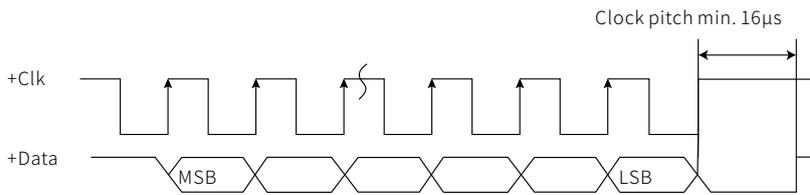


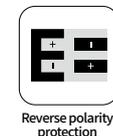
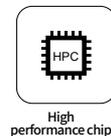
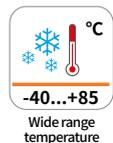
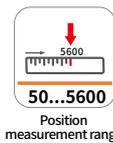
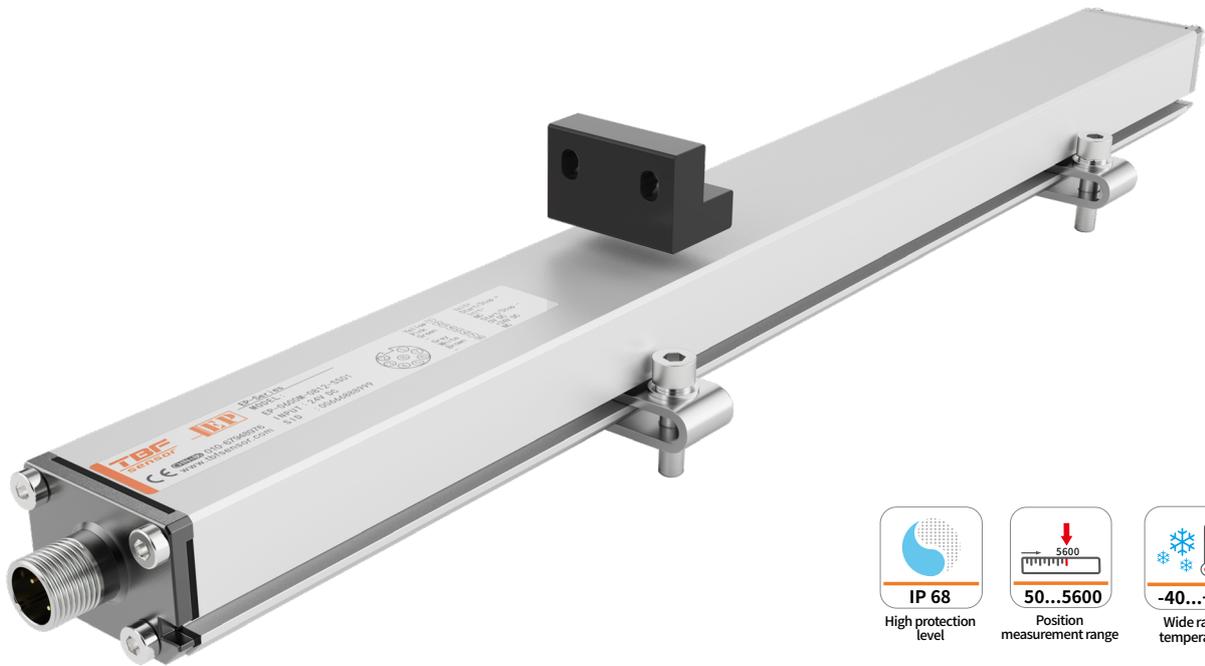


EP2-SSI

EP2-Series Data Sheet



- + Updated new generation: stronger performance
- + Easily installed: integrated design, no protruding electronics housing
- + Standard SSI signal can directly replace the encoder
- + Widely applied in forging, building materials, rubber and plastic machinery and other fields



