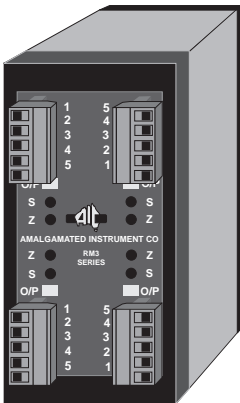
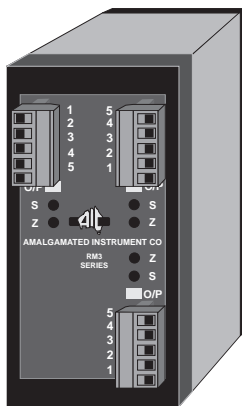


RTD Temperature Transmitter

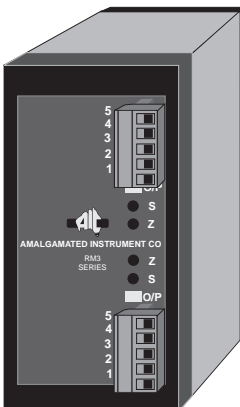
Models RM3-RT-LPN & RM3-RT-LPI



Model
RM3-RT-LPN-4 or
RM3-RT-LPI-4
Four Channel



Model
RM3-RT-LPN-3 or
RM3-RT-LPI-3
Three Channel



Model
RM3-RT-LPN-2 or
RM3-RT-LPI-2
Two Channel



Model
RM3-RT-LPN-1 or
RM3-RT-LPI-1
One Channel



Description

The RM3 2 wire loop powered RTD temperature transmitter accepts 2 or 3 wire 100Ω RTD (Pt100) inputs. The RTD inputs are converted to a 4-20mA output signal.

Zero and scale selection are via link setting. Zero links allow for selection of -50, 0 or 50°C as the zero point. Span links allow for 50, 100, 150, 200 or 250°C span from the zero selection. Potentiometer controls for each channel can then be used for adjustment within the link set ranges.

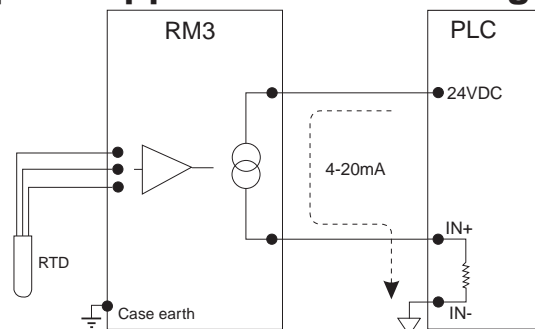
Models are available with either 1, 2, 3 or 4 input/output channels. Each channel has individual zero and span adjustment.

An optional 240VAC or 110VAC supply is available for one or two channel models. This option provides two isolated 24VDC supplies.

Features

- 2 Wire - Loop powered
- 100Ω RTD (Pt100) input
- Isolated or non-isolated versions available
- 1, 2, 3 or 4 channel models
- Up to 4 channels in one compact case
- Output level indicator LED
- Wide zero and span range
- Front panel span and zero fine adjustment
- Rugged enclosure
- DIN rail mount
- Plug in screw terminal connectors
- Same connector wiring configuration for each channel - useful for testing
- Optional 240VAC or 110VAC supply versions for one or two channel non-isolated models

Typical Application Block Diagram



Specifications and Ordering Information

Specifications are subject to change without notice

TECHNICAL SPECIFICATIONS

Input: Pt100 RTD, 2 or 3 wire
 Output: 4-20mA, non isolated and isolated versions available
 Zero & Span: Link selectable:
 Zero: -50, 0 or 50°C
 Span: 50 to 250°C adjustable
 Supply: Powered by the 4-20mA loop current. Loop supply required 13 to 36VC nominal.
 Accuracy: Better than 0.1% of full scale when calibrated
 Linearity: Better than 0.1%
 Thermal drift: Typically ± 20 ppm/°C
 Open circuit input >20mA output on open circuit detection:
 Response time: 0.5 sec. to 1%
 Protection: Reverse polarity output protection. Over voltage output protection.
 Loop Supply: 13 to 36VDC
 Maximum Load: $R_L = \frac{\text{Supply (V)} - 9}{0.02}$ Ohms
 Load Effects: Effect on accuracy of changing load resistance is no greater than 0.1% of full scale
 Ambient temp: 0 to 60°C
 Humidity: 5 to 95% non condensing

