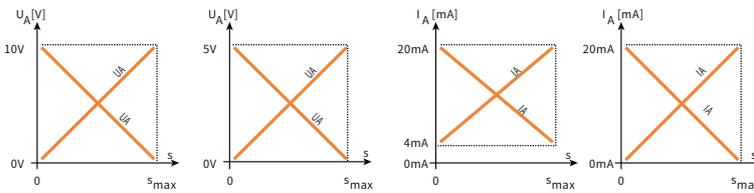




# EP2-Analog

## EP2-Series Data Sheet



- + Updated new generation: stronger performance
- + Easily installed: integrated design, no protruding electronics housing
- + Easy to use: standard signal output, maintenance free
- + Widely applied in forging, building materials, rubber and plastic machinery and other fields



- IP 68**  
High protection level
- 50...4500**  
Position measurement range
- 40...+85 °C**  
Wide range temperature

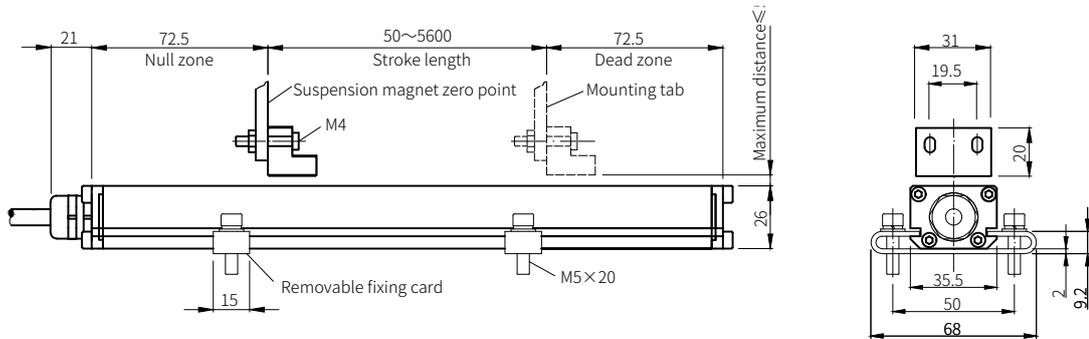
- Double anti-interference**
- High performance chip**
- Wide operating voltage**  
9VDC...36VDC
- Reverse polarity protection**
- Shock/vibration resistant**

<b>Input</b>	Measured data	Position/Velocity			
	Measurement range	50mm...5600mm			
<b>Output</b>	Voltage	0...10VDC, 10...0VDC, 0...5VDC, 5...0VDC (Controller min. load impedance >5KΩ)			
	Current	4...20mA, 20...4mA, 0...20mA, 20...0mA (min./max. load 0/750Ω)			
<b>Resolution</b>	Resolution	16 bit D/A			
	None-Linearity	< ±0.02%F.S. (min. ±50μm)			
	Repeatability	< ±0.005%F.S. (min. ±20μm)			
	Update time	Stroke length	≤ 1200mm	≤ 2400mm	≤ 5600mm
		Update time	0.5ms	1ms	2ms
Temperature coefficient	< 30ppm/°C				
<b>Mounting</b>	Mounting position	Any			
	Fixation	Removable fixing card			
<b>Design/ Material</b>	Sensor cap	Aluminum alloy/Zinc alloy			
	Sensor profile	Aluminum alloy			
<b>Electrical connection</b>	Wiring connection	Straight out cable or aviation plug			
	Operating voltage	9VDC...36VDC			
	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)			
<b>Operating conditions</b>	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			
<b>ITEM</b>	<b>CATEGORY</b>	<b>PARAMETER</b>			

