

Standard Series LVDT

# DISPLACEMENT TRANSDUCER

AML/E  
Series



- Ranges  $\pm 0.5\text{mm}$  to  $\pm 500\text{mm}$
- Stainless Steel Construction
- Simple Installation
- Versatile Packaging, giving many Standard Mounting Options
- Wide Variety of Different Outputs; mVac, 0-5Vdc, 0-10Vdc, 4-20mA,  $\pm 2.5\text{Vdc}$
- Ideally Suited for OEM Applications.
- 3 YEAR WARRANTY

#### Options Available

Longer cable lengths available on request.

Improved Linearity on DC versions.

Higher temperature versions (consult factory).

Custom design versions available (consult factory)

#### **DESCRIPTION**

The AML/E series of Standard LVDT Displacement Transducers can be AC or DC powered and are widely used in OEM and general purpose applications such as material testing machines, automotive/aerospace test rigs and actuators, etc.

They are supplied in a variety of packaging formats, enabling engineers to select quickly and precisely, the product required for a particular application.

The AML/E is supported with a versatile range of instrumentation to enable engineers to implement the sensor with the minimum of fuss within a system. Supporting instrumentation includes trip amplifiers, indicators, PC interfaces, rack systems, etc.

Transducer Specialists...

## APPLIED MEASUREMENTS LIMITED

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# SPECIFICATION

CHARACTERISTICS	AML/E---	AML/EJ---	AML/EU---	AML/EU--- -10	AML/EI---	AML/ED---	UNITS
Stroke Measurement Range:	±0.5, ±2.5, ±5, ±10, ±12.5, ±15, ±25, ±50, ±75, ±100, ±125, ±150, ±175, ±200, ±250 ±300, ±400, ±500 (maximum stroke is ±100 for Sprung Loaded Core & Extension - Option S)						millimetres
Signal Output:	See Table Below		0-5volt	0-10volt	4-20mA	±2.5volt	
No. of Wires	6	4	3	3	3	4	
Supply Voltage (unregulated):	2 to 5Vrms @ 1 to 5kHz		10-24Vdc	14-24Vdc	14-24Vdc	12Vdc regulated	
Supply Current:	-		35mA @ 15V	35mA @ 15V	-	35mA @ 12V	
Max. Loop Resistance:	-		-	-	300 @ 30V	-	ohms
Max. Output Sink Current:	-		0.5	1	-	0.1	milliamps
Non-Linearity:	<0.50						±% Stroke Range
Repeatability:	<0.10						±% Stroke Range
Output Bandwidth:	180		300	300	300	300	Hz
Output Ripple:	-		30mV max.	30mV max.	0.1% @ 20mA	30mV max.	
Operating Temperature Range:	AML/E & EJ: -30 to +85 Std. / -30 to +150 Opt.			0 to +70 on DC/DC models			°C
Zero Temperature Coefficient:	<0.020		<0.010				±%Stroke Range/°C
Span Temperature Coefficient:	<0.020		<0.030				±%Stroke Range/°C
Vibration Resistance:	20g up to 2kHz						
Shock Resistance:	1000g for 10milliseconds						
Construction Material:	Stainless Steel (core and case)						
Connections:	2 metre long screened cable exiting axially (radial exit optional - request option C)						
Environmental Sealing:	IP54						

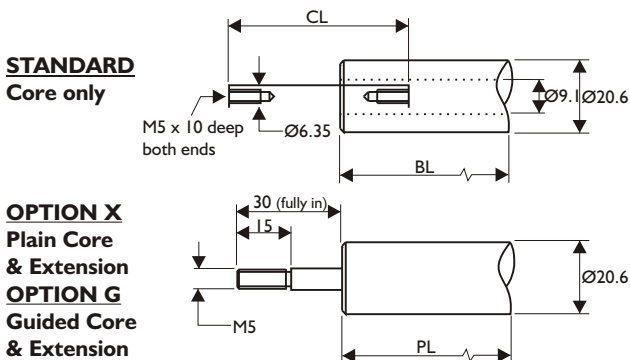
## Dimensions for AC Units with Radial Cable exit (AML/E & AML/EJ) only

Note - add 10mm to length of sensor if axial cable option is selected

STROKE (mm)	Core Extension STANDARD		Core Extension OPTIONS X & G		Core Extension OPTION R	AML/E & EJ Output Sensitivity @3kHz (mV/V)
	BL	CL	PL	SL		
±0.5	25	15	25	50	111	50
±2.5	32	15	32	57	118	90
±5	73	29	73	98	159	80
±10	77	35	77	98	159	280
±12.5	92	35	92	117	178	300
±15	120	50	120	145	206	230
±25	160	76	160	185	246	240
±50	246	115	246	271	332	320
±75	320	138	320	345	406	350
±100	377	140	377	n/a	463	190
±125	435	152	435	n/a	521	300
±150	512	165	512	n/a	598	330
±175	563	180	563	n/a	649	310
±200	628	185	628	n/a	714	300
±250	750	170	750	n/a	836	350
±300	850	185	850	n/a	936	400
±400	1100	250	1100	n/a	1186	460
±500	1350	314	1350	n/a	1436	390

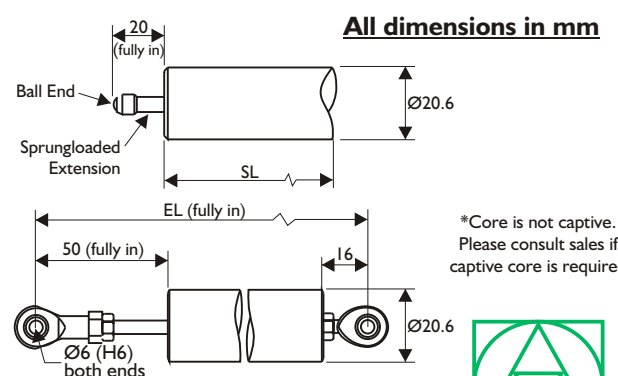
## Dimensions for DC units only (Models: AML/EU, AML/EU-10, AML/EI & AML/ED)

STROKE (mm)	Core Extension STANDARD		Core Extension OPTIONS X & G		Core Extension OPTION R
	BL	CL	PL	SL	
±0.5	75	15	75	100	151
±2.5	82	15	82	107	158
±5	123	29	123	148	199
±10	123	35	123	148	199
±12.5	142	35	142	167	218
±15	170	50	170	195	246
±25	210	76	210	235	286
±50	296	115	296	321	372
±75	370	138	370	395	446
±100	427	140	427	n/a	503
±125	485	152	485	n/a	561
±150	562	165	562	n/a	638
±175	613	180	613	n/a	689
±200	678	185	678	n/a	754
±250	800	170	800	n/a	876
±300	900	185	900	n/a	976
±400	1150	250	1150	n/a	1226
±500	1400	314	1400	n/a	1476



**OPTION S Sprung Loaded Core & Extension**

**OPTION R Guided Core\* & Extension with Rod End Bearings**



\*Core is not captive. Please consult sales if captive core is required

# APPLIED MEASUREMENTS LIMITED

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Continuous product development may result in minor changes to published specifications.