

CURRENT TRANSDUCERS

HALL EFFECT DC CURRENT TRANSDUCER

MODEL CTH

DESCRIPTION

Current Sensor with Output Amplifier 5Vdc, 10Vdc, or 4-20mAdc Output

The CTH Series Current Transducer is similar to the CTG Series but offers a 4-20mA output signal or a 4-12-20mA bi-directional output signal. The CTH current transducer can be operated from either a 24Vdc source or a low cost 24Vac control transformer. Available options are split core, extended temperature range, ruggedized design and 15Vdc instrument power.

FEATURES

- **ACCURACY 0.5%**
- Sensor & Amplifier in one package
- Split Core Available
- Output is proportional in direction and magnitude to the input current flow through the window.

APPLICATIONS

- **Current Sensing**

SPECIFICATIONS

INPUT

Current.....(See table) dc or Peak ac
Over Current..... 10 X rating
Instrument Power..... 24Vdc or ac $\pm 10\%$
Instrument Current..... 25mA + load current
Dielectric Test (bare bus to output) 3750Vac
Split Core Sens. Size D..... 1000Vdc

OUTPUT

Accuracy and Linearity (All models except*) $\pm 0.5\%$ F.S.
*All CTH-050 Models $\pm 1.0\%$ F.S.
*All CTH-025 Models $\pm 2.0\%$ F.S.
Load on Output..... (4-20mA) 0-500 Ω
(5V & 10V)..... > 2K Ω
Response Time..... (to 90%) (typical)..... 500 μ s
Temperature Effects..... (0°C to +40°C) $\pm 0.025\%/^{\circ}\text{C}$
Temperature Range..... 0°C to +40°C

AVAILABLE OPTIONS

Add Suffix in order shown

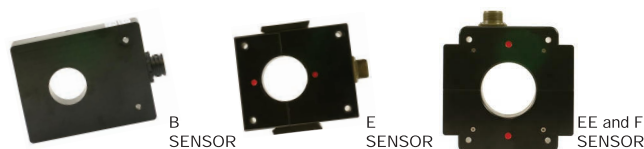
Split Core Add suffix "**S**"
Extended Temp. Range..... (-40°C to +60°C)..... Add Suffix "**T**"
Ruggedized (potted) Add Suffix "**R**"
Instrument Power..... 15Vdc, $\pm 10.0\%$ Add Suffix "**-15**"
12Vdc, $\pm 10.0\%$ Add Suffix "**-12**"
Optional 24Vdc Power Supply available TMP15124C

NOTE: Sensor size "D" Split Core models are potted, so "R" is not required in model number.

ORDERING INFORMATION

Example: 0-300Adc Input ,
4-20mA Output, Split-Core Option
and Extended Temperature Range.
CTH-301LST

Circular Window Models



Input DC Current	4-20mAdc Output**	4-12-20mA dc Output	$\pm 5\text{Vdc}$ Output	$\pm 10\text{Vdc}$ Output	Sensor Size
0-25	025	025M	025X5	025D	B
0-50	050	050M	050X5	050D	B
0-100	101	101M	101X5	101D	B
0-100	101L	101LM	101LX5	101LD	D
0-200	201L	201LM	201LX5	201LD	D
0-300	301L	301LM	301LX5	301LD	D
0-400	401L	401LM	401LX5	401LD	D
0-500	501L	501LM	501LX5	501LD	E
0-500	501FLS	501FLMS	501FSX5	501FSD	F
0-600	601L	601LM	601LX5	601LD	E
0-600	601FLS	601FLMS	601FSX5	601FSD	F
0-800	801L	801LM	801LX5	801LD	E
0-800	801FLS	801FLMS	801FSX5	801FSD	F
0-1000	102L	102LM	102LX5	102LD	E
0-1000	102FLS	102FLMS	102FSX5	102FSD	F
0-1000	102EELS	102EELMS	102EESX5	102EESD	EE
0-1200	122L	122LM	122LX5	122LD	E
0-1200	122FLS	122FLMS	122FSX5	122FSD	F
0-1200	122EELS	122EELMS	122EESX5	122EESD	EE
0-1500	152L	152LM	152LX5	152LD	E
0-1500	152FLS	152FLMS	152FSX5	152FSD	F
0-1500	152EELS	152EELMS	152EESX5	152EESD	EE

**4-20mAdc Model is unidirectional only.

Split Core option "S" is available except for Sens. Size B
All Sensor Sizes F, EE, and Z are Standard Split Core.

Rectangular Window Models



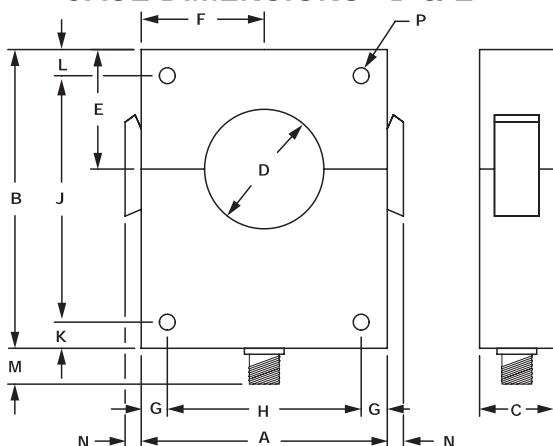
Input DC Current	4-20mAdc Output	4-12-20mA dc Output	$\pm 5\text{Vdc}$ Output	$\pm 10\text{Vdc}$ Output	Sensor Size
0 - 500	501HS	501HMS	501HX5S	501HDS	Z
0 - 600	601HS	601HMS	601HX5S	601HDS	Z
0 - 800	801HS	801HMS	801HX5S	801HDS	Z
0 - 1000	102HS	102HMS	102HX5S	102HDS	Z
0 - 1200	122HS	122HMS	122HX5S	122HDS	Z
0 - 1500	152HS	152HMS	152HX5S	152HDS	Z

