

## G-Type Sensors

**Sensors with direct analogue output. Use for position feedback and linear displacement measurement**

The G-Type of analogue DC/DC displacement probes are based on the LVDT sensing principle and features 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.

This product offers a perfect solution for various displacement applications with a good linearity and repeatability:

### Features

- 2, 5, 10 and 20 mm measurement range
- +/- 10V DC, 0-10V DC 4-20 mA output options
- Excellent repeatability: <math><0.15 \mu\text{m}</math>
- Linearity 0.2% FSO
- Precision ball bearings
- Large selection of probe tips
- Line regulation
- Metal end cap
- Better front bearing
- Wide input power range does not change output voltage
- 3D drawings available



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## Technical Specifications

Voltage output (DC Bipolar +/- 10V)
Voltage output (DC Unipolar 0-10V)
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 -A ( mm )
Body diameter -B ( mm )
Case material
Tip force @ mid range
Cable type
Standard cable length
Standard cable style
Nominal mass ( g ) ( +/- 5 )

19			
8			
400 Series			
0.7N			
PUR			
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			
10g rms linear 50 Hz to 1 kHz			

## Technical Specifications

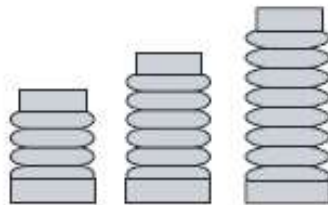
### Electrical interface

	All voltage models	All current models
Input	10 to 30 VDC @30mA (Typical)	4 – 20 mA loop powered
Ripple (DC Output - %FSO)	0.20	
Bandwidth	500Hz	

### Electrical connections

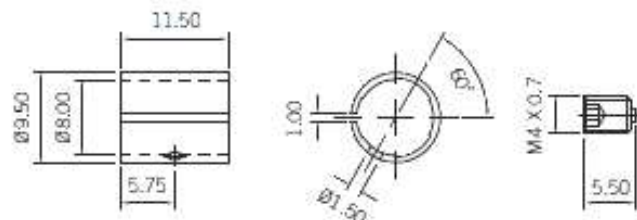
Red	V Supply +	4 – 20 mA loop powered (+)
Blue	V Supply -	4 – 20 mA loop powered (-)
White	V Output +	
Green	V Output gnd	
Screen	Earth	

### Replacement Gaiters



Gaiters can be replaced when damaged.

### Clamping Collet



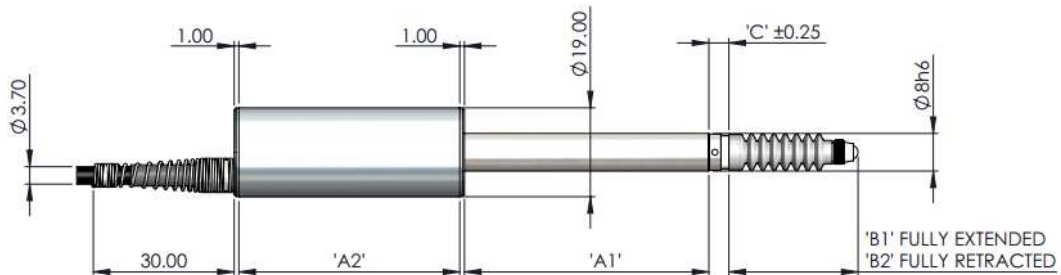
For use with all 8 mm clamping shaft sensors. The clamping collet distributes the clamping forces evenly around the shaft. Using the supplied grub screw, the probe can be loosened while holding the collet in place.

### Probe Tips

Various probe tips are available.

## Dimensional drawing

*(Solartron pursues policy of continuous development, specifications in this document may therefore be changed without notice, dimensions are nominal and specified in millimetres)*

