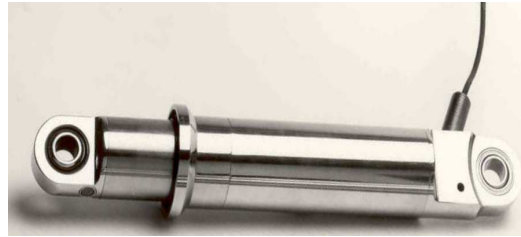


SHI Series LVDT

(Displacement Transducer)

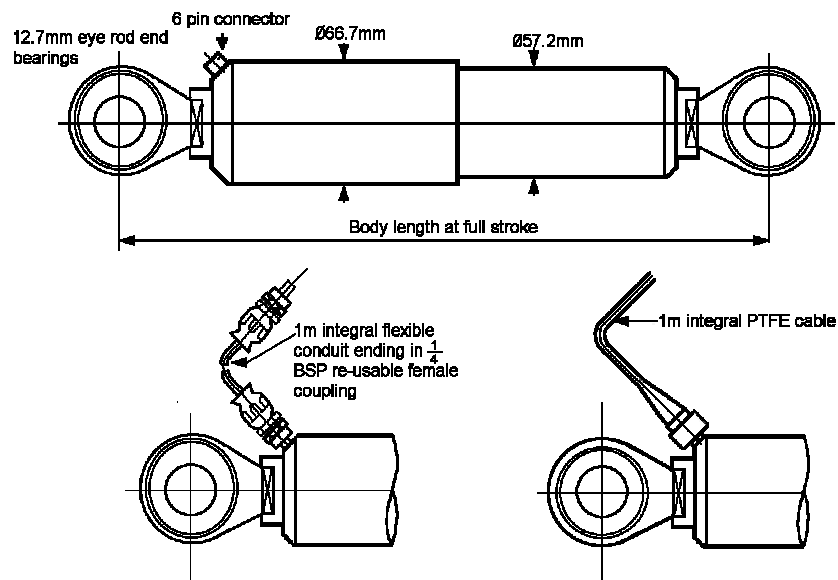


- Heavy industrial.
- Connector or integral cable.
- Up to 180°C operation.

The SHI short heavy industrial LVDT displacement transducer consists of a standard linear variable differential transformer housed within a robust stainless steel body. The concentric tubes of the telescopic assembly are guided by means of a linear bearing and are retained by rigid end stops within the body. The fixed and moving ends of the transducer are fitted with rod end bearings for mounting purposes.

The version was introduced to provide long working strokes within the minimum length bodies. The rugged and reliable construction of this series makes it particularly suited to heavy industrial applications and 'uncomfortable' environments. Of conventional LVDT principle these transducers are designed for use on low voltage AC supplies at frequencies between 50Hz and 5kHz.

The rod end bearings are screwed into the two body end sections and are fitted with lock nuts. The length of thread on one end bearing permits an adjustment of $\pm 6\text{mm}$ (± 0.25 inches) to provide a fine control of mechanical zero position.



Note: other cable and conduit lengths available.

Specifications

Input voltage	From less than 1V to 10V RMS
Input frequency.....	5Hz to 5kHz
Max. recommended primary current.....	20mA
Working temperature range.....	-40°C - +150°C (180°C integral cable)
Survival temperature range.....	-50°C to +150°C (180°C integral cable)
Linearity.....	Better than 0.5% full scale
Repeatability.....	Better than 0.02% reading
Body material.....	EN 58 (Non-magnetic stainless steel)
Core material.....	EN 56 (Magnetic stainless steel)
Calibration I/P signal.....	5V RMS @ 3kHz

Transducer Type SHL...	50	100	150	200	300	400	500	600
Total Displacement range (mm)	50	100	150	200	300	400	500	600
Output at full range (mV/V at 3kHz)	460	720	780	880	720	480	400	432
Null Voltage (%FRO)	0.4	1.2	1.6	0.7	0.2	0.6	0.8	0.2
Primary impedance at 3 kHz	200	550	550	420	320	340	390	350
Primary resistance (Ohms)	120	180	260	260	200	480	300	250
Secondary Impedance	200	350	560	470	500	610	670	410
Secondary Resistance total (Ohms)	190	340	470	460	450	800	400	390
Zero phase frequency (kHz)	3.8	3.75	4	3.75	3	5	4.1	4.5
Weight excl. cable (g)	4.5	5	5.5	6	7	8	9	10
Body length (mm)	381	508	610	965	1194	1200	1397	1626

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