Tolerance Class W 0.15 = $\pm (0.15+0.002 \text{ Itl})$ From -100°C to + 250°C | | | | | | | | | | | | | | |
| 1Pt100 | GX 518 | 32 205 074 | 100 | 5 | 3 | 1,8 | 10 | - | 0,20 | 0,36 | 0,14 | 0,35 | 8 | 30 |
| 1Pt100 | GX 1013 | 32 205 458 | 100 | 10 | 6 | 1,3 | 10 | - | 0,20 | 0,39 | 0,4 | 1,30 | 4 | 12 |
| 1Pt100 | GX 1218 | 34 015 121 | 100 | 12 | 3 | 1,8 | 6 | - | 0,20 | 0,36 | 0,14 | 0,35 | 8 | 30 |
| 1Pt100 | GX 1513 | SB0920 | 100 | 15 | 6 | 1,3 | 10 | - | 0,20 | 0,39 | 0,4 | 1,3 | 4 | 12 |
| 2Pt100 | GX 1528 | 32 205 241 | 100 | 15 | 7 | 2,8 | 10 | 12 | 0,25 | 0,20 | 0,3 | 1,0 | 12 | 45 |
| Tolerance Class W 0.1 = $\pm (0.1+0.0017 \text{ Itl})$ From 0°C to + 150°C | | | | | | | | | | | | | | |
| 1Pt100 | GX 518 | 32 205 101 | 100 | 5 | 3 | 1,8 | 10 | - | 0,20 | 0,36 | 0,14 | 0,35 | 8 | 30 |
| 1Pt100 | GX 1013 | 32 205 463 | 100 | 10 | 6 | 1,3 | 10 | - | 0,20 | 0,39 | 0,4 | 1,3 | 4 | 12 |
| 1Pt100 | GX 1218 | 34 015 123 | 100 | 12 | 3 | 1,8 | 6 | - | 0,20 | 0,36 | 0,14 | 0,35 | 8 | 30 |
| 1Pt100 | GX 1513 | SB0919 | 100 | 15 | 6 | 1,3 | 10 | - | 0,20 | 0,39 | 0,4 | 1,3 | 4 | 12 |

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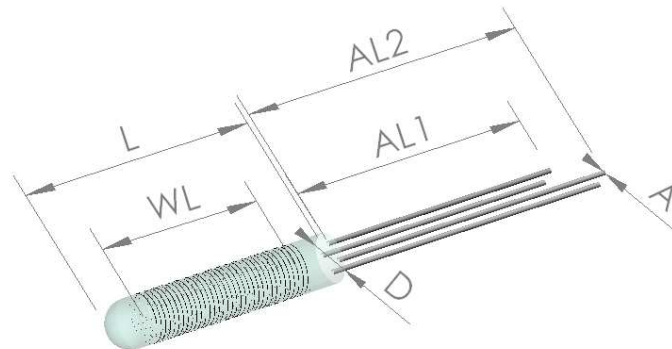
VALUES FOR PT100

| °C | Ohms | Ohms/°C | °C | Ohms | Ohms/°C |
|------|--------|---------|-----|--------|---------|
| -200 | 18.52 | 0.432 | 150 | 157.33 | 0.374 |
| -150 | 39.72 | 0.417 | 200 | 175.86 | 0.368 |
| -100 | 60.26 | 0.405 | 250 | 194.10 | 0.362 |
| -50 | 80.31 | 0.397 | 300 | 212.05 | 0.356 |
| 0 | 100 | 0.391 | 350 | 229.72 | 0.350 |
| 50 | 119.40 | 0.385 | 400 | 247.09 | 0.345 |
| 100 | 138.51 | 0.379 | | | |

BLOCK DIAGRAM

DIMENSIONAL TOLERANCES:

| | |
|------------------------------|---------------|
| L (length of body) | = ± 1mm |
| D (diameter of body) | = +0,1;-0,3mm |
| AL (connection wire length) | = ± 2mm |
| A (connection wire diameter) | = ± 0,02 mm |



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