



**Input**

**Input group 1 :** Pt100

**Input group 2 :** 4~20 mA, 0~20 mA, 0~10 V DC

**Input group 3 :** 8 Thermocouples, 0/4~20 mA

**1 setpoint**

**85~265 V AC SMPS**

**Functions :** ONOFF and Time Proportional

**Accuracy :** 0.1% of full scale 1 C, typical

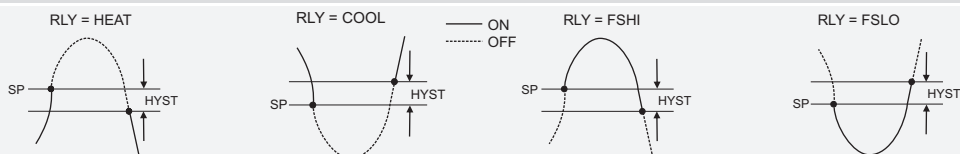
**Sensor break indication**

**SPECIFICATIONS**

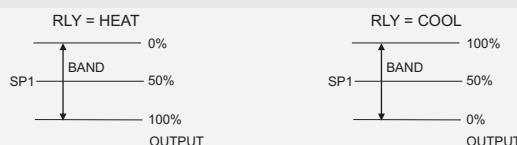
All specifications at ambient of 25 C, unless specified otherwise

|   |  |   |   |
|---|--|---|---|
| <p><b>INPUTS</b></p> <p><b>Input group 1</b><br/>RTD</p> <p><b>Input group 2</b><br/>Linear input</p> <p><b>Input group 3</b><br/>Thermocouple<br/>RTD</p> <p>Linear input<br/>Transmitter supply</p> <p><b>Load resistance for 0/4~20 mA input</b></p> <p><b>Range limits</b></p> <p><b>Accuracy</b></p> <p><b>Cold junction compensation</b></p> <p><b>Temperature coefficient of accuracy</b></p> <p><b>Units</b><br/>Pt100, Thermocouple<br/>Linear</p> <p><b>OUTPUT</b></p> <p><b>No. of relays</b></p> <p><b>Relay contact type</b></p> <p><b>Relay contact rating</b></p> <p><b>SSR drive</b></p> <p><b>INDICATION</b></p> <p><b>Display</b></p> <p><b>Status indication</b></p> | <p>Pt100</p> <p>4~20 mA, 0~20 mA, 0~10 V DC</p> <p>B, E, J, K, N, R, S, T<br/>Pt100</p> <p>4~20 mA, 0~20 mA<br/>22 V DC, Nominal, 30 mA max<br/>(17 V DC available across transmitter; for HART transmitter, please inquire)</p> <p>250 Ω, internally provided</p> <p>See Table 1<br/>See Table 1</p> <p>Automatic<br/>± 0.02% of span / °C</p> <p>°C (For °F, contact us)<br/>EU</p> <p>0/1 electromagnetic relay<br/>NO-C</p> <p>a) 5A / 230V AC, resistive<br/>b) 25A / 230 VAC / 24 VDC<br/>power relay</p> <p>12 V DC drive signal for external SSR</p> <p>Upper : 4 digit, 7 segment 0.56" (14.2 mm) red LED display<br/>Lower : 4 digit, 7 segment 0.39" (9.9 mm) green LED display</p> <p>1 LED for relay status</p> | <p><b>PROGRAMMABLE PARAMETERS</b></p> <p><b>Setpoint</b></p> <p><b>Hysteresis / band</b></p> <p><b>Resolution</b></p> <p><b>Bias</b></p> <p><b>High scale</b></p> <p><b>Low scale</b></p> <p><b>Control functions</b></p> <p><b>Cycle time for TPC Relay logic</b></p> <p><b>Proportional offset</b></p> <p><b>OTHER</b></p> <p><b>Enclosure</b></p> <p><b>Protection</b></p> <p><b>Keyboard</b></p> <p><b>Material</b></p> <p><b>Dimensions (in mm)</b></p> <p><b>Mounting</b></p> <p><b>Mounting accessories</b></p> <p><b>Connection, single/stranded wires</b></p> <p><b>Supply voltage</b></p> <p><b>Power consumption</b></p> <p><b>Operating ambient temperature</b></p> <p><b>Relative humidity</b></p> | <p>Full range (See Table 1)<br/>0.1 to 99.9 °C<br/>1 (for TC)<br/>0.1, 1 (for Pt 100)<br/>0.001, 0.01, 0.1, 1 (for Linear input)<br/>-99.9 to 99.9</p> <p>Full range (See Table 1)<br/>Full range (See Table 1)<br/>ONOFF, Time Proportional Control (TPC) (RLY1),<br/>1 ~ 99 seconds<br/>a. Heat b. Cool<br/>c. Full scale high alarm<br/>d. Full scale low alarm<br/>-99.9 to 99.9 °C (RLY1)</p> <p>Certified flameproof for gas groups I, IIA &amp; IIB<br/>IP65<br/>Tactile, 3 keys, inside enclosure<br/>Aluminium alloy<br/>250(H) x 150(W) x 95(D)<br/>Wall mount / Pipe mount<br/>Included</p> <p>2.5 mm<sup>2</sup>, AWG 14<br/>85~265 V AC, 50/60 Hz<br/>3 watts maximum<br/>0 ~ 50 °C</p> <p>Below 90%, non condensing</p> |
|---|--|---|---|

