
LVDT (Linear Variable Differential Transformers)

is a displacement sensor that operates according to the inductive transformation principle.

The position is measured by means of a push rod either free or touching the moving object through a spring contact.

The push rod of an LVDT can be equipped with different heads. (e.g., ball tips, plates, rollers)

Construction is fully stainless steel and environment protected up to IP69K rated for protection against pressure media even like hydraulic oils or fuels.

Key-Features:

- Free threaded push rod or Spring-loaded
- Measurement ranges up to ± 25 mm, longer strokes are optional
- Linearity $< \pm 0.5$ % of Full-Scale Output
- Resolution – Infinite
- Thermal Drift < 500 PPM/ $^{\circ}\text{C}$
- Analog output with signal conditioner - 0...5V DC, 0...10 V DC, ± 5 V DC, ± 10 V DC, 04...20 mA
- Protection class IP65 Standard; available up to IP69K
- Temperature range $-40...+85$ $^{\circ}\text{C}$
- Available with professional-grade cable or connector

Applications:

- Power Turbines
- Hydraulics
- Aircrafts
- Satellite
- Factory Automation
- Servo Mechanism
- Material testing
- Thickness measurement and control at the micron level

1. LVDT Without Spring Load Option

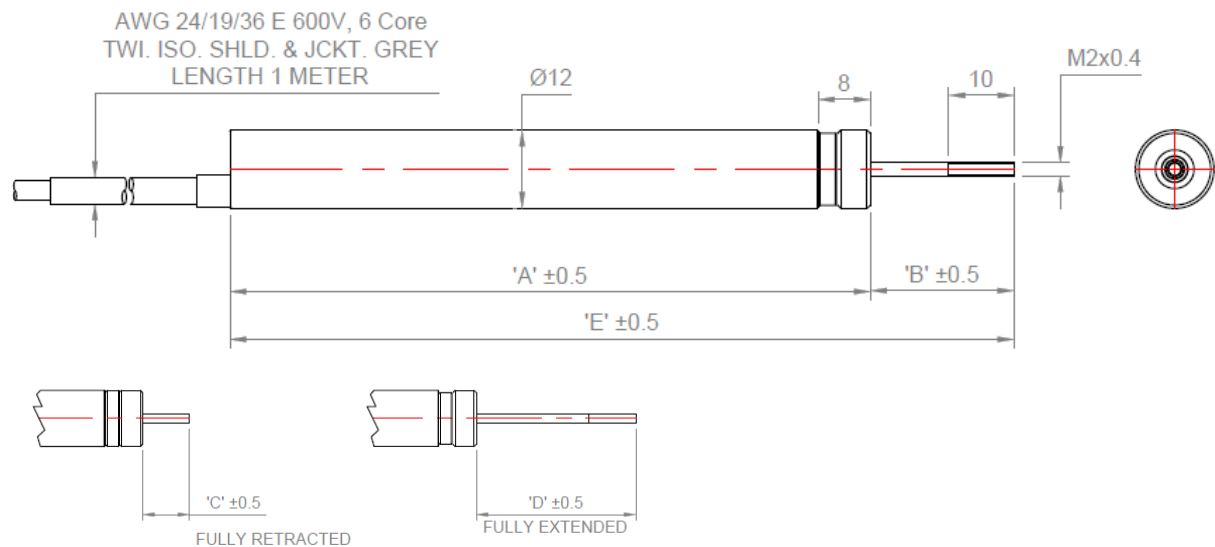
Electrical Data:

Stroke (mm)	Electrical stroke	± 1	± 2	± 5	± 10	± 16	± 25
	Mechanical stroke	± 1.5	± 3	± 7	± 12	± 18	± 27
Electrical specifications at 25°C	Sensitivity (mV/V/mm) ± 10%	Typ	Typ	33	43	Typ	9
	Primary DC Resistance (Ohm), ± 10%	24	50	80	115	150	195
	Secondary DC Resistance (Ohm)	<200	<250	<100	<210	<250	<300
	Input voltage (primary)	3 Vrms					
	Input voltage Frequency (primary excitation)	3000 Hz					
	Linearity	< ± 0.5 % F.S.					
	Resolution	Infinite					
	Phase primary to secondary (Degrees)	< 15°					
	Thermal drift	< 500 ppm/°C					
	Null voltage	< 15 mVrms					
Insulation resistance	> 50 Mohm at 500 VDC						
Environment	Operating temperature	- 40 °C to + 85 °C					
	IP	IP 65 (Available up to IP69K)					

