

FLAMEPROOF, IP66



- Universal input
- 0 / 1 / 2 / 3 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

Thermocouple

RTD

Voltage

Current

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

Pt100, 3-wire

0~50 mV

0~20 mA, 4~20 mA

Input group 2

Thermocouple

RTD

Voltage

Current

B, C, D, E, G, K, J, N, R, S, T

Pt100, 3-wire

0~50 mV

0~20 mA, 4~20 mA

Square root

22 V nominal, 30 mA max

Transmitter supply

Range limits

Accuracy

Cold junction compensation

Sensor break protection

See Table 1

See Table 1

Automatic

User programmable

INDICATION

Process variable

Upper : 4 digit, 7 segment

1" (25.4 mm) red LED display

Setpoint

Lower : 4 digit, 7 segment

0.39" (9.9 mm) red LED display

Status indication

LEDs for relay status

OUTPUTS

No. of relays

Relay contact type

0 / 1 / 2 / 3

NO-C-NC (RL1)

NO-C (RL2, RL3)

Relay contact rating

SSR drive

5A / 230V AC, resistive

12 V DC drive signal for

external SSR

Current output

4~20 mA / 0~20 mA / 20~4 mA /

20~0 mA isolated from input

500 ohms

Maximum load for current output

Voltage output

Load for voltage output

0~10 V / user specified

>10 Kohms

COMMUNICATION

Port

Protocol

Slave ID

RS485

Modbus RTU

User programmable (1~256)

PROGRAMMABLE PARAMETERS

Setpoint

Unit

Resolution

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

High scale

Low scale

Digital filter

Hysteresis

Bias (for process variable)

Relay logic

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)

Alarm types

Self reset or latched and can be disabled at power on

Alarm acknowledge

Front panel function used to

reset relay in alarm condition

ON, OFF

ON, OFF

Reverse / direct

Setpoint lock

Level lock

Relay action

OTHER

Enclosure

Certified flameproof for

gas groups I, IIA & IIB

IP66

Protection

Keyboard

Material

Dimensions (in mm)

Mounting

Mounting accessories

Cable entries *

Connection, single/

stranded wires

Supply voltage

Tactile, 3 keys, inside enclosure

Aluminium alloy

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

2" pipe mounting

Included

3/4" ET, maximum 5

2.5 mm², AWG 14

a) 85~265 V AC, 50/60 Hz

b) 20~35 V DC (factory option)

3 watts maximum

0 ~ 50 °C

Power consumption

Operating ambient

temperature

Relative humidity

Below 90%, non condensing

* Note: Cable glands to be ordered separately

PROGRAMMABLE ONOFF CONTROLLER X48AV1

FLAMEPROOF, IP66

TABLE 1

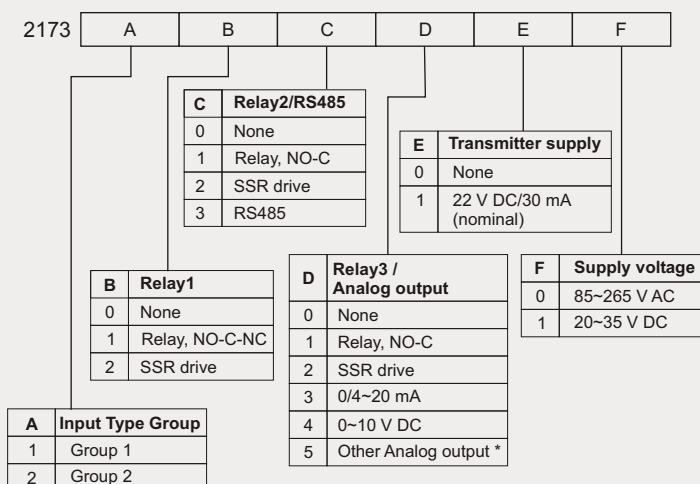
SENSOR / INPUT	RANGE LIMITS (°C / EU)		RANGE IN WHICH ACCURACY IS SPECIFIED		TYPICAL ACCURACY AT 30 °C (°C / EU)	WORST CASE ACCURACY (°C / EU)
	LOW SCALE	HIGH SCALE	LOW SCALE	HIGH SCALE		
Input Group 1						
Pt - 6% Rh / Pt - 30% Rh (B)	400	1820	400	1820	± 3	± 5
Chromel / Constantan (E)	-270	850	0	850	± 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

ORDERING INFORMATION



* Please specify

Note 1 : Transmitter supply can be given only if D = 0



AN ISO 9001:2000 COMPANY

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BARODA C : 0-9376215882
CHANDIGARH C : 0-9313560869
CHENNAI C : 0-9381056345
CHHATISGARH C : 0-9337002344
COIMBATORE C : 0-9380284497
GOA C : 0-9371439090

GWALIOR C : 0-9322245543
HP C : 0-9313560869
HYDERABAD C : 0-9391053480
INDORE C : 0-9301995060
KARNATAKA C : 0-9341063831
KERALA C : 0-9341273814
NAGPUR C : 0-9322245543

NEW DELHI C : 0-9312600076
T : 011-25786350
ORISSA C : 0-9337002344
PUNE C : 0-9371113404
T : 020 24479759
PUNJAB C : 0-9316460869
0-9312600076