

HD SIGNAL CONDITIONER SERIES

POTENTIOMETER TRANSMITTER

MODEL
HD-PTM

MODEL & SUFFIX CODE SELECTION

MODEL HD-PTM

Input signal

A:Any value or
100Ω - 10kΩ
O:Others

Output1 signal

1	0-10mVDC	A	4-20mADC
2	0-100mVDC	B	1-5mADC
3	0-1VDC	C	0-20mADC
4	0-10VDC	D	0-1mADC
5	0-5VDC	O	Spec Order
6	1-5VDC		

Output2 signal

Availability as Output1
N:None

Display

A:Percent
B:Input signal
C:Output signal
O:Others
N:None

Power

X:110V AC Y:220V AC
Z:24V DC O:Others



INPUT & OUTPUT

■ INPUT : potentiometer; 100Ω - 10kΩ

Minimum span : 50% of total resistance

Excitation : 0.5V DC

■ OUTPUT

• DC Current : 0 - 20mA DC

Minimum span : 1mA

Zero suppression/elevation : max. 1.5 times span
load resistance

Output	Load Resistance
4 - 20mA	: 750 (Ω maximum)
2 - 10mA	: 1500
1 - 5mA	: 3000
0 - 20mA	: 750
0 - 16mA	: 900
0 - 10mA	: 1500
0 - 1mA	: 15k

•DC Voltage : -10 - +12V DC

Minimum span : 5mV

Zero suppression/elevation : max. 1.5 times span

Load resistance : output drive 10mA maximum;

5mA for negative voltage output; at ≥0.5V

Output	Load Resistance
0 - 10mV	: 10k (Ω minimum)
0 - 100mV	: 100k
0 - 1V	: 100
0 - 10V	: 1000
0 - 5V	: 500
1 - 5V	: 500
-10 - +10V	: 2000
-5 - +5V	: 1000

ORDERING INFORMATION

Specify code number and variables.

•Code number : ex) HD-PTM-AAANY

•Special input and output ranges : code:0

A : -10 ~ 20mA
V : 0 ~ ±15V

GENERAL SPECIFICATIONS

Construction : plug-in

Connection : M3.5 screw terminals

Housing material : flame-resistant resin (black)

Isolation : input to output to power
(non-isolated between I/O for PM)

LCD meter : indicating scaled input; 0.1% increments

Front adjustments : 0 - 50% of total resistance for zero;
50 - 100% for span

INSTALLATION

Power input

AC : rating $\pm 10\%$, 50/60 ± 2 Hz, approx. 2VA
DC : rating $\pm 10\%$, or 85 - 150V for 110V rating
 (ripple 10% p-p max.)
 approx. 2W (80mA at 24V)

Operating temperature : -5 to +60°C (23 to 140°F)

Operating humidity : 30 to 90% RH (non-condensing)

Mounting : surface or DIN rail

Dimensions : W50 x H80 x D123 mm

See General Spec. Sheet Page B-1.

Weight :

Terminal assignment : See General Spec. Sheet Page B-1.

PERFORMANCE in percentage of span

Accuracy : $\pm 0.1\%$

Temp. coefficient : $\pm 0.015\%/^{\circ}\text{C}$ ($\pm 0.008\%/^{\circ}\text{F}$)

Ripple : 0.25% p-p max. (100/120Hz)

Response time : $\leq 0.4(400\text{ms})$ seconds (0 - 90%)

approx. 25 milliseconds with option

Line voltage effect : $\pm 0.1\%$ over voltage range

Insulation resistance : $\geq 100\text{M}\Omega$ with 500V DC

Dielectric strength : 2000V AC @1 minute

(PM : input or output to power to ground)

(PMS : input to output to power to ground)

Common mode voltage : 30V RMS (CSA)

Surge withstand Voltage : 1.2/50 μsec , $\pm 5\text{KV}$

(INPUT to OUTPUT to GROUND)

SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM

