

DIN Rail Mount Indicators

RM4-RS Serial data input - RS232, RS485, RS422 or serial current loop

Description

The RM4-RS accepts a factory configured input of either RS232, RS485, RS422 or serial current loop in either ASCII or Modbus RTU protocol.

The RM4-RS can function as an indicator/ alarm/ serial to analog converter/ serial to serial converter/ PLC or computer interface. RM4-RS Serial baud rate, parity, data bits and other parameters are easily set up by the user using "on display" easy to follow messages. An RS485 or RS422 arithmetic operation mode allows the RM4 to poll up to eight external AIC instruments and perform arithmetic operations on the result using a versatile formula.

The instrument can poll up to eight external AIC instruments with automatic or manual display scrolling showing 3 digits plus channel number.

An alpha character feature allows certain alpha characters to be displayed. This feature is ideal for displaying special messages (e.g. OPEN, CLOSE etc.)

The RM4-RS is also capable of transmitting a polling command of up to eight characters in length to request data from other instruments.

Two alarm relays are provided as standard. Optional output combinations including extra relays, isolated analog retransmission (4-20mA, 0-1V or 0-10VDC) or isolated serial comms. can also be provided.

The RM4-RS has a programmable display brightness function, this allows the unit to be operated with low display brightness to reduce the instrument power consumption and to improve readability in darker areas. The display can be programmed to automatically dim or blank after a set time. The display brightness is restored if a relay is activated or any of the front buttons is pushed.

An external input (not available with RS422) is configurable to perform one of various functions e.g. Two level brightness switching, peak hold, display hold, max/min memory, setpoint only access, security lockout or zero.

Electrical isolation between power supply, input signal and retransmission eliminates grounding and common mode voltage problems.



Features

- RS232, RS485, RS422 or serial current loop input (ASCII or Modbus RTU protocol)
- Pushbutton calibration and setup
- 240V, 110V, 48V, 42V, 32V, 24VAC, or 12 to 48VDC (factory configured)
- Arithmetic capability from up to eight sources
- Polling from up to eight external sources
- Programmable baud rate, parity, decimal point & data bits (7 or 8)
- Programmable terminating & skip characters and alpha enable
- Digital filter, improves stability
- Two alarm/control relay outputs (5A)
- Remote inputs for reset and to perform special functions including display hold, peak hold, high memory, low memory, brightness level switching, etc
- 5 digit LED display and relay/alarm status LEDs
- Isolation between input signal, output and supply
- Programmable display brightness
- Auto dim feature conserves power
- Rugged aluminium DIN rail mount housing
- 2 year guarantee

Options

- Isolated analog output single or two independent outputs 4-20mA, 0-1V or 0-10V
- 16 bit analog retransmission + 3rd setpoint relay
- Isolated & regulated 12VDC @ 50mA or 24VDC @ 25mA (link selectable)
- Isolated RS232, RS422 or RS485 serial comms. ASCII or Modbus RTU protocol
- Combined analog 4-20mA and RS485 serial outputs



RM4RS-3.2-0

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Specifications

Technical Specifications

Input types: Models available for RS232, RS485, RS422 or serial current loop

Baud rate: 300, 600, 1200, 2400, 4800, 9600, 19200 or 38400 baud

Microprocessor: MC68HC11 CMOS

Ambient temp: -10°C to 60°C

Humidity: 5% to 95% non condensing

Display: LED 5 digit 7.6mm and alarm annunciator LEDs

Power supply: 240V, 110V, 48V, 42V, 32V, 24VAC or 12 to 48VDC (factory configured)

Power usage: AC supply 6 VA max, DC supply, <6W (depends on load & options)

Output (standard): 2 x relays, form A
Rated 5A resistive 240VAC

Relay action: Programmable N.O. or N.C.

Output Options

Third relay : Rated 0.5A resistive at 30VAC or DC, form C if no other options fitted (otherwise form A)

Fourth relay: Rated 0.5A resistive at 30VAC or DC, form A

Retransmission: Analog 4 to 20mA, 0 to 1V or 0 to 10V link selectable (single or dual channel versions)
16 bit single channel available
Serial RS232, RS485 or RS422 choice of ASCII or Modbus RTU protocols

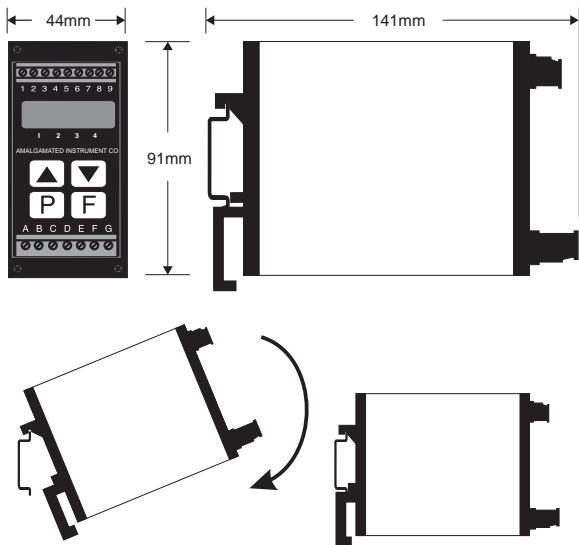
DC voltage out: Isolated 24V at 25mA or 12VDC at 50mA (link selectable)

Physical Characteristics

Case size: 44mm x 91mm x 141mm

Connections: Plug in screw terminals
2.5mm² wire)

Weight: 500g basic model,
550g with option card



RM4-RS Order Codes

RM4-RS - [] - [] - []

Power Supplies

RM4-RS - [XXX] - [] - []

240VAC	240
110VAC	110
48VAC	48
42VAC	42
32VAC	32
24VAC	24
12 to 48VDC	DC

Display Type

RM4-RS - [] - 5E - []

Options

RM4-RS - [] - [] - [XXX]

ANALOG (4-20mA, 0-1V or 0-10V selectable)	A
DUAL ANALOG (4-20mA, 0-1V or 0-10V selectable)	AA
RS232	232
RS485	485
RS422	422
DC VOLTAGE OUTPUT 24V (±12V)	E
THIRD RELAY	R
THIRD & FOURTH RELAYS	RR
ANALOG (16 BIT) PLUS 3RD RELAY	AHR
3RD RELAY PLUS 24V (±12VDC) OUTPUT	RE
3RD RELAY PLUS ANALOG (12 BIT)	AR
ANALOG (12 BIT) PLUS 24V (±12VDC) OUTPUT	AE
ANALOG (12 BIT) PLUS RS485	A485

Input connection details

RS232 5 Remote input 6 Not used 7 Tx (data out) 8 Rx (data in) 9 GND	RS485 5 Remote input 6 Not used 7 RS484 B 8 RS485 A 9 GND
RS422 5 Tx B (out) 6 Tx A (out) 7 Rx B (in) 8 Rx A (in) 9 GND	Current loop 5 Remote input 6 not used 7 Current loop - 8 Current loop + 9 GND

Common optional output connections

Third relay + analog retransmission 1 Relay 3 2 Relay 3 3 Analog retransmission + 4 Analog retransmission -
Transmitter supply + analog retransmission 1 Transmitter supply 12/24VDC + 2 Transmitter supply GND 3 Analog retransmission + 4 Analog retransmission -
Third and fourth relays 1 Relay 4 2 Relay 4 3 Relay 3 4 Relay 3
Serial communications 1 RS232 Rx or RS485/RS422 A 2 RS232 Tx or RS485/RS422 B 3 RS232/RS485 GND or RS422A 4 RS422 B

