

RINGLINE 2 CH RELAY

RECEIVER

RLRX2P

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Features

- Two voltage-free change-over 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

Detailed information

The Ringline two channel digital receiver (RLRX2P) is a galvanically isolated, two channel relay output receiver module, which decodes two discrete channels from the Ringline System and provides two change-over (NO/NC) relay outputs for use in client circuitry. The receiver is microprocessor based with an electrically programmable address so that the two relay outputs may be interlocked to any Ringline address in the system.

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.

Applications

The RLRX2P is useful in any industrial process where remote control of up to two 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, See typical connection diagram. 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.

Technical Specifications

Power supply	24Vdc, 150mA
Input	Ringline field bus
Isolation from Ringline Field Bus	5000 volts for 1 minute
Addressing	Programmable via Ringline Programmer (RLPROG2)
Signal Noise Filtering	Three Ringline cycles
Output	K1, K2 = CO (SPDT)
Contact Isolation from Control Supply	3000V for 1 min
Contact Ratings Resistive Load	K1, K2 = 6A @ 250VAC, 3A @ 30VDC
Contact Ratings Inductive Load ¹	K1, K2 = 1A @ 250VAC (AC15), 1.5A @ 30VDC (DC13)
Maximum Switching Load	K1, K2 = 500mW / 10V / 5mA ²
Dimensions	22.5mm (W), 100mm (H), 115mm (D) – Din Rail mount
Operating Temperature Range	-25 — +70 °C

¹ 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.

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

Diagram