1.1 ILT12 AC / AC LVDT – Without Connector



➤ Technical Drawing



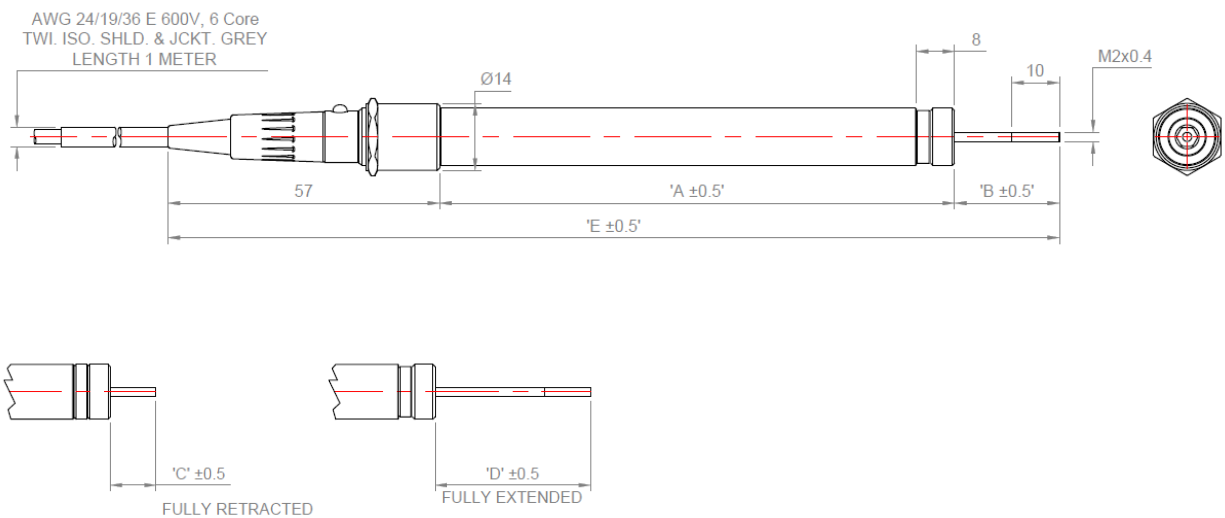
➤ Mechanical Data

Stroke (mm)	Electrical stroke	± 1	± 2	± 5	± 10	± 16	± 25
	Mechanical stroke	± 1.5	± 3	± 7	± 12	± 18	± 27
Dimensions	A	53	73	78	98	133	173
	B	11.5	13	17	22	28	37
	C	10	10	10	10	10	10
	D	13	16	24	34	46	64
	E	64.5	86	95	120	161	210

1.2 ILT12 AC / AC LVDT - With Connector



➤ Technical Drawing



➤ Mechanical Data

Stroke (mm)	Electrical stroke	± 1	± 2	± 5	± 10	± 16	± 25
	Mechanical stroke	± 1.5	± 3	± 7	± 12	± 18	± 27
Dimensions	A	63	83	88	108	143	183
	B	11.5	13	17	22	28	37
	C	10	10	10	10	10	10
	D	13	16	24	34	46	64
	E	131.5	153	162	187	228	277

2. LVDT With External Spring Load Option

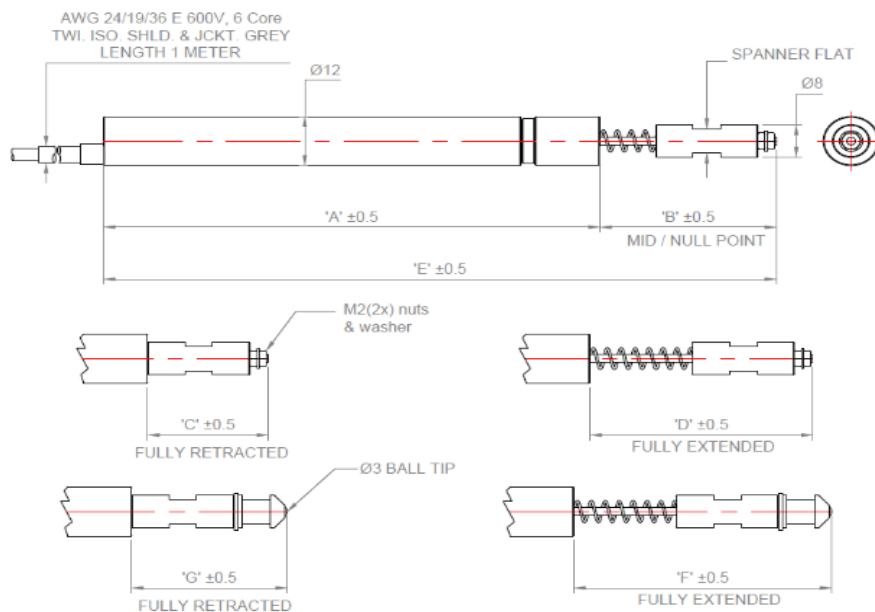
Electrical Data:

