HCT IS Series

The HCT is a breakthrough position transmitter for use in hazardous locations. The two-wire loop configuration allows use with a single barrier and a minimum of wire or cable. True hermetic packaging of the coil assembly and electronics provides the maximum protection against adverse environments. A 4-20 mA transmitter output is the favored configuration for process industries and power plants. Six standard ranges are available from 0 to 0.25 inches (6.35 mm), to 0 to 10 inches (250 mm). Custom scaling is available for OEM requirements. Small quantities are generally available for same day/next day delivery.

FEATURES

- FM Approved
- Entity Approved – with appropriate barriers
- 4-20 mA, 2-wire operation
- Measurement ranges from 0.25” to 10.0”
- Self-Contained Electronics
- Hermetically Sealed Housing
- Nonlinearity: <0.5%, 1.0% Full Range
- Calibration Certificate Supplied with all models

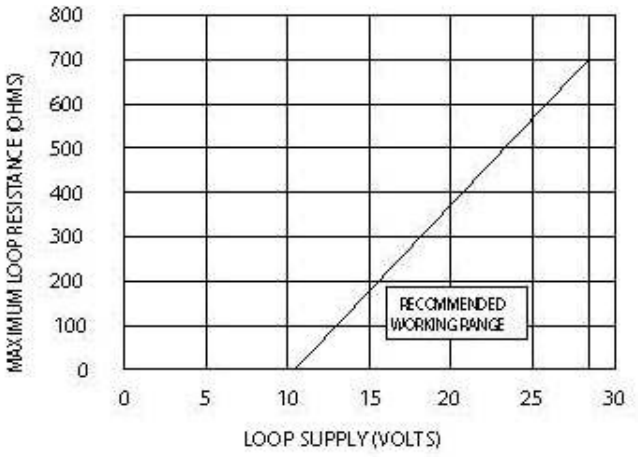
APPLICATIONS

- Valve Position Indication
- Outdoor use with Long Cable
- Controller Roller Gap in Rolling Mills
- Process Industries
- Ideal for Noisy Environments

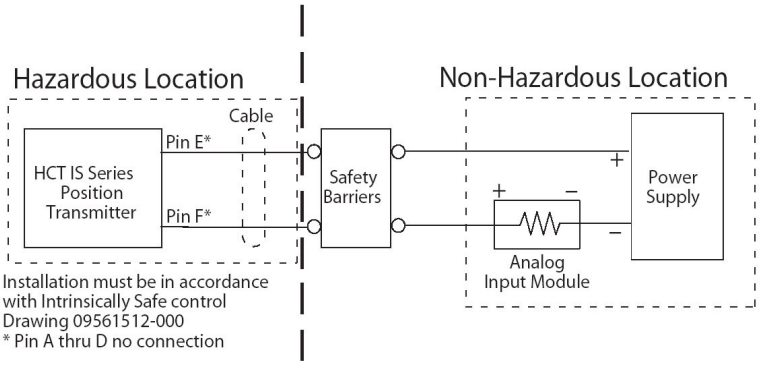
OPTIONS

- Metric Threaded Core
- Captive Core Option for Convenient Installation

maximum loop resistance



wiring



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HCT IS Series

intrinsically safe approval classification

- Class I, Div. 1, Group A, B, C, D
- Class II, Div. 1, Group G
- Class III

intrinsically safe maximum entity parameters

- Vmax = 32 VDC, Ci = 12nF
- Imax = 110mA, Li = 0

**Suggested barrier: R Stahl, Phone: 800/782-4357 or 9002/13-280-110-00*

Specifications

Linear Range (in)	0.25, 0.50, 1.0, 2.0, 5.0, 10.0
Nonlinearity	
0.25" – 5.0"	<0.5%
10".0	<1.0%
Output	4-20 mA, two-wire loop
Loop Supply	12.75 to 28.0 VDC
Max Loop Resistance	600 @ 28 VDC
Output Noise and Ripple	25 µA Pk-Pk (max)
Operating Temperature Range	-13F to 185F (-25C to 85C)
Temperature Coefficient of Sensitivity	0.04%/C (max)
Stability	0.10% after 30 minute warm up
Frequency Response	50 Hz min (-3dB)
Controls	None Required
Termination	6-pin hermetically sealed MS connector

