

HIGH-ACCURACY AC LONG-STROKE DISPLACEMENT TRANSDUCERS

LD300 Series

± 15 to ± 300 mm
(± 0.6 to ± 12 ")

Starts at
\$480



LDX-3A, signal conditioner,
\$480. See page J-32.



LD300-300, \$1125, shown
smaller than actual size.

LD300-100, \$765, shown
smaller than actual size.

- ✓ Rugged Stainless Steel Case
- ✓ LVDT—Infinite Resolution
- ✓ 0.25% Linearity
- ✓ Spring-Loaded Armature
- ✓ Works with Standard AC LVDT Signal Conditioning Modules

The LD300 Series provides our longest stroke length—up to ± 300 mm (12")—in accordance with the linear variable differential transformer principle. These AC LVDTs are highly accurate.

Special winding techniques ensure excellent linearity. The components are then packaged in a rugged housing and the transformer core is fitted with an extension rod and

very-low-friction nylon bearings that act as guides. The transducer features a spring-return armature.

With their long life, infinite resolution, versatility, and excellent repeatability, these units are suitable for many demanding industrial applications.

SPECIFICATIONS

Linearity: 0.25% FS

Sensitivity: (mV/V/mm) see chart on next page (actual output supplied with each unit)

Excitation: 1 to 10 Vrms

Excitation Frequency: 1 to 10 kHz

Energizing Current:

See chart on next page

Frequency Response: 2 ms

Zero Offset: 0.5% FS

Thermal Effect:

Zero Sensitivity: 0.008%/°C,
0.005%/°C

Compensated Temperature Range:

-40 to 100°C (-40 to 212°F)

Operating Temperature Range:

-40 to 100°C (-40 to 212°F)

Electrical Connection: 2.7 m (9') shielded cable

Calibration: Calibrated at 5 V, 5 kHz with 100K load at 20°C (68°F)

Mechanical

Threaded Core: LD300-15 (M3); LD300-25, -50 (M4); LD300-100, -150, -250, -300 (M5)

Core Material: Ni/Fe—Radio Metal 50

Case Material: 400 Series SS

Weight: See chart on next page

Electrical Connections:

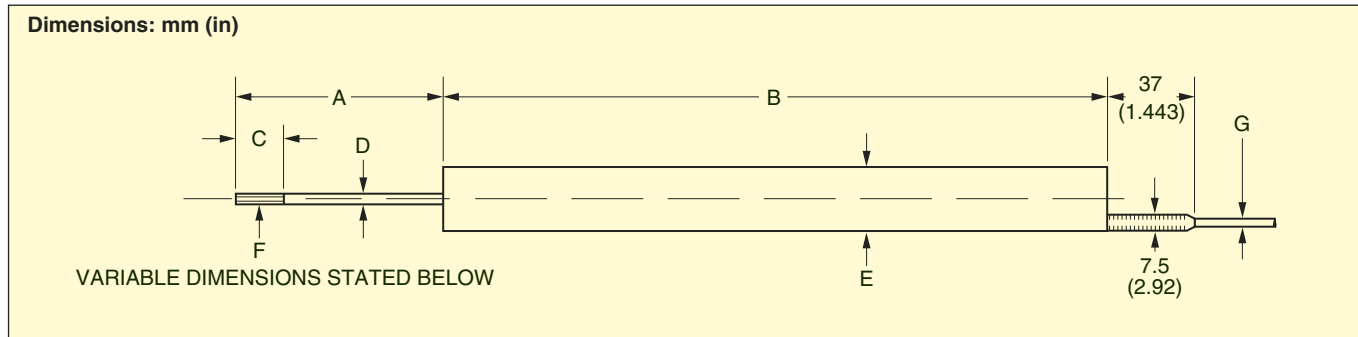
Red and Blue: Excitation (AC)

