

## Specifications

Model	SR87
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 (1/°C)	12 ± 1 × 10 <sup>-6</sup> /°C
Output signal	Absolute 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 0.01,0.05,0.1,0.5 and 1.0 μm( Set at factory shipping)
Zero count position	Center mark
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	200m/min (User-selected resolution setting)
Vibration resistance	250m/s <sup>2</sup> (50Hz~2kHz)
Impact resistance	450m/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.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

SR87-XX★○△■□□□

Absolute zero point 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

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

NC Maker	Wire	
FANUC	4	A
Mitsubishi	2	B
	4	D
YASKAWA	2	F
Panasonic	2	H

FANUC, Mitsubishi, Panasonic	
Resolution (μm)	Direction
	+ -
0.01	A F
0.05	B G
0.1	C H
0.5	D J
1.0	E K

YASKAWA	
Number of Divisions	Direction
	+ -
1/8192	L -
1/1024	M -

\*When the slider is moved in the direction of the arrow, the signal is addition when the direction is "positive,"and it is subtraction when the direction is "negative." The direction is selected when ordering.

Note:Mitsubishi is only A, B, C  
Panasonic is only B, C, D, E