AC/DC Current transducers
HCT-ECH series

Email: info@grupopremo.com
Web: http://www.grupopremo.com

PREMO presents HCT-ECH Series current sensor is a closed loop device based on the measuring principle of the hall effect, with a galvanic isolation between primary and secondary. HCT-ECH is the best solution for AC/DC and pulse precision current measurement.

Features

- Closed loop Hall Effect sensor.
- Bipolar power supply.
- High currents measurement.
- High precision and linearity.
- Isolated plastic case recognized according to UL94-V0.
- EN60947:2004, IEC60950-1:2001, EN50178:1998 compliant.

1. Electrical parameters

	Symbol	Min	Typ	Max	Unit
Nominal current	I_{PN}				
HCT-50ECH			50		A
HCT-75ECH			75		A
HCT-100ECH			100		A
HCT-200ECH			200		A
Measuring range	I_P				
HCT-50ECH		-150		150	A
HCT-75ECH		-225		225	A
HCT-100ECH		-300		300	A
HCT-200ECH		-500		500	A
Rated output current (at I_{PN})	I_S				
HCT-50ECH, HCT-75ECH, HCT-100ECH			50		mA
HCT-200ECH			100		mA
Supply voltage (±5 %)	V_{CC}	±12		±18	V
Current consumption (measured at I_P = 0 A)	I_{CC}		±0.2		mA
Turns ratio					
HCT-50ECH			1:1000		
HCT-75ECH			1:1500		
HCT-100ECH, HCT-200ECH			1:2000		
Compensation winding resistance (T = 25°C)	R_C				
HCT-50ECH				30	Ω
HCT-75ECH				45	Ω
HCT-100ECH				50	Ω
HCT-200ECH				55	Ω

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2. Performance parameters

	Symbol	Min	Typ	Max	Unit
Accuracy (measured at I_{PN} @ T = 25°C)		±0.2			%
Linearity (measured at full scale)	ε_{LLR}			0.1	%
Offset current	I_{OS}			±0.2	mA
Offset current drift	KI_{OS}			±5	µA/°C
Response time	T_R			1	µs
di/dt		100			A/µs
Bandwith (-3 dB)	F_C	0		200	kHz

3. Isolation parameters

	Symbol	Min	Typ	Max	Unit
Galvanic isolation (50 Hz, 1 min)	V_I		3		kV

4. General parameters

	Symbol	Min	Typ	Max	Unit
Operating temperature	T_A	-40		85	°C
Storage temperature	T_S	-40		125	°C

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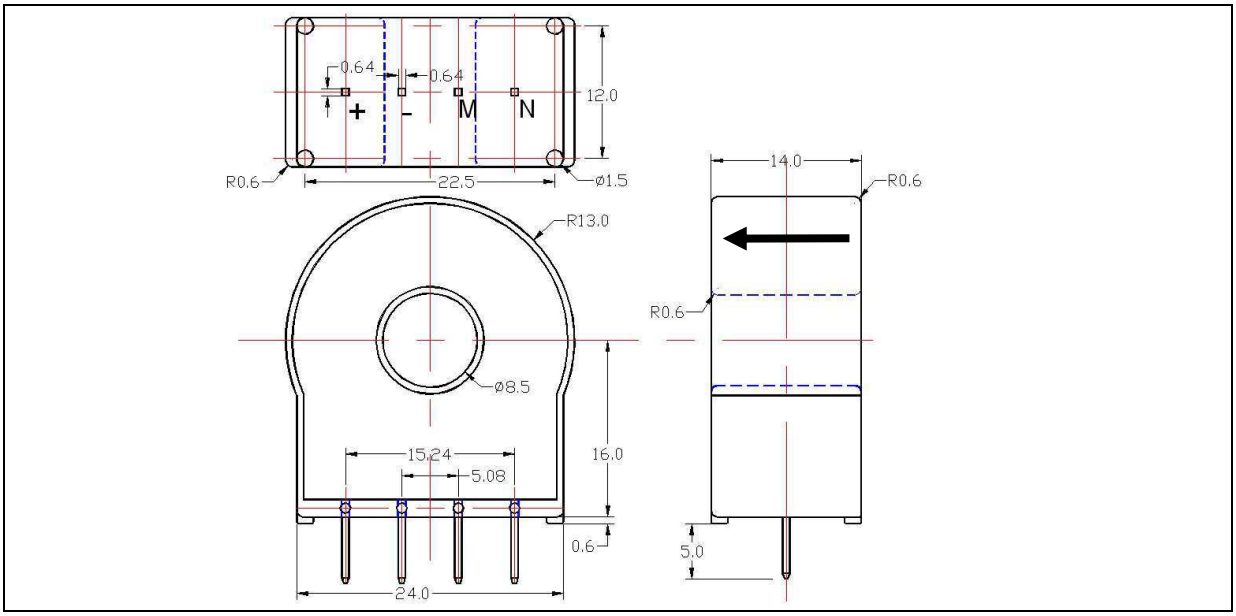
5. Dimensions



Pin description

Pin	Value
+	$+V_{CC}$
-	$-V_{CC}$
M	Output
N	No connect

Mechanical notes

1. All dimensions are in mm.
2. General tolerances according ISO 2768-c.
3. All dimensions and mechanical fixations could be changed upon user needs or PREMO transducer development.
4. Arrow indicates direction of positive currents.