**RELAY LOGIC**



ONOFF CONTROL



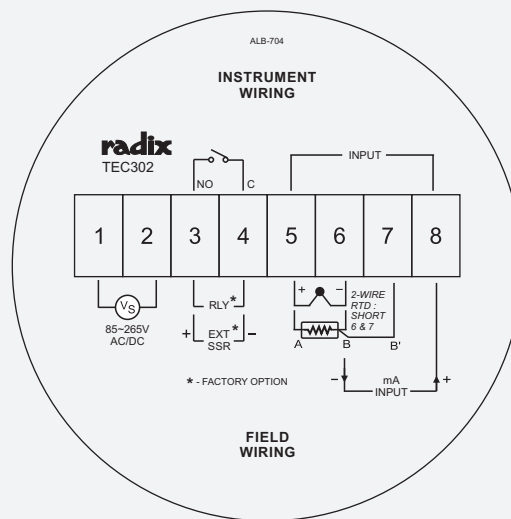
TIME PROPORTIONAL CONTROL

**TABLE 1**

| SENSOR / INPUT                     | RANGE LIMITS<br>(°C / EU) |            | RANGE IN WHICH<br>ACCURACY IS SPECIFIED |            | TYPICAL ACCURACY<br>AT 30 °C<br>(°C / EU) | WORST CASE<br>ACCURACY<br>(°C / EU) |
|------------------------------------|---------------------------|------------|---|------------|---|-------------------------------------|
|                                    | LOW SCALE                 | HIGH SCALE | LOW SCALE                               | HIGH SCALE |   |                                     |
| Iron / Constantan (J)              | -99                       | 750        | 0                                       | 750        | ± 1                                       | ± 3                                 |
| Chromel / Alumel (K)               | -99                       | 1350       | -50                                     | 1200       | ± 1                                       | ± 3                                 |
| Pt / Pt - 13% Rh (R)               | 0                         | 1760       | 0                                       | 1760       | ± 2                                       | ± 5                                 |
| Pt / Pt - 10% Rh (S)               | 0                         | 1760       | 0                                       | 1760       | ± 2                                       | ± 5                                 |
| Copper / Constantan (T)            | -99                       | 400        | -50                                     | 400        | ± 1                                       | ± 3                                 |
| Nicrosil / Nisil (N)               | -99                       | 1300       | -50                                     | 1200       | ± 1                                       | ± 3                                 |
| Pt - 6% Rh / Pt - 30% Rh (B)       | 400                       | 1820       | 400                                     | 1820       | ± 3                                       | ± 5                                 |
| Chromel / Constantan (E)           | -99                       | 900        | 0                                       | 800        | ± 1                                       | ± 3                                 |
| Pt100, 3-wire                      | -99                       | 850        | -50                                     | 850        | ± 0.5 *                                   | ± 2.0                               |
| Linear 0~20 mA, 4~20 mA, 0~10 V DC | -1999                     | 9999       | -1999                                   | 9999       | ± 5 EU                                    | ± 20 EU                             |

\* ± 0.2°C in the range -50 to +400 °C

### CONNECTION DIAGRAM



### ORDERING INFORMATION

**ORDER CODE : 2274**

The standard input group is input group 1 (Pt100).

**Ordering Options**

The following ordering options are available on request. Minimum order quantity and/or minimum order value may apply.

|    | Option        | Details                           |
|----|---------------|-----------------------------------|
| 1. | Input group 2 | 0~10 V DC, 0/4 ~ 20 mA            |
| 2. | Input group 3 | 8 thermocouples, Pt100, 0/4~20 mA |
| 3. | SSR drive     | For relay1                        |
| 4. | Unit          | °F                                |
| 5. | Special relay | 25 A / 230 V AC                   |

Product url : [www.radix.co.in/flp.htm](http://www.radix.co.in/flp.htm)



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