

OSI HALL-EFFECT DC CURRENT TRANSDUCER MODEL CTH-

CURRENT SENSOR WITH OUTPUT AMPLIFIER 4-20mA, 5VDC OR 10VDC OUTPUT

DESCRIPTION

The CTH Series Current Transducer is a Hall-effect sensor integrated with an output amplifier. The CTH Series Current Transducer offers a 4-20mA, 4-12-20mA, 5V, or 10V output. 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 12Vdc or 15Vdc instrument power.

FEATURES

- **ACCURACY 0.5%**
- Sensor & Amplifier in one package
- Available in split-core configurations
- Replaces shunts. No insertion loss.

5 YEAR WARRANTY

APPLICATIONS

- Current Sensing

ORDERING INFORMATION

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

SPECIFICATIONS

INPUT

Current.....(See Table) dc or Peak ac
Over-current..... 10 X rating

INSTRUMENT POWER

Standard 24Vdc or ac $\pm 10\%$
Instrument Current.....25mA + load current

DIELECTRIC TEST

Bare Bus to Output 3750Vac
Split-Core Sensor Size D 1000Vdc

OUTPUT

Load (4-20mA models).....0-500 Ω , 5 & 10V >2K Ω
Response Time (to 90%)500 μ s, typical

TEMPERATURE

Temperature Effects.. (0 $^{\circ}$ C to +40 $^{\circ}$ C) $\pm 0.025\%$ / $^{\circ}$ C
Temperature Range 0 $^{\circ}$ C to +40 $^{\circ}$ C
Extended Temp. Range -40 $^{\circ}$ C to +60 $^{\circ}$ C

ACCURACY AND LINEARITY

All models except* $\pm 0.5\%$ F.S.
*CTH-050 thru CTH-050M, "X5", "D" $\pm 1.0\%$ F.S.
*CTH-025 thru CTH-025M, "X5", "D" $\pm 2.0\%$ F.S.

AVAILABLE OPTIONS

Add Suffix in order shown:
Split-Core Add suffix "**S**"
Extended Temperature Range Add Suffix "**T**"
Ruggedized (potted) Add Suffix "**R**"
Instrument Power..... 12Vdc..... Add Suffix "**-12**"
15Vdc..... Add Suffix "**-15**"

NOTE: Split-Core models are potted, so "**R**" is not required in model number.

Circular Window Models



STANDARD OUTPUTS MODEL CTH-					
Input DC Current	4-20mA Output	4-12-20mA Output	± 5 Vdc Output	± 10 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

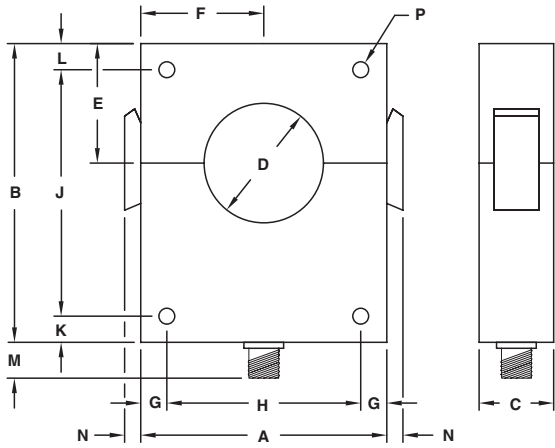
Split-Core option "S" is available except for Sensor Size B.
All Sensor Size F & EE are Standard Split-Core.

Rectangular Window Models

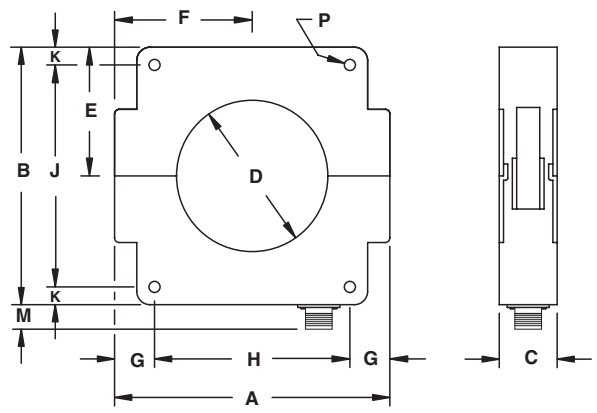


STANDARD OUTPUTS MODEL CTH-					
Input DC Current	4-20mA Output	4-12-20mA Output	± 5 Vdc Output	± 10 Vdc Output	Sensor Size
0 - 500	501H	501HM	501HX5	501HD	Z
0 - 600	601H	601HM	601HX5	601HD	Z
0 - 800	801H	801HM	801HX5	801HD	Z
0 - 1000	102H	102HM	102HX5	102HD	Z
0 - 1200	122H	122HM	122HX5	122HD	Z
0 - 1500	152H	152HM	152HX5	152HD	Z

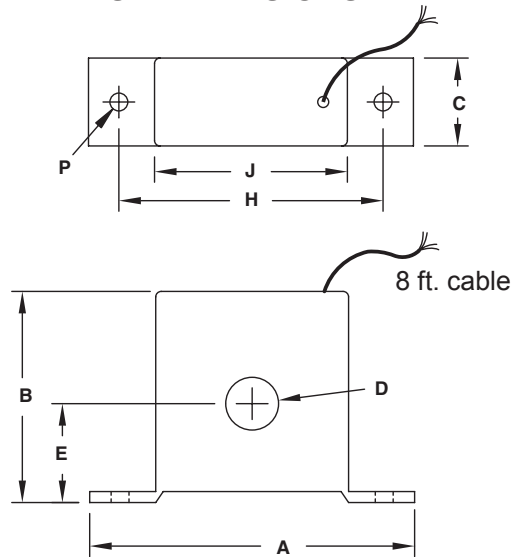
CASE DIMENSIONS D & E



CASE DIMENSIONS F & EE

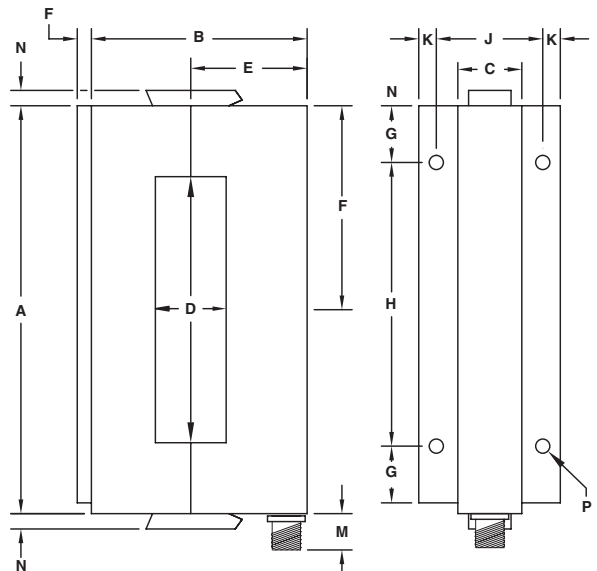


CASE DIMENSIONS B



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	0.2
D	3 1/8	4	3/4	1 1/8	1 1/2	1 9/16	1/2	2 1/8	NA	1/2	NA	3/8	1/4	11/64	0.75
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	2.0
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 3/4	1 1/8	1 1/4 X 4 1/2	2 1/16	1/4	1	5	1 7/8	5/16	NA	3/8	1/4	3/16	2.8

CABLE ASSEMBLY

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

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

Power supply available by using the PS-4753-5.