

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



The **HDT-xxxQ11** panel mounted, split-core, open loop, Hall Effect current transducer is designed for application requiring the measurement of DC current and DC current pulses.

The HDT-xxxQ11 Hall Effect current transducer 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 and current pulses.

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

Features:

- Rated Primary: 50A, 100A, 200A, 500A, 800A, 1000A DC
- Measurement Range: 0 to 120% of Rated Primary Current.
- Output Options:

A0 – 0 to 20mA	V0 – 0 to 5V
A1 – 4 to 20mA	V1 – 1 to 5V
V2 – 0 to 10V	V3 – 1 to 10V

Specifications:

- Dielectric withstand voltage between Primary and Secondary: 2,500V_{RMS} @ 50HZ for 1 minute.
- Secondary impedance:
 - A0 & A1 - < 300 Ohms
 - V0, V1, V2, V3 - > 10k Ohms
- Operating Temperature: -25°C to +85°C.
- Opening: 35mm (1.38")

- Supply Voltage: +12V ... 15V (± 5%).
- Supply Consumption: < 30mA + secondary output
- Construction:
 - Epoxy encapsulated housing.
 - Case material – Nylon, UL flame retardant rating 94 V-0.
- RoHS compliant.



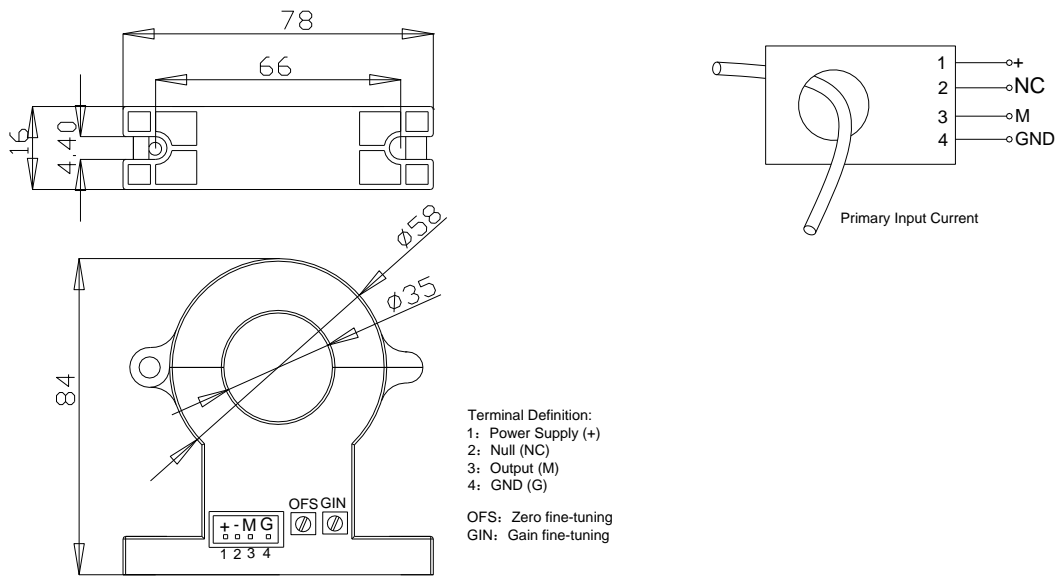
Performance:

- Accuracy: ± 1% of I_{nominal} @ 25°C
- Linearity: ≤ 0.5%
- Offset Current (@ +25°C, I_n = 0):
 - A0 - ± 0.2mA
 - A1 - 4mA ± 0.2mA.
 - V0, V1, V2, V3 - ± 10mV
- Temperature Drift: ± 0.05%/°C maximum (-40 °C to +85 °C)
- Response Time: < 0.35 seconds

Configuration Options:

Model	Rated Current (RMS)	Measurement Range
HDT-50Q11	50A DC	0 to ± 60A
HDT-100Q11	100A DC	0 to ± 120A
HDT-200Q11	200A DC	0 to ± 240A
HDT-500Q11	500A DC	0 to ± 600A
HDT-800Q11	800A DC	0 to ± 960A
HDT-1000Q11	1000A DC	0 to ± 1200A

Outline Drawing (mm):



CONNECTION DEFINITIONS:

- **Terminal #1:** Power supply input - +12VDC ...+15VDC
- **Terminal #2:** No Connection
- **Terminal #3:** Secondary signal out
- **Terminal #4:** Secondary signal ground/ Power supply return

Custom Hall Effect current transducer 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.

83 East Road
 Tacoma, Washington 98406-7630
 USA

sales@tichenassociates.com

Telephone: 253.678.2661
 FAX: 206.350.6482
www.TIChenAssociates.com