

# ECONOMICAL LVDT DISPLACEMENT TRANSDUCERS

## AC POWERED

$\pm 1.25$  TO  $\pm 10.0$  MM  
( $\pm 0.050$  TO  $\pm 0.400$ " )

LD200 Series  
Starts at  
**\$115**

- Low Cost—High Linearity
- Rugged Construction for Machine Tools and Vehicles
- Large Core Clearance for Easy Installation
- Compatible with Standard AC LVDT Instruments
- Cores are Reversible and Interchangeable

The LD200 Series AC-powered LVDT displacement transducers are ruggedly constructed, delivering high performance at a low cost. Along with a broad measurement range, from 1.25 to 10 mm (0.05 to 0.40"), these transducers have high resolution and repeatability.

The coils are wound on a rugged bobbin housed in a stainless steel case. Epoxy-bonded construction makes these devices suitable for applications involving wet or oily environments, or high levels of mechanical stress (vibration, shock, etc.). The armature assembly ensures friction-free movement within the sensor because of the large radial clearance of the bore.

These transducers offer excellent linearity, low levels of residual voltage, and good temperature coefficients. They are thus ideal for most industrial or general purpose displacement measurement applications.

## SPECIFICATIONS

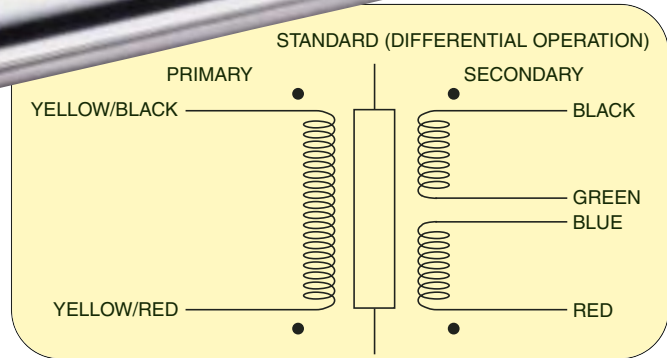
### ELECTRICAL

**Linearity:** See chart  
**Sensitivity:** See chart (mV/V/mm)  
**Excitation:** 1 to 10 Vrms  
**Excitation Frequency:** 1 to 10 kHz  
**Energizing Current:** <40 mA  
**Frequency Response:**  
 10% of excitation frequency

LD200-7.5, \$225, shown smaller than actual size.



LD200-10, \$260, shown smaller than actual size.



**Zero Offset:** 0.5% FS  
**Operating Temperature:**  
 -55 to 150°C (-67 to 302°F)  
**Compensated Temperature:**  
 -55 to 150°C (-67 to 302°F)  
**Thermal Effects:**  
**Zero:** 0.025%/°C  
**Sensitivity:** 0.020%/°F  
**Electrical Termination:**  
 0.3 m (12") leads  
**Electrical Connections:**  
**Yellow/Black:** Excitation  
**Yellow/Red:** Excitation  
**Black:** + Signal  
**Red:** Signal ground; connect blue and green together

### MECHANICAL

**Core Mass:**  
 LD200-1.25: 3.7 g (0.13 oz)  
 LD200-2.5: 6.2 g (0.22 oz)  
 LD200-5: 9.1 g (0.32 oz)  
 LD200-7.5: 11.3 g (0.40 oz)  
 LD200-10: 14.2 g (0.50 oz)  
**Core Thread:** 6-40 UNF  
**Core Material:** NiFe—Radio Metal 50  
**Radial Core Clearance:** 1.6 mm (0.062")  
**Case Material:** 400 Series SS  
**Case Weight:**  
 LD200-1.25: 33 g (1.16 oz)  
 LD200-2.5: 43 g (1.52 oz)  
 LD200-5: 48 g (1.73 oz)  
 LD200-7.5: 71 g (2.50 oz)  
 LD200-10: 74 g (2.61 oz)

