



- Two universal inputs
- 0 / 1 / 2 / 3 / 4 setpoints corresponding to input 1, input 2
- Isolated 2 x 0/4~20 mA or 0-10 V DC retransmission outputs corresponding to input 1, input 2
- 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

<p><b>INPUTS</b></p> <p>No. of inputs Input group 1 (common for both inputs)</p> <p>Thermocouple RTD Voltage Current</p> <p>Input group 2 (common for both inputs)</p> <p>Thermocouple RTD Current Voltage</p> <p>Transmitter supply Range limits Accuracy Cold junction compensation Sensor break protection</p> <p><b>INDICATION</b></p> <p>Process variable Setpoint Status indication</p> <p><b>OUTPUTS</b></p> <p>No. of relays Relay contact type Relay contact rating SSR drive</p> <p>No. of analog outputs Current output Maximum load for current output Voltage output Load for voltage output</p> <p><b>COMMUNICATION</b></p> <p>Port Protocol Slave ID</p>	<p>2 (input 1, input 2)</p> <p>B, E, J, K, N, R, S, T Pt100, 3-wire 0~50 mV 0~20 mA, 4~20 mA</p> <p>B, C, D, E, G, J, K, N, R, S, T Pt100, 3-wire, Cu53 0~20 mA, 4~20 mA, Square root (for input 1) 0~50 mV 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 22 V nominal, 30 mA max See Table 1 See Table 1 Automatic User programmable</p> <p>Upper : 4 digit, 7 segment 0.56" (14.2 mm) red LED display Lower : 4 digit, 7 segment 0.56" (14.2 mm) green LED display LEDs for relay status LEDs for setpoint indication LEDs for communication</p> <p>0 / 1 / 2 / 3 / 4 NO-C-NC 5A / 230V AC, resistive 12 V DC drive signal for external SSR</p> <p>0 / 1 / 2 (current or voltage) 4~20 mA / 0~20 mA / 20~4 mA / 20~0 mA isolated from input 500 ohms</p> <p>0~10 V / user specified &gt;10 Kohms</p> <p>RS485 Modbus RTU User programmable (1~256)</p>	<p><b>ENCLOSURE</b></p> <p>Enclosure Material Dimensions (in mm) Protection Keyboard Mounting Mounting accessories Cable entries*</p> <p>* Cable glands to be ordered separately</p> <p><b>PROGRAMMABLE PARAMETERS</b></p> <p>Setpoint Unit Resolution</p> <p>High scale Low scale Digital filter Hysteresis Bias (for process variable) Relay logic</p> <p>Alarm types Alarm acknowledge Setpoint lock Level lock Relay action</p> <p><b>OTHER</b></p> <p>Supply voltage Power consumption Operating ambient temperature Relative humidity</p>	<p>Certified flameproof for gas groups I, IIA &amp; IIB Aluminium alloy 352(H) x 190(W) x 170(D) IP65 4 Pushbuttons Wall mount Included 5 x 3/4" ET</p> <p>Full range (See Table 1) °C, °F, EU User selectable 0.01, 0.1 or 1 for linear input, 0.1 or 1 for temperature Full range (See Table 1) Full range (See Table 1) A (minimum) ~ F (maximum) 0~25% span -50 to 50% of range limit a. Heat b. Cool c. Fullscale high alarm d. Full scale low alarm e. Deviation high alarm f. Deviation low alarm g. Inband alarm h. Outband alarm (e. to h. available for SP2, SP3, SP4 only) Self reset or latched and can be disabled at power on Front panel function used to reset relay in alarm condition ON, OFF ON, OFF Reverse / direct</p> <p>a) 85~265 V AC, 50/60 Hz b) 20~35 V DC (optional) 4 watts maximum</p> <p>0~50 °C Below 90%, non condensing</p>
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**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		
<b>Input Group 1</b>						
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
<b>Input Group 2</b>						
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

### 2" PIPE MOUNT FLP VERSION



### PANEL MOUNT VERSIONS



48(H) X 48(W) x 112(D) mm



96(H) X 48(W) x 115(D) mm

### PANEL MOUNT VERSIONS



72(H) X 72(W) x 100(D) mm



96(H) X 96(W) x 100(D) mm



48(H) X 96(W) x 115(D) mm

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