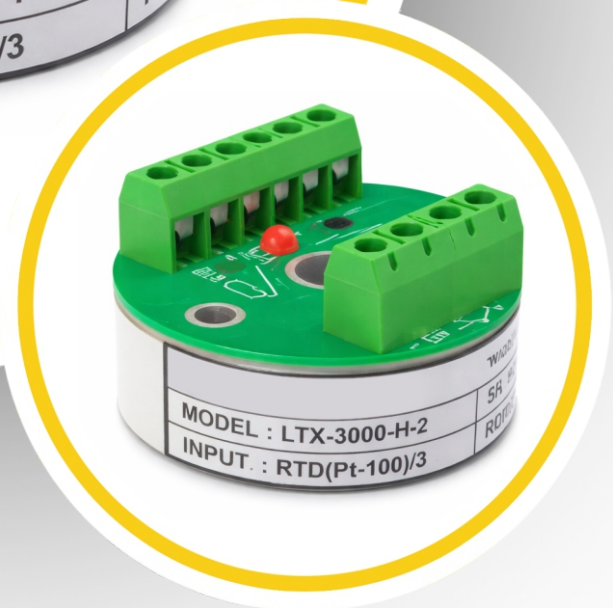
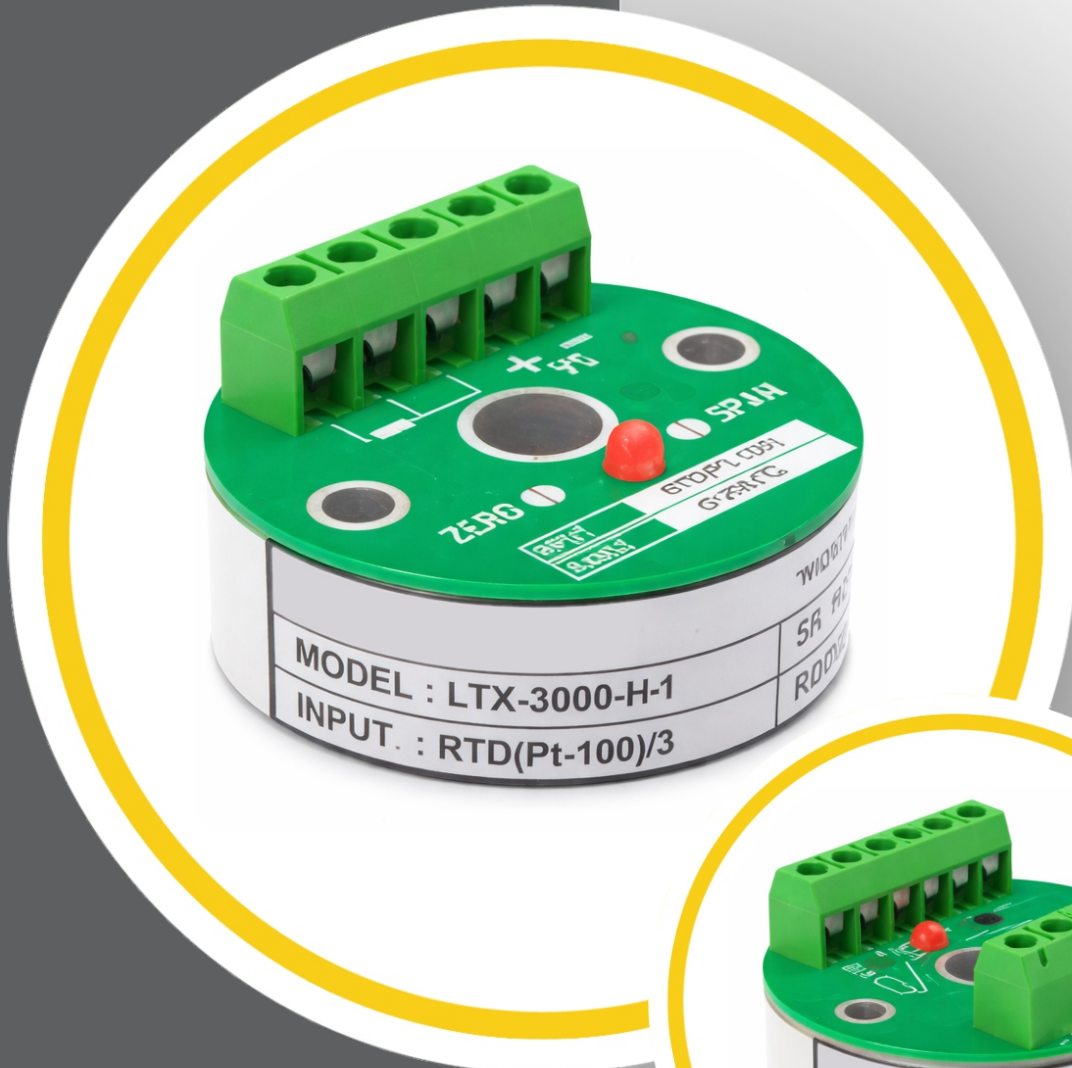


The Need For Every
Process Industry



HEAD MOUNT TEMPERATURE TRANSMITTERS

MODEL: SC / T - 500

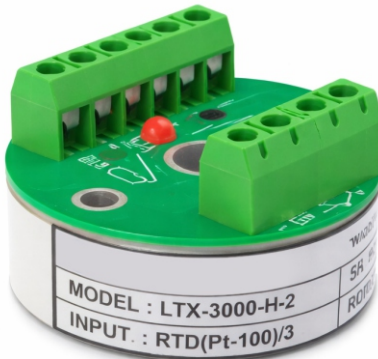
TEMPERATURE

HEAD MOUNT TEMPERATURE TRANSMITTERS

MODEL: SC / T - 500



LTX-3000-H-1 (SIMPLEX)



LTX-3000-H-2 (DUPLEX)

Two Wire Loop Powered Head Mount Temperature Transmitters

Spink Controls' Head Mounted Temperature Transmitter is a compact, reliable device designed to convert RTD (Pt-100) or thermocouple signals into a standard 4–20 mA output. It offers high accuracy of $\pm 0.5\%$ to $\pm 1\%$ of the calibrated range with on-site zero and span adjustment. Operating on a 12–36 VDC loop supply, it includes built-in LED loop status indication and burn-out detection for enhanced safety. With a rugged design and wide operating temperature range of 10°C to 70°C, it ensures stable and precise temperature measurement for industrial applications.

Model Wise Description:

| Sr. No. | MODEL | PRODUCT DESCRIPTION | PART NO. |
|---------|--------------|--|----------|
| 1 | LTX-3000-H-1 | Two Wire Temperature Transmitter (Head Mounted) for Simplex Sensor | 2001 |
| 2 | LTX-3000-H-2 | Two Wire Temperature Transmitter (Head Mounted) for Duplex Sensor | 2002 |

FEATURES

- ✓ Two-wire design (supply and output on the same lines).
- ✓ Accepts RTD (Pt-100) / thermocouple / millivolt input.
- ✓ (4-20) mA non-isolated and isolated output
- ✓ ZERO and SPAN adjustments for on-site calibration
- ✓ Easily fits in std. Thermocouple head (weather or flame-proof or explosion-proof JB).
- ✓ Loop supply of 12 to 36VDC (with loop continuity LED)
- ✓ Saturation on or open sensor current limited to 25mA.
- ✓ Reverse polarity protection.
- ✓ Available in industry standard head mount design.

APPLICATION

- ✓ Carry thermocouple or RTD signals over long distances without noise and loss of accuracy.
- ✓ Eliminates the use of costly compensating cable, and copper cable can be used.
- ✓ Useful for converting other mV/Ohms signals to equivalent 4-20mA loop

