

# 531 Series

## Temperature Display for Pt100 and Ni100 RTD's

### Features

- Compact and Low-Cost Temperature Display
- Temperature Display in °C or °F
- MIN/MAX Value Retention
- EEPROM Data Backup on Power Failure
- Galvanic Isolation with Reverse Polarity Protection
- Screw Terminal Connectors: pitch 5 mm
- Display Hold Input

### Specifications:

**Supply voltage:** 10-30 V DC, galvanically isolated with reverse polarity protection

**Current draw:** max. 40 mA

**Display:** 5-digit display, red LED's; height 8 mm

**Measuring rate:** 5 measurements/second

**Display refresh:** 1-2 times per second

**Data backup:** EEPROM

**Housing:** housing for control panel 48 x 24 mm acc. to DIN 43 700; RAL 7021, dark grey

**Ambient temp.:** -20 to +65 °C

**EMC:** according to EC EMC directive 89/36/EEC

**Interference emissions:** EN 50081-2/EN 55 011 Class B

**Interference resistance:** EN 6100-6-2

**Protection:** NEMA4 / IP65 (front)

**Weight:** app. 50 g

**Circuit type:** 2-wire, 3-wire and 4-wire connection technique, programmable

**Input:** Pt100 or Ni100 RTD with sensor breakage monitoring



- Easy Programming and Operation
- 5 Measurements/second

**Control inputs:** High: 4-30 V DC, Low: 0-2 V DC

**Supply current:** 1 mA

**Supply line:** 2-wire: max 20 Ω, programmable 3-wire, 4-wire: max 20 Ω, no balancing required

**Temp. ranges:** Pt100 acc. to DIN IEC 751:  
-199.9 °C to +850.0 °C  
-327.8 °F to +1562.0 °F

Ni100 acc. to DIN 43760:  
-60.0 °C to +250.0 °C  
-76.0 °F ... +482.0 °F

**Resolution:** 0.1°C (0.1°F) or 1°C (1°F)

**Linearity error:** Pt100 < 0.1 % for entire measuring range at an ambient temperature of 20 °C  
Ni100 < 0.2 % for entire measuring range at an ambient temperature of 20 °C

**Temp. drift:** 0.1 K/KAmbient

**Order #:** 531 = Temperature Display with RTD Input

### Accessories

**N7** - Explosion proof housing (see accessories section)

**E200** - Outdoor Enclosure (see accessories section)

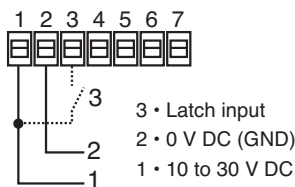
**32DINRAIL** - DIN Rail Mounting Frame

**DR-4** - 4" DIN Rail

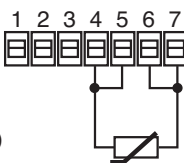
DIGITAL PANEL METERS

### Wiring:

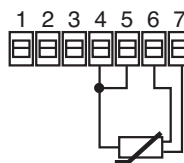
#### Power Supply



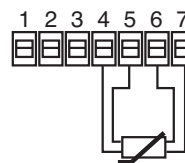
#### 2-Wire RTD



#### 3-Wire RTD



#### 4-Wire RTD



Panel Cutout: 0.876" x 1.78" (22.3 x 45.2mm)  
or 0.99" x 1.97" (25 x 50mm) with adaptor provided

