

## HM-Z



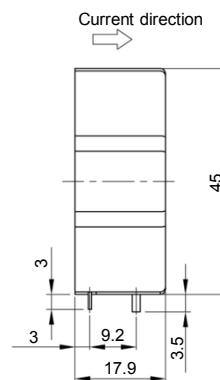
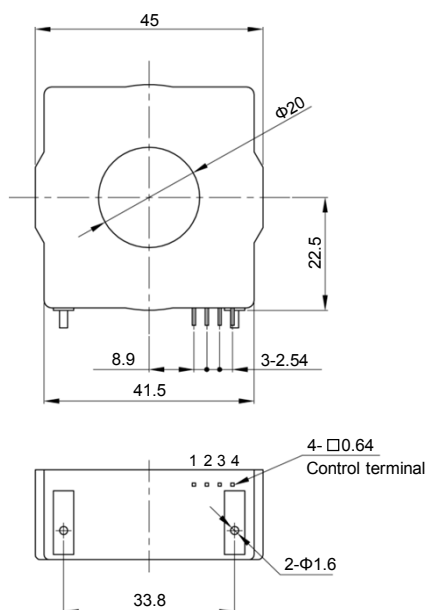
- Rated current 300mA, 600mA
- Optimum for direct current leakage detection application for power conditioning systems etc.
- Minute direct electric current detectable by electric wire penetration
- Small offset drift

### Applications

Power conditioning systems, Inverters, Servo drivers

## Dimensions

(mm)



Terminal No. 1 ... (+) terminal  
2 ... GND  
3 ... Reference output voltage  
4 ... Output

Weight : 28g

General tolerance:  $\pm 0.5$

### Specification

Ta=25°C

Type	Voltage output type	
	HM-Z003V12PP5	HM-Z006V1486PP5
Rated current [If]	±300mA	±600mA
Continuously flowing DC current	±500mA	±850mA
Saturation current [Is]	±520mA	±870mA
Linearity limits	0~±500mA	0~±850mA
Internal reference voltage [Vref] (I=0)	+2.5V±5mV	
External reference input voltage [Vref]	1.5~4V	
Rated output RL>500kΩ [Vh] (I=If, output-Vref)	V0±1.2V±1.6%	V0±1.4856V±1%
Residual output [V0] (I=0, output-Vref)	Within ±96mV	Within ±60mV
Output linearity	Within ±1%	
Response time	Within 50μs (at di/dt=If/μs)	Within 30μs (at di/dt=If/μs)
Response performance	Within 10%	
Hysteresis voltage range	Within 10mV	
Output Temp. Coef.	Within ±0.04%/°C	Within ±0.01%/°C
Residual output Temp. Coef.	Within ±1.425mV/°C	Within ±1.3mV/°C
Internal reference voltage Temp. Coef.	Within ±0.125mV/°C	
Control power supply	+5V±5%	
Consumption current	25mA+(Input current/1000)	
Degauss mode	Operates when control power is turned on or at the time of recovery from external Vref input 0.8V or less.	
Operating Temp.	-40°C~+105°C	
Storage Temp.	-40°C~+105°C	
Dielectric withstand voltage	3500V AC 50/60Hz 1minute	
Insulation resistance	Not less than 500MΩ 500V DC	

Note1) The indicated residual output is the one after the core hysteresis is removed.

Note2) Energization time of continuous live DC current x150% shall be within 1 minute.

Note3) In this specification, accuracy was determined with reference to the reference voltage (Vref).

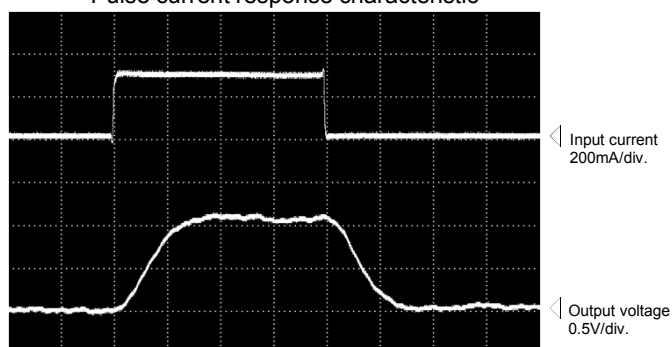
Note4) For the reference voltage, there are 2 types of modes of internal reference output and external reference input.

### Characteristics chart

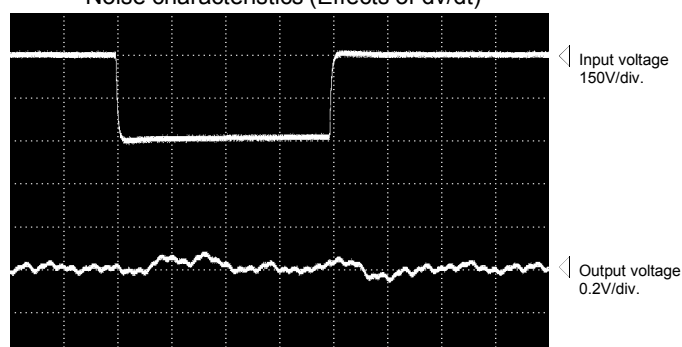
HM-Z003V12PP5

Time base: 5μs/div.

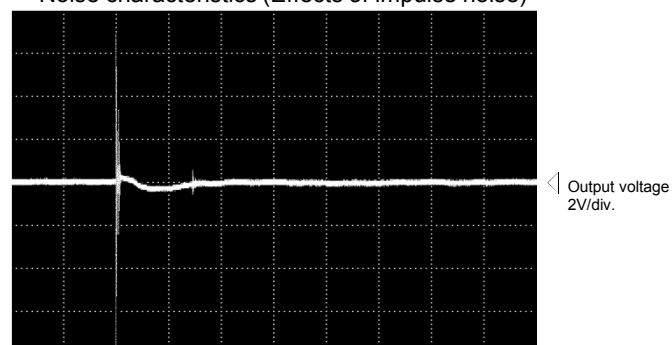
Pulse current response characteristic



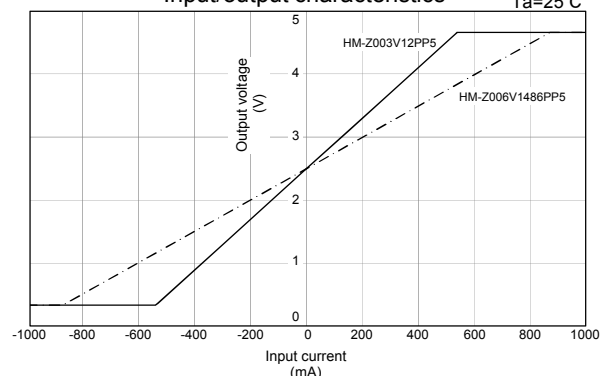
Noise characteristics (Effects of dv/dt)



Noise characteristics (Effects of impulse noise)



Input/output characteristics



Note: The marks "◁" means 0V or 0A.