



Remotus RX-MS (serial)

Åkerströms' Remotus Mercury radio-control system is developed to provide the safety and reliability that are required for wireless control of equipment in demanding industrial environments such as metal and processing industries, steel works, and mines. Åkerströms has more than 50 years of experience in developing radio control for industry and its specific needs.

The Remotus RX-MS is designed to function in challenging conditions caused by large temperature differences, dust, vibrations, oil, and humidity. The RX-MS uses serial communication. Rather than outputs as relays and analog signals, functions are transmitted via a field bus to a programmable logic controller (PLC) that's installed in the machine (e.g., a crane). Normally, the RX-MS is used for radio control of larger machines in which a PLC is installed. It can be used for control of cranes, overhead cranes and other machines. The functions are preprogrammed into the machine's PLC, and users can easily install the Remotus RX-MS and immediately start up the system.

Safety.

The Remotus RX-MS has two relays for control of the main contactor, with

reading of both outputs' driver (exciter/sustainer). The cyclical redundancy check (CRC) function assures high security for transmitted radio messages. Option: a receiver with double processors that monitor each other. A message is checked before the relay function goes out into the receiver. So incorrect commands don't occur, and safety increases. Diagnostic tests run during operation and are displayed on the monitor. The RX-MS is designed to comply with safety category 3 (4) (EN 954-11:1996).

Service and maintenance.

The RX-MS receiver is easy to service and handle. Comprehensive logging of input and output commands. Customizable data log can be read during operation. Statistics collection for preventive maintenance.

Functions.

The RX-MS receiver works with all transmitters in the Remotus Mercury system. The control command is transmitted serially with field bus technology. Several systems can be maneuvered on the same frequency (time division multiple access—TDMA). It has capabilities for maneuvering several objects from the

TECHNICAL FACTS

No. of outputs/inputs: 8x16; main contactor hold
Rated voltage: 250 VAC
Rated current: 6 A (use a 6 A fuse for the connection)
PROFIBUS DP slave: 16 bytes out and 16 bytes in (consistent data)
MODBUS3964R: configurable number of bytes; up to 16 bytes out and 16 bytes in
Radio frequency: 405-470 MHz
Casing: aluminum profile for fast mounting on a symmetrical rail, to comply with EN 50 022 (DIN rail)
Operating temperature range: -25°C to +55°C; the range can be extended
Size: 125 x 135 x 135 mm
Connection voltage: 11-35 VDC analog inputs/card

same transmitter (multi-crane operation) and for maneuvering the same objects from several transmitters (multi-operator operation). The control command is transmitted to the PLC using serial communication. PROFIBUS DP, MODBUS and S3964R. Customizable protocol (RS232 or RS485) is optional. Duplex function is available; it enables data transmission back to the transmitter (the operator).