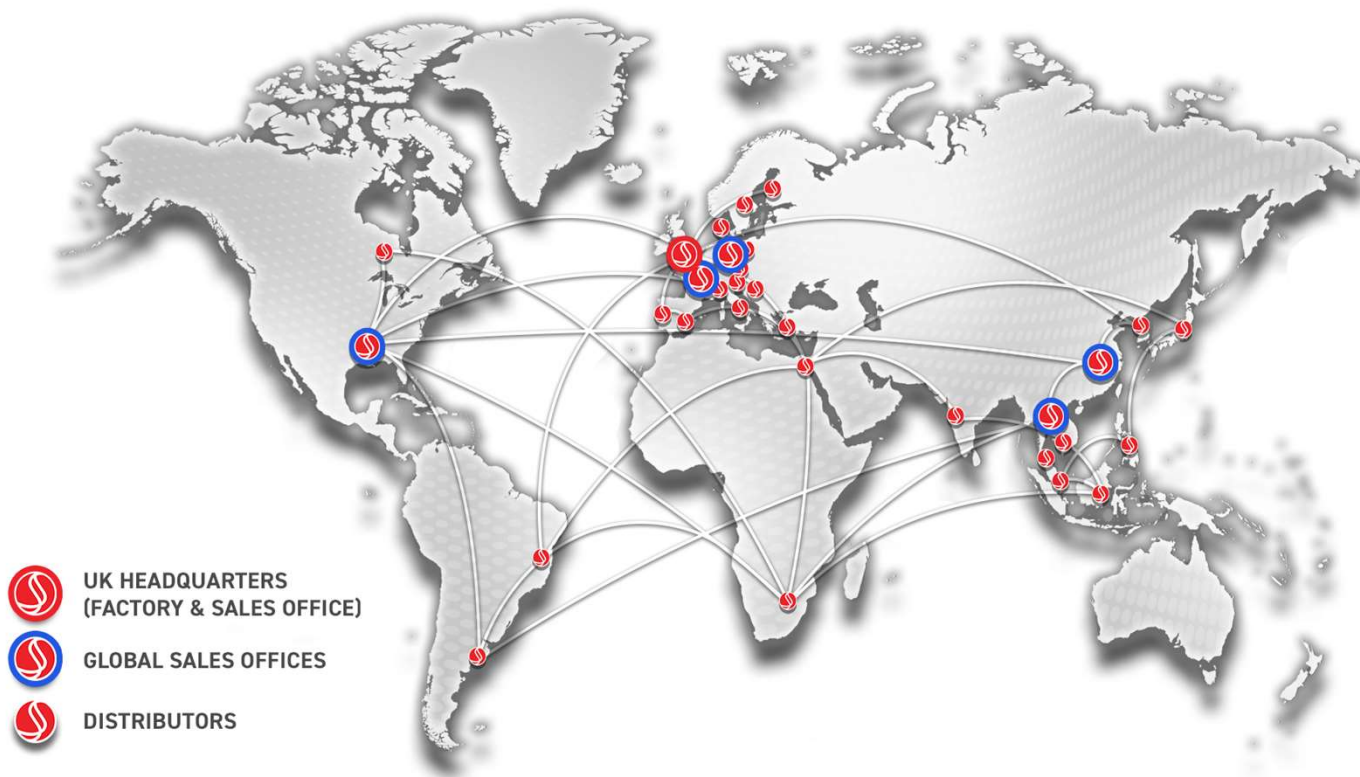


Probe Designation	'A2' mm	'A1' mm	'C' mm	'B2' mm	'B1' mm	Pre-travel mm	Measurement Range mm	Post-travel mm
VG/2/S	47.00	28.00	3.75	13.00	16.00	0.15	2.00	0.85
VG/5/S	47.00	28.00	4.25	14.00	20.00	0.15	5.00	0.85
VG/10/S	47.00	52.00	4.25	16.50	27.50	0.15	10.00	0.85
VG/20/S	47.00	92.00	3.00	26.00	47.00	0.15	20.00	0.85
IG/2/S	42.00	33.00	3.75	13.00	16.00	0.15	2.00	0.85
IG/5/S	42.00	33.00	4.25	14.00	20.00	0.15	5.00	0.85
IG/10/S	42.00	57.00	4.25	16.50	27.50	0.15	10.00	0.85
IG/20/S	42.00	97.00	3.00	26.00	47.00	0.15	20.00	0.85
WG/2/S	47.00	28.00	3.75	13.00	16.00	0.15	±1.00	0.85
WG/5/S	47.00	28.00	4.25	14.00	20.00	0.15	±2.50	0.85
WG/10/S	47.00	52.00	4.25	16.50	27.50	0.15	±5.00	0.85
WG/20/S	47.00	92.00	3.00	26.00	47.00	0.15	±10.00	0.85

VG: +/- 10 VDC

IG: 0-10 VDC

WG: 4-20 mA



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