

Specifications

Model	SR84	SR85
Measuring length (ML)	140~3040mm 140, 240, 340, 440, 540, 640, 740, 840, 940, 1040, 1140, 1240, 1340, 1440, 1540, 1640, 1740, 1840, 2040, 2240, 2440, 2640, 2840, 3040	
Thermal expansion coefficient (/ °C)	12 ± 1 x 10 ⁻⁶ / °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.	
Imrush 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 50 ns)	200m/min (User-selected resolution setting)
Vibration resistance	250m/s ² (50Hz~2kHz)	
Impact resistance	450m/s ² (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.1.24kg + 4kg/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

Minimum phase difference

Phase difference (ns)

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

NC Maker

Mitsubishi	Wire	
	2	B
	4	D

Resolution (μm)

	SR84	SR85
0.01	-	A F
0.05	B G	B G
0.1	C H	C H
0.5	D J	D J
1.0	E K	E K

Single reference mark shown by mm from left end of ML e.g. 850mm = 850, in case of center then X For 1000mm or longer, 2 left digits shown by alphabet

1,000~1,099mm	A	1,400~1,499mm	E	1,800~1,899mm	J
1,100~1,199mm	B	1,500~1,599mm	F	1,900~1,999mm	K
1,200~1,299mm	C	1,600~1,699mm	G	2,000~2,040mm	L
1,300~1,399mm	D	1,700~1,799mm	H	Ex :1,050mm → A50	

Specific mark : X=center, SR85 is only single reference mark.

Communication protocol

Resolution & Direction*

Accuracy grade A : 5+5ML/1000 S : 3+3ML/1000μm
ML:Measuring length by mm
Cable out direction: R= Right, L= Left
Measuring length by cm

When the slider is moved in the direction of the arrow, the A signal is ahead when the direction is "positive," and B signal is ahead when the direction is "negative."