TECHNICAL PARAMETER

TECHNOLOGY PERCEIVES THE FUTURE

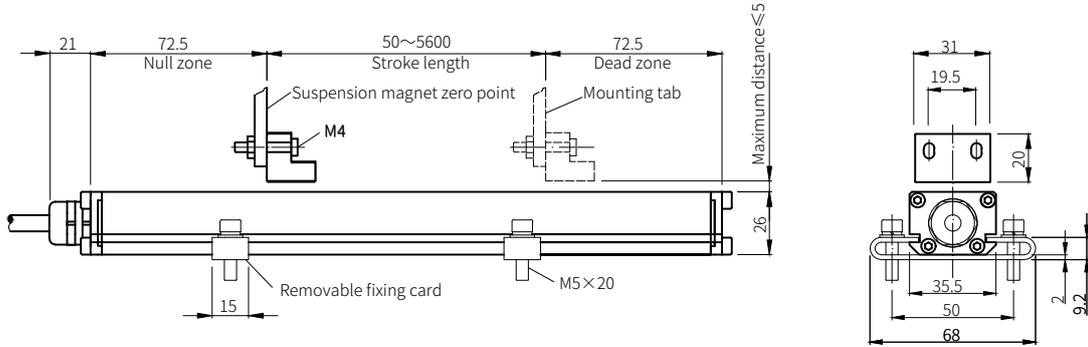
Input	Measured data	Position												
	Measurement range	50mm...5600mm												
Output	Interface	SSI synchronous serial interface												
	Data format	Binary or gray code												
	Data length	8...32 bit												
	Data speed	70kBd...1MBd depending on cable length: <table border="1"> <tr> <td>Cable length (m)</td> <td>< 3</td> <td>< 50</td> <td>< 100</td> <td>< 200</td> <td>≤ 400</td> </tr> <tr> <td>Baud rate (kBd)</td> <td>1000</td> <td>< 400</td> <td>< 300</td> <td>< 200</td> <td>< 100</td> </tr> </table>	Cable length (m)	< 3	< 50	< 100	< 200	≤ 400	Baud rate (kBd)	1000	< 400	< 300	< 200	< 100
	Cable length (m)	< 3	< 50	< 100	< 200	≤ 400								
Baud rate (kBd)	1000	< 400	< 300	< 200	< 100									
Update frequency	<table border="1"> <tr> <td>Stroke length (mm)</td> <td>< 300</td> <td>< 750</td> <td>< 1000</td> <td>< 2000</td> <td>≤ 5600</td> </tr> <tr> <td>Update frequency (kHz)</td> <td>3.7</td> <td>3.0</td> <td>2.3</td> <td>1.2</td> <td>0.5</td> </tr> </table>	Stroke length (mm)	< 300	< 750	< 1000	< 2000	≤ 5600	Update frequency (kHz)	3.7	3.0	2.3	1.2	0.5	
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	< ±0.005%F.S. (min. ±20µm)												
	Temperature coefficient	< 30ppm/°C												
Mounting	Mounting position	Any												
	Fixation	Removable fixing card												
Design/ Material	Sensor lid	Aluminum alloy/Zinc alloy												
	Sensor profile	Aluminum alloy												
Electrical connection	Wiring connection	Straight out cable or aviation plug												
	Operating voltage	+24VDC(-15/+20%)												
	Polarity protection	Up to -36VDC												
	Overvoltage protection	Up to +36VDC												
	Power consumption	< 70mA (varies with range size)												
	Dielectric strength	500 VDC (DC ground to machine ground)												
Operating conditions	Magnet velocity	Any												
	Operating temperature	-40...85°C												
	Humidity	90 % relative humidity, no condensation												
	Ingress protection	IP67 (when connector is fitted)/IP68 (straight out cable)												
	Shock	100 g (single shock) IEC standard 60068-2-27												
	Vibration	15g/10...2000 Hz, IEC standard 60068-2-6 (resonant frequencies excluded)												
	EMC	Electromagnetic emission according to EN 61000-6-3 Electromagnetic immunity according to EN 61000-6-2												

ITEM	CATEGORY	PARAMETER
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Straight out cable

