

HD SIGNAL CONDITIONER SERIES

LIMITER TRANSMITTER

MODEL
HD-LIM

MODEL & SUFFIX CODE SELECTION

MODEL HD-LIM

Input 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		

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



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)

Overrange output : approx. -5 ~ +105% at 1 ~ 5V

Front adjustments : zero and span ; ±5%

Limit adjustments : multi-turn screwdriver adjustments (front);
0 ~ 100%; factory set to ≤0% for low, ≥100% for high

Monitor jacks : output 0 ~ 10V for 0 ~ 100%
setpoints: 2mm (.08") dia.

INPUT & OUTPUT

INPUT

• **DC Current** : shunt resistor attached to input terminals (0.5W)

Input resistance : For resistance values other than listed below, specify when ordering.

Input	Input Resistance
4 ~ 20mA	: 250 (Ω) (100 Ω for orders)
2 ~ 10mA	: 500
1 ~ 5mA	: 1000
0 ~ 20mA	: 50
0 ~ 16mA	: 62.5
0 ~ 10mA	: 100
0 ~ 1mA	: 1000
10 ~ 50mA	: 100
0 ~ 10μA	: 1000
0 ~ 100μA	: 1000
-1 ~ +1mA	: 1000
-10 ~ +10mA	: 100

ORDERING INFORMATION

Specify code number and variables.

• **Code number** : ex) HD-LIM-AANNY

• **Special input and output ranges** : code:0
A : -10 ~ 20mA
V : 0 ~ ±15V

• **DC Voltage** : -300 ~ +300V DC

Minimum span : 3mV

Zero suppression/elevation : max. 1.5 times span

Input resistance

Input Span	Input Resistance
3 ~ 10mV	: 10k (Ω minimum)
10 ~ 100mV	: 10k
0.1 ~ 1V	: 100k
$\geq 1V$	: 1M

■ OUTPUT

• **DC Current** : 0~20mA DC

Minimum span : 1mA

Zero suppression/elevation : max. 1.5 times span

Load resistance : output drive 15V maximum

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 ~ +12VDC

Minimum span : 5mA

Zero suppression/elevation : max. 1.5 times span

Load resistance : output drive 10mA maximum;

5mA for negative voltage output : at $\geq 0.5V$

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

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 (90mA 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 D132 mm

See General Spec. Sheet Page B-1.

Weight :

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

PERFORMANCE in percentage of span

Accuracy : $\pm 0.1\%$

Setpoint monitor 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%)

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

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

Dielectric strength : 1500V AC @1 minute

(LM: input or output to power to ground)

(LMS: input to output to power to ground)

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

(INPUT to OUTPUT to GROUND)

SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM

