

# Model DW7U DC-DC Submersible\* LVDT

Order Code AY250

- Submersible
- Stainless Steel
- +/- 0.5 to +/- 4.0 in. Range



## Dimensions



Range Codes	Available Stroke Ranges	L (in.)	X (in.)	Weight Armature (oz.)	Typical F.S. Output
HP	+/- 0.5 in.	8.00	1.5	0.75	+/- 5 VDC
HQ	+/- 1.0 in.	9.10	2.5	1.0	+/- 5 VDC
HR	+/- 2.0 in.	13.95	3.0	1.5	+/- 5 VDC
HS	+/- 3.0 in.	18.52	4.5	3.0	+/- 5 VDC
HT	+/- 4.0 in.	19.80	5.0	3.7	+/- 5 VDC

## Wiring Codes

### Dual Power Supply

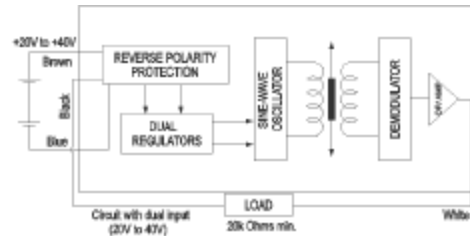
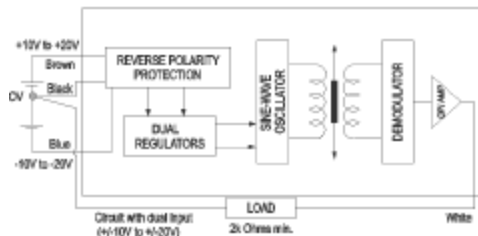
- Brown (+) Supply (+10 to +20 VDC)
- Blue (-) Supply (-10 to -20 VDC)
- Black (-) Output Common/ Supply Return
- White (+) Output +/-5 VDC (min. 2k Ohm across Black and White)

Reverse polarity protected with voltage regulator. Cable shield is not connected to transducer.

### Single Power Supply

- Brown (+) Supply (+20 to +40 VDC)
- Blue Supply Return
- Black (-) Output
- White (+) Output +/-5 VDC (min. Ohm across Black and White)

Reverse polarity protected with voltage regulator. Cable shield is not connected to transducer. Either black or blue must float. If both are grounded or connected together, the unit will be destroyed.



## Performance

- Stroke Range.....+/- 0.5 to 4.0 in.
- Non-Linearity (max.).....+/- 0.25% Full Scale
- Output Sensitivity.....See table above
- Noise.....30 mV p-p

## Environmental

- Temperature, Operating.....-40° to 158°F
- Temperature, Effect
  - Zero (max.).....0.005% Full Scale/°F
  - Span (max.).....0.015% Full Scale/°F
- Pressure Rating, Std.....150 psi, up to 3,000 psi with cable options

## Electrical

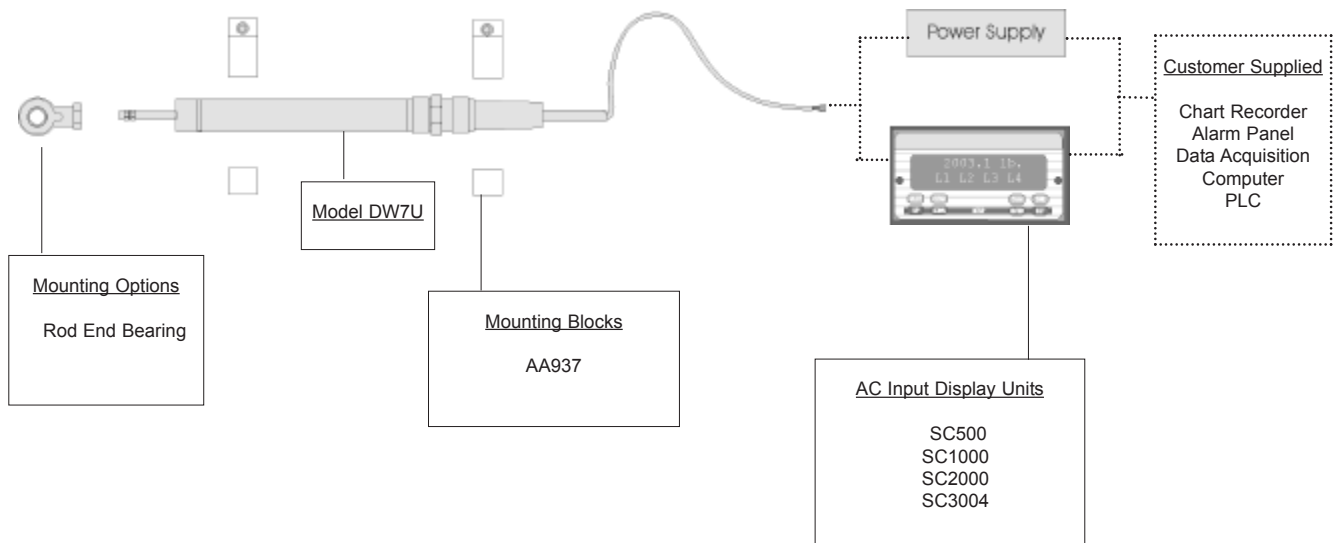
- Element Type.....DC-DC LVDT
- Input Supply (acceptable).....+/- 10 to 20 VDC unregulated (45 mA max.) or 20 to 40 VDC unregulated (45 mA max.)
- Electrical Termination.....Submersible mating connector with 16.5' cable

## Mechanical

- Material.....Stainless Steel
- Probe Material.....Stainless Steel
- Armature Type.....Free Unguided
- Probe Thread.....M5 x 0.8"
- Spring Force (max.).....Not Applicable

\*Not recommended for salt water use. Consult Factory for saltwater submersible applications.

## Typical System Diagram



## Options

	Fast Track Delivery	Built to Order
Stroke Ranges	+/- 0.5 to 4.0 in.	
Electrical Termination	Submersible mating connector with 16.5' cable	OPT1. No connector or cable, terminated with solder pins
Electrical Cable Orientation		OPT7. Radial outlet submersible connector with 16.5' cable
Improved Linearity	L10. +/- 0.1% max. linearity (less than or equal to +/- 4 in.)	

■ Supplied as standard

## Range Codes

Range	Range Code
+/- 0.5 in.	HP
+/- 1.0 in.	HQ
+/- 2.0 in.	HR
+/- 3.0 in.	HS
+/- 4.0 in.	HT

## Special Customer Requirements (Consult Factory)

Mineral insulated welded stainless steel sheathed cable  
 0.12" diameter cable  
 1 to 164 ft. lengths available  
 -67° to 390° F  
 3,000 psi  
 Output options of 0-10 or 4-20 mA available  
 T.E.D.S. IEEE 1451.4 module  
 Signature Calibration



-Not RoHS Compliant

## How to Order

The order code consists of the product model, the desired range code and the available options.

Sample Code: **AY250** **HQ** **L10**  
 Model Code Range Code Options Code