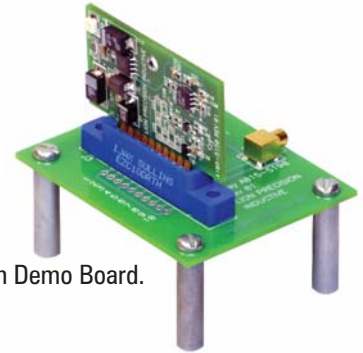


ECA110 Analog Output Eddy Current Driver PCB

***Precision displacement measurement;
OEM, embedded design.***

This versatile sensor is ideal for applications requiring high resolution and high repeatability without the higher price of linear sensors. These embeddable units are shipped from the factory fully calibrated with no user adjustments – ready to install.



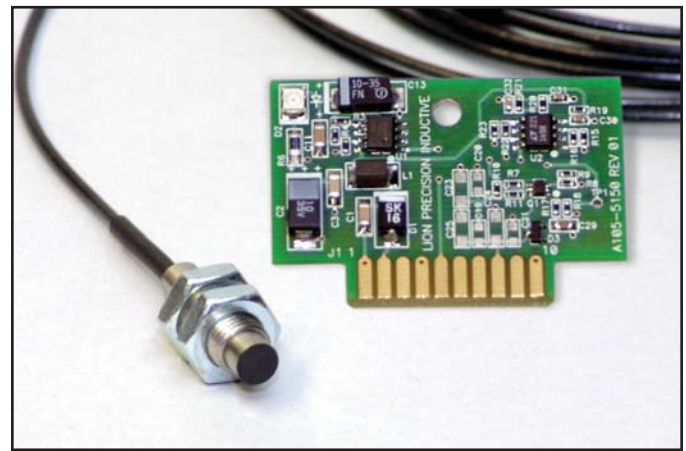
ECA110 with Demo Board.

Performance

- Resolution: 0.002%FS
- Bandwidth to 10kHz
- DC Voltage Output

Features

- 12-24VDC Input
- Factory Calibration
- Small PCB with Edge Connector
- Power LED



Probes

Choose from our four standard body styles:

Core unit features the smallest physical size for limited access applications,

Smooth body has the strength of a stainless steel housing for clamp or set screw mounting and easy adjustment of axial position,

Threaded body provides precise adjustment of axial position in a threaded mounting hole or a through hole using the two lock nuts provided,

Bulkhead body gives you easy axial position repeatability in a threaded or through hole.

Custom Probes

All body styles are built upon the same core unit. Custom body styles are turned around quickly to get you up and running with exactly what you need in your application.

Core Unit



Smooth



Threaded



Bulkhead



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ECA110 Driver Specifications:*

Resolution: RMS @ mid-scale	DC-10kHz	0.002%FS**
Probe Temperature Coefficient		0.2%FS/°C
Driver Input Power		+12 to +24VDC 30mA @ 15V
Driver Outputs	Voltage	0-10VDC Standard
Operating Temperature:	Std. Probes	-25°C to +125°C
	Ext. Temp. Probes	-25°C to +200°C
	Driver	0°C to +65°C
Probe Cables	Length	3 meters
	Jacket Material	Std. Temp. PUR Ext. Temp. TEFLON
Ratings	Driver	IP40 (CE Pending)
	Probes	Std. Temp. - IP67 Ext. Temp. - IP63
Driver Dimensions	Height	33mm / 1.3"
	Width	48.3mm / 1.9"
	Connector Pitch	2.54mm / 0.1" C-C

