

# SR74/75

This slim type magnetic scale system that outputs position signals for machine tools and other equipment that require high-precision positioning.



- Measuring Length(ML) : 70-2,040mm
- Accuracy : 3+3ML/1,000 μm p-p, 5+5ML/1,000 μm p-p
- Maximum resolution : 0.01 μm
- Maximum response speed : 200m/min.
- Protocol (SR75) : Mitsubishi

**Slim type**  
Maximum resolution 0.01 μm  
(SR75 only)

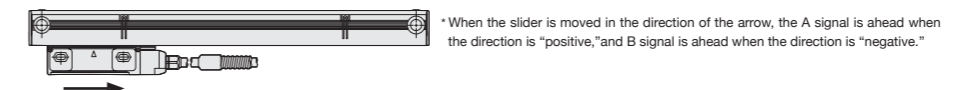
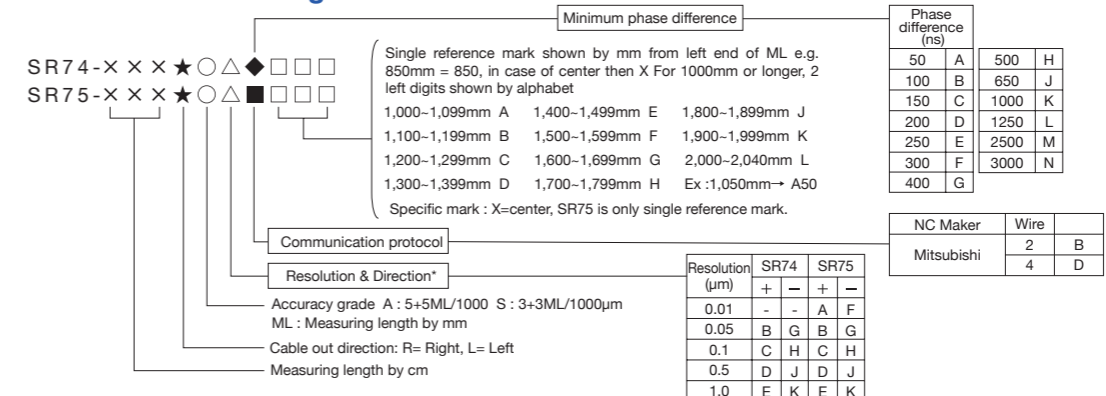
## Specifications

Model	SR74	SR75
Measuring length (ML)	70-2040mm 70, 120, 170, 220, 270, 320, 370, 420, 470, 520, 570, 620, 720, 770, 820, 920, 1020, 1140, 1240, 1340, 1440, 1540, 1640, 1740, 1840, 2040	
Thermal expansion coefficient (/ °C)	12 ± 1 x 10 <sup>-6</sup> /°C	
Output signal	A/B, Reference point line driver signal (compliant with EIA-422)	Incremental serial bidirectional signal, compliant with EIA-485
Accuracy (at 20 °C) ML:mm	3+3ML/1,000 μm p-p or 5+5ML/1,000 μm p-p	
Resolution	Selectable from 0.05,0.1,0.5 and 1.0 μm (Set at factory shipping)	Selectable from 0.01,0.05,0.1,0.5 and 1.0 μm (Set at factory shipping)
Reference point	None, Center point, Multi-point (40 mm pitch), Reference mark (standard pitch: 20 mm), User-selected point (1 mm pitch)	None, Center point, User-selected point (1 mm pitch)
Power supply voltage	DC4.75 - 5.25V(At cable connection end)	
Consumption current	200 mA (at 120 Ω terminal) max.	
Inrush current	2A max. (When the power supply rise time is 10 ms)	
Maximum response speed	50m/min(Resolution: 0.1 μm, Minimum phase difference: at 100 ns)	200m/min (User-selected resolution setting)
Vibration resistance	150m/s <sup>2</sup> (50Hz-3kHz)	
Impact resistance	350m/s <sup>2</sup> (11ms)	
Protective design grade	IP54 (Air purge not included), IP65 (Air purge included)	
Other protections	Oil lubricant can also be used under severe environmental conditions.	
Power supply protection	In the case of errors such as a reverse-connected power supply or over-voltage, the internal fuse is cut to protect the power being supplied and wiring.	
Safety standards	FCC Part15 Subpart B Class A, ICES-003 Class A Digital Device, EN55011 Gp1 Class A, EN61000-6-2. Safety standards not applicable (60 V DC or less).	
Operating temperature range( °C)	0 ~ +50 °C	
Storage temperature range( °C)	-20 ~ +55 °C	
Mass	Approx.0.27kg + 1.36kg/m	
Slider sliding resistance	1N or less	

Model	CH33-**CP	CH33-**CE
Description	Cable with open end	Cable with open end
Cable length	3,5,10,15m	
Material	PVC	PU
Armor	YES	YES

\*Please consult with our sales for the cable length other than above.

