ECL101 Wide Bandwidth

Linear, analog sensor with bandwidth to 80 kHz

Performance

- Nonlinearity: 0.5%
- Resolution: 0.004%–0.06% (see Range/Resolution table below)
- Bandwidth: 1 kHz, 10 kHz, 80 kHz (factory set)

Features

Easy Operation:

- 0-10 VDC Output
- Adjustable Zero (Front Panel and Remote)
- Range Indicating LEDs
- Sync Multiple Units (requires sync kit)
- 12-24 VDC Power
- Field Calibration

Export Limitations

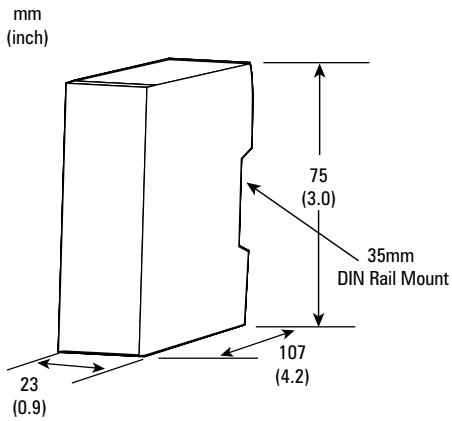
Because of high resolutions, export to some countries of the ECL101 and ECL110 requires an export license.

Function Descriptions

Zero: Shifts output DC level

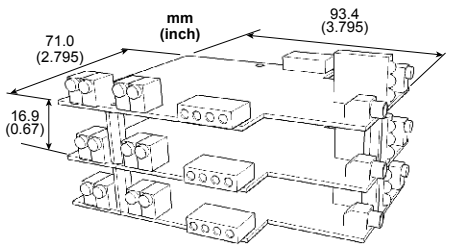
Specifications

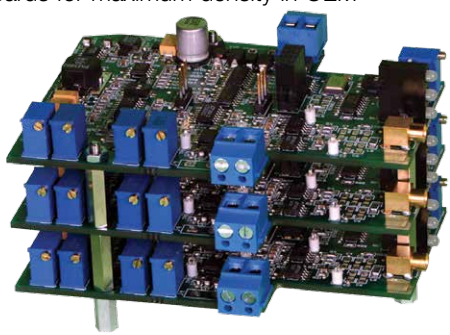
Analog Outputs	0-10 VDC, 0 Ω, 15 mA max
Probe Thermal Drift at Mid-Range	0.04%/°C
Input Power	12-24 VDC, 2 W
Remote Offset (Zero)	±10 VDC analog voltage
Driver Operating Environment	4°C to 50°C, IP40



ECL110

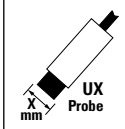
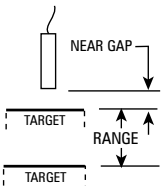
For multi-channel applications, the ECL100 is available as a system of stacked circuit boards for maximum density in OEM applications. Up to eight channels can be ordered as a single system.





Range and Resolution

Specifications based on standard 3 m cable, target size 3 times probe diameter.

			Nonferrous: Aluminum 6061 Ferrous: Steel 4140			
				Resolution @ Bandwidth		
Probe Model	**Range** mm inch	**Near Gap** mm inch	**Material Type**	**1 kHz** nm µinch	**10 kHz** nm µinch	**80 kHz** nm µinch
U3	0.50 0.020	0.05 0.002	Nonferrous	30 1.2	60 2.4	200 8.0
			Ferrous	40 1.6	80 3.2	300 12
U5	1.25 0.050	0.25 0.010	Nonferrous	60 2.4	100 4.0	250 10
			Ferrous	90 3.6	150 6.0	400 16
U8	2.00 0.080	0.35 0.015	Nonferrous	100 4.0	160 6.4	400 16
			Ferrous	130 5.2	210 8.4	500 20
U12	3.50 0.140	0.60 0.025	Nonferrous	200 8.0	280 11	700 28
			Ferrous	260 10	350 14	1200 48
U18	5.00 0.200	0.75 0.030	Nonferrous	240 10	480 19	3200 130
			Ferrous	320 13	640 26	4500 180
U25	8.00 0.320	1.25 0.050	Nonferrous	350 14	700 28	5300 210
			Ferrous	350 14	700 28	5300 210
U38	12.5 0.500	1.50 0.060	Nonferrous	550 22	1100 44	8300 330
			Ferrous	550 22	1100 44	8300 330
U50	15.0 0.600	2.00 0.080	Nonferrous	660 26	1300 52	10000 400
			Ferrous	660 26	1300 52	10000 400

[1]Peak-to-Peak resolution is 8-10 times RMS resolution; in high EMI environments (10 V/m), output noise levels could rise to 30 mV RMS (0.3% resolution)