White: Signal

Green: Signal ground

Red and White: In phase for inward displacement

AC-POWERED LVDT TRANSDUCERS



MODEL NO.	LINEAR STROKE mm (in)	DIMENSIONS: mm (in) AT ELECTRICAL ZERO						
		A	B	C	D	E	F	G
LD300-15	±15 (0.6)	45 (1.76)	97 (3.78)	20.6 (0.78)	3.17 (0.12)	19 (0.74)	M3	3.5 (0.14)
LD300-25	±25 (1.0)	60 (2.34)	156 (6.08)	20.6 (0.78)	4.0 (0.16)	19 (0.74)	M4	3.5 (0.14)
LD300-50	±50 (2.0)	85 (3.32)	280 (10.92)	20.6 (0.78)	4.0 (0.16)	19 (0.74)	M4	3.5 (0.14)
LD300-100	±100 (4.0)	145 (5.66)	450 (17.55)	20.6 (0.78)	4.75 (0.19)	25 (0.98)	M5	4.5 (0.18)
LD300-150	±150 (6.0)	197 (7.68)	552 (21.53)	19 (0.74)	4.75 (0.19)	25 (0.98)	M5	4.5 (0.18)
LD300-250	±250 (10.0)	298 (11.62)	755 (29.45)	19 (0.74)	4.75 (0.19)	25 (0.98)	M5	4.5 (0.18)
LD300-300	±300 (12.0)	349 (13.61)	857 (33.42)	19 (0.74)	4.75 (0.19)	25 (0.98)	M5	4.5 (0.18)

MOST POPULAR MODELS HIGHLIGHTED!

To Order (Specify Model Number)

MODEL NO.	LINEAR STROKE mm (in)	PRICE	COMPATIBLE INSTRUMENTS*
LD300-15	±15 (0.6)	\$480	DP-LVDT, LDX-2, LDX-3A, LDX-4
LD300-25	±25 (1.0)	485	DP-LVDT, LDX-2, LDX-3A, LDX-4
LD300-50	±50 (2.0)	630	DP-LVDT, LDX-2, LDX-3A, LDX-4
LD300-100	±100 (4.0)	765	DP-LVDT, LDX-2, LDX-3A, LDX-4
LD300-150	±150 (6.0)	900	DP-LVDT, LDX-3A, LDX-4
LD300-250	±250 (10.0)	990	DP-LVDT, LDX-2, LDX-3A, LDX-4
LD300-300	±300 (12.0)	1125	DP-LVDT, LDX-3A, LDX-4

* See pages J-31 through J-35 for compatible instruments.

Comes with complete operator's manual.

Ordering Example: LD300-100, 100 mm (4.0") stroke LVDT with spring-loaded core, \$765.

SPECIFICATIONS

MODEL NO.	MAXIMUM STROKE mm (in)	WEIGHT		SPRING RATE	FORCE*	SENSITIVITY mV/V/mm	ENERGIZING CURRENT	OUTPUT IMPED.	I/O PHASE
		BODY/LEADS	CORE ASSEMBLY						
LD300-15	±22 (.886)	60 g	10 g	3.30 g/mm	110	34.0	6 mA	220 Ω	7°
LD300-25	±35 (1.378)	96 g	18 g	2.34 g/mm	150	20.0	4 mA	210 Ω	9°
LD300-50	±62 (2.441)	170 g	25 g	1.95 g/mm	185	9.3	4 mA	160 Ω	10°
LD300-100	±125 (4.921)	600 g	54 g	1.19 g/mm	120	5.0	6 mA	160 Ω	7°
LD300-150	±178 (7.007)	900 g	78 g	1.00 g/mm	120	3.5	5 mA	150 Ω	7°
LD300-250	±279 (10.884)	1300 g	106 g	CANNOT BE SPRING LOADED		2.1	6 mA	110 Ω	5°
LD-300-300	±330 (12.992)	1600 g	122 g	CANNOT BE SPRING LOADED		1.7	9 mA	90 Ω	2°

* At electrical zero, in grams.

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