

Displacement Sensors

Probe with direct analogue output

Position feedback and linear displacement measurement

G Type

Description

The G-Type of Analogue DC/DC Displacement probes are based on the LVDT sensing principle and feature a high accuracy and long life linear ball bearing (as AX-Series). All models incorporate a Linear Variable Differential Transducer (LVDT) as the measuring element, together with high performance conditioning electronics for low noise and superior linearity while being able to cope with a wide supply range.

The G-Type Analogue Displacement probe range has evolved from its predecessor DG series with marked improvement in features and performance. This product offers a perfect solution for various displacement applications with a good linearity and repeatability:

- Extended measurement range up to 20mm
- 4-20 mA output
- Line regulation
- Metal end cap
- Better front bearing
- Wide input power range does not change output voltage

Features

±1, ±2.5, ±5, +/-10mm measurement range
DC Unipolar, Bipolar and 4-20 mA output
Excellent repeatability: <0.15 µm
Linearity 0.2% FSO
Precision ball bearings
Large selection of probe tips.
3D drawings available



Precision. Quality. Reliability

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Technical Specification

Generic Sensor Types

Voltage Output (DC Bipolar)
Voltage Output (DC Unipolar)
Current Output (4 – 20 mA)

WG/2/S	WG/5/S	WG/10/S	WG/20/S
VG/2/S	VG/5/S	VG/10/S	VG/20/S
IG/2/S	IG/5/S	IG/10/S	IG/20/S

Measurement

Measurement Range (mm)
Pre - Travel (mm)
Post - Travel (mm)
Linearity (% FSO)
Repeatability (micron)
Temperature coefficients (%FSO/°C)

2	5	10	20
0.15			
0.85			
<+/- 0.2			
0.15			
<0.02			

Mechanical

Body Diameter -1 (mm)
Body Diameter -2 (mm)
Case Material
Tip Force@Electrical zero (+/-10%)
Cable Type
Standard Cable Length
Standard Cable Style
Nominal Mass (g) (+/- 5)

19			
8			
400 Series			
0.7N			
PU			
3M			
Screened			
34	34	55	58

Environmental

Operating Temperature (°C)
Storage Temperature (°C)
Sealing
Vibration

+5 to +65			
-20 to +85			
IP60			
1 to 10g rms linear 10 to 50Hz			
10 g rms linear 50 Hz to 1 kHz			

Technical Specification

Generic Sensor Types

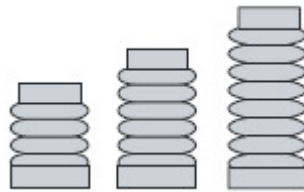
Electrical Interface

	All Voltage Models	All Current Models
Input	10 to 30 VDC	4 – 20 mA Loop Powered
Ripple (DC Output - %FSO)	0.20	
Bandwidth	500Hz	

Electrical Connections

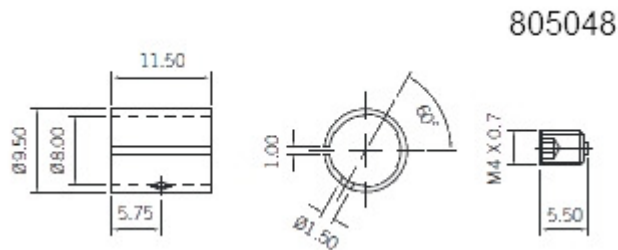
Red	V Supply +	4 – 20 mA Loop Powered (+)
Blue	V Supply -	4 – 20 mA Loop Powered (-)
White	V Output +	
Green	V Output gnd	
Black and Screen	Earth	

Replacement Gaiters



Gaiters can be replaced when damaged.

Clamping Collet

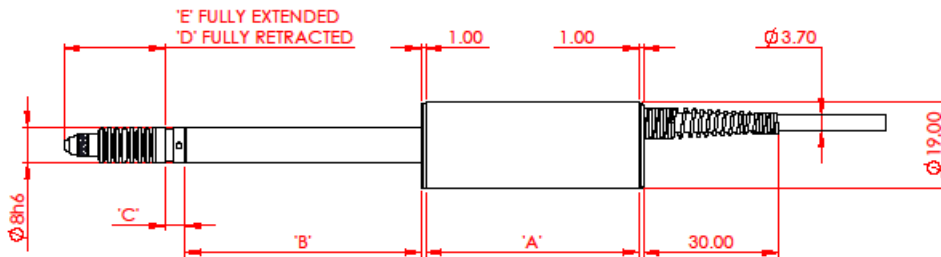


For use with all 8 mm clamping shaft sensors. The clamping collet distributes the clamping forces evenly around the shaft. Using the supplied grub screw, the probe can be loosened while holding the collet in place.

Probe Tips

Various probe tips are available.

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Probe Designation	'A' mm	'B' mm	'C' mm	'D' mm	'E' mm
VG/2/S	47.00	28.00	3.75	13.10	16.10
VG/5/S	47.00	28.00	4.25	14.10	20.10
VG/10/S	47.00	52.00	4.25	16.60	27.60
VG/20/S	47.00	92.00	3.10	26.10	47.10
IG/2/S	42.00	33.00	3.75	13.10	16.10
IG/5/S	42.00	33.00	4.25	14.10	20.10
IG/10/S	42.00	57.00	4.25	16.60	27.60
IG/20/S	42.00	97.00	3.10	26.10	47.10
WG/2/S	47.00	28.00	3.75	13.10	16.10
WG/5/S	47.00	28.00	4.25	14.10	20.10
WG/10/S	47.00	52.00	4.25	16.60	27.60
WG/20/S	47.00	92.00	3.10	26.10	47.10

G SERIES RANGE

DIMENSIONS ARE NOMINAL AND SPECIFIED IN MILLIMETRES
SOLARTRON PURSUES A POLICY OF CONTINUOUS DEVELOPMENT.
SPECIFICATIONS IN THIS DOCUMENT MAY THEREFORE BE CHANGED WITHOUT NOTICE.

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Solartron pursues a policy of continuous development. Specifications in this document may therefore be changed without notice.

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