## Details of model designation



Dimensions SR74/75  
Cable Direction Right

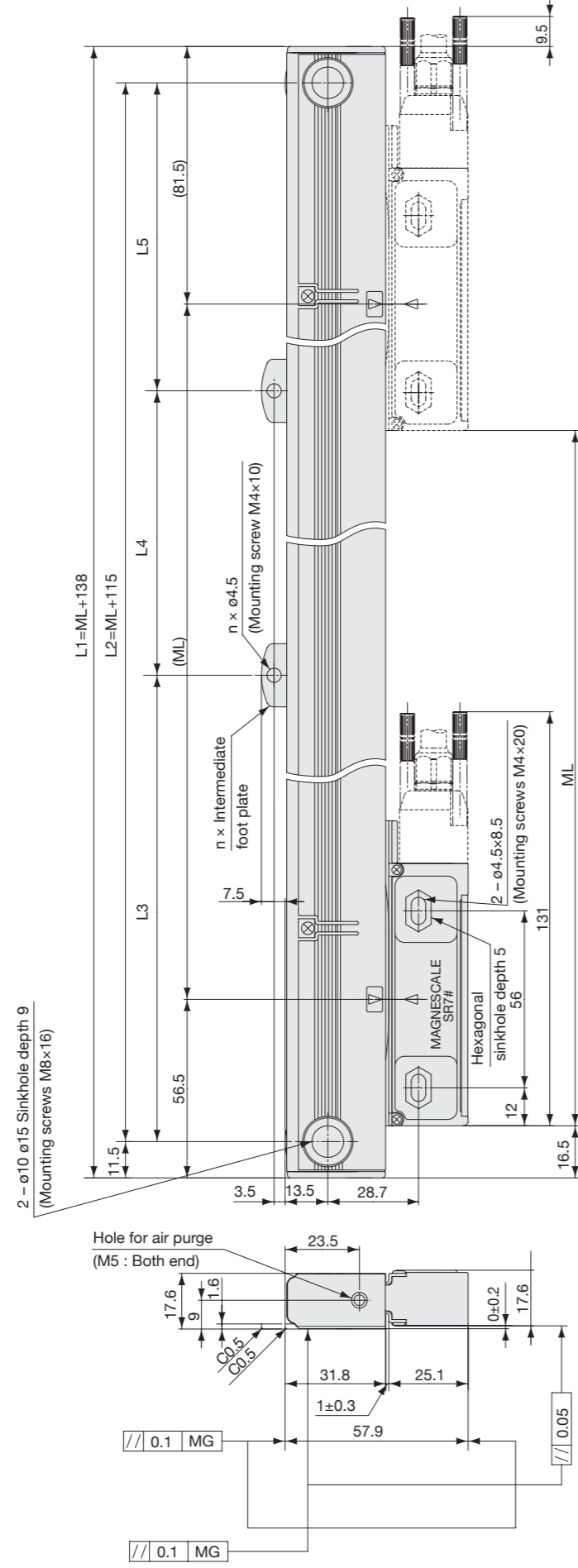
ML	L1	L2	L3	L4	L5	n
70	208	185	-	-	-	0
120	258	235	-	-	-	0
170	308	285	-	-	-	0
220	358	335	-	-	-	0
270	408	385	-	-	-	0
320	458	435	-	-	-	0
370	508	485	-	-	-	0
420	558	535	-	-	-	0
470	608	585	-	-	-	0
520	658	635	-	-	-	0
570	708	685	-	-	-	0
620	758	735	-	-	-	0
720	858	835	417.5	-	-	1

