

Panel Mounted, Split-core, Open Loop, Hall Effect Current Sensor

The **HOS-xxxQ11** Series of panel mounted, split-core, open loop, Hall Effect current sensors are designed for application requiring the measurement of DC current and current pulses.

The HOS-xxxQ11 open loop, Hall Effect current sensor design is based upon the principle that a magnetic field applied perpendicular to an electric current will create a proportional Hall voltage perpendicular to the two fields. The technology allows;

- Contactless, non-intrusive current sensing and
- Current sensing of DC current, current pulses and AC electric current.

The Hall Effect technology features high accuracy, high primary to secondary electrical isolation and extended frequency detection bandwidth.



Features:

- Rated Primary: 100A, 200A, 400A, 600A or 800A.
- Output: ± 4 V at rated current input.

Specifications:

- Frequency: 0 to 20kHz.
- Dielectric withstand voltage between Primary and Secondary: 2,500V RMS @ 50HZ for 1 minute.
- Isolation Voltage: 5 kV.
- Load resistance: > 10 kOhms .
- Operating Temperature: -10°C to $+85^{\circ}\text{C}$.
- Storage Temperature: -15°C to $+90^{\circ}\text{C}$.
- Supply Voltage: $\pm 12\text{V} \dots 15\text{V}$ ($\pm 5\%$).
- Supply Consumption: 25mA.

- Opening: 35mm (1.4")
- Construction:
 - Epoxy encapsulated housing.
 - Case material – Nylon, UL flame retardant rating 94 V-0.
- RoHS compliant.



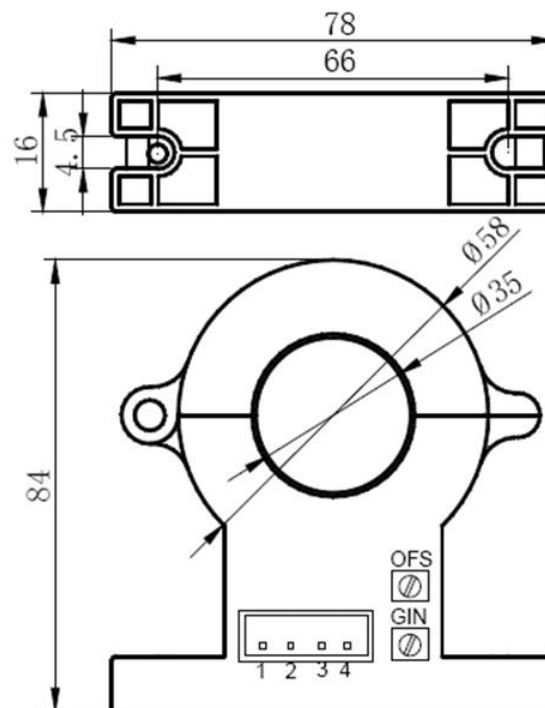
Performance:

- Accuracy: $\pm 1\%$ of I_{nominal} @ 25°C
- Linearity: $\leq 1\%$
- Response Time: $\leq 10\mu\text{Second}$
- Offset Voltage (@ $+25^{\circ}\text{C}$): $\pm 30\text{mV}$ maximum for primary current $I_n = 0$.
- Temperature Drift: $\pm 1\text{mV}/^{\circ}\text{C}$ maximum (-10°C to $+85^{\circ}\text{C}$)

Configuration Options:

Model	Rated Current (RMS)	Measurement Range
HOS-100Q11	100A	0 to $\pm 150A$
HOS-200Q11	200A	0 to $\pm 300A$
HOS-400Q11	400A	0 to $\pm 600A$
HOS-600Q11	600A	0 to $\pm 900A$
HOS-800Q11	800A	0 to $\pm 1200A$

Outline Drawing (mm):

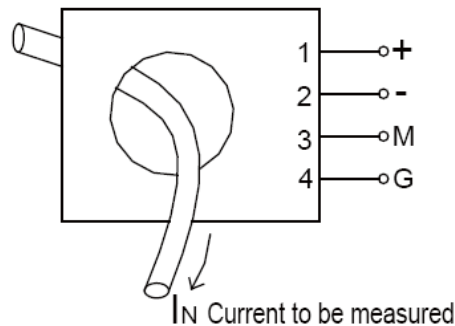


CONNECTION DEFINITIONS:

PIN 1	PIN 2	PIN 3	PIN 4
Power supply input	Power supply input	Secondary signal output (positive or negative value is dependent upon direction of primary current)	Secondary signal
+12VDC	-12VDC	Signal output	Ground/ Return
+15VDC	-15VDC	Signal output	Ground/ Return
+12VDC	NC	Signal output	Ground/ Return
+15VDC	NC	Signal output	Ground/ Return
+24VDC	NC	Signal output	Ground/ Return

NOTE:

1. Secondary signal output is positive when direction of primary flow is in the direction of the arrow.



2. **OFS:** Offset adjustment
3. **GIN:** Gain adjustment
4. **Power supply options:** $\pm 12V$, $\pm 15V$, $+12V$, $+15V$, $+24V$ (power supply option to be used should be specified at time of purchase).

Custom Hall Effect current sensor designs are available to meet the specific application requirements. For a no obligation technical evaluation, please provide the specific performance requirements to engineering@tichenassociates.com or the address below.