



# RINGWAY

## 2-WIRE TECHNOLOGIES

### Head Office

Ringway Control & Automation  
ABN 47 087 315 179  
4 Lady Penrhyn Dr,  
Unanderra, NSW 2526  
[products@ringway.com.au](mailto: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](mailto:products@ringway.com.au)  
Ph 07 49524001 Fax 07 49522216



# RINGLINE 6 CH DIGITAL RX

**P/N- RLRX6P**

## RINGLINE DIGITAL RECEIVER

### DESCRIPTION:

The Ringline six channel digital receiver (RLTX6P) is a galvanically isolated, six channel relay output receiver module, which decodes six discrete channels from the Ringline System and provides two change-over (NO/NC) and four single-throw (NO) relay outputs for use in client circuitry. The receiver is microprocessor based with electrically programmable addresses so that the six relay outputs may be interlocked in pairs to any Ringline address in the system. The two changeover relay interlocks in combination with Ringline's unique complimentary logic transmission method, can be used as a fail safe enable of the four general NO contacts (refer to example connection diagram). The receiver is housed in a 22.5mm polyamide DIN Rail mount enclosure with pluggable terminals that enable quick and reliable disconnection / reconnection if programming or maintenance is required.

### FEATURES:

- Six voltage-free relay outputs for direct process control
- Failsafe applications
- Status indication for power, Ringline and relay outputs.
- Slim 22.5mm DIN rail mount enclosure
- Built in surge / lightning protection
- Programmable
- Industry standard pluggable terminals

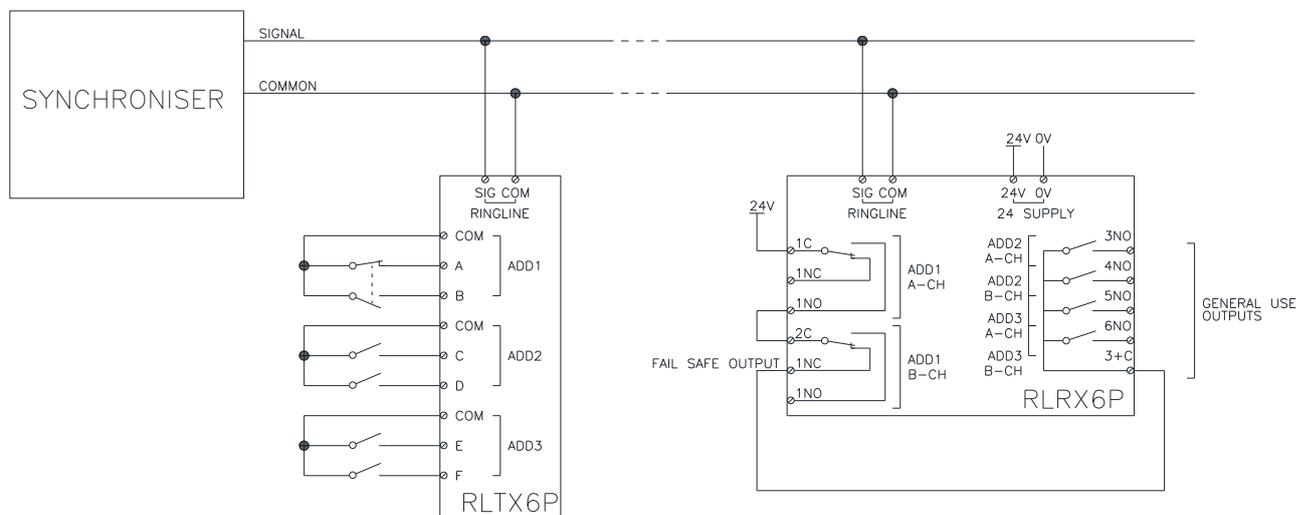
## APPLICATIONS:

The RLRX6P is useful in any industrial process where remote control of up to 6 on/off functions is required. The voltage-free relay outputs enable direct integration into existing electrical control systems without any reference to the power system supplying either Ringline or the receiver itself. The relay outputs may be used to slave higher power relays and contactors.

When used in combination, the two change-over outputs may be used to provide remote fail safe control of a process variable via Ringline. This finds most common application in the sequencing of conveyors where the outbye conveyor starter transmits complimentary logic on consecutive Ringline channels to the receiver mounted at the inbye starter. The complimentary logic ensures that single faults on Ringline or in the relay contacts result in failure to a safe state.

## BRIEF TECHNICAL SPECIFICATIONS:

<b>Power Supply:</b>	24VDC, 150mA
<b>Input:</b>	Ringline field bus
<b>Isolation from Ringline Field Bus:</b>	5000 volts for 1 min
<b>Addressing:</b>	Programmable via Ringline Programmer (RLPROG2)
<b>Signal Noise Filtering:</b>	Three Ringline cycles
<b>Output:</b>	K1, K2 = CO (SPDT) K3 – K6 = NO (SPST)
<b>Contact Isolation from Control Supply:</b>	3000V for 1 min
<b>Contact Ratings Resistive Load:</b>	K1, K2 = 6A @ 250VAC, 3A @ 30VDC K3 – K6 = 5A @ 250VAC, 5A @ 30VDC
<b>Contact Ratings Inductive Load<sup>1</sup>:</b>	K1, K2 = 1A @ 250VAC (AC15), 1.5A @ 30VDC (DC13) K3 – K6 = 2A @ 250VAC, 2A @ 30VDC (Cos φ = 0.4)
<b>Minimum Switching Load:</b>	K1, K2 = 500mW / 10V / 5mA <sup>2</sup> K3 – K6 = 50mW / 5V / 10mA
<b>Dimensions:</b>	22.5mm (W), 100mm (H), 115mm (D)
<b>Operating Temperature Range:</b>	-25 → +70 °C



**Typical application: Fail safe output gating general use outputs**

<sup>1</sup> When switching inductive loads it is recommended that back EMF surge suppression be used at the source of the back EMF surge. (ie the contactor coil.) This will help preserve contact tips. If a flywheel diode is incorporated with the load, the DC inductive current rating can be raised to that of a resistive load.

<sup>2</sup> E.g. In a 10V circuit, 50mA min load required; for 5mA load, min nominal circuit voltage of 100V required.