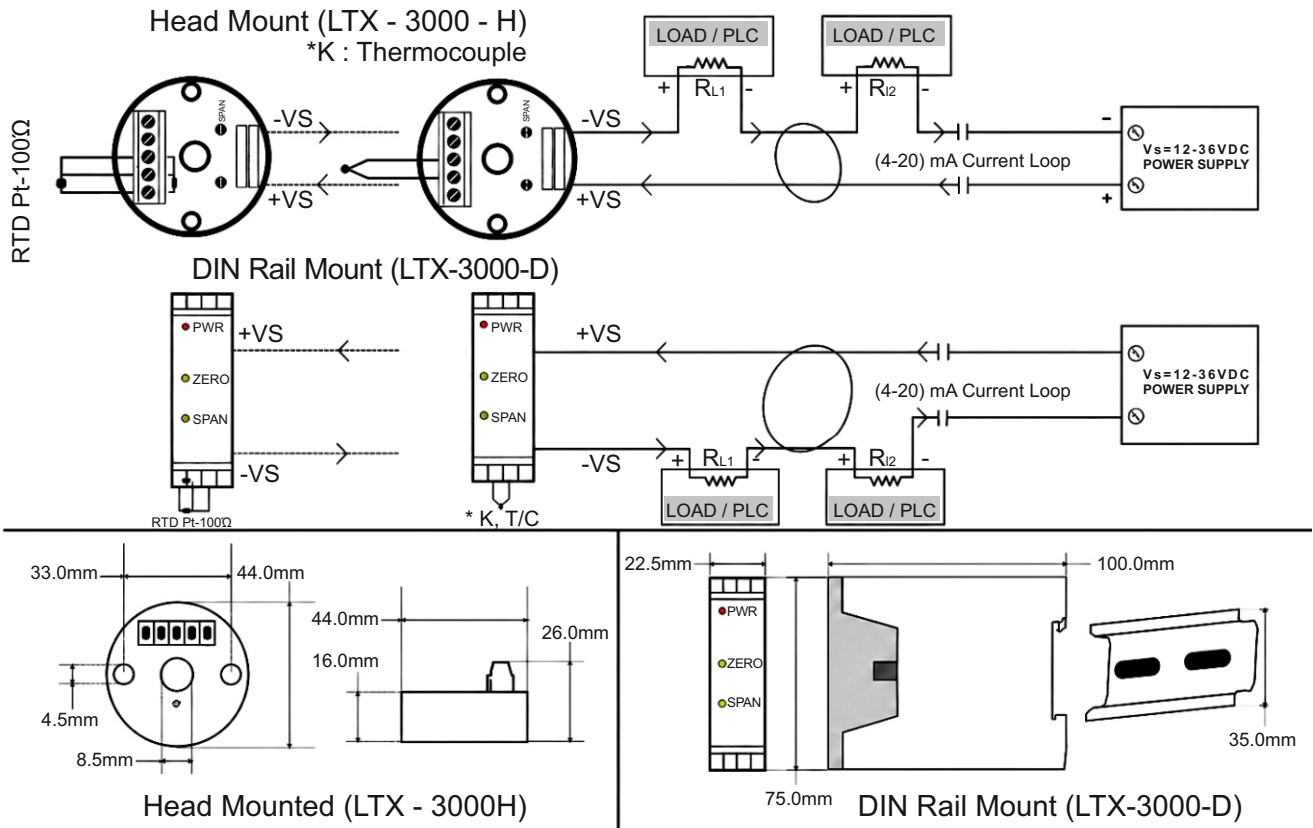
What are the endpoint and best straight-line fit Calibra on methods?

In the endpoints match calibration method, the 4 mA and 20 mA corresponds to the specified range of lower and higher temperatures. For example, for the 0-400°C range, the 4mA = 0°C and 20mA = 400°C. Whereas, in the case of the best straight line fit calibration method, the nonlinearity of the thermocouple or Pt -100 curve is distributed on either side of the straight line drawn between 4 and 20mA. This will minimise the 4-20mA error due to the non-linearity of the curve.

