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1/2/3x ANALOG TRANSMITTER

P/N – RLTX1AN / RLTX2AN / RLTX3AN

Ex ia: IECEx TSA 08.0031X

RINGLINE TEMPERATURE MONITORING ANALOG TRANSMITTER

DESCRIPTION:

Ringline temperature monitoring 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 10 bit transmission of temperature value for each of its' probes. There are three variants of this product available, 1 channel, 2 channel or 3 channel. Each signal uses a single channel, of a possible 128 or 192 and its' address is stored in an onboard EEPROM.

Each transmitter has a pair of wires (blue & white) to connect it to the Ringline field bus. An additional nine wires provide connection to three solid state sensors. There is an additional wire (green) to facilitate the programmable addressing process.

The transmitter receives operating power from the Ringline field bus and at the same time encodes the temperature values back onto the bus (no external power source is required).

FEATURES:

- **Simple**, **robust** and **functional**.
- Ultra low power consumption.
- 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. Solid state sensor.
- 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. Various sensing probes are available. Lug style may be placed on the outside case for rotating shaft bearings or gearboxes. Probe type may be placed in a drilled hole for fixed shaft style bearings. For probe type, the temperature sensor is in the tip of the probe. These transmitters are auto selecting for either Ringline 128 or Ringline 192.

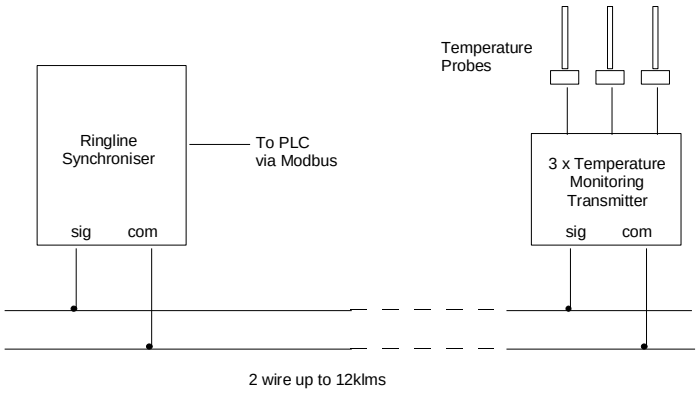
Most lubricants break down when they are above 90 degrees Celsius. By continuously monitoring and trending temperature values, the user may detect problems before there is a mechanical collapse.

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 degrees Celsius
Resolution:	Each signal - 10 bit - 0 to 1023 decimal
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:	-30 → +75 ºC
Dimensions:	75 (w tabs) / 55 (w body) x 40(h) x 27(d) mm
	Ø3mm mounting holes - 65mm apart

Readings :	**0 to 60 deg (0 to 558 counts)**	**-** normal bearing temperatures
	> 70 degs (> 651 counts)	- alarm condition, over temp
	> 90 degs (> 837 counts)	- trip, collapse is immanent



Typical usage drawing