

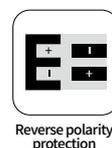
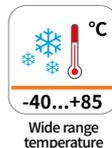
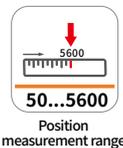


# GP2-EtherCAT

## GP2-Series Data Sheet

Ethernet header	Ethernet Data				FCS
	EtherCAT header				
14Byte	11bit	1bit	4bit	44*-1498Byte	4bit
Ethernet header	Length	Res.	Type	1...n Datagrams	FCS

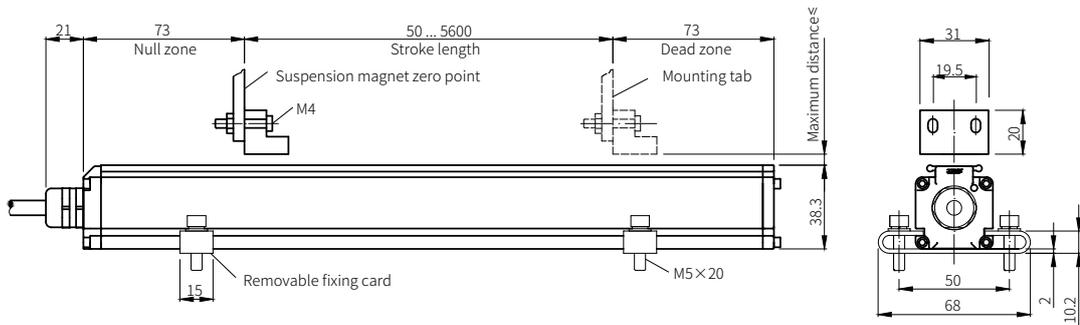
- + Easily installed: integrated design, no protruding electronics housing
- + Linear measurement, absolute value output
- + Easy to use: standard signal output, maintenance free
- + Resolution highest up to 2µm
- + Widely applied in forging, building materials, rubber and plastic machinery and other fields



<b>Input</b>	Measured data	Position
	Measurement range	50mm...5600mm
<b>Output</b>	Interface	EtherCAT
	Data protocol	EtherCAT 100 Base-Tx, high speed Ethernet
	Transmission	Max. 100Mbit/s
<b>Resolution</b>	Resolution	2...1000 $\mu$ m optional
	None-Linearity	< $\pm 0.02\%$ F.S. (min. $\pm 50\mu$ m)
	Repeatability	< $\pm 0.005\%$ F.S. (min. $\pm 20\mu$ m)
	Temperature coefficient	< 30ppm/ $^{\circ}$ 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	+24VDC(-15/+20%)
	Polarity protection	Up to -36VDC
	Overvoltage protection	Up to +36VDC
	Power consumption	< 120mA (varies with range size)
	Dielectric strength	500 VDC (DC ground to machine ground)
<b>Operating conditions</b>	Magnet velocity	Slider magnet $\leq 10$ m/s; suspension magnet, any.
	Operating temperature	-40...85 $^{\circ}$ 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

