RINGWAY
Control & Automation

Head Office
4 Lady Penrhyn Dr,
Unanderra, NSW 2526
products@ringway.com.au
Ph 02 4255 4300 Fax 02 42718990

Mackay Office
Unit 10 Woodman Pde,
Mackay, QLD 4740
products@ringway.com.au
Ph 07 49524001 Fax 07 49522216

RINGLINE 4 - CHANNEL ANALOG TRANSMITTER

P/N- RLTX4AN_120MA

RINGLINE LINE POWERED FOUR CHANNEL ANALOGUE TRANSMITTER

DESCRIPTION:

This Ringline Transmitter is designed for slow change analogue monitoring over distance. Suitable signals include temperature, pressure and gas levels, etc. It will transmit up to four, 4 to 20mA signals over the Ringline system with 12-bit resolution. Each analogue input signal is addressed to a single Ringline channel (192 channels available), using the Ringline programmer. Any input signal addressed above the maximum channel value (96B) is disabled.

FEATURES:

- Integrates time-delayed trips into the Ringline Safety function
- Easy configuration (hard-wired) of auto/manual resetting
- Push button 'override' function to facilitate re-alignment work or diagnostic operation (manual reset mode)
- Intrinsically Safe (Ex ia I)
- Built in surge / lightning protection
- Programmable address/es) and time-delay
- Dual output mode provides trip discrimination
- Single output mode minimises consumption of Ringline addresses

APPLICATIONS:

The transmitter is intended for remote sensor monitoring. It has advantages where monitoring points are spread over wide areas or in small groups over several locations. It also offers a low-cost alternative to distributed PLC monitoring.

For users of the Ringline emergency stop system, unused channels may be used for analogue monitoring without compromising emergency stop functional safety.

The main application is for wide area condition monitoring of slow-moving process variables. Transmitters can be installed anywhere on the Ringline bus up to 7km from the Ringline Synchroniser (up to 12km on 666Hz system). Any transducer that produces a 4 to 20mA signal may be monitored via the two-wire network (Ringline). The method of decoding the analogue signal/s (from Ringline) will be dependent on the users' requirements. The standard Ringline serial interface is Modbus RTU Slave, but other protocols are available depending on the Ringline system being used. The assignment of Ringline addresses to the 4 input signals can be nominated on ordering or may be set / reset using a Ringline Programmer – see following page.

BRIEF TECHNICAL SPECIFICATIONS:

Power Supply:	Ringline-Line Powered, Line powered analogues.
Dimensions:	25mm (W), 115mm (H), 100mm (D).
Isolation from Ringline::	Capacitive coupling, 3,000 volt.
Resolution:	12 bit - 0 to 4096 decimal.
Analog Inputs:	4 @ 0.5 – 20mA.
Minimum Signal Voltage	4 volt
Input Burden:	850 Ohms (@ 4mA) 190 Ohms (@ 20mA)
Output:	Via Ringline field bus connection
Analog Update Rate Ringline 128:	6.1 seconds (8.3 for 192ch) on 1kHz system
Start-up time Ringline 128:	6.9 seconds (9.5 for 192ch) on 1kHz system

INSTALLATION:
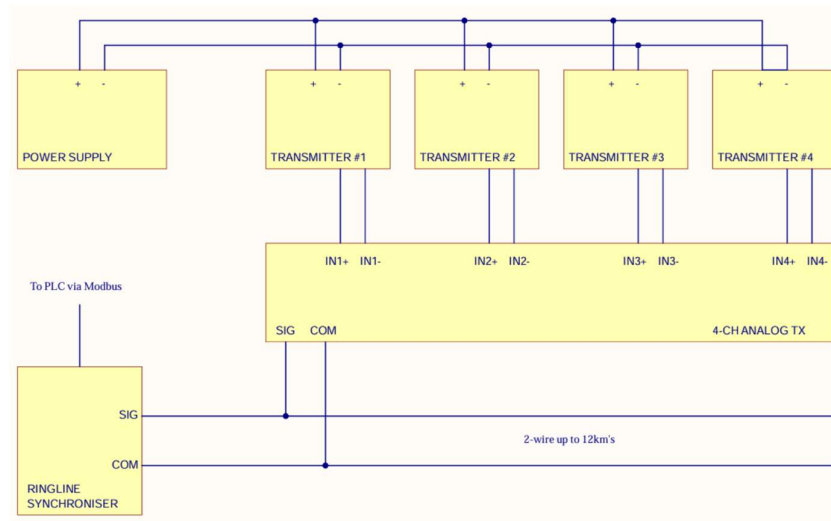

Figure 1- TYPICAL INSTALLATION DIAGRAM

SIMPLIFIED ADDRESS PROGRAMMING:

To check or change allocated Ringline channels:

1) Disconnected 3-way female harness from Ringline network.

2) Connect 3 way connected to compatible Ringline address programmer.

3) Read product and adjust addresses if required.