**Straight out cable**

EP2- \_\_\_\_ - RP \_\_\_\_ - \_\_\_\_

EP2- \_\_\_\_ - RT \_\_\_\_ - \_\_\_\_



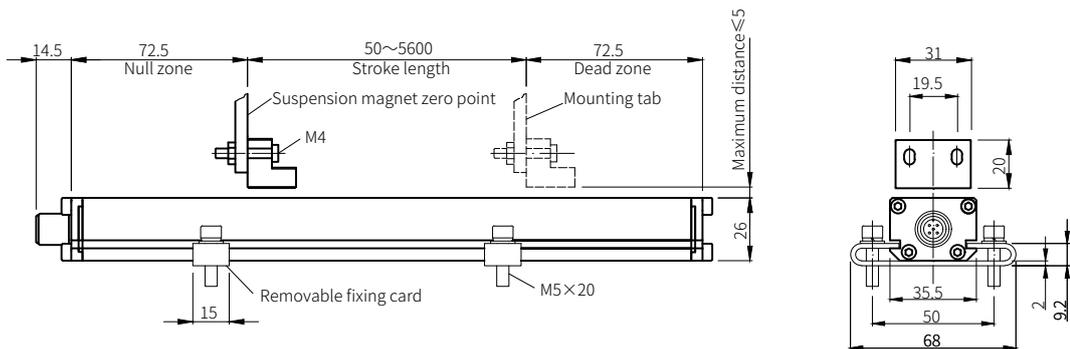
**FUNCTION**

Color	● Brown	○ White	● Yellow	● Green	● Gray*	● Pink*
Function	9VDC...36VDC	0 VDC(GND)	Signal ground 1	Signal output 1	Signal output 2*	Signal ground 2

**"\*"adaptable for dual output signal connection**

**5 pin M12 connector**

EP2- \_\_\_\_ - D512- \_\_\_\_



**FUNCTION**

PIN-Male	1	2	3	*4	5
Function	9VDC...36VDC	Signal output 1	0 VDC(GND)	Signal output 2*	Signal ground

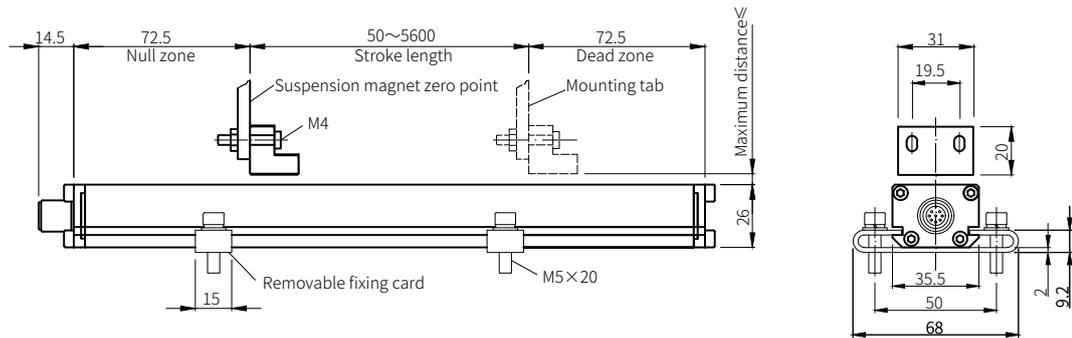


View on sensor

**"\*"adaptable for dual output signal connection**

### 8 pin M12 connector

EP2- \_\_\_\_\_ - D812- \_\_\_\_\_



### FUNCTION

PIN-male	1*	2	3*	4	5	6	7	8
Function	Signal ground 2	Signal ground 1	Signal output 2*	NC	Signal output 1	0 V (GND)	9 ...36 VDC	NC

