



Speciality Magnetic Components
Qualified to ISO 9001:2008

Open Loop Hall Effect Current Transformer Type HOQ



The HOQ series are Open Loop Hall Effect Current Transformers covering the range of 40A to 800A. The product provides a voltage output which is galvanically isolated from the primary circuit. All contacts, including the primary are designed to be PCB mounted.

Features

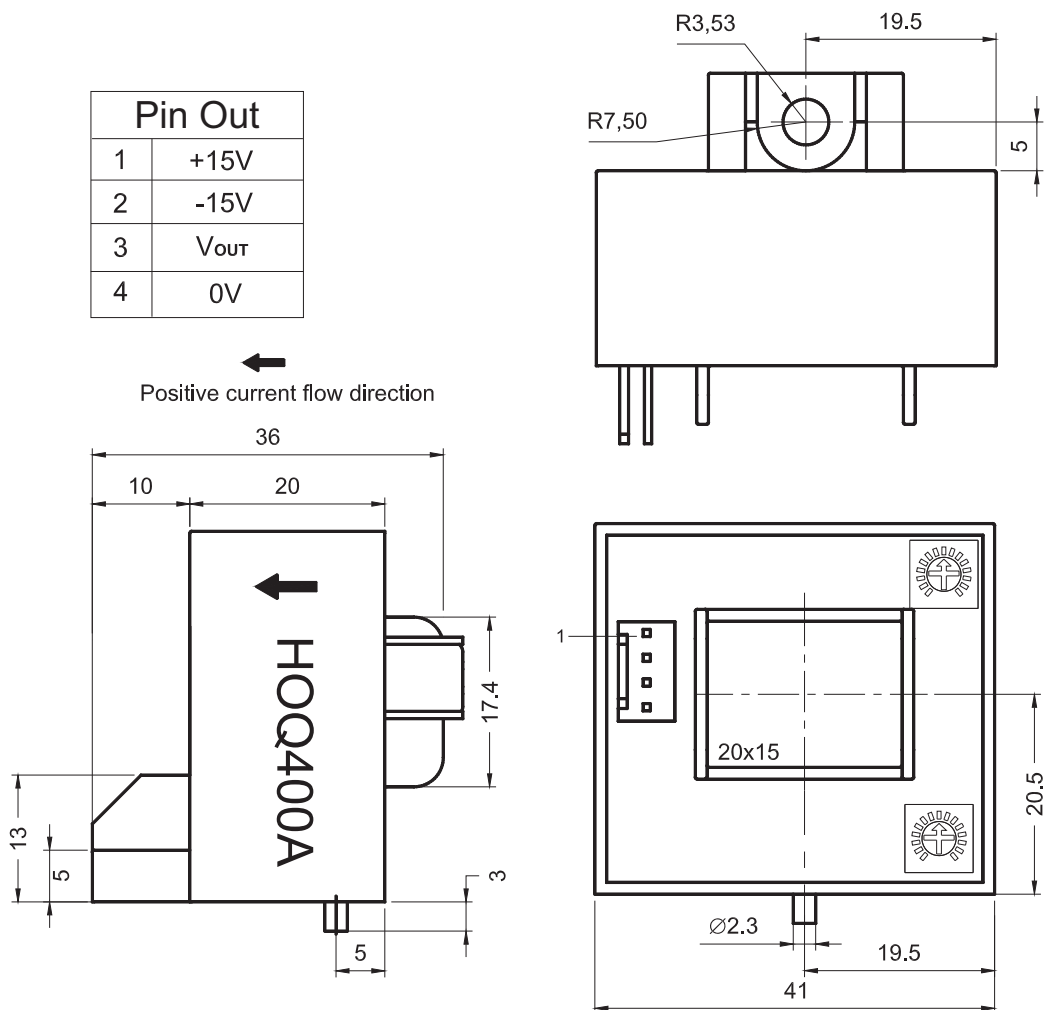
- ◆ Compact and light weight
- ◆ Fast response time
- ◆ Excellent linearity of the output voltage over a wide input range
- ◆ Excellent frequency response (> 50 kHz)
- ◆ Low power consumption (12 mA nominal)
- ◆ Capable of measuring both DC and AC, both pulsed and mixed
- ◆ High isolation voltage between the measuring circuit and the current-carrying conductor (AC2.5KV)
- ◆ Flame-Retardant plastic case and silicone encapsulate, using UL classified materials, ensures protection against environmental contaminants and vibration over a wide temperature and humidity range

Applications

- ◆ UPS systems
- ◆ Industrial robots
- ◆ NC tooling machines
- ◆ Elevator controllers
- ◆ Process control devices
- ◆ AC and DC servo systems
- ◆ Motor speed controller
- ◆ Electrical vehicle controllers
- ◆ Inverter-controlled welding machines
- ◆ General and special purpose inverters
- ◆ Power supply for laser processing machines
- ◆ Controller for traction equipment e.g. electric trains
- ◆ Other automatic control systems

Specifications

Parameter	Symbol	Unit	HOQ25	HOQ50	HOQ100	HOQ150	HOQ200	HOQ300	HOQ400	HOQ600
Nominal Input Current	I_{in}	A DC	±25	±50	±100	±150	±200	±300	±400	±600
Linear Range	I_{fs}	A DC	±75	±150	±300	±450	±600	±900	±900	±900
Nominal Output Voltage	V_{hn}	V	4.0 V±1% at $I_{fm}I$ ($R_L=10k\Omega$)							
Offset Voltage	V_{os}	mV	Within ±40 mV @ $I_f=0, T_a=25^\circ C$							
Output Resistance	R_{OUT}	Ω	< 100 Ω							
Hysteresis Error	V_{oh}	mV	Within ±20 mV @ $I_f=I_{in}\rightarrow 0$							
Supply Voltage	V_{CC}/V_{EE}	V	±15V ±5%							
Linearity (Within ± I_{fm})	ρ	%	Within ±1% of I_{fm}							
Consumption Current	I_{CC}	mA	±15 mA max							
Response Time (90% V_{hn})	T_r	μsec	10 μsec max. @ $d I_f / dt = I_{fm} / \mu sec$							
Frequency Bandwidth (-3dB)	f_{BW}	Hz	DC to 50kHz							
Thermal Drift of Output	-	%	Within ±0.1 %/°C @ I_{fm}							
Thermal Drift of Zero Current Offset	-	mV/°C	Within ±1.5 %/°C @ I_{fm}							
Dielectric Strength	-	V	AC2.5KV X 60 sec							
Isolation Resistance @ 1000 VDC	R_{IS}	M Ω	>1000 M Ω							
Operating Temperature	T_a	°C	-15°C to 80°C							
Storage Temperature	T_s	°C	-20°C to 85°C							
Mass	W	g	65g							



Appearance, dimensions and pin identification
 All dimensions in mm ±0.1, holes -0, +0.2 except otherwise noted.