**Straight out cable**

GP2- \_\_\_\_ - **RP** \_\_\_\_ - \_\_\_\_  
 GP2- \_\_\_\_ - **RT** \_\_\_\_ - \_\_\_\_

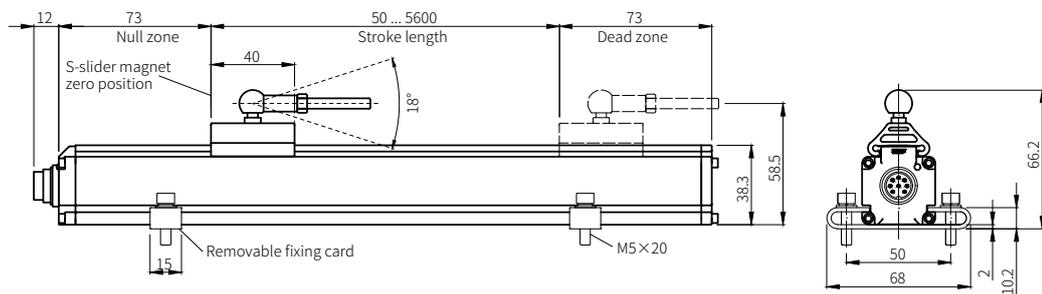


**FUNCTION**

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

**6 pin M16 connector**

GP2- \_\_\_\_ - **D616**- \_\_\_\_



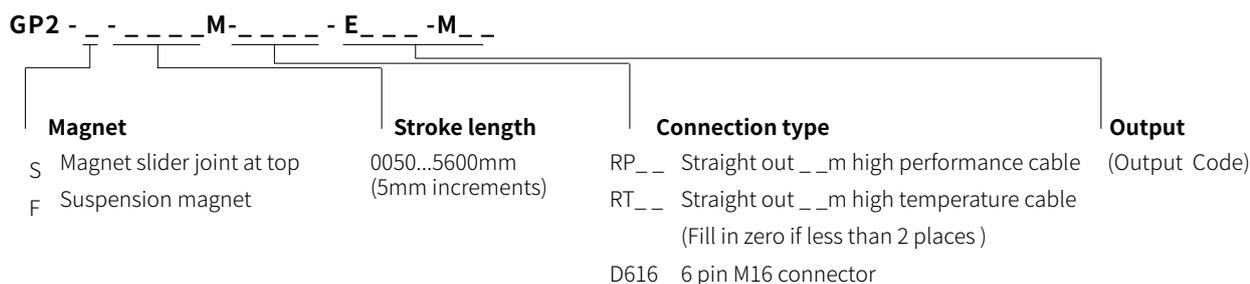
PIN-male	1 (Pink)	2 (Yellow)	3 (Gray)	4 (Green)	5 (Brown)	8 (White)
Function	TX+	RX+	TX-	RX-	24VDC -15/+20%	0VDC (GND)



View on sensor

**ORDER CODE**

TECHNOLOGY PERCEIVES THE FUTURE

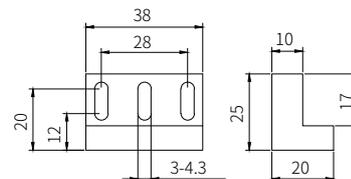
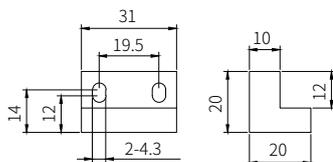


**EtherCAT Output Code E [1] [2] [3]- M [4] [5]**

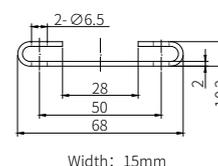
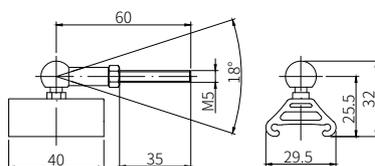
[1] [2] [3] Output	[4][5] Magnet number
101 Position, update in high speed, 1-5 magnet	01 one magnet
102 Position, 1-20 magnet	02 two magnets
103 Position and velocity, update in high speed, 1-5 magnet, linear correction optional	
105 Position and velocity, 1-20 magnet, linear correction optional	

**Model selection** | Model: GP2-F-0600M-D616-E101-M01

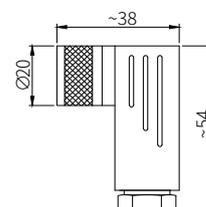
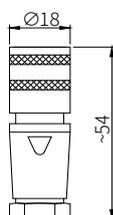
| Explanation: GP2 type II generation, Suspension magnet, stroke length 600mm, 6 pin M16 aviation plug ,EtherCAT Output ,position, update in high speed, one magnet.



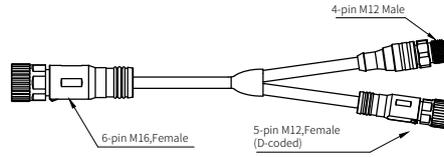
Name	Suspension magnet 31x20	Suspension magnet 38x25
Operating temperature	-40...105°C	
<b>Order code</b>	<b>12-1010</b>	<b>12-1009</b>



Name	Magnet slider S, joint at top	Removable fixing card
Operating temperature	-40...105°C	/
<b>Order code</b>	<b>12-1116</b>	<b>11-1060</b>



Name	6 pin M16 female connector	6 pin M16 female connector (90 degree angle)
End view drawing		
Material	Galvanized nickel	Galvanized nickel
Fitting diameter	8...10mm	6...8mm
Connection	Welding	Welding
<b>Order code</b>	<b>18-3007</b>	<b>18-3003</b>



Name	One-in-two distributor																											
Cable color	Black																											
Compatible interface	EtherCAT																											
Operating temperature	-40~90°C																											
End view drawing	<table border="1"> <thead> <tr> <th colspan="2">5pin M12(D-coded) female connector</th> </tr> </thead> <tbody> <tr> <th>PIN</th> <th>Function</th> </tr> <tr> <td>1</td> <td>TX+</td> </tr> <tr> <td>2</td> <td>RX+</td> </tr> <tr> <td>3</td> <td>TX-</td> </tr> <tr> <td>4</td> <td>RX-</td> </tr> <tr> <td>5</td> <td>-</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th colspan="2">4 pin M12 male connector</th> </tr> </thead> <tbody> <tr> <th>PIN</th> <th>Function</th> </tr> <tr> <td>1</td> <td>+24VDC</td> </tr> <tr> <td>2</td> <td>-</td> </tr> <tr> <td>3</td> <td>GND</td> </tr> <tr> <td>4</td> <td>-</td> </tr> </tbody> </table>	5pin M12(D-coded) female connector		PIN	Function	1	TX+	2	RX+	3	TX-	4	RX-	5	-	4 pin M12 male connector		PIN	Function	1	+24VDC	2	-	3	GND	4	-	
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1	+24VDC																											
2	-																											
3	GND																											
4	-																											
Length	10M																											
<b>Order code</b>	<b>16-1059</b>																											

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