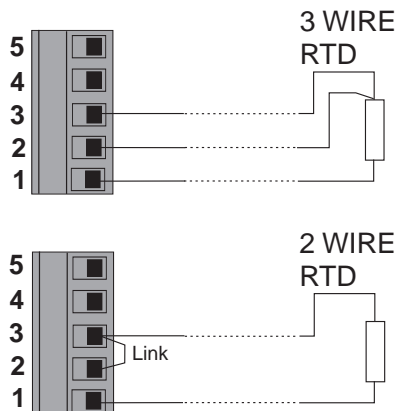
PHYSICAL CHARACTERISTICS

Case size: 44mm x 91mm x 120mm
 Mounting: 35mm DIN Rail mount (EN50022)
 Connections: Plug in connector with screw terminals (max 1.5mm² wire)
 Weight: 1 Channel 230 gms,
 2 Channel 250 gms,
 3 Channel 300 gms,
 4 Channel 320 gms

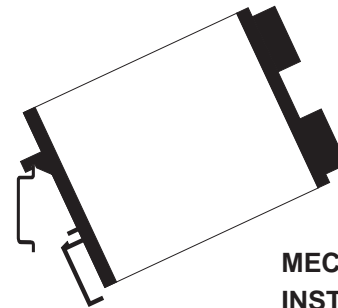
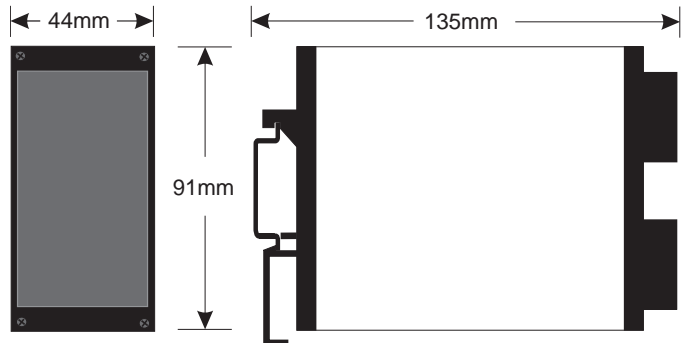
OPTIONS

Power supply: 240VAC or 110VAC supply - provides two isolated 24V supplies @ 40mA each (one or two channel models)

PROBE CONNECTIONS



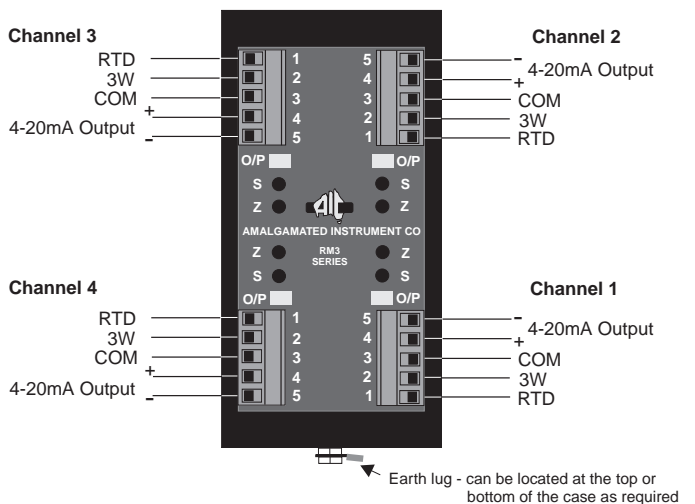
DIMENSIONS



MECHANICAL INSTALLATION



ELECTRICAL CONNECTIONS



ORDER CODE

RM3-RT-LPN-1	100	RTD one channel model (non isolated)	RM3-RT-LPI-1	100	RTD one channel model (isolated)
RM3-RT-LPN-2	100	RTD two channel model (non isolated)	RM3-RT-LPI-2	100	RTD two channel model (isolated)
RM3-RT-LPN-3	100	RTD three channel model (non isolated)	RM3-RT-LPI-3	100	RTD three channel model (isolated)
RM3-RT-LPN-4	100	RTD four channel model (non isolated)	RM3-RT-LPI-4	100	RTD four channel model (isolated)
RM3-OPT-240-01		Optional 240VAC supply			
RM3-OPT-110-01		Optional 110VAC supply			

NOTE: The AC supply options are not available with isolated versions.