EP2- ____ - **RP** - ____

EP2- ____ - **RT** - ____

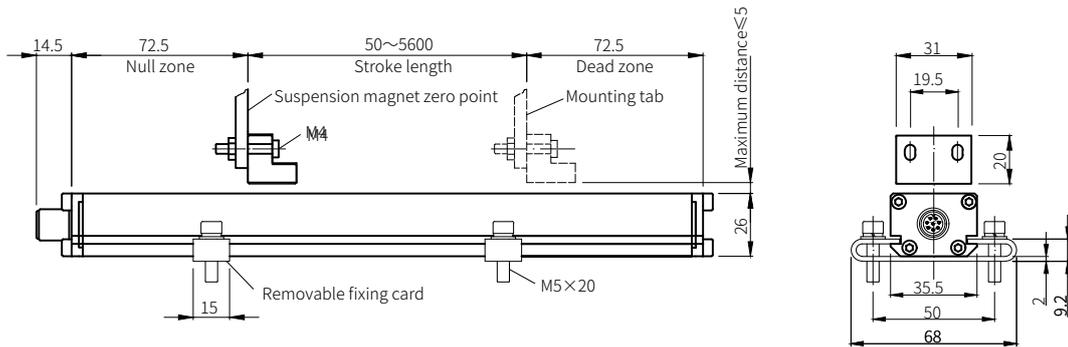


FUNCTION

Color	● Brown	○ White	● Yellow	● Green	● Gray*	● Pink*
Function	24VDC -15/+20%	0 VDC(GND)	Clock+	Clock-	Data-	Data+

8 pin M12 connector

EP2- ____ - **D812** - ____



FUNCTION

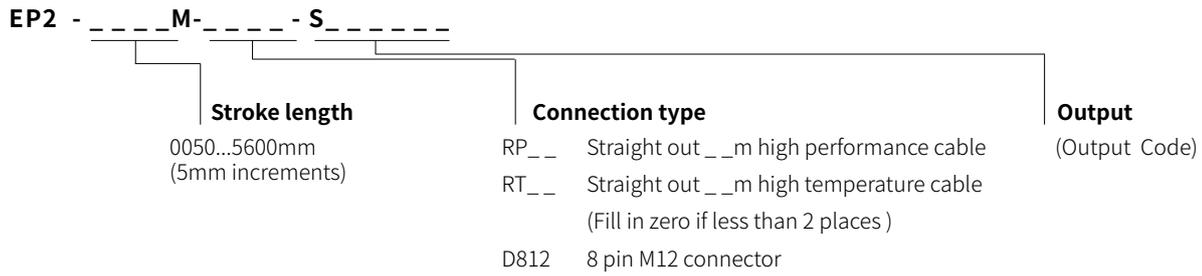
PIN-Male	1	2	3	4	5	6	7	8
Function	Clock+	Clock-	Data+	Data-	NC	NC	24VDC -15/+20%	0VDC (GND)



View on sensor

ORDER CODE

TECHNOLOGY PERCEIVES THE FUTURE

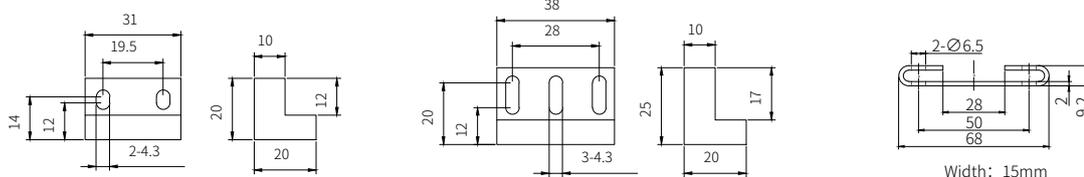


SSI Output Code		S [1][2][3][4][5][6]				
[1] Function	[2] Options	[3] Mode	[4] Data length	[5] Format	[6] Resolution	
1 Position	0 Standard	1 Forward	1 25 bit	B Binary	1 5µm	
		2 Reverse	2 24 bit	G Gray	2 10µm	
			3 26 bit		3 50µm	
					4 100µm	
					5 20µm	
					6 2µm	
					7 0.1µm	
					8 1µm	
					9 0.5µm	

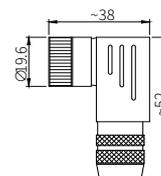
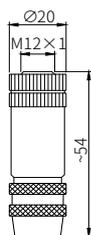
Note: forward, data grows larger when the magnet is distant from the electronics housing;
reverse, data grows larger when the magnet approaches the electronics housing.

Model selection | Model: EP2-0600M-D812-S1011B1

Explanation: EP2 type II generation, stroke length 600mm, 8pin M12 aviation plug, position measurement, standard, forward, asynchronous mode, 25 bit, Binary, baud rate 5µm, single magnet.



Name	Suspension magnet 31x20	Suspension magnet 38x25	Removable fixing card
Order code	12-1010	12-1009	11-1009



Name	8 pin M12 female connector	8 pin M12 female connector (90 degree angle)
End view drawing		
Material	Galvanized nickel	
Fitting diameter	8...10mm	6...8mm
Connection	Threaded	
Order code	18-5004	18-5005

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