MODEL NO.	Nominal Range		Linearity—Typical 2.5 kHz % of Full Scale				Sensitivity @ 2.5 kHz—Nom.	
	mm	in	50%	100%	125%	150%	mV/V/mm	mV/V/0.001"
LD200-1.25	$\pm 1.55$	$\pm 0.06$	0.10	0.25	0.25	0.50	250	6.35
LD200-2.5	$\pm 2.50$	$\pm 0.10$	0.10	0.25	0.25	0.50	180	4.50
LD200-5	$\pm 5.00$	$\pm 0.20$	0.10	0.25	0.25	0.50	100	2.54
LD200-7.5	$\pm 7.50$	$\pm 0.30$	0.10	0.25	0.25	0.50	57	1.40
LD200-10	$\pm 10.0$	$\pm 0.40$	0.10	0.25	0.25	0.40	35	0.90

### To Order (Specify Model Number)

### MOST POPULAR MODELS HIGHLIGHTED!

MODEL NO.	PRICE	COMPATIBLE INSTRUMENTS*
LD200-1.25	\$115	DP-LVDT, LDX-2, LDX-3A, LDX-4
LD200-2.5	165	DP-LVDT, LDX-2, LDX-3A, LDX-4
LD200-5	205	DP-LVDT, LDX-2, LDX-3A, LDX-4
LD200-7.5	225	DP-LVDT, LDX-2, LDX-3A, LDX-4
LD200-10	260	DP-LVDT, LDX-2, LDX-3A, LDX-4

\* See [omega.com](http://omega.com) for compatible instruments.

Comes with complete operator's manual.

Ordering Example: LD200-5, LVDT displacement transducer with a range of  $\pm 5$  mm ( $\pm 0.20$ " ), \$205.

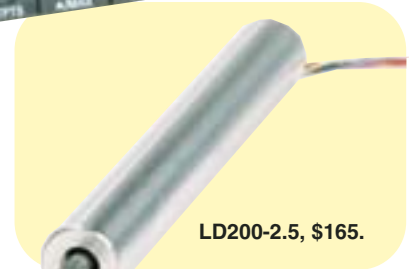
# AC-POWERED LVDT TRANSDUCERS



LDX-3A signal conditioner, \$480, see [omega.com](http://omega.com)

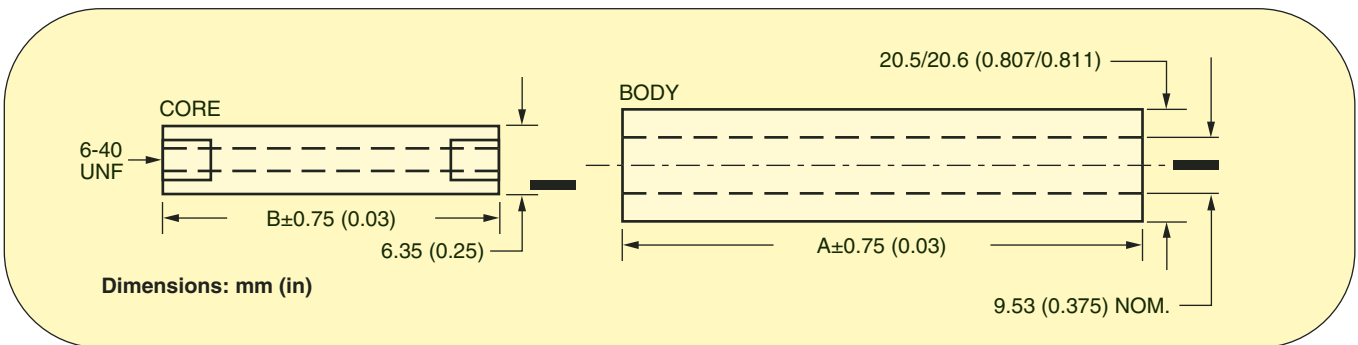


LD200-2.5, \$165, shown smaller than actual size with LDX-3A signal conditioner, \$480, and DP41-E meter, \$545, see [omega.com](http://omega.com)



LD200-10, \$260, shown smaller than actual size.

