

Strain Gauge Based

DISPLACEMENT TRANSDUCER

AML/SGD
Series



- 0-10mm & 0-25mm Ranges
- Strain Gauge Based Design
- High Output Signal
- Excellent Accuracy ($< \pm 0.1\%$)
- Good Thermal Stability
- Compact Size - Simple To Install
- 3 YEAR WARRANTY

DESCRIPTION

The SGD series of displacement transducers produce a linearly proportional voltage output in relation to the movement of a captive and guided spindle arrangement.

The design principle incorporates a 4-arm active wheatstone bridge with a nominal impedance of 350ohms. This concept ensures an excellent non-linearity, low current consumption and good temperature stability.

Their compact size and rugged construction make them ideal for use in a diverse range of applications, including; Research and Development, Industrial, Aerospace, Civil Engineering and Automotive.

Being strain gauge based, they are compatible with a broad range of standard analogue and digital instrumentation as used on load cells, pressure transducers and torque sensors.

Transducer Specialists...

APPLIED MEASUREMENTS LIMITED

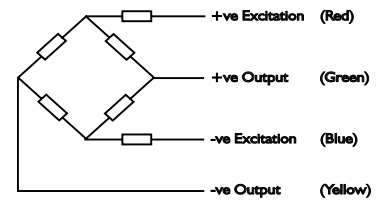
3 MERCURY HOUSE - CALLEVA PARK - ALDERMASTON - BERKSHIRE - RG7 8PN - UK

Tel: (+44) 0118 981 7339 Fax: (+44) 0118 981 9121 email: info@appmeas.co.uk Internet: www.appmeas.co.uk



SPECIFICATION

Wiring Schematic Diagram



CHARACTERISTICS	AML/SGD		UNITS
Stroke Length:	0-10	0-25	mm
Rated Output:	5.4	7.3	mV/V
Non-Linearity:	<0.10		±% of Rated Output
Repeatability:	<0.10		±% of Rated Output
Zero Balance:	100		Kohms
Operating Temperature Range	-10 to +60		°C
Temperature Effect On Output:	<0.010		±% of Rated Output/ °C
On Zero:	<0.010		±% of Rated Output/ °C
Safe Overload:	See note 4 below		
Excitation:	2-10		Volts AC or DC
Current Consumption:	6-29		mA
Input Resistance:	350		Ohms nominal
Output Resistance:	350		Ohms nominal
Insulation Resistance:	>2000		Megaohms
Spring Force:	50-250		gf (progressive)
Construction:	Stainless Steel/Aluminium		
Environmental Protection:	IP54		
Cable:	2 Metre 4 Core Screened, bend radius 10mm		
Weight:	130	140	grams

Operational Notes:

1. The outer case must not be distorted when clamping the sensor. A full diameter clamp is advised.
2. The sensor is not recommended for use in hostile environments without additional protection.
3. Special tools are required to remove the plunger tip (anvil) to avoid damage to the spindle.
4. With the plunger tip (anvil) attached this forms a positive overload protection stop. If the anvil is removed, the threaded end of the plunger must not be allowed to enter the case.

