

- DIN-rail or wall mounting
- 4-digit display
- Triple isolation
- Universal programmable input
- PID-fuzzy auto-tuning
- Up to 3 relay and 1 analog outputs
- RAMP/SOAK pattern control
- RS485 MODEBUS serial interface
- USB port for parameter storage

DESCRIPTION

BTC1900-R is a DIN-rail mounting microprocessor-based controller with universal input accepting Pt100, 10 thermocouple types and various linear signals. It can have up to 3 relays (control or alarm) and analog output that may be controlled through ON/OFF and self-tuning PID-fuzzy algorithms as well as optional RAMP/SOAK pattern control. A bumpless auto-manual change-over is also built in the PID algorithm. BTC1900-R is equipped with 4-digit LED display and 4-button keyboard for programming. A triple input/output/supply isolation protects the controller from electromagnetic disturbances. Communication features include RS485 MODEBUS interface and USB port for program parameter storage. BTC1900-R is well equipped for trouble-free operation in harsh industrial conditions.

TECHNICAL SPECIFICATIONS

Construction : DIN-rail or wall mounting
Wiring : Screw terminals
Housing : Plastic
Isolation : Input to output to supply (3-way 1500V)
Indication : LED 4-digit height 7mm, 3 LED's for output

MAIN INPUT

Thermocouple R,S : 0-1769 °C
K,J : 0-400,0, 0-1200 °C
B : 0-1820 °C
E : 0-900 °C
L : 0-800 °C
N : 0-1300 °C
T : -199,9-400 °C
U : -199,9-600 °C
Pt-100 3-wire : -199,9 – 600 °C JIS or DIN
Voltage : -10 – 50mV , -2 – 10V
Current : 0-20, 4-20mA
Linear resistive : 0...5 kOhm
Indication : -1999 to +9999
Scaling : -1999 to +9999
Decimal point : Programmable
Digital filter : Programmable
Input : Programmable

OUTPUTS (Up to 3 outputs)

Relay : 250VAC 5A, NO contact
SSR : 250VAC 1A
MOS gate : 60V/100mA Isolated
Extern SSR : 24VDC/20mA
Analog : 0(4)...20 mA ($\leq 560 \Omega$), 0...10 V ($\geq 20mA$)
Isolation : Optical, 1500 VAC
Operating modes : Manual and automatic
Control algorithms : ON/OFF and PID-fuzzy, programmable
Auto-tuning : Programmable
Auto/Manual control : Bumpless, keyboard switched
RAMP/SOAK Pattern : 1(2) programs w/ 16(8) points
Alarm outputs : Up to 3 outputs
Maximum total outputs: 2 control + 1 alarm, or
 1 control + 2 alarm, or 3 alarm

COMMUNICATION

Serial Interface : RS485
Function : configuration and networking
Network devices : up to 32, max 1200m
Isolation : 1500 VAC
Protocol : MODEBUS
USB Interface : Mini-A USB side connector
Function : Parameter Storage


INSTALLATION

Supply : 85 to 265VAC
Ambient temp : 0 to +50°C, RH 0 till 85%
Storage temp : -25 to +65°C
Mounting : DIN-rail or wall mounting
Protection class : IP10
Dimension : B40 x H107 x D43mm
Weight : 115g

PERFORMANCE

Accuracy error : $< \pm 0.15\%$ FS
Sample time : 250mS
Display : 4-digit LED, 7mm
LEDs : 3 LEDs for output 1 for program
Keyboard : 4 for keys
Power consumption : 4 VA
Cold junction comp : Automatic software
RTD line comp : Automatic software
Isolation : Input to output to supply (3-way)
 1500V


ORDER INFORMATION
BTC1900-R

RELAY control output: X None, C Relay NO, D SSR, J External SSR, M MOS gate

RELAY alarm output: X None, C Relay NO

CONTROL algorithm: F PID-fuzzy (ON/OFF), H PID-fuzzy plus pattern control

SERIAL interface: X None, B RS485 MODEBUS

ANALOG control output: X None, E 0...20 mA, F 4...20 mA, I 0-5V, K 0...10 V

Ex:BTC1900-R-C-C-C-F-B-X



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