ENGINEERING SPECIFICATION RTD SENSOR

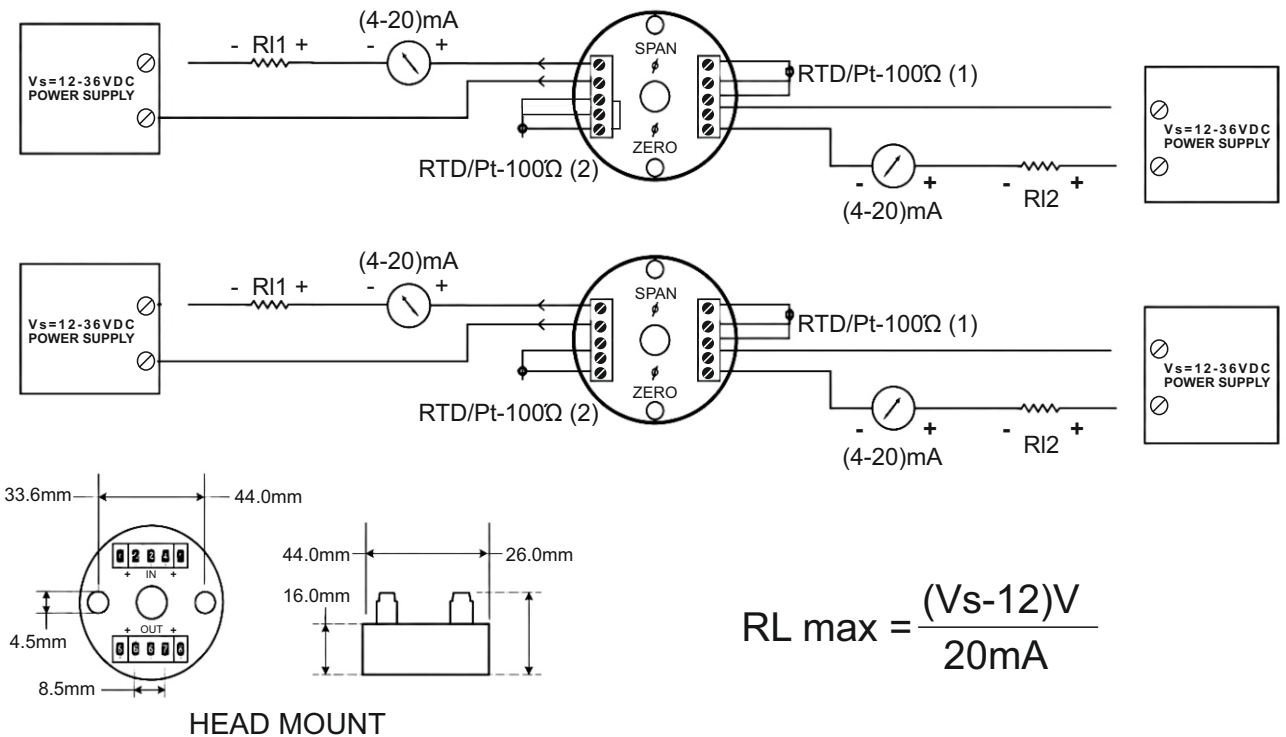
| | |
|----------------------|---|
| INPUT | : THERMOCOUPLE, RTD (PT-100) OR RESISTANCE SIGNAL FROM DISPLACEMENT, POSITION OR LEVEL SENSOR |
| RANGE | : SUBJECT TO SPECIFIED INPUT (REFER ORDERING INFORMATION) |
| OUTPUT | : (4-20) mA, TWO WIRE AND LOOP POWERED (CALIBRATED LINEARLY TO THE INPUT SIGNAL). |
| ACCURACY | : $\pm 0.5\%$ TO $\pm 1\%$ OF THE CALIBRATED RANGE OR BETTER INCLUDING LINEARITY, HYSTERISIS, & COMPENSATION ERROR. |
| CALIBRATION | : ON-SITE USING ZERO / SPAN PRESETS (USER SE ABLE USING A SMALL SCREWDRIVER) ZERO ADJUSTMENT : $\pm 25\%$ OF THE RANGE (20 TURNS). SPAN ADJUSTMENT : $\pm 25\%$ OF THE RANGE (20 TURNS). |
| LOOP SUPPLY (Vs) | : (12 TO 36) VDC |
| LOOP STATUS | : THE BUILT-IN RED LED INDICATES THE CONTINUITY STATUS OF THE LOOP. LED WILL NOT GLOW IF THE CURRENT LOOP IS BROKEN. |
| LOOP RESISTANCE | : $600\ \Omega$ @ 24VDC (LOOP SUPPLY DEPENDENT). |
| MAX. LOAD RESISTANCE | : $RL\ Max = (Vs - 12V) / 20\ mA$. |
| BURN OUT DETECTION | : THE OUTPUT SHALL SATURATE $> 20\ mA$ (max. $25\ mA$ @ 24VDC LOOP SUPPLY) |
| OPERATING TEMP. | : $10^{\circ}C - 70^{\circ}C$ |
| SIZES | : 44 mm Dia. X 26 mm (H) |

Connection Diagram LTX - 3000-H & LTX - 3000 - D



Connection Diagram LTX -3000-H-2:

Wiring Diagram For LTX -3000-H-2 (Duplex)



File : LTX -3000-H-2 (DUPLX) CDR/VER1.0/OPMR/2024

Operating (Working) Temperature

Ordering Code: To Order Please Specify The Part No.