LD200-7.5, \$225, shown smaller than actual size.



Dimensions: mm (in)

MODEL NO.	LINEAR STROKE $\pm$ mm (in)	A	B
LD200-1.25	1.55 (0.06)	28.45 (1.12)	20.00 (0.80)
LD200-2.5	2.50 (0.10)	45.97 (1.81)	28.00 (1.10)
LD200-5	5.00 (0.20)	63.50 (2.50)	47.00 (1.85)
LD200-7.5	7.50 (0.30)	81.00 (3.19)	50.00 (1.97)
LD200-10	10.0 (0.40)	109.60 (4.31)	75.00 (2.95)



#### UNITED STATES

[www.omega.com](http://www.omega.com)  
1-800-TC-OMEGA  
Stamford, CT.

#### CANADA

[www.omega.ca](http://www.omega.ca)  
Laval(Quebec)  
1-800-TC-OMEGA

#### GERMANY

[www.omega.de](http://www.omega.de)  
Deckenpfronn, Germany  
0800-8266342

#### UNITED KINGDOM

[www.omega.co.uk](http://www.omega.co.uk)  
Manchester, England  
0800-488-488

#### FRANCE

[www.omega.fr](http://www.omega.fr)  
Guyancourt, France  
088-466-342

#### CZECH REPUBLIC

[www.omegaeng.cz](http://www.omegaeng.cz)  
Karviná, Czech Republic  
596-311-899

#### BENELUX

[www.omega.nl](http://www.omega.nl)  
Amstelveen, NL  
0800-099-33-44



## More than 100,000 Products Available!

### • Temperature

Calibrators, Connectors, General Test and Measurement Instruments, Glass Bulb Thermometers, Handheld Instruments for Temperature Measurement, Ice Point References, Indicating Labels, Crayons, Cements and Lacquers, Infrared Temperature Measurement Instruments, Recorders Relative Humidity Measurement Instruments, RTD Probes, Elements and Assemblies, Temperature & Process Meters, Timers and Counters, Temperature and Process Controllers and Power Switching Devices, Thermistor Elements, Probes and Assemblies, Thermocouples Thermowells and Head and Well Assemblies, Transmitters, Wire

### • Flow and Level

Air Velocity Indicators, Doppler Flowmeters, Level Measurement, Magnetic Flowmeters, Mass Flowmeters, Pitot Tubes, Pumps, Rotameters, Turbine and Paddle Wheel Flowmeters, Ultrasonic Flowmeters, Valves, Variable Area Flowmeters, Vortex Shedding Flowmeters

### • pH and Conductivity

Conductivity Instrumentation, Dissolved Oxygen Instrumentation, Environmental Instrumentation, pH Electrodes and Instruments, Water and Soil Analysis Instrumentation

### • Data Acquisition

Auto-Dialers and Alarm Monitoring Systems, Communication Products and Converters, Data Acquisition and Analysis Software, Data Loggers Plug-in Cards, Signal Conditioners, USB, RS232, RS485 and Parallel Port Data Acquisition Systems, Wireless Transmitters and Receivers

### • Pressure, Strain and Force

Displacement Transducers, Dynamic Measurement Force Sensors, Instrumentation for Pressure and Strain Measurements, Load Cells, Pressure Gauges, Pressure Reference Section, Pressure Switches, Pressure Transducers, Proximity Transducers, Regulators, Strain Gages, Torque Transducers, Valves

### • Heaters

Band Heaters, Cartridge Heaters, Circulation Heaters, Comfort Heaters, Controllers, Meters and Switching Devices, Flexible Heaters, General Test and Measurement Instruments, Heater Hook-up Wire, Heating Cable Systems, Immersion Heaters, Process Air and Duct, Heaters, Radiant Heaters, Strip Heaters, Tubular Heaters