

■ **Model:** Digital indicating limit controller BCS2 T7671

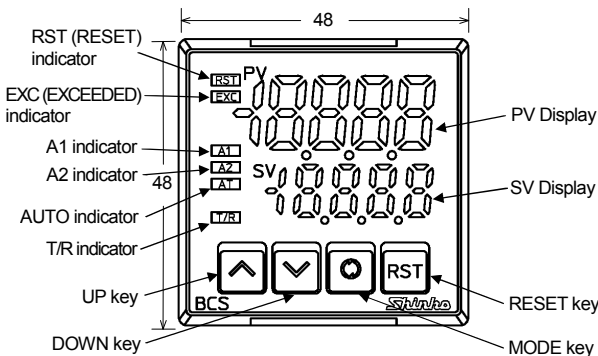
■ **Rated Range**

Input (TC)	Range		Resolution	Input (RTD)	Range		Resolution
K	-200 to 1370°C	-320 to 2500°F	1°C (°F)	Pt100	-199.9 to 850.0°C	-199.9 to 999.9°F	0.1°C (°F)
	-199.9 to 400.0°C	-199.9 to 750.0°F	0.1°C (°F)		-200 to 850°C	-300 to 1500°F	1°C (°F)
J	-200 to 1000°C	-320 to 1800°F	1°C (°F)	JPt100	-199.9 to 500.0°C	-199.9 to 900.0°F	0.1°C (°F)
R	0 to 1760°C	0 to 3200°F	1°C (°F)		-200 to 500°C	-300 to 900°F	1°C (°F)
S	0 to 1760°C	0 to 3200°F	1°C (°F)	Input (DC)	Range		Resolution
B	0 to 1820°C	0 to 3300°F	1°C (°F)		4 to 20 mA DC	-1999 to 9999 *1	
E	-200 to 800°C	-320 to 1500°F	1°C (°F)	0 to 20 mA DC	-1999 to 9999 *1	1	
T	-199.9 to 400.0°C	-199.9 to 750.0°F	0.1°C (°F)	0 to 1 V DC	-1999 to 9999 *1	1	
N	-200 to 1300°C	-320 to 2300°F	1°C (°F)	0 to 5 V DC	-1999 to 9999 *1	1	
PL-II	0 to 1390°C	0 to 2500°F	1°C (°F)	1 to 5 V DC	-1999 to 9999 *1	1	
C(W/Re5-26)	0 to 2315°C	0 to 4200°F	1°C (°F)	0 to 10 V DC	-1999 to 9999 *1	1	

*1 Decimal point place change and scaling are possible.

■ **General Structure**

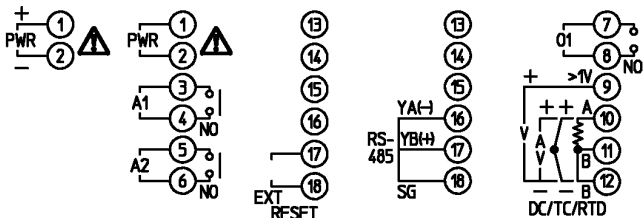
Case: Flame-resistant resin, Color: Black
 Front panel: Membrane sheet key
 Drip-proof/Dust-proof: IP66 for front panel only
 Indicating structure:



Displays PV Display: Indicates PV (Process variable).
 7 segments Red LED 4 digits, 12.4 x 5.8 mm (H x W)
 SV Display: Indicates SV (Desired value).
 7 segments Green LED 4 digits, 8.8 x 3.9 mm (H x W)

Indicators RST (RESET) indicator: Lights when OUT1 (Limit control output terminals 7 and 8) is OFF with a green LED.
 EXC (EXCEEDED) indicator:
 High limit action: The yellow LED lights when $PV \geq SV$.
 Low limit action: The yellow LED lights when $PV \leq SV$.
 A1 indicator: When Alarm 1 output is ON, the red LED lights.
 A2 indicator: When Alarm 2 output (EV2 option) is ON, a red LED lights.
 AUTO indicator: The yellow LED flashes for Autolimit control action.
 T/R indicator: The yellow LED lights during Serial communication TX output (transmitting) (C5 option).

■ **Terminal Arrangement**



PWR (Power supply): 100 to 240 V AC or 24 V AC/DC
 O1 (OUT1): Limit control output
 A1: Alarm 1 (A1) output
 A2: Alarm 2 (A2) output (EV2 option)
 EXT.RESET: External reset input
 RS-485: Serial communication (C5 option)
 TC: Thermocouple input
 RTD: RTD input
 DC: Direct current, DC voltage input

■ **Power Supply**

BCS2R0 T7671
 Power supply: 100 to 240 V AC 50/60 Hz
 Allowable fluctuation range: 85 to 264 V AC
 BCS2R1 T7671
 Power supply: 24 V AC/DC 50/60 Hz
 Allowable fluctuation range: 20 to 28 V AC/DC

■ **Installation Specifications**

Dimensions: 48 x 48 x 68 mm (WxHxD) (Depth of control panel interior: 60 mm)
 Mounting: Flush
 Power consumption: 100 to 240 V AC Approx. 8 VA max.
 24 V AC: Approx. 5 VA max. 24 V DC: Approx. 5 W max.
 Ambient temperature: -10 to 55°C (14 to 131°F) (Non-condensing, No icing)
 Ambient humidity: 35 to 85 %RH (Non-condensing)
 Weight: Approx. 110 g



■ Standard Function

A1 type: No alarm action, High limit alarm, Low limit alarm, High/Low limits alarm, High/Low limit range alarm, Process high alarm, Process low alarm, High limit alarm with standby, Low limit alarm with standby, High/Low limits alarm with standby (A1 action Energized/De-energized can be selected as well.)

