Head Office
Ringway Control & Automation
ABN 47 087 315 179
4 Lady Penrhyn Dr,
Unanderra, NSW 2526
products@ringway.com.au
Ph 02 4255 4300 Fax 02 42718990

Mackay Office
Ringway Materials Handling
Unit 10 Woodman Pde,
Mackay, QLD 4740
products@ringway.com.au
t 07 49524001 Fax 07 49522216

2 CHANNEL ANALOG TRANSMITTER

P/N – RLTX2AT_K, RLTX2AT_T

RINGLINE THERMOCOUPLE TEMPERATURE TRANSMITTER

DESCRIPTION:

The Ringline 2-ch Analog Thermocouple Transmitter is encapsulated in a foot mounted plastic housing with flying leads for circuit connections. It is designed to continuously monitor the temperature of bearings and other mechanical components. It provides a 12-bit encoded transmission of temperature value for each of its probes. There are currently two variants of this product available to suit k-type and t-type probes. Each input signal uses a single channel, of the number available, typically 128 or 192, and its address is stored in an onboard EEPROM.

Each transmitter has a set of 3 wires; blue & white for connection to the Ringline fieldbus and green to facilitate address programming. An additional two pairs of wires provide connection to the thermocouple. These wires are made from thermocouple extension wire and comply with the IEC 584-3 colour scheme for easy identification.

The Ringline field bus is not only used to transmit the temperature back to the Ringline rack, it also provides the transmitter's operating power at the same time (i.e. no external power source is required).

FEATURES:

- **Simple**, **robust** and **functional**.
- Reduces component count and cost per point of monitoring.
- Signals retrieved using a 'Modbus Interface', 'Analog 4 to 20mA Receivers' or 'Ringline Displays'.
- Up to 12klms of condition monitoring on 'two wires'.
- Line powered. No additional power supply required.
- Addresses may be selected at order time, or reprogrammed with a Ringline Programmer.
- In built lightning protection.

APPLICATIONS:

The transmitter is intended to monitor the temperature of bearings and other mechanical devices to protect against mechanical destruction and/or fire. These transmitters have been designed to interface with any standard type-K or type-T thermocouple.

Most lubricants break down when they are above 90 degrees Celsius. By continuously monitoring and trending temperature values, the user may detect problems before there is a mechanical collapse.

The user should always check the operating temperature range of their lubricants from their lubricant manufacturer.

BRIEF TECHNICAL SPECIFICATIONS:

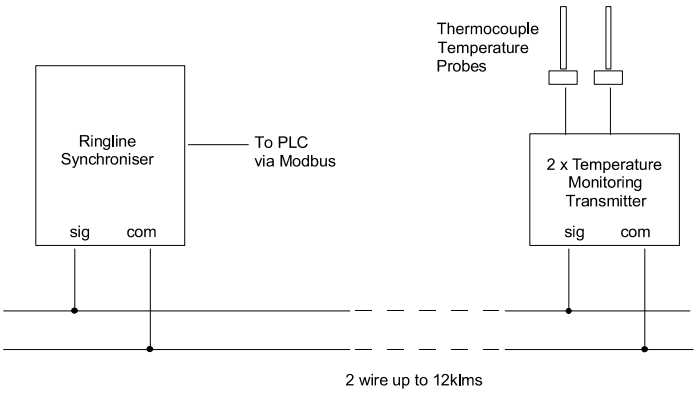
Power Supply:	Powered from Ringline field bus
Power Consumption:	Peak - 730 micro amps
Isolation Earth To Ringline:	Probes at 500 volts
Measurement Range:	0 to 110°C @25°C
Resolution:	Up to 0.2°C per count
Analog Update Rate Ringline 128:	1.64 seconds
Analog Update Rate Ringline 192:	2.408 seconds
Accuracy:	+- 16 digital counts (sensor dependant)
Operating Temperature Range:	0 → +70 ºC
Dimensions:	75 (w tabs) / 55 (w body) x 40(h) x 27(d) mm Ø3mm mounting holes - 65mm apart
Input Identification:	Black banded = Addr1, Red banded = Addr 2. Cable colours in accordance with IEC 584-3 for respective thermocouple types.

Readings : **Conversion factor (Ringline value - 1024)/5**

0 to 60 deg (1024 to 1324 counts) **-** normal bearing temperatures

> 70 degs (> 1374 counts) - alarm condition, over temp

> 90 degs (> 1474 counts) - trip, collapse is immanent



Typical usage drawing