| Sr. No. | Model | Specificaons | Part no. |
|---------|--------------|--|----------|
| | | SIMPLEX TRANSMITTER – K TC | |
| 1 | LTX-3000-H-1 | INPUT : K TYPE T/C RANGE : 0 to 400°C | 2001-1-1 |
| 2 | LTX-3000-H-1 | INPUT : K TYPE T/C RANGE : 0 to 600°C | 2001-1-2 |
| 3 | LTX-3000-H-1 | INPUT : K TYPE T/C RANGE : 0 to 800°C | 2001-1-3 |
| 4 | LTX-3000-H-1 | INPUT : K TYPE T/C RANGE : 0 to 1000°C | 2001-1-4 |
| 5 | LTX-3000-H-1 | INPUT : K TYPE T/C RANGE : 0 to 1200°C | 2001-1-5 |
| | | DUPLEX TRANSMITTER – K TC | |
| 6 | LTX-3000-H-2 | INPUT : K TYPE T/C RANGE : 0 to 400°C | 2001-2-1 |
| 7 | LTX-3000-H-2 | INPUT : K TYPE T/C RANGE : 0 to 600°C | 2001-2-2 |
| 8 | LTX-3000-H-2 | INPUT : K TYPE T/C RANGE : 0 to 800°C | 2001-2-3 |
| 9 | LTX-3000-H-2 | INPUT : K TYPE T/C RANGE : 0 to 1000°C | 2001-2-4 |
| 10 | LTX-3000-H-2 | INPUT : K TYPE T/C RANGE : 0 to 1200°C | 2001-2-5 |
| | | SIMPLEX TRANSMITTER – RTD(Pt-100) | |
| 11 | LTX-3000-H-1 | INPUT : RTD Pt-100 RANGE : -50 to 100°C | 2002-1-1 |
| 12 | LTX-3000-H-1 | INPUT : RTD Pt-100 RANGE : 0 to 100°C | 2002-1-2 |
| 13 | LTX-3000-H-1 | INPUT : RTD Pt-100 RANGE : 0 to 150°C | 2002-1-3 |
| 14 | LTX-3000-H-1 | INPUT : RTD Pt-100 RANGE : 0 to 200°C | 2002-1-4 |
| 15 | LTX-3000-H-1 | INPUT : RTD Pt-100 RANGE : 0 to 250°C | 2002-1-5 |
| 16 | LTX-3000-H-1 | INPUT : RTD Pt-100 RANGE : 0 to 300°C | 2002-1-6 |
| 17 | LTX-3000-H-1 | INPUT : RTD Pt-100 RANGE : 0 to 350°C | 2002-1-7 |
| 18 | LTX-3000-H-1 | INPUT : RTD Pt-100 RANGE : 0 to 400°C | 2002-1-8 |
| | | DUPLEX TRANSMITTER – RTD(Pt-100) | |
| 19 | LTX-3000-H-2 | INPUT : RTD Pt-100 RANGE : -50 to 100°C | 2002-2-1 |
| 20 | LTX-3000-H-2 | INPUT : RTD Pt-100 RANGE : 0 to 100°C | 2002-2-2 |
| 21 | LTX-3000-H-2 | INPUT : RTD Pt-100 RANGE : 0 to 150°C | 2002-2-3 |
| 22 | LTX-3000-H-2 | INPUT : RTD Pt-100 RANGE : 0 to 200°C | 2002-2-4 |
| 23 | LTX-3000-H-2 | INPUT : RTD Pt-100 RANGE : 0 to 250°C | 2002-2-5 |
| 24 | LTX-3000-H-2 | INPUT : RTD Pt-100 RANGE : 0 to 300°C | 2002-2-6 |
| 25 | LTX-3000-H-2 | INPUT : RTD Pt-100 RANGE : 0 to 350°C | 2002-2-7 |
| 26 | LTX-3000-H-2 | INPUT : RTD Pt-100 RANGE : 0 to 400°C | 2002-2-8 |





Head Office

303, SIDDHARTH TOWER, G.P. PAI ROAD, KOPRI, THANE (E) - 400603 MAHARASHTRA, INDIA
 Phone : +91 22 2532 8223
 +91 22 2532 8224
 Email : info@spinkcontrolsindia.com

Plant 1

GALA No. F-4 A WING, UDYOG BHAVAN-2 ADDITIONAL AMBERNATH, INDUSTRIAL AREA, ANAND NAGAR MIDC AMBERNATH, THANE 421501
 Phone : +91 9594991196
 Email : rupa.thakkar@spinkcontrols.com

Plant 2

PLOT No.: MS 114/115, AMBERNATH INDUSTRIAL AREA, CHIKHLOLI MIDC, AMBERNATH (W) THANE 421501
 Phone : +91 7400159593
 Email : avanti.rangdal@spinkcontrols.com

