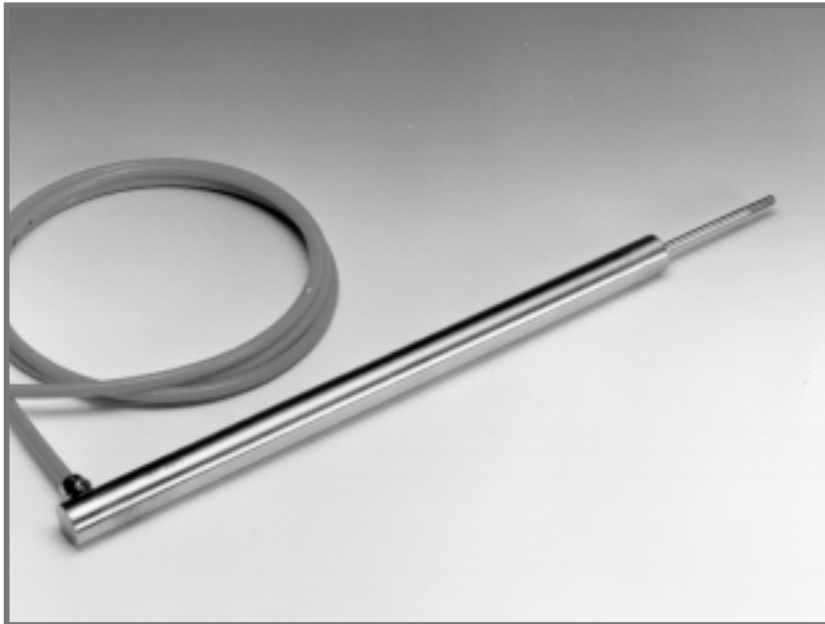


Industrial Series LVDT

# DISPLACEMENT TRANSDUCER

AML/IE  
Series



- Ranges  $\pm 0.5\text{mm}$  to  $\pm 550\text{mm}$
- Robust Stainless Steel Construction
- Guided Core as Standard
- Sealed to IP65 (IP68 optional)
- Armoured Cable
- Simple Installation
- Wide Variety of Different Outputs; mVac, 0-5vdc, 0-10vdc, 4-20mA,  $\pm 2.5\text{vdc}$

#### Options Available

Environmental sealing to IP68.

Extension Rod Wiper.

Axial Cable Exit.

Longer cable lengths available on request.

Integral bayonet lock connector.

Improved Linearity on DC versions.

Higher temperature versions (consult factory).

Custom design versions available (consult factory).

## DESCRIPTION

The AML/IE series of Industrial LVDT Displacement Transducers can be AC or DC powered and are widely used in Industrial applications where a rugged construction and excellent environmental sealing are essential. The AML/IE has been widely used in Process Plants, Paper Mills and Industrial Test rigs.

They are of robust construction, manufactured from stainless steel, sealed to IP65 (IP68 optional) and with armoured cable. Supplied in a variety of packaging formats they enable engineers to select quickly and precisely, the product required for a particular application.

The AML/IE 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/IE---	AML/IEJ---	AML/IEU---	AML/IEU--- -10	AML/IEI---	AML/IED---	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, ±550 (maximum stroke is ±75 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		10-30Vdc	14-30Vdc	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 radially (axial exit optional - request option A)						
Environmental Sealing:	IP65 (IP68 optional)						

## Dimensions for AC Units (AML/IE & AML/IEI) only

STROKE (mm)	Core Extension STANDARD	Core Extension OPTION S	Core Extension OPTION R	AML/IE & IEJ Output Sensitivity @3kHz (mV/V)
	PL	SL	EL	
±0.5	80	80	146	50
±2.5	90	90	166	90
±5	115	115	181	80
±10	130	130	196	280
±12.5	160	160	226	300
±15	175	175	241	230
±25	235	235	301	240
±50	320	320	386	320
±75	390	390	456	350
±100	450	n/a	516	190
±125	500	n/a	566	300
±150	560	n/a	626	330
±175	615	n/a	681	310
±200	700	n/a	766	300
±250	810	n/a	876	350
±300	920	n/a	986	400
±400	1150	n/a	1216	460
±500	1410	n/a	1476	390
±550	1410	n/a	1476	430

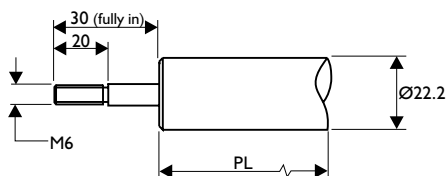
## Dimensions for DC units only

(Models: AML/IEU, AML/IEU-10, AML/IEI & AML/IED)

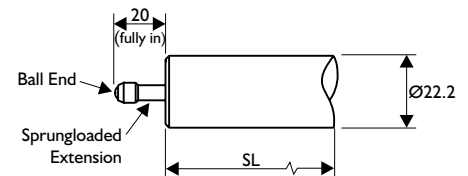
STROKE (mm)	Core Extension STANDARD	Core Extension OPTION S	Core Extension OPTION R
	PL	SL	EL
±0.5	130	130	196
±2.5	140	140	206
±5	165	165	231
±10	180	180	246
±12.5	210	210	276
±15	225	225	291
±25	285	285	351
±50	370	370	436
±75	440	440	506
±100	500	n/a	566
±125	550	n/a	616
±150	610	n/a	676
±175	665	n/a	731
±200	750	n/a	816
±250	860	n/a	926
±300	970	n/a	1036
±400	1200	n/a	1266
±500	1460	n/a	1526
±550	1460	n/a	1526

All dimensions in mm

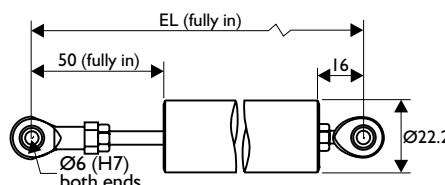
**STANDARD**  
Plain Core  
& Extension



**OPTION S**  
Sprung  
Loaded Core  
& Extension



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



**APPLIED MEASUREMENTS LIMITED**

Issue 02/06



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