Mechanical Specifications

HCT Series Model Number	Weight				Dimensions							
	LVDT Weight		Core Weight		A (Body)		B (Core)		C		P	
	Oz	Gm	Oz	Gm	In	Mm	In	Mm	In	Mm	In	Mm
HCT 250 IS	3.04	86	0.11	3	4.39	111.5	1.25	31.75	1.91	48.5	0.96	24.3
HCT 500 IS	3.63	103	0.18	5	5.51	140.0	1.80	45.7	3.11	79.0	1.52	38.7
HCT 1000 IS	4.38	124	0.29	8	6.92	175.8	3.00	76.2	4.46	113.3	2.23	56.6
HCT 2000 IS	5.38	153	0.38	11	9.18	233.2	3.80	96.5	6.72	170.7	3.36	85.2
HCT 5000 IS	6.51	185	0.38	11	12.28	311.9	3.80	96.5	9.90	251.5	4.91	124.6
HCT 10000 IS	12.93	367	0.62	18	21.59	548.4	6.20	157.5	19.22	488.2	9.56	242.8

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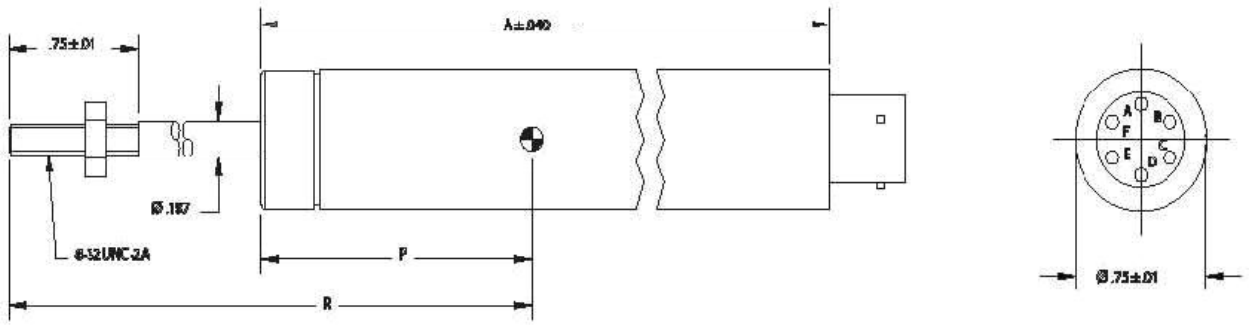
HCT IS Series

new captive core option

The HCT features a captive core design that greatly simplifies installation. The design utilizes a core rod and bearing assembly that is captured and guided within the LVDT providing low friction travel throughout the stroke length. The assembly incorporates two Delrin bearings on the core rod traveling through the stainless steel boreliner. A bronze bearing on the front end utilizes a self-aligning feature to accommodate lateral LVDT movement during operation, the core rod and bearing assembly is field replaceable.

Connection Configurations for HCA, HCD and HCT Series



HCT Series Mechanical Specifications

HCT Series					Dimensions					
			Weight		A		P		R	
Model Number	Linear Range In	Linear Range mm	Assembly oz	Assembly gm	In	Mm	In	Mm	In	Mm
HCT 420-250	0-0.250	0-6.25	3.74	106	4.63	117.6	1.30	33.0	4.36	110.7
HCT 420-500	0-0.500	0-12.5	4.66	132	5.75	146.1	1.86	47.2	4.75	120.7
HCT 420-1000	0-1.000	0-25	5.47	155	7.16	181.9	2.57	65.3	6.04	153.4
HCT 420-2000	0-2.000	0-50	6.85	194	9.42	239.3	3.88	93.5	7.87	199.9
HCT 420-5000	0-5.000	0-125	9.60	272	12.52	318.0	5.25	133.4	12.36	313.9