ML	L1	L2	L3	L4	L5	n
770	908	885	442.5	-	442.5	1
820	958	935	467.5	-	467.5	1
870	1008	985	492.5	-	492.5	1
920	1058	1035	517.5	-	517.5	1
970	1108	1085	542.5	-	542.5	1
1020	1158	1135	567.5	-	567.5	1
1070	1208	1185	592.5	-	592.5	1
1120	1258	1235	617.5	-	617.5	1
1170	1308	1285	642.5	-	642.5	1
1220	1358	1335	667.5	-	667.5	1
1270	1408	1385	692.5	-	692.5	1
1320	1458	1435	717.5	-	717.5	1
1370	1508	1485	742.5	-	742.5	1
1420	1558	1535	767.5	-	767.5	1
1470	1608	1585	792.5	-	792.5	1
1520	1658	1635	817.5	-	817.5	1
1570	1708	1685	842.5	-	842.5	1
1620	1758	1735	867.5	-	867.5	1
1670	1808	1785	892.5	-	892.5	1
1720	1858	1835	917.5	-	917.5	1
1770	1908	1885	942.5	-	942.5	1
1820	1958	1935	967.5	-	967.5	1
1870	2008	1985	992.5	-	992.5	1
1920	2058	2035	1017.5	-	1017.5	1
1970	2108	2085	1042.5	-	1042.5	1
2020	2158	2135	1067.5	-	1067.5	1
2070	2208	2185	1092.5	-	1092.5	1
2120	2258	2235	1117.5	-	1117.5	1
2170	2308	2285	1142.5	-	1142.5	1
2220	2358	2335	1167.5	-	1167.5	1
2270	2408	2385	1192.5	-	1192.5	1
2320	2458	2435	1217.5	-	1217.5	1
2370	2508	2485	1242.5	-	1242.5	1
2420	2558	2535	1267.5	-	1267.5	1
2470	2608	2585	1292.5	-	1292.5	1
2520	2658	2635	1317.5	-	1317.5	1
2570	2708	2685	1342.5	-	1342.5	1
2620	2758	2735	1367.5	-	1367.5	1
2670	2808	2785	1392.5	-	1392.5	1
2720	2858	2835	1417.5	-	1417.5	1

Unit : mm

ML : Measuring length Cl. : Cable length MG: Machine guide  
 \* Intermediate foot plate: Installed in one location when ML > 720 mm and two locations when ML > 1440 mm



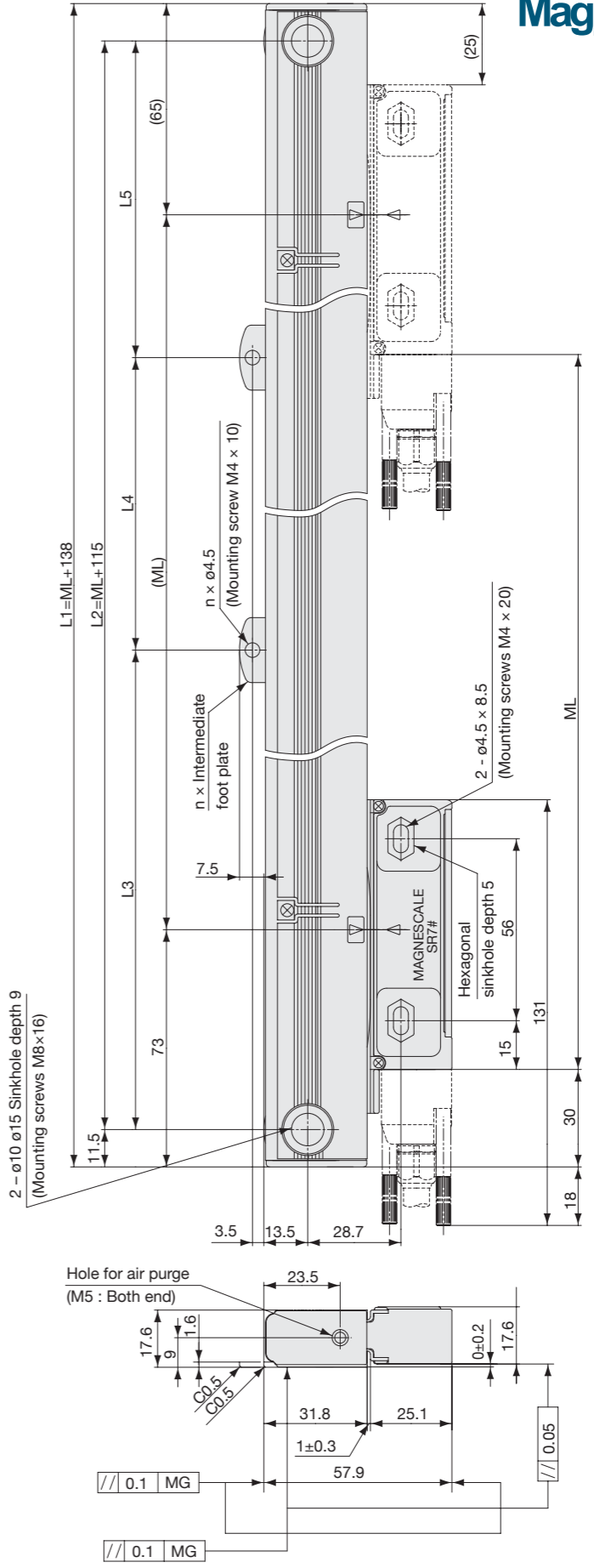
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