

Wire clamp type DC split sensor

For clamp mounting to wire, split type (corresponding to bi-polar power supply, 50 ~ 500A)

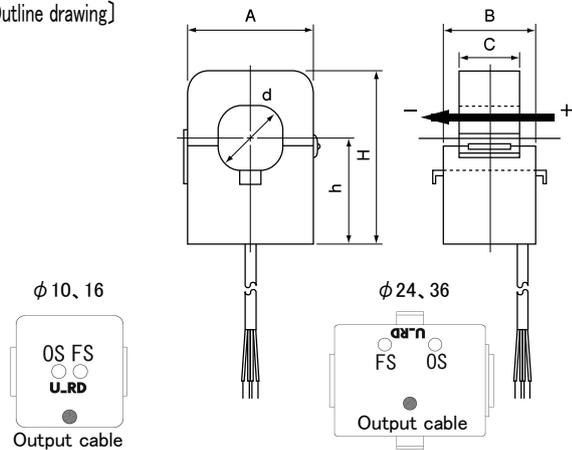


Model HCS-APCLS series

[Features]

- Corresponding to $\pm 15V$ control power supply
- Possible to discriminate the direction by $0 \pm 4V$ output
- Possible to measure with isolation
- Split type with unification of sensor and amplifier, one touch clamp structure to wire

[Outline drawing]



Model	Dimension					
	A	H	h	B	C	d
HCS-10-50APCLS	23	38.5	27	26	13.5	$\phi 10$
HCS-16-100APCLS	29	44.5	30	31	18.5	$\phi 16$
HCS-24-250APCLS	45	64	39	34	22	$\phi 24$
HCS-36-500APCLS	57	80	49	38	22	$\phi 36$

This product needs $\pm 15V$ (+15V and -15V DC bi-polar power supply) as control power supply. Even though the case of current detection of only plus direction, $\pm 15V$ needs. In any case, it is not operated with only +15V

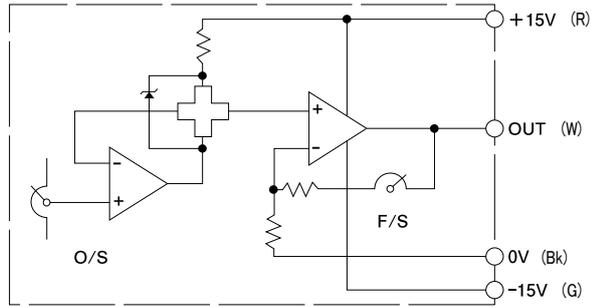
[Specification]

Model	HCS-10-50APCLS	HCS-16-100APCLS	HCS-24-250APCLS	HCS-36-500APCLS
Rating current (FS)	$\pm 50A$	$\pm 100A$	$\pm 250A$	$\pm 500A$
Maximum current	$\pm 150A$	$\pm 150A$	$\pm 625A$	$\pm 1250A$
Output voltage	$\pm 4V$ /Rating current (Recommended load resistor $\geq 10k \Omega$)			
Residual voltage	Within $\pm 30mV$ (no load)		Within $\pm 20mV$ (no load)	
Noise level	Less than $20mVp-p$ (no load)		Less than $10mVp-p$ (no load)	
Accuracy	Within $\pm 1\%FS$			
Linearity	Within $\pm 1\%FS$			
Hysteresis(FS \rightarrow 0)	Within $\pm 15mV$			
Response time	Less than $3 \mu s$ (at $di/dt = FS/2 \mu s$)			
Output voltage temperature coefficient	$\pm 0.1\%/^{\circ}C$ typ			
Residual voltage temperature coefficient	$\pm 1mV/^{\circ}C$ typ			
Power supply	DC $\pm 15V \pm 5\%$ (25mA typ) bi-polar power supply			
Withstand voltage	AC1500V, 1min (Aperture-output wire end in a lump)			
Insulation resistance	DC500V, $\geq 500M \Omega$ (Aperture-output wire end in a lump)			
Operating temperature	$-10^{\circ}C \sim +60^{\circ}C$, $\leq 85\%RH$, no condensation			
Storage temperature	$-15^{\circ}C \sim +65^{\circ}C$, $\leq 85\%RH$, no condensation			
Secondary wire	VVC- $\phi 0.18 \times 7-4C \ell=300$			
Mass	approximately 35g	approximately 60g	approximately 150g	approximately 190g

