

DIGITAL THERMO METER

AT-216

Sales, Service, Technical support

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TC Measuring Range

Code	Sensor	Measuring range	Resolution	Accuracy
A	K	-50.0~199.9°C	0.1°C	±0.5%FS
		-58.0~391.8°F	0.1°F	±0.5%FS
B	K	-50~1200°C	1°C	±0.5%FS
		-50~2192°F	1°F	±0.5%FS
J	J	-50~1000°C	1°C	±0.5%FS
		-58~1382°F	1°F	±0.5%FS
T	T	-50~400°C	1°C	±0.5%FS
		-58~752°F	1°F	±0.5%FS
R	R	-10~1700°C	1°C	±0.5%FS
		-14~3092°F	1°F	±0.5%FS

Cold junction compensator accuracy: ±1°C (10~40°C)
Accuracy: 23°C ±5°C, 35~85%RH

RTD Measuring Range

Code	Sensor	Measuring range	Resolution	Accuracy
PA	Pt-100Ω	-50.0~199.9°C	0.1°C	±0.5%FS
		-148.0~391.8°F	0.1°F	±0.5%FS
PB	Pt-100Ω	-100~600°C	1°C	±0.5%FS
		-148~1112°F	1°F	±0.5%FS

Accuracy: 23°C ±5°C, 35~85%RH

Specifications

Input configuration : Single ended
Operation method : Dual slope A/D conversion
Conversion rate : 0.625/sec (TC), 1.25/sec (RTD)
Normal mode rejection : More than 40dB
Display : LED, 8 mm, 3 1/2-digits
Polarity : A "-" is displayed automatically
Overrange indication : When input exceed the maximum display, flash "0.FL" or "-0.FL"
Zero display : Leading zero suppression
Sensor compensate : ±99 digit

TC Measurement Section

Input sensor : K, J, T, R
Sensor lead resistance : Less than 50Ω
Burn-Out alarm : "----" Flashing
Temp. coefficient : 200ppm/°C of F.S (0~50°C)

RTD Measurement section

Input sensor : Pt100Ω
Current for resistance : 1mA (TYP.)
External lead resistance : Less than 1Ω/lead
Linearizing method : Digital linearizing
Burn-Out alarm : When A or B connection burn-out, "oFL" flash
When C connection burn-out, "----" flash
Temp. coefficient : 200ppm/°C of F.S (0~50°C)

Features

- Small size 1/32 DIN 48 mm (W)×24 mm (H)×88 mm (D)
- NEMA 4 front panel (IP66)
- Isolation analog output 4~20 mA (Option)
- One setpoint (Relay or photocoupler)
- Selectable sensor (Only for TC type)
- RTD sensor (Pt100Ω, JPt100Ω)

Comparison section

Control method : Computation by microcomputer
Setting range : One setpoint -1999~1999
Setting condition : Indication > Set point → ALM Lit (A type)
Indication < Set point → ALM Lit (B type)
Comparison relay output : Contact capacity of each relay
125V 0.5A Resistive load
30V DC 1A Resistive load
Photo coupler output : Sink voltage 30V MAX, current 50 mA
MAX less than 1.2 V (NPN open-collector)
Hysteresis : 1 to 199 digit for each set point

Common specifications

Memory backup : Set data is stored for approx. 10 years by using EEPROM
Operating temperature : 0~50°C 35~85%RH and humidity ranges
Power supply : DC 24 V ±20%
Power consumption : 40 mA (TYP)
Weight : Approx, 100g
Accessories : Instruction manual, Connector terminal plug, Rubber packing
Dielectric strength : Input terminal and comparator output, Analog (-), DC 500V/min.
Power supply (0V) and input (LO), Comparator output, Analog (-), case, DC 500V/min.
Input terminal (LO) and case AC 500V/min.

Output specifications

Analog Output (isolated from LO terminal)

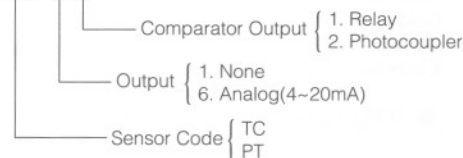
Output	Resistive load	Accuracy (23°C)	Ripple
4 to 20 mA	0 to 250Ω	±0.5% of FS	Less than 25mVp-p

Accuracy: 23°C ±5°C, 35~85%RH

*Ripple for resistive load 250Ω, 20 mA

Ordering code

AT-216-□□-□□



Dimensions

Same as AM-213 (page 39)

Connection Diagram

