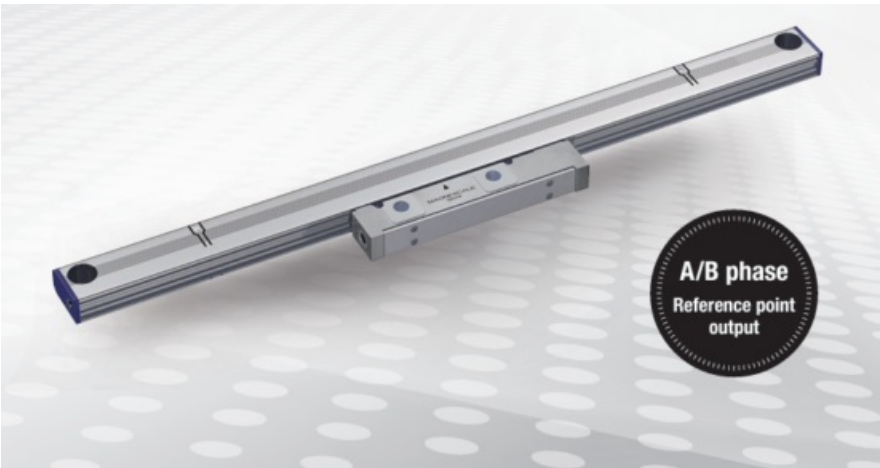


SR24 Incremental Magnescale Slim Type Owner's Manual



Incremental Magnescale Slim type

SR24



Slim profile allows for installation in tight areas.
Heavy duty low-profile design

Magnetic detection technology and shielded construction allow for use in the harshest environments such as oil, dirt and condensation.

Magnescale Co., Ltd.

Specifications

Model name	SR24
Effective length (L)	70 to 2,040 mm
Thermal expansion	12±1 × 10 ⁻⁶ / °C
Output signal	A/B/Reference line driver signal, compliant with EIA-422

Minimum phase difference time	Selectable from 50/100/150/200/250/300/400/500/650/ 1000/1250/2500/3000 ns (Set at time of order)
Accuracy (at 20°C)	(3+3L/1,000) µm p-p or (5+5L/1,000) µm p-p L:Measuring length (mm)
Resolution	Selectable from 0.05/0.1/0.5/1 µm (Set at factory shipping)
Reference point position	Center point, Multi-point (40 mm pitch), User-selected point (1 mm pitch)
Power supply voltage	DC 4.75 to 5.25 V (At cable connection end)
Consumption current	250 mA (with 5 V controller connection)
Inrush current	2A or less (When the power supply rise time is 10 ms)
Maximum response speed	50 m/min (Resolution: 0.1 µm, Minimum phase difference: at 50 ns)
Vibration resistance	150 m/s ² (50 Hz to 3,000 Hz)
Impact resistance	350 m/s ² (11 ms)
Protective design grade	IP54 (Air purge not included), IP65 (Air purge included)
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.
Product Safety	FCC Part15 Subpart B Class A ICES-003 Class A Digital Device EN/BS 61000-6-2, EN/BS 61000-6-4
Product Environment	EN/BS 63000
Operating temperature	0 to +50 °C
Storage temperature	-20 to +55 °C

Mass	Approx. 0.39 kg + 1.53 kg/m or less
Slider sliding resistance	1 N or less
Compatible cables(types without relay connectors) Maximum cable length	CH23-***NV 13 m
Compatible cables(types with relay connectors) Maximum cable length	CH23-***NVU + CH23-***NPZW 30 m

Model name

SR24 -

☐	☐	☐	☐	☐	☐	☐	☐	☐
1		2	3	4	5			

- Effective length (cm)
- Accuracy grade:

S: 3+3L/1000μ mp-p

A: 5+5L/1000μ mp-p

- Resolution and Polarity:

Resolution (μm)	Polarity	
	+	−
0.05	B	G
0.1	C	H
0.5	D	J
1.0	E	K

- Phase difference:

Phase (ns)	
50	A
100	B
150	C
200	D
250	E
300	F
400	G
500	H
650	J
1000	K
1250	L
2500	M
3000	N

