



- Universal input
- 0 / 1 / 2 / 3 / 4 setpoints
- Isolated 0/4~20 mA or 0-10 V DC retransmission output
- 24 V DC transmitter supply
- RS485 / MODBUS RTU
- 85~265 V AC SMPS
- ONOFF control

SPECIFICATIONS All specifications at ambient of 25 °C, unless specified otherwise

INPUT

Input group 1
(common for both inputs)

Thermocouple B, E, J, K, N, R, S, T
RTD Pt100, 3-wire
Voltage 0~50 mV
Current 0~20 mA, 4~20 mA

Input group 2
(common for both inputs)

Thermocouple B, C, D, E, G, J, K, N, R, S, T
RTD Pt100, 3-wire, Cu53
Current 0~20 mA, 4~20 mA,
Square root 0~50 mV

Voltage Through DIP selection following voltage inputs are available :
0~1 V, 0~5 V, 0~10 V, 0~10 mV,
0~100 mV, 0~200 mV

Transmitter supply 22 V nominal, 30 mA max

Range limits See Table 1

Accuracy See Table 1

Cold junction compensation Automatic

Sensor break protection User programmable

INDICATION

Process variable Upper : 4 digit, 7 segment 0.52" (13.2 mm) red LED display

Setpoint Lower : 4 digit, 7 segment 0.39" (9.9 mm) green LED display

Status indication LEDs for relay status
LED for auto/manual status
LED for communication

OUTPUTS

No. of relays 0 / 1 / 2 / 3 / 4

Relay contact type NO-C (RLY 1, 2, 4)
NO-C-NC (RLY 3)

Relay contact rating 5A / 230V AC, resistive

SSR drive 12 V DC drive signal for external SSR

No. of analog outputs 0 / 1 (current or voltage)

Current output 4~20 mA / 0~20 mA / 20~4 mA / 20~0 mA isolated from input

Maximum load for current output 500 ohms

Voltage output 0~10 V / user specified

Load for voltage output >10 Kohms

COMMUNICATION

Port RS485

Protocol Modbus RTU

Slave ID User programmable (1~256)

PROGRAMMABLE PARAMETERS

Setpoint Full range (See Table 1)

Unit °C, °F, EU

Resolution User selectable

High scale 0.01, 0.1 or 1 for linear input,

Low scale 0.1 or 1 for temperature

Digital filter Full range (See Table 1)

Hysteresis Full range (See Table 1)

Bias (for process variable) A (minimum) ~ F (maximum)

Relay logic 0~25% span

Alarm types -50 to 50% of range limit

Alarm acknowledge a. Heat

Setpoint lock b. Cool

Level lock c. Fullscale high alarm

Relay action d. Full scale low alarm

OTHER e. Deviation high alarm

Programming f. Deviation low alarm

Dimensions (in mm) g. Inband alarm

Mounting h. Outband alarm

Panel cutout (e. to h. available for SP2, SP3, SP4 only)

Supply voltage a. 85~265 V AC, 50/60 Hz

Power consumption b. 20~35 V DC (optional)

Operating ambient 4 watts maximum

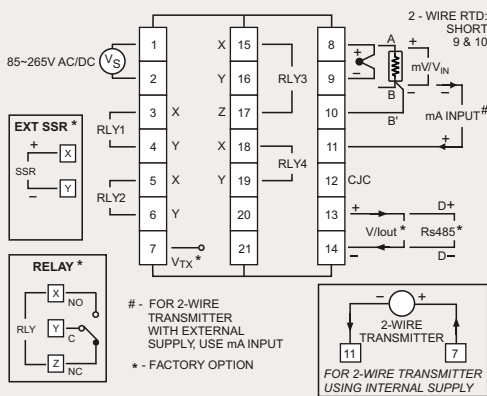
temperature 0~50 °C

Relative humidity Below 90%, non condensing

TABLE 1

SENSOR / INPUT	RANGE LIMITS (°C / EU)		RANGE IN WHICH ACCURACY IS SPECIFIED		TYPICAL ACCURACY AT 30 °C (°C / EU)	WORST CASE ACCURACY (°C / EU)
	LOW SCALE	HIGH SCALE	LOW SCALE	HIGH SCALE		
Input Group 1						
Pt - 6% Rh / Pt - 30% Rh (B)	400	1820	400	1820	± 3	± 5
Chromel / Constantan (E)	-270	850	0	850	± 1	± 3
Iron / Constantan (J)	-210	760	0	760	± 1	± 3
Chromel / Alumel (K)	-270	1372	-50	1200	± 1	± 3
Nicrosil / Nisil (N)	-270	1300	-50	1200	± 1	± 3
Pt / Pt - 13% Rh (R)	0	1760	400	1760	± 2	± 5
Pt / Pt - 10% Rh (S)	0	1760	400	1760	± 2	± 5
Copper / Constantan (T)	-270	400	-200	400	± 1	± 3
Pt100, 3-wire	-200	850	-200	600	± 0.3	± 1.0
Linear (0~50 mV, 0~20 mA, 4~20 mA)	-1999	9999	-1999	9999	± 5 EU	± 20 EU
Input Group 2						
The following inputs are available in Input Group 2 in addition to inputs of Input Group 1.						
Tungsten - 5% Rh / Tungsten - 26% Rh (C)	0	2320	0	2320	± 3	± 5
Tungsten - 3% Rh / Tungsten - 25% Rh (D)	0	2310	0	2310	± 3	± 5
Tungsten / Tungsten - 26% Rh (G)	0	2310	0	2310	± 3	± 5
Cu53	0	180	0	180	± 0.3	± 0.5
Linear (0~10 mV, 0~100 mV, 0~200 mV, 0~1 V, 0~5 V, 0~10 V)	-1999	9999	-1999	9999	± 5 EU	± 20 EU
Linear (4~20 mA) with square root	0	9999	0	9999	± 10 EU	± 40 EU

CONNECTION DIAGRAM



STK-217

ORDERING INFORMATION

