

RoHS Compliant

Manosys Square Root Computer: EMRT1

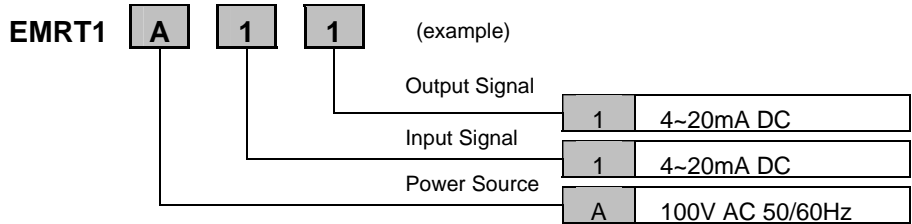
This unit calculates the square root of electric signal in proportion to input pressure and output current signal.

Input signal and output signals are electrically insulated.



EMRT1

Product Code Naming



Specifications

Model	EMRT1
Input Signal	4~20mA DC (input resistance 50Ω)
Output Signal	4~20mA DC (load resistance less than 500Ω)
*Output Cutoff Point	Less than 15% F.S.
Accuracy	±1%F.S./ °C (at 20°C) Output signal: 15-100%F.S.
Temp. Drift	±0.01%F.S./ °C (at 0-40°C)
Power Supply	100V AC±10% 50/60Hz Appx. 3.5VA
Outer Casing	Polycarbonate and ABS resin
Operating Temp.	0~50°C (no icing)
Operating Humidity	90%RH or less (no condensation)
Insulation Resistance	Terminal to ground: over 20MΩ (500V DC megger)
Voltage Resistance	Power supply terminal to ground: 1000V AC 50/60Hz 1 min
Installation	Rail installation (35mm wide DIN rail)
Weight	Approx. 300g

* Output Cutoff Point

The cutoff point is used to prevent square root extraction at between 0-15% of the output signal. The reason for this is that as the output signal decreases, input values become too small for accurate calculation, as illustrated in the chart below. The cutoff point of 15% F.S. will not interfere with the performance of the unit.

Output Value	Input Value
20%	$(0.2)^2 \times 100\% = 4\%$
15%	$(0.15)^2 \times 100\% = 2.25\%$
10%	$(0.1)^2 \times 100\% = 1\%$
5%	$(0.05)^2 \times 100\% = 0.25\%$

For more information, please contact:

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