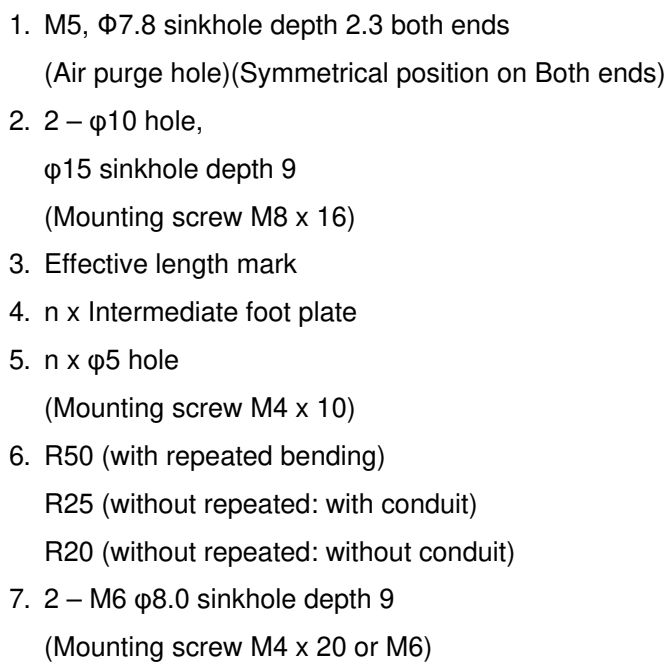
5. Reference point

X: Effective length center

Y: Multipoint

Arbitrary position can be specified

SR24 (cable right out)



Technical drawing of a mechanical assembly, likely a sensor or actuator, showing a side view and a detail view. The main assembly includes a long cylindrical body with various mounting points, a curved cable (6), and a base (7). Dimensions are provided in millimeters. A detail view (1) shows a close-up of a mounting bracket with a hole and a cable connection. The drawing is labeled with numbers 1 through 7.

1. M5, $\Phi 7.8$ sinkhole depth 2.3 both ends
(Air purge hole)(Symmetrical position on Both ends)
2. 2 – $\Phi 10$ hole,
 $\Phi 15$ sinkhole depth 9
(Mounting screw M8 x 16)

3. Effective length mark
4. n x Intermediate foot plate
5. n x $\phi 5$ hole
(Mounting screw M4 x 10)
6. R50 (with repeated bending)
R25 (without repeated:with conduit)
R20 (without repeated:without conduit)
7. 2 – M6 $\phi 8.0$ sinkhole depth 9
(Mounting screw M4 x 20 or M6)

unit: mm

L	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

670	808	785	392.5	—	392.5	1
720	858	835	417.5	—	417.5	1
770	908	885	442.5	—	442.5	1
820	958	935	467.5	—	467.5	1
920	1058	1035	517.5	—	517.5	1
1020	1158	1135	567.5	—	567.5	1
1140	1278	1255	627.5	—	627.5	1
1240	1378	1355	677.5	—	677.5	1
1340	1478	1455	727.5	—	727.5	1
1440	1578	1555	520	520	515	2
1540	1678	1655	550	550	555	2
1640	1778	1755	585	585	585	2
1740	1878	1855	620	620	615	2
1840	1978	1955	650	650	655	2
2040	2178	2155	720	720	715	2

*L: Effective length

*MG: Machine guide

*Intermediate foot plate: One location when $L \geq 670$ mm,
two locations when $L \geq 1440$ mm



To use this product safely, please read the instruction manual carefully and thoroughly prior to usage.

•Magnescale reserves the right to change products and specifications without prior notice

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The contents of this literature are as of Apr. 2024

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Contents

- 1 Documents / Resources
- 1.1 References



Documents / Resources

	Magnescale SR24 Incremental Magnescale Slim Type [pdf] Owner's Manual SR24 Incremental Magnescale Slim Type, SR24, Incremental Magnescale Slim Type, Magnescale Slim Type, Slim Type, Type
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References

- [User Manual](#)

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