

Series LYC61X

Submersible Long Stroke LVDT Displacement Transducer,
DC/DC, Captive Armature



Description

The Series LYC61X submersible, long stroke, DC powered, LVDT is designed specifically for applications requiring displacement measurements while submerged in fresh water or most other non-corrosive liquids and gases for prolonged periods. Pressure ratings range from 145 psi to 3000 psi. The armature is captured in the LVDT housing and is guided by a low-friction bearing assembly. These LVDT's have a maximum stroke range of 1 to 37 inches. The Series LYC61X displacement transducers can be used for both static and dynamic applications. This position sensor operates from unregulated power supplies of +24 Vdc to +40 Vdc or dual ± 12 Vdc to ± 20 Vdc and utilizes an internal amplifier to generate a ± 5 Vdc output signal. These displacement transducers are ruggedly constructed of all stainless steel and are able to withstand harsh underwater environments such as mining, upstream oilfield, geophysical, and industrial processes. All Series LYC61X displacement transducers are shipped with traceable calibration certificates.

Standard Features

- Stroke ranges from ± 0.5 inches to ± 18.5 inches
- ± 5 Vdc – F.S. output
- Captive Armature
- Low Friction Bearing Assembly
- DC/DC
- $\pm 0.5\%$ Linearity
- Encapsulated Integral Electronics
- Broad Temperature Range
- All Stainless Steel Construction
- Traceable Calibration Certificate

Optional Features

- Improved Linearity
- Cable and Connector Offerings
- Mounting Blocks

Performance

Stroke Ranges

± 0.5 inches to ± 18.5 inches

Linearity

$\pm 0.5\%$ of full stroke max
 $\pm 0.25\%$ or ± 0.1 options on some ranges

Output Voltage

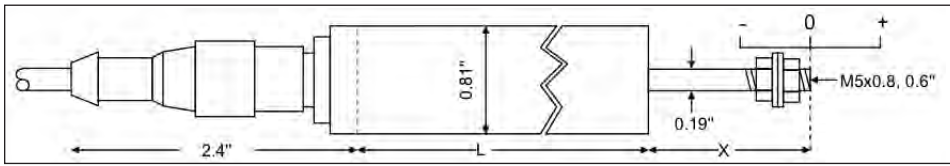
± 5 Vdc

LYC61X

Series LYC61X Specifications

Baseline Configuration Specs Represented.
Modifications Encouraged - See Below
Custom Designs Available

Dimensions (inches)



Range	Linearity error (% F.S.)	L	X	Total Weight	Inward over-travel	Outward over-travel
±0.5"	<±0.5	8.0"	1.5"	13oz	0.4"	1.1"
±1"	<±0.5	9.1"	2.5"	15oz	0.7"	1.0"
±2"	<±0.5	13.9"	3.0"	1.2lb	0.4"	1.1"
±3"	<±0.5	18.5"	4.5"	1.4lb	0.9"	1.1"
±4"	<±0.5	19.8"	5.0"	1.8lb	0.4"	1.1"
±6"	<±0.5	27.8"	7.0"	2.3lb	0.4"	1.4"
±8"	<±0.5	35.8"	10.0"	3.3lb	1.4"	1.6"
±10"	<±0.5	43.1"	12.0"	3.8lb	1.4"	1.9"
±15"	<±0.5	58.8"	16.0"	5.0lb	0.4"	1.1"
±18.5"	<±0.5	69.5"	20"	5.8lb	0.9"	1.4"

Mechanical Characteristics

Case Material
Stainless steel.

Armature Type
Captive Guided.

Probe Thread
M5 x 0.8.

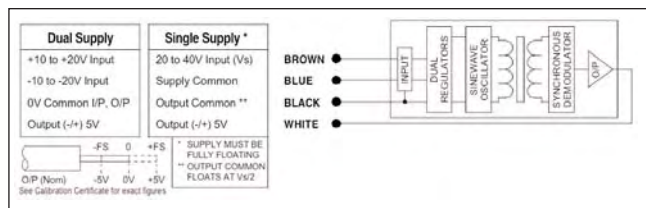
Pressure Rating
145 psi (standard).
3000 psi (maximum) – depends on cable exit option.

Set-ups

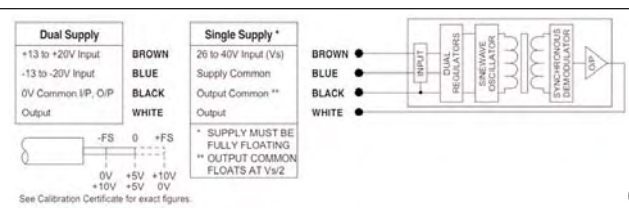
Please Specify Set-up Required:

	(-)	(0)	(+)
Standard			
1	0V	5V	10V(+0%-5%)
2	-5V(+0%-5%)	0V	+5V(+0%-5%)
Optional			
3	10V(+0%-5%)	5V	0V
4	+5V(+0%-5%)	0V	-5V(+0%-5%)

Connection Details - Standard



Connection Details - Optional



MODIFICATIONS: We realize LVDT applications vary greatly and as such our designs are flexible. Choice of electrical termination, material compatibility and performance characteristics are a few of the many options available. Specifications on this datasheet represent the standard configuration only. Product and company names listed are trademarks of their respective companies. Specifications subject to change without notice.

WARRANTY: Stellar Technology warrants that its product shall be free from defective workmanship and/or material for a twelve month period from the date of shipment, provided that Stellar Technology's obligation hereunder shall be limited to correcting any defective material FOB our factory. No allowance will be made for any expenses incurred for correcting any defective workmanship and/or material without written consent by Stellar Technology. This warranty is in lieu of all other warranties expressed or implied.

Find More Information at:
stellartech.com

Due to the nature of technology, changes are inevitable. For latest technical specifications, see our website.

Copyright © Stellar Technology Incorporated • All Rights Reserved
Datasheet P/N: 233644A

237 Commerce Drive • Amherst, NY 14228 • USA
Tel: 716.250.1900 • Fax: 716.250.1909
Email: info@stellartech.com

