

FASTAR is a fast response, shock resistant, non-contact displacement transducer designed to measure linear displacement (position).

A precision variable inductor with a stroke to body length ratio of almost 1:1, FASTAR has a body length approximately half as long as typical LVDTs. Used with a Sentech patented signal processor, it allows high speed displacement measuring with less error than other non-contact devices, with excellent immunity to EMI.

FASTAR consists of a movable core inside a coil-wound tube. As the core moves in or out, coil inductance changes. The processor generates a DC voltage proportional to the change in inductance.



#### **FEATURES**

Body length	only 1.3"	longer	than	stroke

±0.15% linearity, (±0.10% optional)

Non contact technology

Fast 35 µS response

Dynamic temperature compensation

Resistant to external fields (EMI)

Absolute continuous measurement

Single coil wound with large gauge wire

#### **BENEFITS**

Eases	installation	where	space	is	limited

Monitor high speed motions

Accurate measurements

No friction — long life, no hysteresis

Stable over a wide temperature range

No shielding required

传真:0750-6655456

Accurate position at power up

Better shock and vibration resistance than LVDT's

#### **APPLICATIONS**

- · Cylinder feedback
- · Roll position / Gap monitoring
- · Automated production gauging
- · Vibration analysis
- · Robotic motion control
- · X-Y positioning feedback

- · Material handling systems
- · Material testing equipment
- · Injection molding machines
- · Hydraulic presses
- · Liquid level measurement
- · Valve monitoring

# **Technical Specifications**

Models	FS380	FS1K	FS2K	FS3K	FS4K	FS5K	FS6K	FS9K	FS12K	
Nominal	0.76	2	4	6	8	10	12	18	24	inches
Linear Range	(19)	(51)	(101)	(152)	(203)	(254)	(305)	(457)	(609)	(mm)

## **PERFORMANCE**

Non Linearity	< ±0.15% standard (±0.10% optional)
Resolution	infinite
Repeatability	0.003% of full scale typical
Compensated Temperature Range	25°F to 175°F (-5°C to 80°C)
Operating Temperature Range	-60°F to 257°F (-50°C to 125°C)
Vibration Resistance	Meets MIL-STD 810C, Figure 514-5, Curve AK Time Schedule II Random Vibration Test (Overall g rms=20.7)
Shock Resistance	50 g's peak (6 milliseconds) half sine

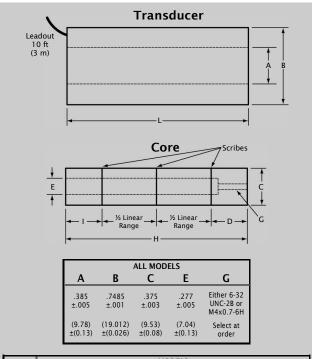
## **ELECTRICAL**\*

Frequency Response  DC to 15,000 Hz (-3 dB)  Response Time  35µS  10 ft (3m) coaxial cable: cable dis: 0.1" (2.5 mm)	Excitation	112 kHz				
Time  35μ5  10 ft (3m) coaxial cable:		DC to 15,000 Hz (-3 dB)				
· · · ·	•	35µS				
with Mini DIN connector	Connections	cable dia: 0.1" (2.5mm)				

## **PHYSICAL**

Core Material	hard anodized aluminum
Transducer Construction	nickel plated steel

## **DIMENSIONS**



				MODELS				
FS380	FS1000	FS2000	FS3000	FS4000	FS5000	FS6000	FS9000	FS12000
0.76	2.0	4.0	6.0	8.0	10.0	12.0	18.0	24.0
(19)	(51)	(101)	(152)	(203)	(254)	(305)	(457)	(609)
0.72	0.89	0.88	0.88	0.88	0.88	0.88	0.88	0.88
(18.3)	(22.6)	(22.4)	(22.4)	(22.4)	(22.4)	(22.4)	(22.4)	(22.4)
1.752	3.327	5.295	7.295	9.295	11.295	13.295	19.295	25.295
(44.5)	(84.5)	(134.5)	(185.3)	(236.1)	(286.9)	(337.7)	(490.1)	(642.5)
1.812	3.387	5.355	7.355	9.355	11.355	13.355	19.355	25.355
(46.0)	(86.0)	(136.0)	(186.8)	(237.6)	(288.4)	(339.2)	(491.6)	(644.0)
0.33	0.50	0.48	0.48	0.48	0.48	0.48	0.48	0.48
(8.4)	(12.7)	(12.2)	(12.2)	(12.2)	(12.2)	(12.2)	(12.2)	(12.2)
0.17	0.27	0.43	0.59	0.75	0.91	1.07	1.55	2.03
(4.8)	(7.7)	(12.2)	(16.7)	(21.3)	(15.8)	(30.3)	(43.9)	(57.5)
	0.76 (19) 0.72 (18.3) 1.752 (44.5) 1.812 (46.0) 0.33 (8.4) 0.17	0.76 2.0 (19) (51) 0.72 0.89 (18.3) (22.6) 1.752 3.327 (44.5) (84.5) 1.812 3.387 (46.0) (86.0) 0.33 0.50 (8.4) (12.7) 0.17 0.27	0.76 2.0 4.0 (19) (51) (101) 0.72 0.89 0.88 (18.3) (22.6) (22.4) 1.752 3.327 5.295 (44.5) (84.5) (134.5) 1.812 3.387 5.355 (46.0) (86.0) (136.0) 0.33 0.50 0.48 (8.4) (12.7) (12.2) 0.17 0.27 0.43	F5380 F51000 F52000 F53000   C76   C2.0   C101   C152   C152	F5380   F51000   F52000   F53000   F54000	0.76 2.0 4.0 6.0 8.0 10.0 (19) (51) (101) (152) (203) (254) (203) (254) (203) (254) (203) (254) (203) (254) (203) (254) (203) (254) (203)	F5380         F51000         F52000         F53000         F54000         F55000         F56000           0.76         2.0         4.0         6.0         8.0         10.0         12.0           (19)         (51)         (101)         (152)         (203)         (254)         (305)           0.72         0.89         0.88         0.88         0.88         0.88         0.88         0.88           (18.3)         (22.6)         (22.4) <td< th=""><th>F5380         F51000         F52000         F53000         F54000         F55000         F56000         F59000           0.76         2.0         4.0         6.0         8.0         10.0         12.0         18.0           (19)         (51)         (101)         (152)         (203)         (254)         (305)         (457)           0.72         0.89         0.88         0.89         0.294         0.294         0.284</th></td<>	F5380         F51000         F52000         F53000         F54000         F55000         F56000         F59000           0.76         2.0         4.0         6.0         8.0         10.0         12.0         18.0           (19)         (51)         (101)         (152)         (203)         (254)         (305)         (457)           0.72         0.89         0.88         0.89         0.294         0.294         0.284

XX.XX = inches (XX.XX) = mm Mass: oz (g)

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