

Analog output scale for feedback applications

- A/B phase sinusoidal analog output signals with a signal level of 1V p-p.
- Recommended measuring resolution: 0.1 to 1 μm
- Measuring length: 120 to 2270 mm / 4.7" to 89.4" (22 models)
- Perfect for positioning high accuracy NC machine tools or measuring equipment.

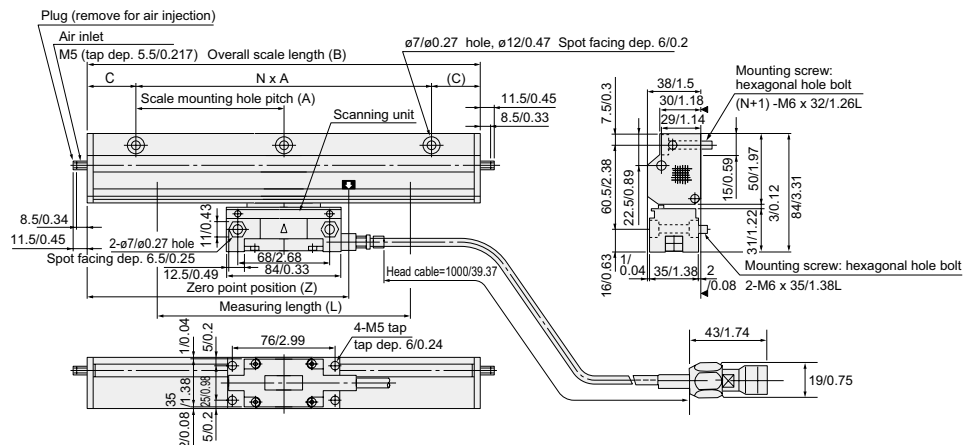


Specifications

Model	SH52-	
	A3	A5
Measuring length L mm (inch)	120/170/220/270/320/370/420/470/570/670/740/790/840/890/990/1090/1240/1440/1640/1870/2070/2270 (4.7,6.6,8.6,10.6,12.5,14.5,16.5,18.5,22.4,26.3,29.1,31.1,33,35,38.9,42.9,48.8,56.6,64.5,73.6,81.4,89.4)	
Accuracy (at 20 °C /68 °F)	± 3 μm	
Max. response speed	120 m/ min	
Recommended measuring pitch	0.1 to 1 μm	
Output signal	1V p-p	
Engraving pitch	20 μm	
Zero point	1 point within the measuring length. (standard: 1 point at the center)	
Expansion coefficient	(8.8 ± 1) × 10 ⁻⁶ / °C	
Operating temperature	0 °C to 45 °C / 14 °F to 140 °F	
Storage temperature	-10 °C to 60 °C / 32 °F to 113 °F	
Humidity range	Relative humidity 30 to 90 % (no condensation)	
Protective design grade	(1) Equivalent to IP53* (2) Improvement of the protective design grade (see the instruction manual)	
Atmosphere	Corrosive gas should not be contained in the atmosphere.	
Vibration resistance	49 m/s ² (according to our vibration test data, 30 to 1000 Hz for 30 min)	
Shock resistance	98 m/s ² (according to our vibration test, 11 ms, in each of the X, Y, Z directions)	
Sliding resistance of detector head	3.9 N (average)	
Power supply	5V DC ± 5 %	
Power consumption	Approx. 150 mA	

*Air purge may be used to increase resistance to dust, humidity and condensation.

Dimensions



SH52-	Model																						
	012	017	022	027	032	037	042	047	057	067	074	079	084	089	099	109	124	144	164	187	207	227	
Measuring length	L (mm)	120	170	220	270	320	370	420	470	570	670	740	790	840	890	990	1090	1240	1440	1640	1870	2070	2270
Overall length	B (mm)	202	252	302	352	402	452	502	552	652	752	822	872	922	972	1072	1172	1322	1522	1722	1952	2152	2352
Mounting hole pitch	A (mm)	130	180	230	280	165	190	215	240	290	230	250	270	280	300	250	275	250	290	275	270	300	285
	N	1	1	1	1	1	2	2	2	2	2	3	3	3	3	4	4	5	5	6	7	7	8
Zero point position	Z (mm)	101	126	151	176	201	226	251	276	326	376	411	436	461	486	536	586	661	761	961	976	1076	1176