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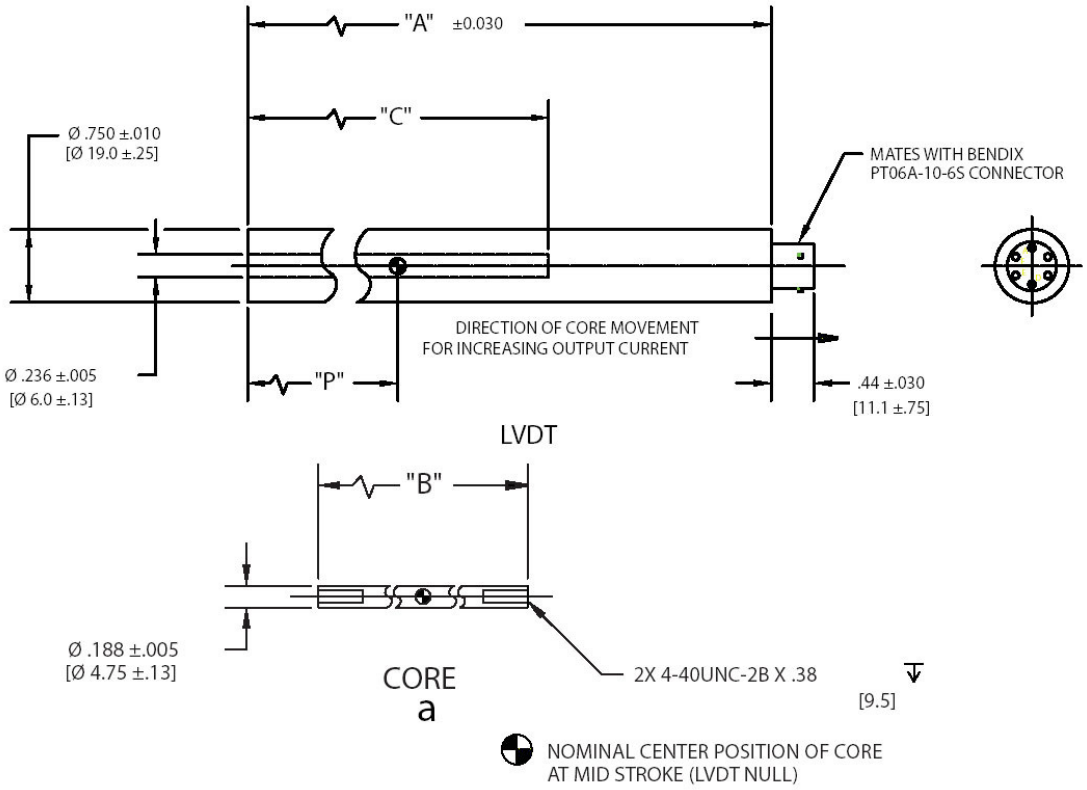
HCT IS Series

dimensions



ordering information

Specify the HCT IS model with the appropriate range followed by the desired option number(s) added together.

Ordering Example:
Model Number HCT 250 IS-206 is an HCT IS Series LVDT transmitter with a 0 to 0.250" range with a Metric Thread Core (006) and the captive core option (200).

HCT IS Model	Linear Range	
	inches	mm
HCT 250 IS	0 to 0.250	0 to 6.35
HCT 500 IS	0 to 0.500	0 to 12.7
HCT 1000 IS	0 to 1.0	0 to 25.4
HCT 2000 IS	0 to 2.0	0 to 50.8
HCT 5000 IS	0 to 5.0	0 to 127.0
HCT 10000 IS	0 to 10.0	0 to 254.0

options

Number	Description
006	Metric Thread Core
200	Captive Core[1]

[1]Available on HCT 250 IS through HCT 5000 IS models only.

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