A1 output:

- Setting accuracy is the same as the indication accuracy.
- Action: ON/OFF action
- Output: Relay contact 1a
Control capacity: 3 A 250 V AC (Resistive load)
1 A 250 V AC (Inductive load, $\cos\phi = 0.4$)
- Electrical life: 100,000 cycles
- Minimum applicable load: 10 mA 5 V DC

■ Setting Structure

Function keys:

- ⏴: UP key ⌂: MODE key
- ⏵: DOWN key RST: RESET key

Setting items:

- Setting by the ⌂ key
 - (1) PV, SV
 - (2) EXC indicator lighting duration time
 - (3) Max. (Min.) value
- Setting by the ⏴ and ⌂ key
 - (1) SV
 - (2) A1 value
 - (3) A2 value (EV2 option)
- Setting by the ⏵ and ⌂ key
 - (1) Set value lock
 - (2) Sensor correction
 - (3) Communication protocol (C5 option)
 - (4) Instrument number (C5 option)
 - (5) Communication speed (C5 option)
 - (6) Parity (C5 option)
 - (7) Stop bit (C5 option)

- Setting by the ⏴, ⏵ and ⌂ key
 - (1) Input type
 - (2) Scaling high limit
 - (3) Scaling low limit
 - (4) Decimal point place
 - (5) PV filter time constant
 - (6) A1 type
 - (7) A2 type (EV2 option)
 - (8) A1 action Energized/De-energized
 - (9) A2 action Energized/De-energized (EV2 option)
 - (10) A1 hysteresis
 - (11) A2 hysteresis (EV2 option)
 - (12) A1 action delay time
 - (13) A2 action delay time (EV2 option)
 - (14) High/Low limit control
 - (15) OUT1 ON/OFF action hysteresis
 - (16) Auto/Manual limit control
 - (17) EXC indicator lighting duration time unit

■ Control Performance

Setting accuracy is the same as the indication accuracy.

Control action

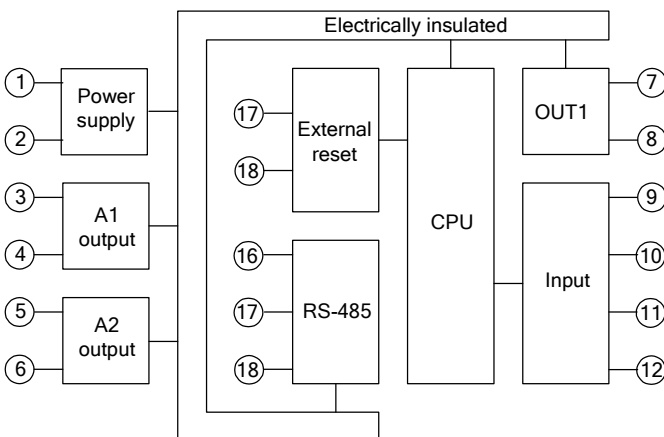
- High limit control action
- Low limit control action
- Auto limit control
- Manual limit control

Control output:

- Relay contact 1a
- Control capacity 3A 250V AC (Resistive load)
1A 250V AC (Inductive load, $\cos\phi = 0.4$)
- Electrical life: 100,000 cycles
- Minimum applicable load: 10 mA 5 V DC

■ Insulation, Dielectric Strength

Circuit Insulation configuration



Insulation resistance: 10 MΩ or more, at 500 V DC

Dielectric strength

- Input terminal - power terminal: 1.5 kV AC for 1 minute
- Output terminal - power terminal: 1.5 kV AC for 1 minute

■ Indicating Performance

Indication accuracy:

- TC: Within $\pm 0.2\%$ of input span ± 1 digit or within $\pm 2^\circ\text{C}$ (4°F), whichever is greater
However, R, S inputs, 0 to 200°C (32 to 392°F): Within $\pm 6^\circ\text{C}$ (12°F)
B input, 0 to 300°C (0 to 572°F): Accuracy is not guaranteed.
K, J, E, T, N inputs, less than 0°C (32°F): Within $\pm 0.4\%$ of input span ± 1 digit
- RTD: Within $\pm 0.1\%$ of input span ± 1 digit or within $\pm 1^\circ\text{C}$ (2°F), whichever is greater
- DC: Within $\pm 0.2\%$ of input span ± 1 digit
- Input sampling period: 250 ms

■ Attached Functions

- Set value lock, Sensor correction, Auto/Manual limit control, Input error indication, Burnout, Self-diagnosis, Automatic cold junction temperature compensation, Power failure countermeasure, Warm-up indication, Peak (or Bottom) value hold function
- EXC (EXCEEDED) indicator lighting duration time,

■ Optional Specifications

- Alarm 2 (EV2 option)
- Serial communication (C5 option)