



For use in:
Interceptor Valves
Governor Valves
Throttle Valves
Bypass Valves
Stop Valves

PG Series LVDT Linear Sensors

Specifically Designed and Engineered for Applications in Power Generating Steam Turbine Control Systems

Alliance Sensors PG Series LVDT linear position sensors are designed and engineered specifically for steam turbine valve position control system applications in electric power plants. Many of the features incorporated in the design were actually requested by power generation controls engineers. PG sensor models include the PGHD Heavy Duty LVDT and the PGSD Super Duty LVDT. Both PG versions are available on special order as mild radiation resistant for operation in BWR nuclear power plants.

The PG Series LVDT linear sensors are heavy duty, from the wire connection terminal block inside an IP-68 sealed heavy wall housing to the 3/8 inch outside diameter core rod in which the LVDT core is encased so that it can never vibrate loose or break off. A pair of double contact shaft seals for the core rod keep dirt and water out of the sensor's bore. An in-line ball joint coupling on the core connecting rod to take up minor installation misalignment is optionally available, along with other installation hardware such as hold-down clamps, threaded core extension rods, swivel rod eye ends, and mounting flanges. Electrical connections utilize a screw-clamp terminal block for 24 to 14 AWG wires that feed through a 3/4 inch conduit hub outfitted with a 1/2 inch conduit adapter. User-installable connectors are available.

Features:

- Core is enclosed in 3/8 inch (9.5 mm) diameter rod...cannot vibrate loose or break off
- Dual redundant double contact shaft seals keep contaminants out of LVDT's bore
- Works in 3-wire, 4-wire, 5-wire, 6-wire and ratiometric (A-B)/(A+B) systems
- Operates to 350°F (175 C) with over-temperature indicator built in
- Screw-clamp terminal block accepts 24 to 14 AWG wires
- 2 year warranty...twice the industry standard

Specifications:

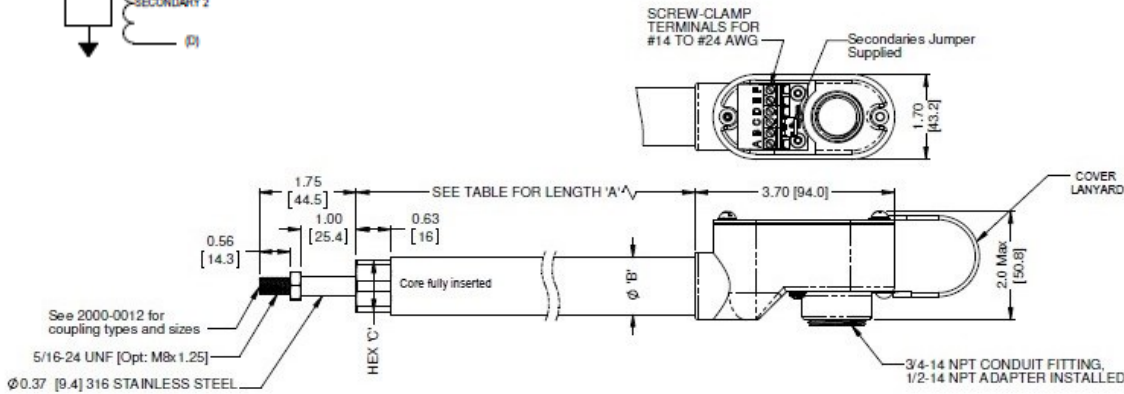
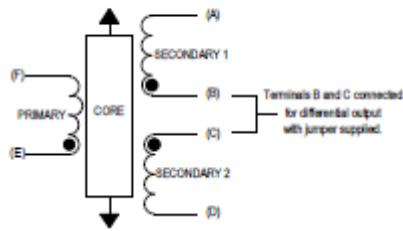
Excitation Frequency:	3 kHz nominal, (Primary Z: 600 Ohms $\pm 10\%$)
Excitation Voltage:	3 V ACrms nominal
Full Scale Output:	0.83 $\pm 10\%$ V ACrms output (nom.) from differentially connected (S1-S2) secondaries With 3 Vrms excitation; sum of secondaries output is constant over range for ratiometric (S1-S2)/(S1+S2) operation
Linearity Error:	$\pm 0.5\%$ of FSO max.
Operating Temperature:	-40 to 175 C (-40 to 350°F)
Temperature Coefficient:	$\leq \pm 0.025\%$ FSO/degree C
Vibration:	5-20 Hz, 0.5 inch p-p; 20-2000 Hz, 4.2 g p-p
Shock:	1000 g, 11 msec.

ALLIANCE SENSORS GROUP
A DIVISION OF H.G. SCHAEVITZ LLC

PG Series

Model	Body Diameter "B"	Hex C
PGHD	1.05 Inches [26.7 mm]	0.937 Inches [23.8 MM]
PGSD	1.32 Inches [33.5 mm]	1.125 Inches [28.6 MM]

Model No.	Linear Range	Body Length "A"	
PGXX-0203	3.00 Inches	6.50 Inches	165.1 MM
PGXX-0406	6.00 Inches	10.25 Inches	260.4 MM
PGXX-0609	9.00 Inches	13.25 Inches	336.6 MM
PGXX-0912	12.00 Inches	17.25 Inches	438.2 MM
PGXX-1215	15.00 Inches	21.25 Inches	539.8 MM
PGXX-1216	16.00 Inches	21.25 Inches	539.8 MM



Ordering Information:

Model	Version	Operating Range	Coupler Type	Standard Rod Coupler Size*
PG	XX-	XXXX-	XX-	(XX)
	HD Heavy Duty	0203 2 to 3 inches	BJ Ball Joint	6XL 3/8-24, 1 inch deep (3.5" OA)
	SD Super Duty	0406 4 to 6 inches		
		0609 6 to 9 inches		
		0912 9 to 12 inches	RN Rigid Nut	6L 3/8-24, 3/4 inch deep (1.75" OA)
		1215 12 to 15 inches		6XL 3/8-24, 1 inch deep (3.5" OA)
		1216 12 to 16 inches		
				See 2000-0012 for details.

*No size callout gets 6XL default

ALLIANCE SENSORS GROUP
A DIVISION OF H.G. SCHAEVITZ LLC

Alliance Sensors Group
102 Commerce Drive, Unit 8
Moorestown, New Jersey 08057 USA
Ph: 856-727-0250
www.alliancesensors.com
info@alliancesensors.com