

UNIVERSAL INPUT, DUAL OUTPUT, INTEGRAL LED DISPLAY



Universal input, programmable ranges, etc.
 1/2 x 4~20 mA (or voltage) outputs
 Input/supply/outputs mutually isolated
 Supply : 85~265 V AC/DC or 20~30 V DC
 Calibration through keys - no trim pots
 4 digit 7 segment LED display
 RS485/MODBUS RTU option

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

INPUT

Input type

Input group 1

Thermocouple
 RTD, 3-wire
 Linear voltage
 Linear current

K, J, E, B, R, S, T, N
 Pt50, Pt100
 0~50 mV
 4~20 mA, 0~20 mA

Input group 2

Thermocouple
 RTD, 3-wire
 Linear voltage

K, J, E, B, R, S, T, N, C, D, G
 Pt50, Pt100, Pt200 (3-wire), Cu53
 0~50 mV
 Through DIP selection following voltage inputs are available :
 0~10 mV, 0~100 mV, 0~200 mV,
 0~1 V, 0~5 V, 0~10 V, etc.
 4~20 mA, 0~20 mA
 4~20 mA

Linear current
 Current input with square rooting

Other inputs

Contact sales

Transmitter supply Input type selection

22 V DC, nominal, 30 mA max
 All inputs including 50 mV, excluding linear voltage through front panel keys
 Through front panel keys and DIP switches below detachable top panel
 See Table 1

Linear voltage (except 50 mV) Display range limits

MONITORING

Sensor break protection

User programmable

ACCURACY

Linearity & calibration Cold junction compensation

See Table 1
 Automatic (for thermocouples)

Temperature effect on accuracy

0.02% of span per C

Supply voltage effect

0.002% of span / V

Supply ripple effect, 50/60 hz, 5 Vp - p

0.01% of span

CALIBRATION

ZERO and SPAN through front panel keys for each output (no trim pots used)

OUTPUTS

No. of outputs

1 or 2

Output type

Standard

Current

0~20 mA, 4~20 mA, 20~0 mA, 20~4 mA

Load for current output Voltage

0~500
 0~1 V DC, 0~5 V DC, 0~10 V DC / user specified

Load for voltage output

> 10 kohms

Non - standard

Please specify
 Note : For EACH output, one of the Std or Non-standard outputs MUST be specified

ISOLATION

Mutual isolation between input, supply, output1 & output2

a) 1000 V AC RMS, 50 hz / 1 minute
 b) 250 V AC RMS, 50 hz, continuous

POWER SUPPLY

Supply voltage

85~265 V AC/DC, 50 hz OR 20~30 V DC

COMMUNICATION

Port

RS485

Protocol

Modbus RTU

Slave ID

User programmable

Baud rate

9600

ENCLOSURE

Material

ABS plastic

Dimensions

55(W) x 75(H) x 110(D)

Mounting

Snap on for 35 mm DIN rail to DIN 46277

Connection, single/stranded wires

2.5 mm², AWG 14

Protection

IP20

TEMPERATURE, HUMIDITY

Ambient, storage

-22 ~ +85 C

Ambient, operation

0 ~ 50 C

Relative humidity

0 ~ 95%

OTHER

Programming

With 3 keys & built-in display

Keypad

Tactile, 3 keys

Display

4 digit, 7 segment 0.3" (7.62 mm) red LED display

PROGRAMMABLE PARAMETERS

Input type Input Hi Input Lo Unit	See 'Input types' For linear inputs For linear inputs °C, °F, °K, EU, none	Resolution Sensor break Preset out Digital filter	TC, RTD - 1, 0.1 Linear - 1, 0.1, 0.01, 0.001 Upscale, Downscale for each output Sensor break output value Provided
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TABLE 1

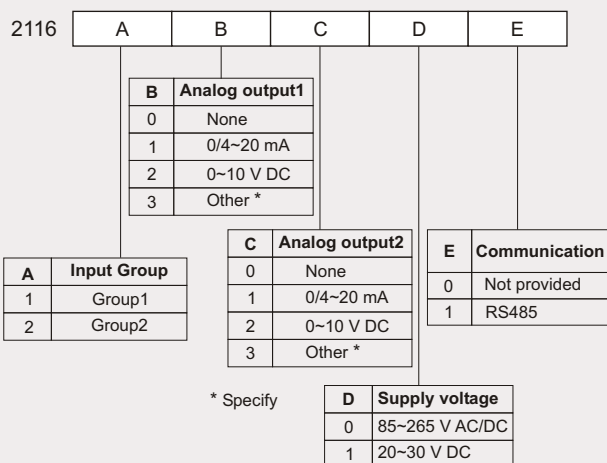
SENSOR / INPUT	RANGE LIMITS (°C / EU)		RANGE IN WHICH ACCURACY IS SPECIFIED		TYPICAL ACCURACY AT 30 °C (°C / EU)	WORST CASE ACCURACY (°C / EU)
	LOW SCALE	HIGH SCALE	LOW SCALE	HIGH SCALE		
Input Group 1						
Pt - 6% Rh / Pt - 30% Rh (B)	400	1820	400	1820	± 3	± 5
Chromel / Constantan (E)	-270	1000	0	1000	± 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
Pt50, Pt100, 3-wire	-200	850	-200	600	± 0.3	± 2.0
Linear (0~50 mV, 0~20 mA, 4~20 mA)	-999	9999	-999	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
Pt200, 3-wire	-200	550	-200	400	± 0.2	± 1.0
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)	-999	9999	-999	9999	± 5 EU	± 20 EU
Linear (4~20 mA) with square root	0	1000	0	1000	± 10 EU	± 40 EU

ORDERING INFORMATION



CONNECTION DIAGRAM