CURRENT TRANSDUCERS

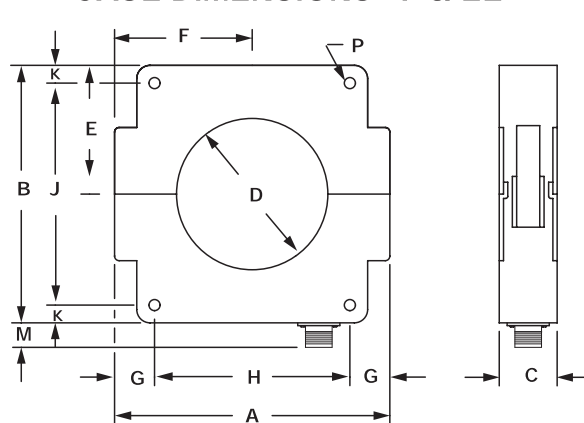
CASE DIMENSIONS & CONNECTIONS

MODEL CTH

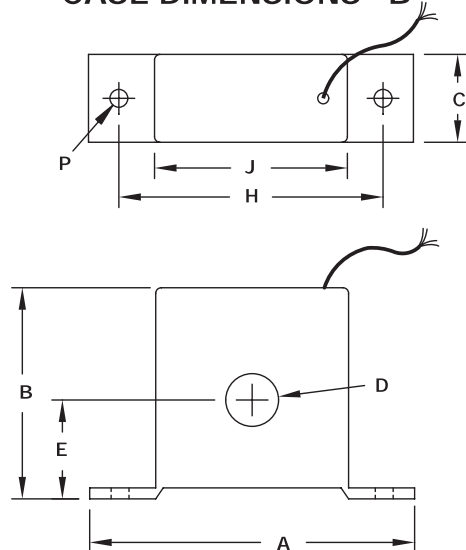
CASE DIMENSIONS D & E



CASE DIMENSIONS F & EE

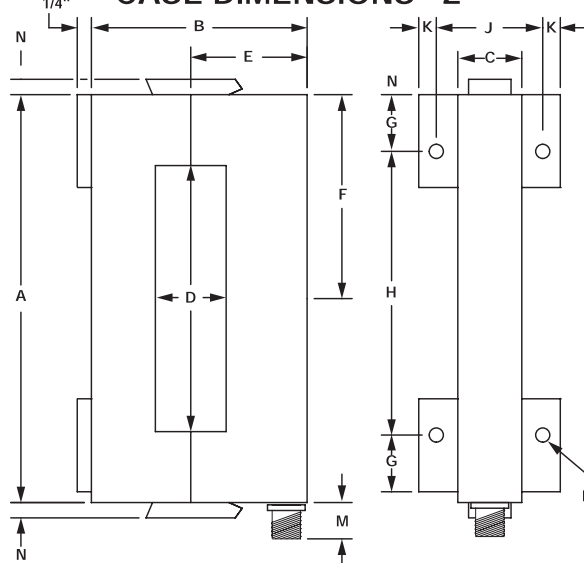


CASE DIMENSIONS B



Use Sensor Size D Cable Assembly for connections.
22 AWG

CASE DIMENSIONS Z



All Dimensions in Inches

SENS. SIZE	SENSOR DIMENSIONS														WT. LBS.
	A	B	C	D	E	F	G	H	J	K	L	M	N	P	
B	3 5/8	2 9/16	1	5/8	1 5/32	NA	NA	2 3/4	2 3/16	NA	NA	NA	NA	3/16	.2
D	3 1/8	4	25/32	1 1/8	1 1/2	1 9/16	1/2	2 1/8	NA	1/2	NA	3/8	1/4	11/64	.75
E	4 1/8	5	1 1/4	2	2	2 1/16	7/16	3 1/4	4 1/8	7/16	7/16	5/8	5/16	17/64	2
F	5 3/8	5 1/4	1 5/8	2 1/4	2 5/8	2 11/16	1 1/16	3 1/4	4 1/8	9/16	NA	5/8	NA	1/4	2.8
EE	7 3/4	7 1/4	1 5/8	4 1/4	3 5/8	3 7/8	1 1/8	5 1/2	6 1/4	1/2	NA	5/8	NA	5/16	4.5
Z	7 3/16	3 15/16	1 5/16	1 1/4 X 4 1/2	2 9/64	3 1/2	1	5	1 7/8	5/16	NA	1/2	5/16	3/16	2.8

CABLE ASSEMBLY

SENSOR SIZE D, Z				SENSOR SIZE E, EE, F			
Plastic Connector				Metal Connector			
8' Rubber Cable 18 AWG				8' Rubber Cable 18 AWG			
Pins	Leads			Pins	Leads		
1	WHITE	-	OUTPUT*	A	WHITE	-	OUTPUT*
2	GREEN	+		B	GREEN	+	
6	BLACK	COM		C	BLACK	COM	
8	RED	+24V	INST. PWR	D	RED	+24V	INST. PWR

*For positive output, positive current cable through "Red Dot" side of sensor.