Stroke (mm)	Electrical stroke	± 1	± 2	± 5	± 10
	Mechanical stroke	± 1.5	± 3	± 7	± 12
Electrical specifications at 25°C	Sensitivity (mV/V/mm) ± 10%	Typ	Typ	33	43
	Primary DC Resistance (Ohm), ± 10%	24	50	80	115
	Secondary DC Resistance (Ohm)	<200	<250	<100	<210
	Input voltage (primary)	3 Vrms			
	Input voltage Frequency (primary excitation)	3000 Hz			
	Linearity	< ± 0.5 % F.S.			
	Resolution	Infinite			
	Phase primary to secondary (Degrees)	< 15°			
	Thermal drift	< 500 ppm/°C			
	Null voltage	< 15 mVrms			
	Insulation resistance	> 50 Mohm at 500 VDC			
Environment	Operating temperature	- 40 °C to + 85 °C			
	IP	IP 65 (Available up to IP69K)			

2.1 ILT12 AC / AC LVDT - Without Connector, Spring Load



➤ Technical Drawing



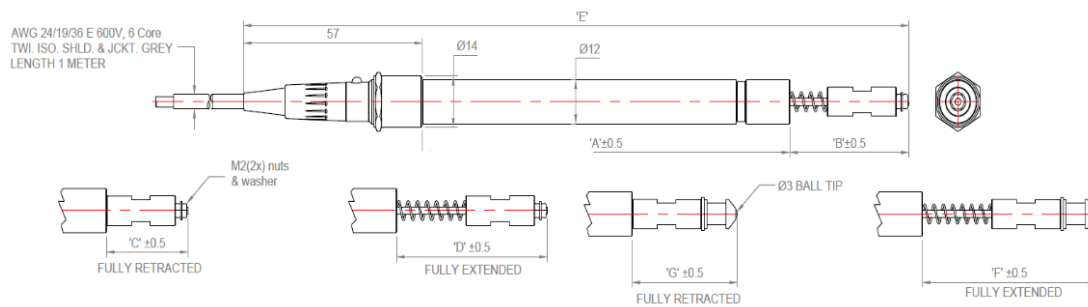
➤ Mechanical Data

Stroke (mm)	Electrical stroke	± 1	± 2	± 5	± 10
	Mechanical stroke	± 1.5	± 3	± 7	± 12
Dimensions	A	62	82	87	107
	B	27.5	29	33	38
	C	26	26	26	26
	D	29	32	40	50
	E	89.5	111	120	145
	F	36.5	39.5	47.5	57.5
	G	33.5	33.5	33.5	33.5

2.2 ILT12 AC / AC LVDT - With Connector, Spring Load



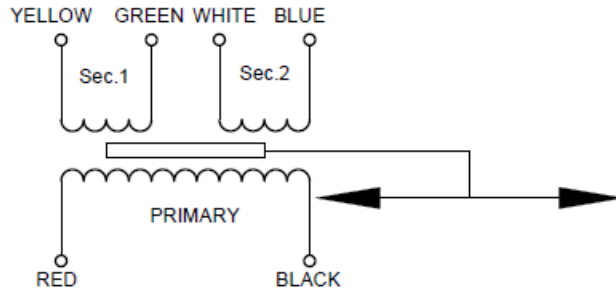
➤ Technical Drawing



➤ Mechanical Data

Stroke (mm)	Electrical stroke	± 1	± 2	± 5	± 10
	Mechanical stroke	± 1.5	± 3	± 7	± 12
Dimensions	A	72	92	97	117
	B	27.5	29	33	38
	C	26	26	26	26
	D	29	32	40	50
	E	156.5	178	187	212
	F	36.5	39.5	47.5	57.5
	G	33.5	33.5	33.5	33.5

Output Drawing:



NOTE: FOR CENTER TAP SHORT GREEN AND WHITE

Order Code:

