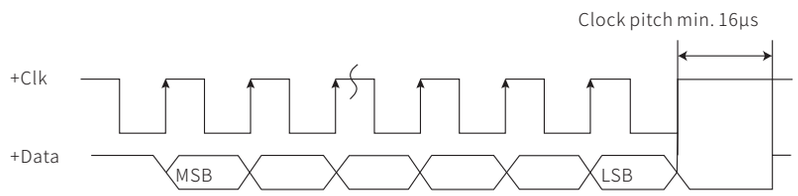
EE-SSI

EE pressure resistant outer tube



- Strong resistance to vibration and impact
- Compact structure: suitable for occasions with strict requirements for the installation space of electronics housing, widely used in construction machinery
- Durable and sturdy: fully enclosed design, with a maximum protection level of IP68
- Linear measurement: absolute value output, no need to reset to zero
- Easy to use: standard signal output, maintenance free
- Maximum durability: continuous non-contact measurement

MAGNETOSTRICTIVE SENSOR

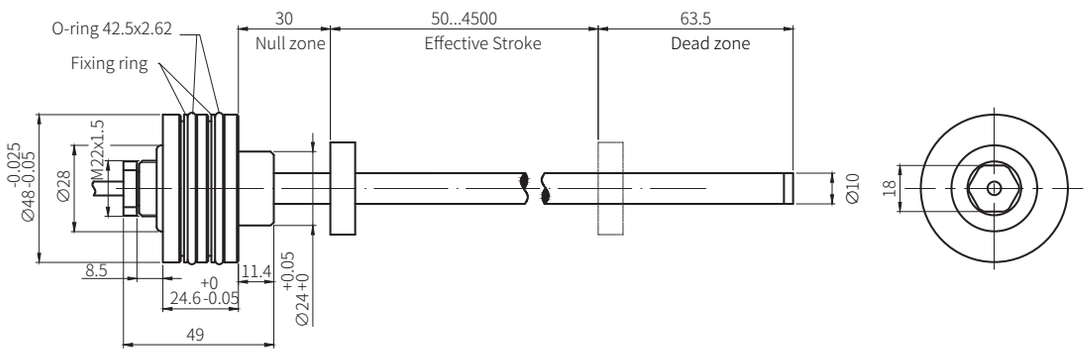
Document Number:
EE-S(V1.0)-EN

TECHNICAL PARAMETER

Input	
Measured data	Position
Measurement range	50mm...4500mm
Output	
Interface	SSI synchronous serial interface
Data format	Binary or gray code, parity check and alarm bit optional
Data length	8...32 bit
Data speed	70kBd...1MBd depending on cable length: Cable length(m) | ＜3 | ＜50 | ＜100 | ＜200 | ⩽400 Baud rate(kBd) | 1000 | ＜400 | ＜300 | ＜200 | ＜100
Update frequency	Stroke length(mm) | ＜300 | ＜750 | ＜1000 | ＜2000 | ⩽5600 Update frequency (kHz) | 3.7 | 3.0 | 2.3 | 1.2 | 0.5
Resolution	
Resolution	0.5/1/2/5/10/20/50/100μm
None-Linearity	＜ ±0.02%F.S.(min. ±50μm)
Repeatability	＜ ±0.002%F.S.(min. ±20μm)
Temperature coefficient	＜ 30ppm/°C
Mounting	
Mounting position	Any
Mounting form	Squeeze installation
Design/Material	
Electronics housing	Stainless steel 304
Measuring rod	Stainless steel 304/316L
Magnet	Standard magnet
External pipe pressure	Φ10 measuring rods: 35MPa (continuous), 70MPa (peak) Φ7 measuring rods: 30MPa (continuous), 45MPa (peak)
Electrical connection	
Wiring connection	Straight out cable
Operating voltage	+24VDC(-15/+20%)
Polarity protection	Up to -36VDC
Overvoltage protection	Up to +36VDC
Power consumption	<50mA (varies with range size)
Dielectric strength	500 VDC (DC ground to machine ground)
Operating conditions	
Loop velocity	Any
Operating temperature	-40...85°C
Humidity	90 % relative humidity, no condensation
Ingress protection	IP68
Shock	100 g/11 ms, IEC standard 60068-2-27
Vibration	15 g/10...2000 Hz, IEC standard 60068-2-6 (resonant frequencies exclusive)
EMC	Electromagnetic emission according to EN 61000-6-3 Electromagnetic immunity according to EN 61000-6-2

TECHNICAL DRAWING

Basic straight-out cable

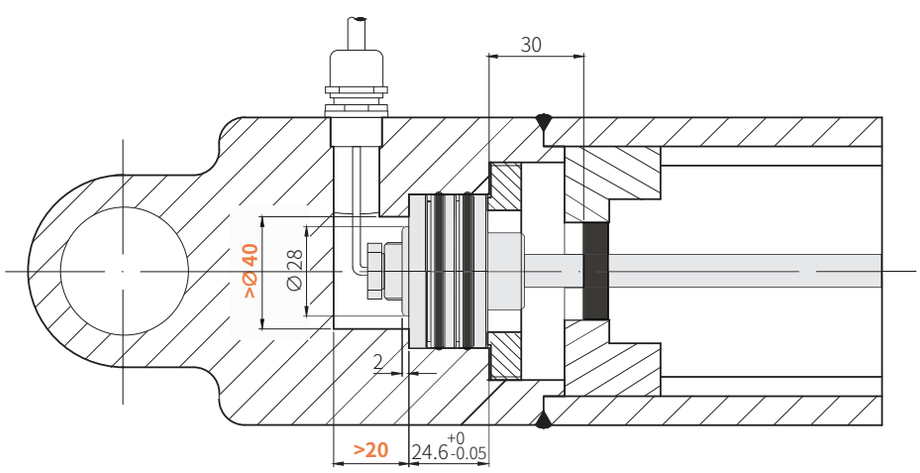


Installation and Fixation

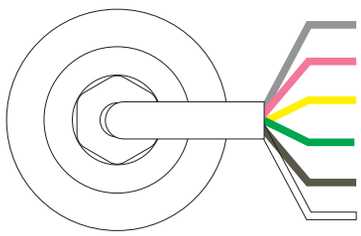
Installation instructions

+ Secure the magnet with non-permeable gasket.
+ The size of hole in the piston rod depends on factors such as hydraulic pressure and piston speed. The minimum hole size is Φ10 (Φ7 measuring rods) or Φ13.5 (Φ10 measuring rods).
+ The top mounting hole of the cylinder is greater than 40 mm in diameter and 20 mm in depth.

Basic installation diagram



Wiring

5-core straight out wire	Color	Function
	Gray	Data-
	Pink	Data+
	Yellow	Clock+
	Green	Clock-
	Brown	+24 VDC(-15/+20%)
	White	0 VDC(GND)

ORDER CODE

EE _ - _ - _ _ _ _M-_ _ _ _ - _ _ _

Product form
B Basic straight-out cable
R Customized straight-out cable

Stroke length
0050~4500mm
(5mm increments)

Output
(Output Code)

Rod
C Rod -Φ10mm
D Rod -Φ7mm
R Rod -Φ10mm With terminal connector and M4x6 threaded hole at the tail end

Connection type
RP/T_ _ Straight out_ _m high performance / temperature cable
(If the cable length is less than two digits, add zeros in front.)

SSI Output Code **S** [1][2][3][4][5][6]

[1] **Data length**	[2] **Format**	[3] **Resolution**	[4] **Options**	[5][6] **Mode**
1 25 bit	B Binary	1 5μm 6 2μm	1 Standard	00 Forward
2 24 bit	G Gray	2 10μm 8 1μm		01 Reverse
3 26 bit		3 50μm 9 0.5μm		05 Forward+alarm bit + parity check bit
		4 100μm		
		5 20μm		

K=Anti-vibration program (If there are special needs, please fill in the end of the model number.)

Note: forward, data grows larger when the magnet is distant from the electronics housing;
reverse, data grows larger when the magnet approaches the electronics housing.

Model selection

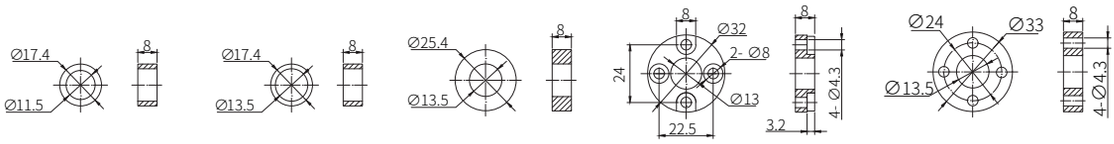
Model: EEB-D-0100M-RP05-S1B1100

Explanation: EE series straight out cable basic displacement sensor, measuring rod diameter 7mm, range 100mm, straight out 5m high performance cable, 25 bit, Binary, resolution 5μmstandard, forward.

ACCESSORIES

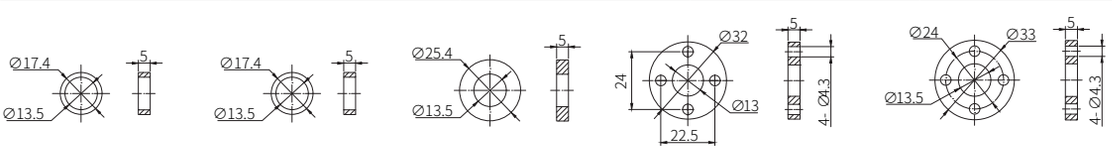
SSI

EE



Name	Ring magnet	Ring magnet	Ring magnet	Ring magnet	Ring magnet
Operating temperature	-40~125°C				
Order code	**12-1020**	**12-1032**	**12-1019**	**12-1024**	**12-1001**

Non-permeable gasket



Name	Non-permeable gasket	Non-permeable gasket	Non-permeable gasket	Non-permeable gasket	Non-permeable gasket
Operating temperature	-40~125°C				
Order code	**12-1037**	**12-1037**	**12-1021**	**12-1025**	**12-1008**

■ **For more customizable products, please contact us.**

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