

Generic DC current sensor, penetration type

Medium and large size for panel mounting corresponding to +8V ~ +16V power supply

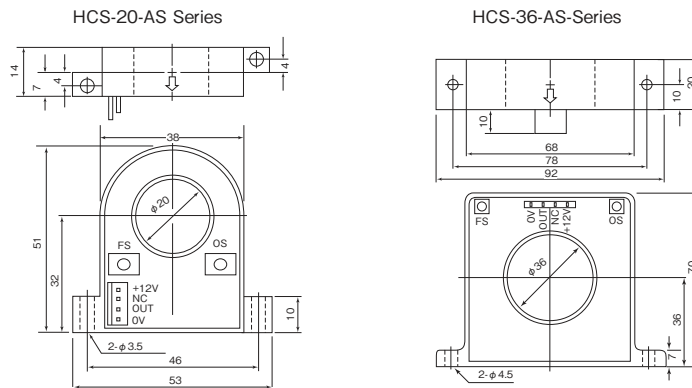


Model HCS-AS series

[Features]

- Corresponding to +8 ~ +16V single power supply
- Possible to discriminate the direction by output swing with 0.5 ~ 4.5V range at the midpoint 2.5V
- Possible to measure with isolation
- High reliability with sensor and amplifier integral structure
- Possible to measure until bandwidth of DC ~ 20kHz high frequency (In the case of use with high frequency, there is the case not to use until the rating current)
- High speed response within 3 μ s

[Outline drawing]



[Specification]

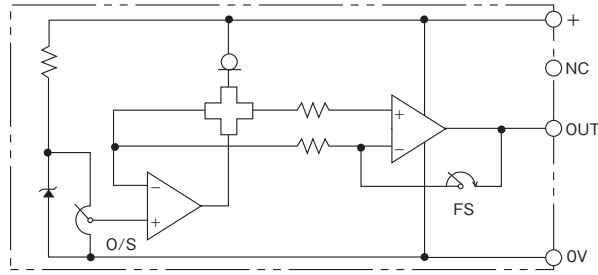
Model	HCS-20- (Rating current) -AS				HCS-36- (Rating current) -AS	
Rating current (FS)	± 50A	± 100A	± 150A	± 200A	± 200A	± 500A
Output voltage	2.5V ± 2V (Output range ± 2V at the midpoint of 2.5V of no load, recommended load resistor ≥ 10k Ω)					
Residual voltage	2.5V within ± 20mV (no load, power supply voltage +12V)					
Noise level	Less than 10mVp-p (no load)					
Linearity	Within ± 1%FS					
Hysteresis(FS→0)	Within ± 15mV					
Response time	Less than 3 μ s (at di/dt = FS/2 μ s)					
Output voltage temperature coefficient	± 0.15% / °C typ					
Residual voltage temperature coefficient	± 1.5mV / °C typ			± 1mV / °C typ		
Power supply	DC + 8V ~ + 16V 単電源 (25mA typ / DC12V、45mA typ / DC16V)					
Withstand voltage	AC2500V(50/60Hz), 1min (Aperture-output terminal in a lump)					
Insulation resistance	DC500V, ≥ 500M Ω (Aperture-output terminal in a lump)					
Operating temperature	-10°C ~ +60°C, ≤ 85%RH, no condensation					
Storage temperature	-15°C ~ +65°C, ≤ 85%RH, no condensation					
Internal adjustment function	FS: Calibration for maximum output, OS: Calibration for zero point without load (Calibrated at the time of delivery)					
Output connector	5045-04 (Molex)					
Screw torque	0.3N · m				0.7N · m	
Mass	approximately 45g				approximately 140g	

- [Remark]**
- (1) After overcurrent more than rating current, offset drift occur by proportional to that current, with hysteresis of core.
 - (2) Recommend to use more than 5% of nominal for practical range, because output includes various variation factors.
 - (3) Do not beyond rating current for continuous use
 - (4) There is possibility of heating by core loss for the application of high frequency and high current. Please check by contacting us.

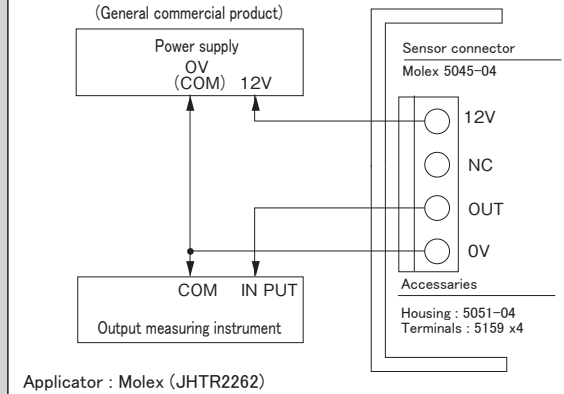
Ta=25°C

HCS-AS series typical characteristic (HCS-20-50-AS)

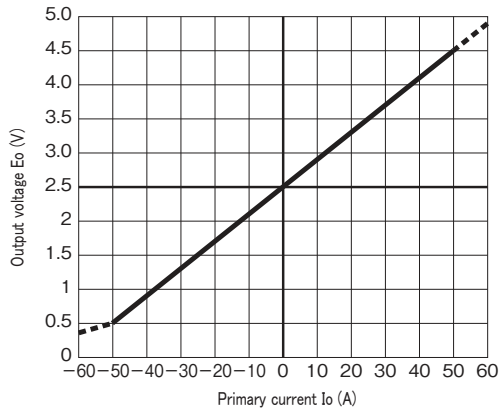
[Circuit diagram]



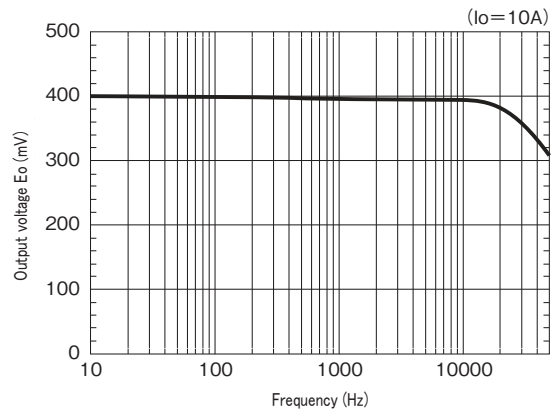
[Connection]



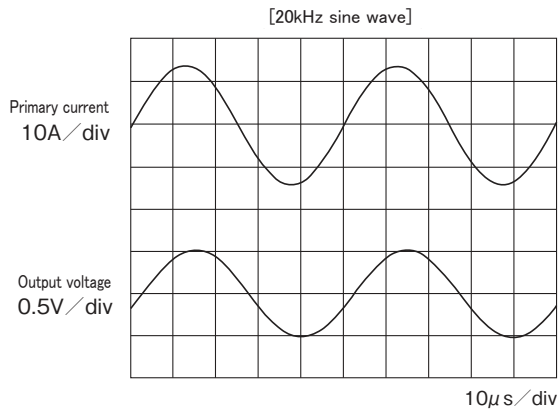
[Output voltage characteristic]



[Frequency characteristic]



[Output waveform] -1



[Output waveform] -2