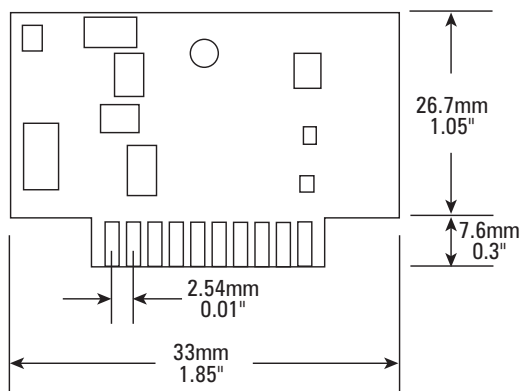
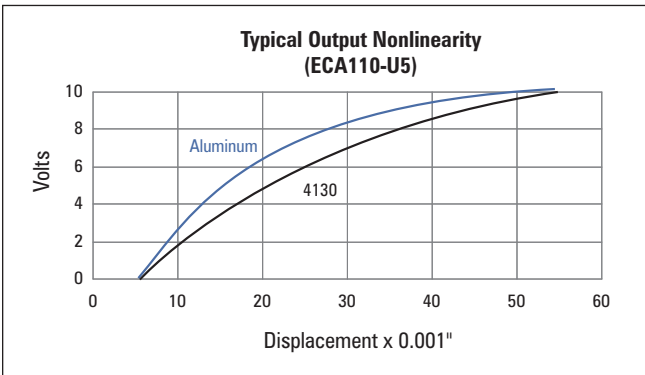
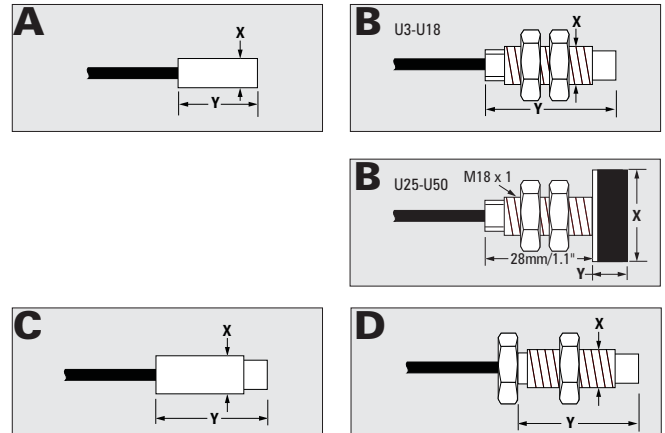
* Performance data taken with standard unshielded probes, 15VDC input, normal room ambient, 4130/4140 Steel target.

** 0.005% with Aluminum target

Typical Probe Ranges and Resolutions: (for reference only)

Probe Model	Range mm/inch	Offset mm/inch
U3	0.50/0.020	0.05/0.002
U5	1.25/0.050	0.25/0.010
U8	2.00/0.080	0.35/0.015
U12	3.50/0.140	0.60/0.025
U18	5.00/0.200	0.75/0.030
U25	8.00/0.320	1.25/0.050
U38	12.5/0.500	1.50/0.060
U50	15.0/0.600	2.00/0.080

*Specifications for 6061 aluminum and 4140 steel. Other ferromagnetic and nonferromagnetic materials will produce similar results.



Probe Dimensions

A	X	Y	B	X	Y
	mm/inch	mm/inch		thread	mm/inch
—	—	—	U3B	M3x.5	21.1/0.83
U5A	3.4/0.13	13.0/0.51	U5B	M5x.8	25.0/0.99
U8A	6.2/0.24	14.0/0.55	U8B	M8x1	27.0/1.07
U12A	10.0/0.39	15.0/0.59	U12B	M12x1	29.0/1.15
U18A	15.8/0.62	16.0/0.63	U18B	M18x1	31.0/1.22
—	—	—	U25B	25.0/0.99	15.0/0.59
—	—	—	U38B	38.0/1.50	20.0/0.79
—	—	—	U50B	50.0/1.97	25.0/0.99
C	X	Y	D	X	Y
U3C Shoulder	2.92/0.115 3.6/0.14	16/0.63 5/0.20	—	—	—
U5C	4.9/0.193	21/0.83	U5D	M5x.8	23/0.91
U8C	7.9/0.311	23/0.91	U8D	M8x1	25/0.99
U12C	11.9/0.468	25/0.99	U12D	M12x1	27/1.07
U18C	17.9/0.705	27/1.07	U18D	M18x1	31/1.22



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