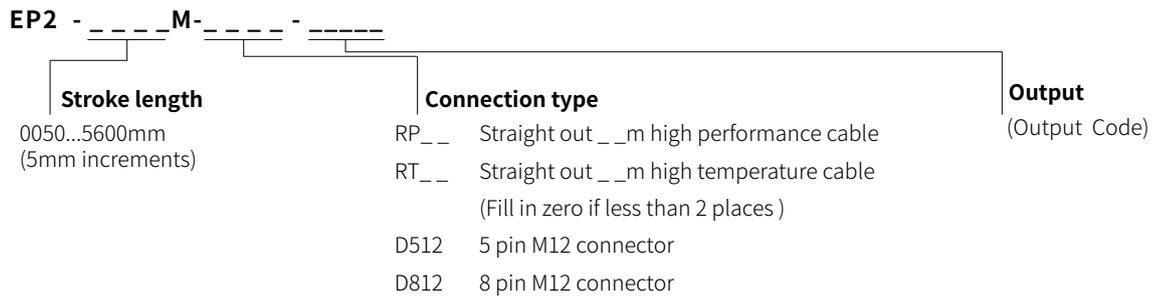


View on sensor

"\*" adaptable for dual output signal connection

**ORDER CODE**

TECHNOLOGY PERCEIVES THE FUTURE



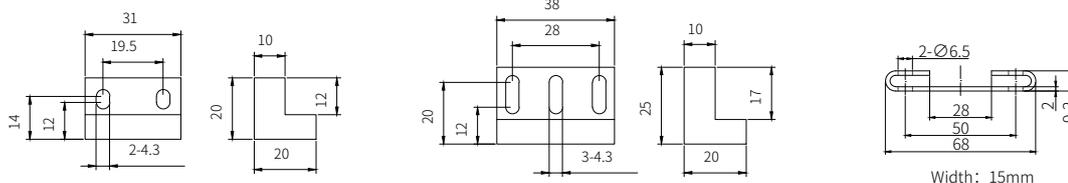
Analog Output Code		[1][2]-[3][4] [5]
[1] System	[2] Output	[3][4] Current/Voltage [5] Magnet
1 Standard	1 Position	A0 4...20mA (forward) 1 one magnet
K Anti-vibration program	2 Position and velocity	A1 20...4mA (reverse) 2 two magnets
	3 Position and reverse position	A2 0...20mA (forward)
	5 Position and temperature inside the sensor electronics housing	A3 20...0mA (reverse)
	6 Position and rate	V0 0...10V (forward)
		V1 10...0V (reverse)
	V2 0...5V (forward)	
	V3 5...0V (reverse)	

**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.

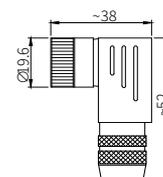
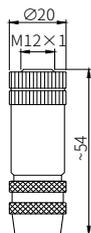
<b>Model selection</b>	Model: EP2-0600M-D512-11-A01
	Explanation: EP2 type II generation, stroke length 600mm, 5pin M12 aviation plug, standard, position measurement, 4...20mA (forward), single magnet.

**PARTS SELECTION**

TECHNOLOGY PERCEIVES THE FUTURE



Name	Suspension magnet 31x20	Suspension magnet 38x25	Removable fixing card
<b>Order code</b>	<b>12-1010</b>	<b>12-1009</b>	<b>11-1003</b>



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	
<b>Order code</b>	<b>18-5004</b>	<b>18-5005</b>



Connector	5 pin M12 female connector	5 pin M12 female connector (90 degree angle)
Name	Integral cable	Integral cable
Cable	5 wire 0.25mm <sup>2</sup> shielded cable	5 wire 0.25mm <sup>2</sup> shielded cable
Color/Diameter	Orange/ Ø 6	Orange/ Ø 6
Plug surface	<ul style="list-style-type: none"> <li>1-Brown</li> <li>2-Green</li> <li>3-White</li> <li>4-Gray</li> <li>5-Yellow</li> </ul>	<ul style="list-style-type: none"> <li>1-Brown</li> <li>2-Green</li> <li>3-White</li> <li>4-Gray</li> <li>5-Yellow</li> </ul>
Length	5...30M	5/10/15/20/30M
<b>Order code</b>	<b>16-1035</b>	<b>16-1040</b>

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