ET3916R Multi-Channel Temperature Detectors (RTD / Thermocouple)

ET3916R Series — Thermocouple · RTD



le5-26型；

OVERVIEW

The ET3916R series multi-channel temperature detectors (RTD / thermocouple type) offer a clear interface, flexible operation and large-volume data storage. They accept 10 thermocouple types (J, K, T, E, S, N, B, R, WRe3-25, WRe5-26) and 4 RTD types (PT1000, PT100, CU100, CU50) — for production lines, laboratories and R&D departments across the lighting, power tool, household appliance, motor, heating appliance, pharmaceutical, petrochemical, chemical, metallurgy and electric power industries.

FEATURES

- Multi-channel testing: 6 to 48 channels, configured to requirements
- 5-inch industrial true-colour LCD
- High-speed, high-performance 32-bit ARM microprocessor — simultaneous multi-channel acquisition, recording, display and alarming
- Each measurement module supports 6 channels, up to 48 channels; module count configured to requirements
- Data displayed as numeric values, curves and bar graphs; numeric interface shows 6 / 12 / 18 / 24 channels at once with auto page-turning (selectable intervals)
- 6-digit display, range −999.99 to 9999.99
- Built-in GB2312 Chinese character library with full-pinyin input
- Per-channel parameter settings: high/low alarm limits, temperature calibration, display unit and free naming
- Audible and visual alarm when a measured temperature exceeds its set limits
- Hardware real-time clock with lithium-battery backup; maximum clock error ±1 min/year
- Channels isolated from each other, strong anti-interference; isolation voltage peak up to 400 V
- History data stored on an 8 GB TF card; export via USB flash drive
- Sampling: slow 1 s/channel, medium 0.5 s/channel, fast 0.2 s/channel
- Standard interfaces: USB Device, USB Host, RS232 — SCPI programming protocol supported

TECHNICAL PARAMETERS

Item	ET3916R Series
Models	ET3916R-06 / -12 / -18 / -24 / -30 / -36 / -48
Channels	6 to 48 channels (6 per module)
	0.02 % FS

Item	ET3916R Series
Thermocouple measurement accuracy	
RTD measurement accuracy	0.1 % FS
Resolution	0.001
Supported thermocouple types	K, J, T, E, S, N, B, R, WRe3-25, WRe5-26
Thermocouple measurement range	78 mV
Supported RTD types	PT1000, PT100, CU100, CU50
Voltage / current input	Not supported (see ET3917 series)
Cold-junction compensation accuracy	±0.5 °C
Measurement speed	Slow 1 s/channel, medium 0.5 s/channel, fast 0.2 s/channel
Display modes	Numeric values, curves, bar graphs
Calibration	Isolated correction factor for each channel
Alarm	Isolated alarm setting (upper-upper, upper, lower, lower-lower limits)
Data record interval	1 s
Data storage	8 GB TF card
Interfaces (standard)	USB Device, USB Host, RS232 · SCPI protocol

THERMOCOUPLE SHEET (ET3916R)

Type	Temperature Range	Accuracy	Resolution
K	−200 to 1372 °C	±0.54 °C	0.01 °C
J	−200 to 1100 °C	±0.43 °C	0.01 °C
T	−100 to 400 °C	±0.54 °C	0.01 °C
E	−50 to 830 °C	±0.36 °C	0.01 °C
S	−50 to 1760 °C	±1.00 °C	0.01 °C
N	−200 to 1300 °C	±0.83 °C	0.01 °C
B	600 to 1820 °C	±1.15 °C	0.01 °C
R	−50 to 1768 °C	±1.02 °C	0.01 °C
WRe3-25	0 to 1500 °C	±1.90 °C	0.01 °C
WRe5-26	0 to 1500 °C	±1.44 °C	0.01 °C

Accuracies exclude the error of the thermocouple itself and of cold-junction compensation.

RTD SHEET (ET3916R)

Type	Temperature Range	Accuracy	Resolution
PT1000	−200 to 650 °C	±0.75 °C	0.01 °C
PT100	−50 to 850 °C	±1 °C	0.01 °C
CU100	−50 to 150 °C	±1 °C	0.01 °C
CU50	−50 to 150 °C	±2 °C	0.01 °C

Accuracies exclude the error of the thermal resistance itself.

GENERAL INFORMATION

Power supply	AC 220 V ±10 %, or AC 110 V ±10 %, 45–65 Hz
Display	5-inch TFT LCD, resolution 854 × 480
Working temperature	0 °C to 40 °C
Storage temperature	−10 °C to 70 °C
Relative humidity	< 80 %
Interfaces	USB Device, USB Host, RS232 (standard) · SCPI protocol
Dimensions	260 × 300 × 100 mm (W × D × H)