

- **Low cost**
- **6 DIN front sizes or DIN-rail mounting**
- **4-digit-display**
- **Universal input - 4 RTDs, 6 T/Cs, and 3 linear types**
- **Keyboard or encoder adjustment controls**
- **Software input line and 'cold junction' correction**
- **Self-testing and self-calibration**
- **RS485 serial interface option**

**DESCRIPTION**

BTC284U is designed for wide range of applications. BTC284U is equipped with a 4-digit LED display. BTC284U has two programmable relay control/alarm outputs and a universal input from Pt100, Pt1000, PTC, 6 thermocouple types as well as linear current or voltage signals from external transmitters. All models have a built-in circuit for self-testing and self-calibration, manual measurement offset setting, and automatic software compensation of line resistance and cold junction temperature. The display-to-input correspondence (in case of linear input), the decimal point position, temperature measuring unit as well as the offset value are also programmable. These controllers can be ordered with either keyboard, or unique rotating encoder for set-point adjustment and programming. Thanks to their various enclosure sizes and user control options, universal input and serial interface as well as excellent price-to-performance ratio, BTC284U are exceptionally widely applicable devices.

**TECHNICAL SPECIFICATIONS**

**Construction** : Panel design to standard DIN, 6 front sizes or DIN-rail type R  
**Wiring** : Screw terminals  
**Housing** : Plastic  
**Isolation** : Input to supply  
**Indication** : LED 4-digit height 14mm

**INPUT**

**Thermocouple R,S:** 0-1700 °C  
**K** : -20-1300 °C  
**J** : -20-1000 °C  
**B** : 100-1800 °C  
**T** : -40-400 °C  
**Pt-100 3-wire** : -100 – 850 °C DIN  
**Pt-1000 3-wire** : -100 – 600° C DIN  
**PTC (1k at 25°C)** : -50 – 150.0°C  
**PTC (2k at 25°C)** : -50 – 150.0°C  
**Voltage** : 0 – 10V  
**Current** : 0-20, 4-20mA, 4-20 with transmitter supply  
**Custom linear** : Option input -1999 to +9999  
**Indication** : -1999 to +9999  
**Scaling** : -1999 to +9999  
**Unit** : °C or °F programmable

**OUTPUT**

**Output** : Up to 2 outputs  
**Relay** : 250VAC 5A, NO/NC  
**Relay** : 10<sup>7</sup> operations  
**SSR** : 250VAC 1A  
**MOS gate** : 60V/100mA  
**Extern SSR** : 5-24VDC/30mA  
**Transmitter supply** : 24VDC/40mA  
**Communication** : RS485 isolated (ASCII)  
**Control algorithm** : ON/OFF  
**Alarms** : Programmable within limits



**INSTALLATION**

**Supply** : 85 to 265VAC/DC 24VAC 9VAC or 12 to 24VAC/DC  
**Ambient temp** : -10 to +65°C, RH 0 till 85%  
**Storage temp** : -20 to +80°C  
**Mounting** : Panel with bracket  
**Protection class** : IP54 or IP65 front, IP20 rear  
**Dimension** : B96 x H96 x D98mm (type B)  
                   B96 x H48 x D98mm (type H)  
                   B48 x H96 x D98mm (type V)  
                   B48 x H48 x D95mm (type S)  
                   B72 x H72 x D66mm (type Q)  
                   B72 x H36 x D56mm (type L)  
                   B45 x H78 x D108mm (type R DIN-rail)  
**Weight** : 350, 300, 300, 200, 150 & 300g

**PERFORMANCE**

**Accuracy error** : < ±0.15% FS  
**Display** : 4-digit red LED, height 14 mm LEDs for output state  
**Keyboard** : 3 keys or rotary encoder  
**Power consumption** : 2 VA  
**Cold junction comp** : -10-80°C automatic  
**RTD line comp** : 2x 25 ohm automatic



**ORDER INFORMATION**

**BTC284U**

TYPE	SUPPLY	ADJUST	OUTPUT
B 96x96mm	A 230VAC	A Keyboard	X None
H 96x48mm	B 115VAC	H Rotay	C Relay
V 48x96mm	C 85-265V		D SSR
S 48x48mm	Q 12-24V		M MOS gate
L 72x36mm	R 24VAC		J Ext. SSR
Q 72x72mm	E 9/12VAC		
R DIN-rail	P 12-24V none iso.		

**INTERFACE**

X None  
 M RS485 (ASCII)

**PROTECTION**

X None  
 P IP65

**CUSTOMER SIGNAL**

X None  
 Z Specify