



**Universal inputs :**

**8 thermocouples, Pt100, 0/4~20 mA  
0/4~20 mA, 0~10 V DC**

**0 / 1 / 2 setpoints**

**Isolated 0/4~20 mA or 0~10 V DC  
retransmission output**

**85~265 V AC SMPS or 20~35 V DC or 24 V AC  
(factory option)**

**Functions : ONOFF and Time Proportional**

**Accuracy : 0.1% of full scale 1 C, typical**

**Sensor break indication**

**SPECIFICATIONS**

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

**INPUT**

**Input group 1**

**Thermocouple**

B, E, J, K, N, R, S, T

**RTD**

Pt100

**Linear input**

4~20 mA, 0~20 mA

**Input group 2**

**Linear input**

4~20 mA, 0~20 mA, 0~10 V DC

**Load resistance for  
0/4~20 mA input**

250 Ω, internally provided

**Input type groups**

See ordering information

**Transmitter supply**

22 V DC, Nominal, 30 mA max  
(17 V DC available across  
transmitter; for HART transmitter,  
please inquire)

**Range limits**

See Table 1

**Accuracy**

See Table 1

**Cold junction compensation**

Automatic

**Temperature coefficient  
of accuracy**

± 0.02% of span / °C

**Units**

**Pt100, Thermocouple  
Linear**

°C (For °F, contact us)  
EU

**INDICATION**

**Display**

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  
2 LEDs for relay status

**Status indication**

**OUTPUTS**

**(see ordering information)**

**No. of relays**

0/1/2 electromagnetic relays

**Relay contact type**

NO-C-NC (RLY1)

**Relay contact rating**

5A / 230V AC, resistive

**SSR drive**

12 V DC drive signal for  
external SSR

**Retransmission output**

Current or voltage

**Current output**

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

**Maximum load for current  
output**

600 ohms

**Voltage output**

0~10 V DC isolated from input

**Load for voltage output**

>10 Kohms

**Mutual isolation between  
input/output/supply**

1 KV AC / 1 minute

**PROGRAMMABLE  
PARAMETERS**

**Setpoint**

Full range (See Table 1)

**Resolution**

1 (for TC)  
0.1, 1 (for Pt100)  
0.001, 0.01, 0.1, 1 (for Linear input)

**High scale**

Full range (See Table 1)

**Low scale**

Full range (See Table 1)

**Hysteresis / band**

0.1 to 99.9 °C

**Control functions**

ONOFF, Time Proportional  
Control (TPC) (RLY1)  
ONOFF (RLY2)

**Cycle time for TPC**

1 ~ 99 seconds

**Relay logic**

a. Heat b. Cool  
c. Full scale high alarm  
d. Full scale low alarm

**Proportional offset**

-99.9 to 99.9 °C (RLY1)

**OTHER**

**Keyboard**

Tactile, 3 keys, inside enclosure

**Material**

Aluminium alloy

**Enclosure construction**

Certified flameproof for  
gas groups I, IIA, IIB & IIC  
IP66

**Protection**

IP66

**Dimensions (in mm)**

138(H) x 138(W) x 220(D) mm

**Mounting**

2" pipe mounting

**Mounting accessories**

Included

**Cable entries \***

3/4" ET, maximum 5

**Connection, single/  
stranded wires**

2.5 mm<sup>2</sup>, AWG 14

**Supply voltage**

a) 85~265 V AC, 50/60 Hz  
b) 20~35 V DC  
c) 24 V AC ± 10% 50/60 Hz

**Power consumption**

3 watts maximum

**Operating ambient  
temperature**

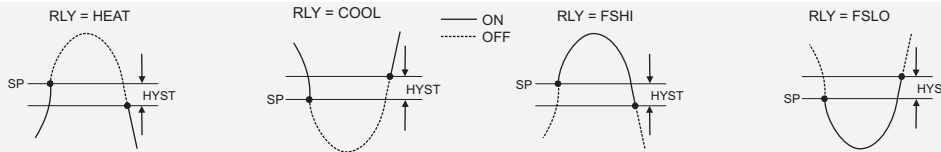
0 ~ 50 °C

**Relative humidity**

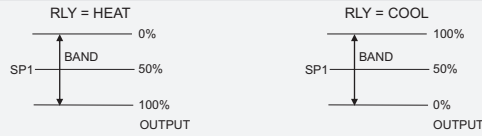
Below 90%, non condensing

\* Note: Cable glands to be ordered separately

**RELAY LOGIC**



**ONOFF CONTROL (Relay1, Relay2)**



**TIME PROPORTIONAL CONTROL (Relay1 only)**

**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		
Iron / Constantan (J)	-99	750	0	750	± 1	± 3
Chromel / Alumel (K)	-99	1350	-50	1200	± 1	± 3
Pt / Pt - 13% Rh (R)	0	1760	0	1760	± 2	± 5
Pt / Pt - 10% Rh (S)	0	1760	0	1760	± 2	± 5
Copper / Constantan (T)	-99	400	-50	400	± 1	± 3
Nicrosil / Nisil (N)	-99	1300	-50	1200	± 1	± 3
Pt - 6% Rh / Pt - 30% Rh (B)	400	1820	400	1820	± 3	± 5
Chromel / Constantan (E)	0	900	0	800	± 1	± 3
Pt100, 3-wire	-99	850	-50	850	± 0.5 *	± 2.0
Linear 0~20 mA, 4~20 mA	-1999	9999	-1999	9999	± 5 EU	± 20 EU

\* ± 0.2°C in the range -50 to +400 °C

**ORDERING INFORMATION**

ORDER CODE	
2158	A

A	Configuration	
	Relay	4~20 mA output
00	0	1
01	2	0
02	1	1

**Ordering Options**

The following ordering options are available on request. Minimum order quantity and/or minimum order value may apply.

	Option	Details
1.	Analog output	0~10 V DC
2.	Supply voltage	24 V DC

Note : Transmitter supply will be absent if analog output & 24 VDC supply voltage required.

**Product url : [www.radix.co.in/flp.htm](http://www.radix.co.in/flp.htm)**



INSTRUMENTS T : + 91 22 42537777 x 701 F : + 91 22 42537700 E : sales@radix.co.in  
 SENSORS T : + 91 22 42537777 x 732 F : + 91 22 42537700 E : sensors@radix.co.in  
 GAUGES T : + 91 22 42537777 x 733 F : + 91 22 42537700 E : gauges@radix.co.in  
 AUTOMATION C : 0-9322405471 C : 0-9324319150 E : automation@radix.co.in

SALES INQUIRIES

**1800-22-radix  
1800-22-7234**