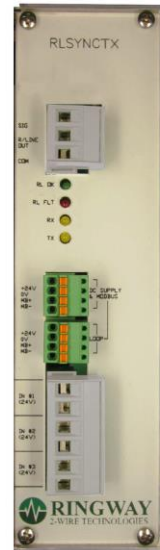# RINGWAY 2-WIRE TECHNOLOGIES

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RINGLINE PLC INTERFACE WITH TX

P/N- RLSYNCTX

RINGLINE TRANSMITTING SYNCHRONISER

DESCRIPTION:

The Ringline Transmitting Synchroniser (RLSYNCTX) brings the proven technology of the Ringline system to PLC and SCADA control systems as a technology independent industrial fieldbus. Operating on just two wires, the fieldbus enables low-cost remote monitoring and control of industrial processes over long distances (up to 12km). The system is not limited to any particular wiring topology so it may be used to gather up all the mixed I/O (digital and analog) around a factory floor or along a conveyor. Field devices are typically line powered which makes monitoring and indication possible anywhere you can run two wires. Communications may go either way on the fieldbus (half-duplex mode) making any point on the two-wire a place to transmit or receive data.

The Synchroniser is implemented on a 120mm high x 160mm deep card that fits the standard Ringway AB housing, consuming only one Eurocard slot width (20mm).

FEATURES:

- Extra Low Voltage (ELV)
- Up to **12km** coverage
- Only 2 wires used
- PLC/SCADA Tx/Rx via RS-485 comms port (Modbus RTU)
- System bandwidth is adjustable (response time can be minimised)
- Modbus Address (1-15) and baud rate (9600/19200) selectable
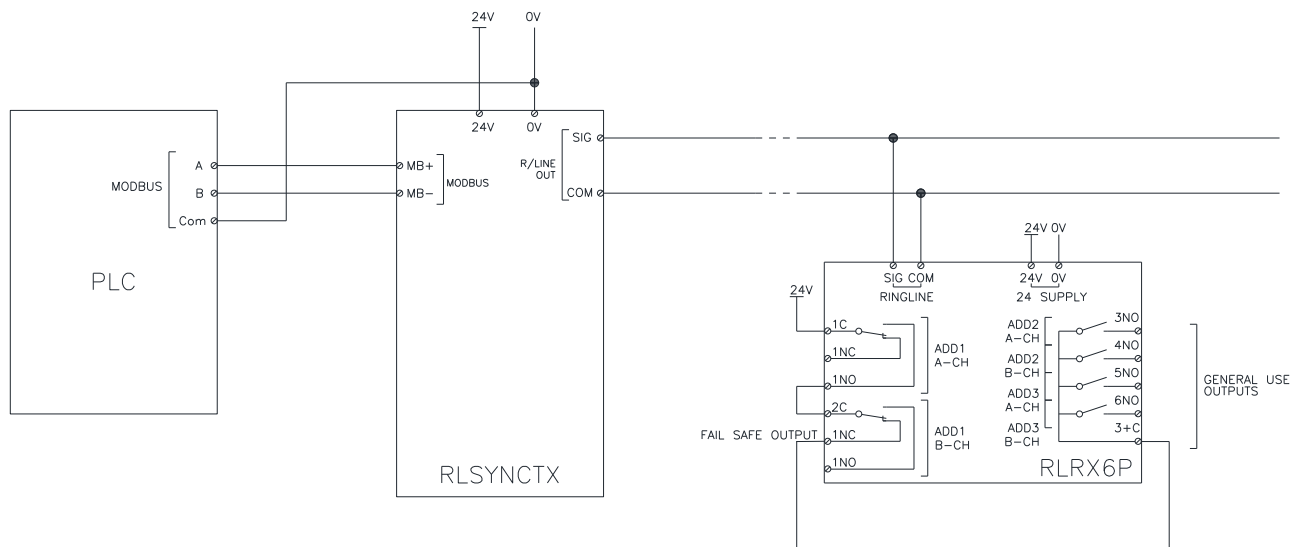- No repeaters or boosters

APPLICATIONS:

The Transmitting Synchroniser provides the fieldbus carrier signal and an RS-485 port (Modbus -standard) for communication with the PLC or SCADA system for monitoring and control purposes. The transmitting Synchroniser is unlike other Synchronisers in its capability to transmit data over the Ringline via commands from the controlling PLC/SCADA. This enables remote control of digital processes via field receivers. The number of channels (digital data points) in the system and Ringline baud rate are selectable via programming software used in configuring the Synchroniser to establish optimum update times. Modbus address and baud rate are also configurable via shunts on the board.

The RLSYNCTX is a 2nd generation Synchroniser specifically designed to maximise common-mode noise immunity and provide reliable operation in harsh industrial environments in the presences of variable speed drives and high power switching. The technology has been in use at various sites throughout Australasia since 2006.

BRIEF TECHNICAL SPECIFICATIONS:

No of data channels (analog or digital):	32 – 224 (programmable)
Communications Port:	Modbus RTU over RS-485
Comms. Port Tx/Rx Channels:	All
Supply:	24VDC, 200mA
Ringline Output:	7.7Vdc
Dimensions in Single Slot Rack:	100mm (W), 155mm (H), 200mm (D)
Operating Temperature Range:	-20 → +75ºC

TYPICAL CONNECTIONS