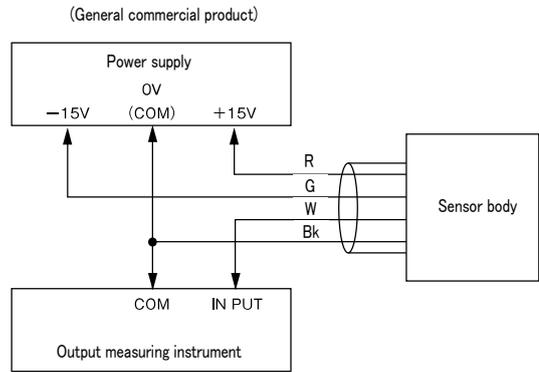
- [Remark] (1) After overcurrent more than rating current, offset drift occur by proportional to that current, with hysteresis of core. Ta=25°C
 (2) Recommend to use more than 5% of nominal for practical range, because output includes various variation factors.
 (3) Do not beyond rating current for continuous use
 (4) There is possibility of heating by core loss for the application of high frequency and high current. Please check by contacting us. (250APCLS, 500APCLS)

HCS-10-50APCLS characteristic

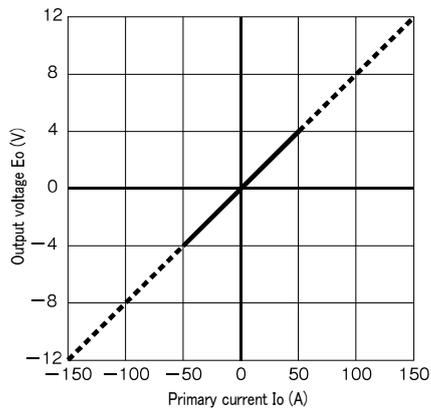
[Circuit diagram]



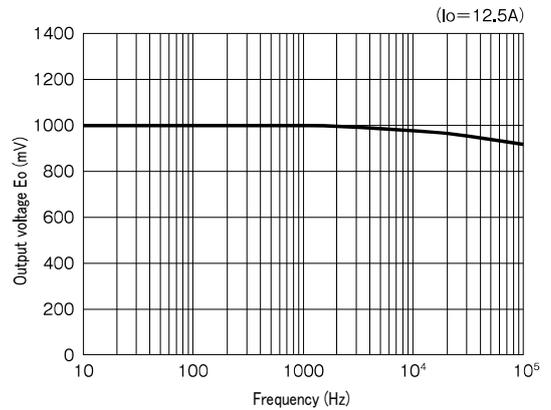
[Connection]



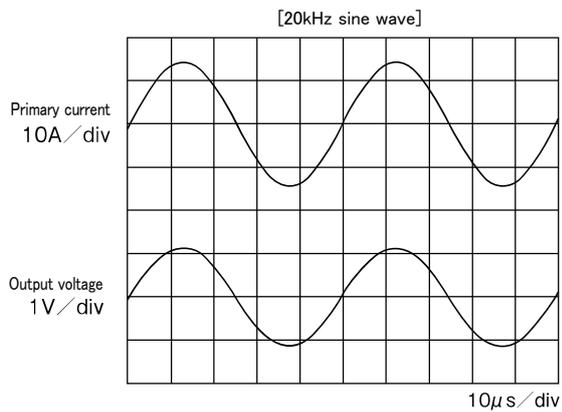
[Output voltage characteristic]



[Frequency characteristic]



[Output waveform] -1



[Output waveform] -2

