HD HYUNDAI POWER SYSTEM

HD SIGNAL CONDITIONER SERIES

FREQUENCY to SIGNAL TRANSMITTER

MODEL HD-FDC

MODEL & SUFFIX CODE SELECTION

MODEL HD-FDC □□□□

■ Input signal

1	Voltage pulse
2	Open collector
3	Dry contactor
4	Current pulse
O	Others

■ Output1 signal

1	0-10mVDC
2	0-100mVDC
3	0-1VDC
4	0-10VDC
5	0-5VDC
6	1-5VDC

A	4-20mADC
B	1-5mADC
C	0-20mADC
D	0-1mADC
O	Spec Order

■ Output2 signal

Availability as Output1
N:None

■ Power

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

INPUT & OUTPUT

■ INPUT

Frequency range : 0 - 50Hz through 10kHz
Pulse width (time) requirement : duty ratio 20 - 80% at 100 input
• **Dry contact** : mechanical contact or open collector
Sensing : approx. 7.5V DC @1mA
ON/OFF level : ≤200Ω for ON, ≥100kΩ for OFF

• **Voltage Pulse** : square or sine waveforms
Input amplitude : 2 - 50V p-p
Input impedance : 100kΩ minimum

■ 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

ORDERING INFORMATION

Specify code number and variables.
•**Code number** : HD-FDC-1AANY
•**Frequency range** (e.g. 0 - 10 kHz)
•**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
Input pulse sensing : capacitor coupled; detecting pulse rise
Overrange output : 0 - +120% at 1 - 5V
Front adjustments : zero and span ; ±5%
Low-end cutout : 2 - 5%

•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

PERFORMANCE in percentage of span

Accuracy : ±0.1%
Temp. coefficient : ±0.02%/℃ (±0.01%/°F)
Ripple : 0.25% p-p max. (100/120Hz)
Response time : (0 - 90%)
approx. 2 seconds for 0 -50Hz
approx. 1 seconds for 0 -100Hz
approx. 0.5 seconds for 0 -500Hz
approx. 0.5 seconds for 0 -10Hz
Ripple : 0.2% p-p max. with input ≥10%
Line voltage effect : ±0.1% over voltage range
Insulation resistance : ≥100MΩ with 500V DC
Dielectric strength : 1500V AC @1 minute
(input to output to power to ground)
Surge withstand Voltage : 1.2/50μsec, ±5KV
(INPUT to OUTPUT to GROUND)

INSTALLATION

Power input
AC : rating ±10%, 50/60 ±2 Hz, approx. 2VA
DC : rating ±10% (ripple 10% p-p max.)
approx. 2.5W (100mA at 24V)
Operating temperature : -5 to +55℃ (23 to 131°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.

SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM