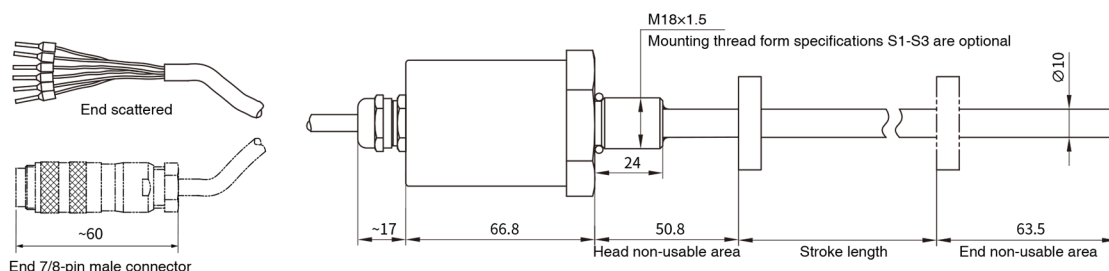


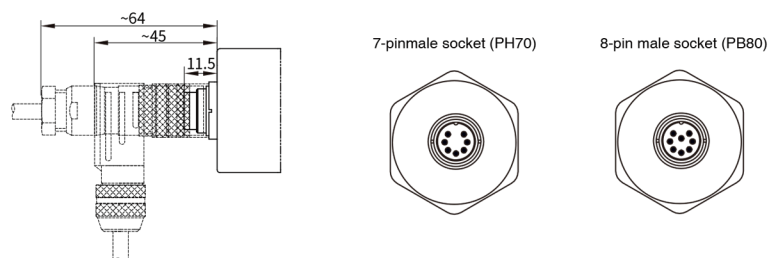
EJ-SSI Output

► Structural shape

• Dimensions of cable outlet

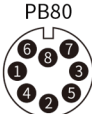


• Outline dimensions of connector outlet



► Wiring and pin definition

Pin arrangement of seven-pin male connector	Cable color 1*	Cable color 2*	Function definition	
PH70  (facing the sensor head)	1	White	Grey	Data (-)
	2	Yellow	Pink	Data (+)
	3	Blue	Yellow	Clock (+)
	4	Green	Green	Clock (-)
	5	Red	Brown	+24Vdc power supply (-20%~+20%)
	6	Black	White	GND (power supply circuit)
	7	-	-	Do not connect

Pin arrangement of eight-pin male connector	Cable color3*	Function definition	
 PB80 (facing the sensor head)	1	Yellow	Clock (+)
	2	Grey	Data (+)
	3	Pink	Clock (-)
	4	-	Reservation
	5	Green	Data (-)
	6	Blue	GND (power supply circuit)
	7	Brown	+24Vdc power supply (-20%~+20%)
	8	White	Reservation

Note: * Cable color 1: Cable PUR sheath, orange, -20-90 °C

* Cable color 2/3: Cable PVC sheath, orange, -20-105 °C

EJ SSI Output Displacement Sensor

▶ EJ SSI Output-Product Parameters

Input	
Measuring data	Position magnet ring
Stroke length	25~5500mm, customized according to customer's needs
Number of measurements	1
Output	
Interface	SSI Synchronous Serial Interface
Data format	Binary or gray code
Data length	24/25/26 bit
Resolution	5 / 10 / 20 / 40/ 50 / 100 μ m
Nonlinearity	$\leq \pm 0.01\%$ of full scale, minimum $\pm 50\mu$ m
Repeatability	$< \pm 0.001\%$ of full scale, minimum $\pm 5\mu$ m
Transmission rate	50KBD~1MBD
	Line length <3 <50 <100 <200 <400 (m)
	Rate 1000 <400 <300 <200 <100 (KBD)
Update time	Stroke 300 750 1000 2000 5000 mm
	Frequency 3.7 3.0 2.3 1.2 0.5 kHz
Operating mode	Asynchronous
Temperature coefficient	$< 30\text{ppm}/^{\circ}\text{C}$

Operating Conditions

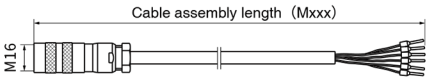
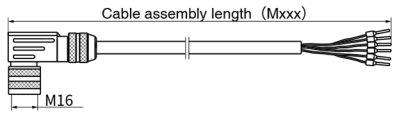
Magnet ring speed	Arbitrary
Protection class	Cable outlet mode IP68; socket way IP67
Operating temperature	$-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$
Humidity/dew point	Humidity 90%, no condensation
Impact Indicator	GB/T2423.5 100g(6ms)
Vibration index	GB/T2423.10 15g/10~2000Hz
EMC test	GB/T17626.2/3/4/6/8, Grade 4/3/4/3/3, Class A

Electrical Connections

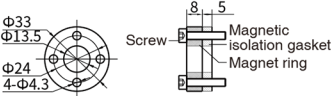
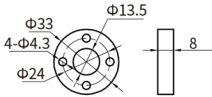
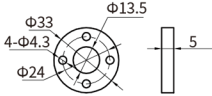
Input voltage	+24Vdc $\pm 20\%$	Electronic compartment	304L
Power consumption	$< 80\text{mA}$ ((varying with range)	Measuring rod	304L stainless steel
Polarity protection	Maximum -30Vdc	Outer tube pressure	35MPa (continuous) /70MPa (peak)
Overvoltage protection	Maximum 36Vdc	Position magnet	Standard magnet ring and various ring magnets
Insulation resistance	$> 10\text{M}\Omega$	Thread form	M18 $\times$ 1.5、M20 $\times$ 1.5、3/4"-16UNF-3A (customizable)
Insulation strength	500V	Installation direction	Any direction
		Outgoing mode	Cable outlet or connector

▶ EJ SSI Output-Common Options

• Plug assembly cable

Accessory name/model	Dimensions	Description
SSI Interface Cable assembly Order No.: SSI-Mxxx-H01 (U01/U02)		Mxxx represents the cable length in meters; H01-7-pin PUR orange sheath, temperature -20~90°C cable assembly; U01-7-pin PVC orange sheath, temperature -20~105°C cable assembly; U02-8-pin PVC orange sheath, temperature -20~105°C cable assembly.
SSI Interface Right angled cable assembly Order No.: SSI-Mxxx-H03 (U03/U04)		Mxxx represents the cable length in meters; H03-7-pin PUR orange sheath, temperature -20~90°C cable assembly; U03-7-pin PVC orange sheath, temperature -20~105°C cable assembly; U04-8-pin PVC orange sheath, temperature -20~105°C cable assembly.

• Magnet ring

Accessory name/model	Dimensions	Description
Standard magnet ring kit Order No.: 288501		One magnet ring 211501, one gasket 211521 (thickness 5mm), four M4X20 socket screws with spring wgreysers.
Standard magnet ring Order No.: 211501		
Magnetic isolation gasket Order No.: 211521		

Note: See general options for other accessories

EJ SSI Output Displacement Sensor

▶ EJ SSI Output-Selection Guide



01 - 02	Sensor shell form
E J	Pressure-resistant pipe
03 - 07	Range (0025~5500mm, others can be customized as needed)
	0025~0500mm step length 5mm
	0500~0750mm step length 10mm
	0750~1000mm step length 25mm
	1000~5500mm step length 50mm
08 - 09	Mounting thread form
S 1	M18X1.5, measuring rod diameter 10mm, 304 material
S 2	M20X1.5, measuring rod diameter 10mm, 304 material
S 3	3/4"-16UNF-3A, measuring rod diameter 10mm, 304 material
10 - 13	Connection form
10 - 11	Cable outlet mode
D H	PUR sheath, orange, -20~90°C, end scattered, Cable color 1
D U	PVC sheath, orange, -20~105°C, end scattered, Cable color 2
D B	PVC sheath, orange, -20~105°C, end scattered, Cable color 3
D I	PUR sheath, orange, -20~90°C, end 7-pin male connector
D V	PVC sheath, orange, -20~105°C, end 7-pin male connector
D C	PVC sheath, orange, -20~105°C, end 8-pin male connector
12 - 13	Cable length, 01~99 unit: meter (cable outlet)
10 - 13	Connector form
P H 7 0	M16 7-pin male socket, plug cable needs to be selected separately
P B 8 0	M16 8-pin male socket, plug cable needs to be selected separately

14 - 19	Signal output mode
15	Data length
1	24-bit
2	25-bit
3	26-bit*
	* 26-bit are parity bits, 25-bit are status bits
16	Data format
B	Binary
G	Gray code
17	Resolution
1	0.1mm
2	0.05mm
3	0.02mm
4	0.01mm
5	0.005mm
8	0.04mm
18	Direction
0	Forward (when the magnet ring or floating ball is far away from the electronic compartment, the output value increases)
1	Reverse (when the magnet ring or floating ball is far away from the electronic compartment, the output value decreases)
19	Mode
0	Asynchronous
20 - 21	Front and end non-usable area
S 0	50.8mm+63.5mm
B 0	30mm+60mm

● Selection example

For example: EJ-M0300-S1-DU02-S2B300-S0

Indicates: E series EJ structure, Stroke length is 300mm, mounting thread form is M18 × 1.5, diameter is 10, material is 304 measuring rod, straight orange cable is 2 meters (PVC orange sheath, -20~105°C, end scattered), SSI interface 25-bit data binary format is 0.02 mm, resolution is forward asynchronous output, and head and end non-usable area is 50.8 mm+63.

● Supply list

Sensor, certificate, manual, optional accessories (sold separately)