

Current range is listed in Cable Insulation ..... **Dielectric Test** (conductor through wind

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M

Sensor size 10 & 11 a

п осуреак ас. 	6000A + models				
dow/output) 2200Vac	Options				
bove 12000A available in split-core only	Extended temperature range (-40°C to +65°C) Add suffix "T" to model number.				
CASE DIMENS	IONS G, 10, 11				
	For Ordering Information please see page 3				

To take apart Type 11 units the red screws Note: must be removed in addition to opening the latches.

#### CABLE LENGTHS

All units are supplied with detachable 8 foot cable Custom cable lengths available upon request See page 2 for cable connections

SENS	SENSOR DIMENSIONS							WT.							
SIZE	A	B	С	D	E	F	G	н	J	K	L	M	N	Р	LBS.
G	7 3/4	12	1 3/4	3 X 6 1/2	6	3 7/8	5/8	6 1/2	10 3/4	5/8	5/8	5/8	5/16	9/32	12.3
10	10	13 3/4	1 3/4	5 1/2 X 8	6 1/2	5	5/8	8 3/4	11 1/2	3/4	1 1/2	5/8	5/16	9/32	13
11	21	21	2	13 X 13	10 1/2	10 1/2	1 1/2	18	18	1 1/2	1 1/2	5/8	11/16	3/8	22

All dimensions in inches



Powertek UK Limited Unit 13B, Southview Park, Marsack Street, Reading, Berkshire, RG4 5AF, United Kingdom Tel: +44 (0)118 370 2004 Email: info@powertekuk.com

G

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# **CTH Signal Conditioners**

# CTH Types G, 10 and 11

#### DESCRIPTION

The CTH Signal Conditioner provides the excitation current (instrument power) that the CTH Hall effect sensor requires as well as amplifying the low level (mV) signal into a more typical signal. The CTH is calibrated to the output of the specific CTH Type selected for the application. Each CTH conditioner has a specific input range (mV) which corresponds to the output of the CTH Sensor.



The CTH family has two different types, Instantaneous and RMS (CTHR). Instantaneous models provide an isolated output that is directly proportional to the amplitude and frequency of the input signal. If the input signal is ac, then the output signal is ac. If the input signal is dc, then the output signal is dc. The RMS output models provide a dc output which is directly proportional to the RMS of the input signal. The output is dc regardless of whether the input is ac or dc. Each type has four output options: 1mA, 4-20mA, 4-12-20mA, 10V or 5V, DC instrument power options are available from 12 to 48Vdc along with 125Vdc, 115Vac and 230Vac, see specifications.

To select the proper CTH model you will need to refer to the ordering examples on the following page.

Caution: Connect CTH Sensor to terminals 1, 2, 3 & 4 before applying instrument power to terminals 7 & 8.

## SPECIFICATIONS

INPUT	
Frequency Range	dc - 5000 Hz
Instrument Power 115	Vac, 50 - 400Hz, 2VA
Option "-22"	0Vac, 50/60Hz, ±15%
DC Instrument Power	
12Vdc	9-18Vdc
24Vdc	
48Vdc	
10EV/do Union enternal MDD DCI	00.050\/da

125Vdc Using external MDR PSU...... 90-250Vdc

OUTPUT	
Linearity	± 0.1% F.S.
Output Ripple	Less than 0.25% F.S.
Field Adjustable Gain	
Output Loading (Ohms)	
1mA	0 - 10K
10V, 5V	
4 - 20mA	
Response time (to 90%)	
Direct models	
RMS models	200 milliseconds
Temperature Effect (0°C	to +70°C) ±0.005%/°C

### CONNECTIONS





Red dot side of CTL must face positive supply.



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Rev-C 012907

## Hall Effect Current Sensors

## CTH Types G, 10 and 11

## **CTH ORDERING EXAMPLES**

Input 0-2500Adc Output 4-20mA Split Core Aperture size 76.2mm (3.0") x 165.1mm (6.5") Type G Core 24V dc power Part number = CTH/2500A/4-20/SC/24Vdc Type G Input ±0-10000Adc Output ±0-5V Split Core Aperture size 140mm (5.5") x 203mm (8") Type 10 Core 24V dc power Part number = CTH/10000A/5/SC/24Vdc Type 10

Input ±0-4000Adc Output ±0-10V Split Core Aperture size 76.2mm (3.0") x 165.1mm (6.5") Type G Core 12V dc power Part number = CTH/4000A/10/SC/12Vdc Type G Input ±0-25000Adc Output 4-12-20mA Split Core Where 4mA = -25000A, 12mA = 0A, 20mA = +25000A Aperture size 330mm (13") x 330mm (13") Type 11 Core 24V dc power Part No. = CTH/25000A/4-12-20/SC/24Vdc Type 11

Input ±0-6000Adc Output 4-12-20mA Split Core Where 4mA = -6000A,12mA = 0A, 20mA = +6000A Aperture size 76.2mm (3.0") x 165.1mm (6.5") Type G Core 24V dc power Part No. = CTH/6000A/4-12-20/SC/24Vdc Type G

Input ±0-5000Adc Output ±0-10V Split Core Hole size 140mm (5.5") x 203mm (8") Type 10 Core 48V dc power Part number = CTH/5000A/10/SC/48Vdc Type 10

Input 0-4000Arms Output 0-10V Split Core DC Output proportional to Arms Aperture size 76.2mm (3.0") x 165.1mm (6.5") Type G Core 24V dc power Part number = CTHR/4000A/10/SC/24Vdc Type G



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### INSTALLATION INSTRUCTIONS

- 1. Installation should be performed by qualified electricians only!
- 2. Make sure electrical service is disconnected before making any electrical connections.
- 3. Branch circuit protection is required to be provided in accordance with the National and Local codes of the inspection authority.
- 4. Route wires as required and secure to terminals per connection diagram on this sheet and on the unit.
- 5. Transducers are suitable for installation on 600Vac lines.
- 6. To prevent contact with live circuits, when installed on a bare bus bar, the transducer is required to be mounted in an enclosure that requires the use of a tool for access. When installed on an insulated cable this second enclosure is not required.

#### **OPERATING INSTRUCTIONS**

- 1. This unit is intended for indoor use at altitudes up to 2000 meters.
- Transient overvoltages according to Installation Category (overvoltage category)II, pollution Degree 2.
- 3. If cleaning of the exterior surface is necessary, de-energize all services of supply (both measuring and instrument power circuits) and brush with a soft brush or blow off with low pressure air. Use appropriate eye protection. Not suitable for hose-down cleaning.
- 4. Maximum relative humidity 80 percent for temperatures up to 31° C decreasing linearly to 50 percent relative humidity at 40° C.
- 5. Maximum operating temperature range is -20°C to 60°C.





UL approved for USA and Canada

Both Direct (dc) and Alternating (ac) current

#### WARRANTY STATEMENT

Powertek, warrants this unit to be free of defects in material and workmanship for a period of five years from date of shipment. This unit must not be used in any manner other than as specified in this document.



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