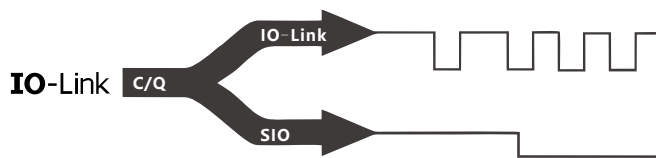
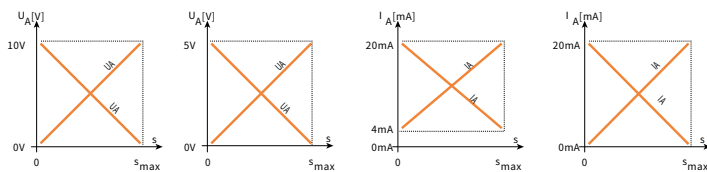


**GP**

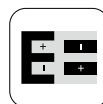
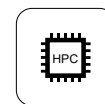
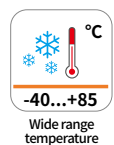
GP2-Series

GP2-Analog(+IO-Link)

GP2-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 applicated in forging, building materials, rubber and plastic machinery and other fields
- + Output Analog+IO-Link

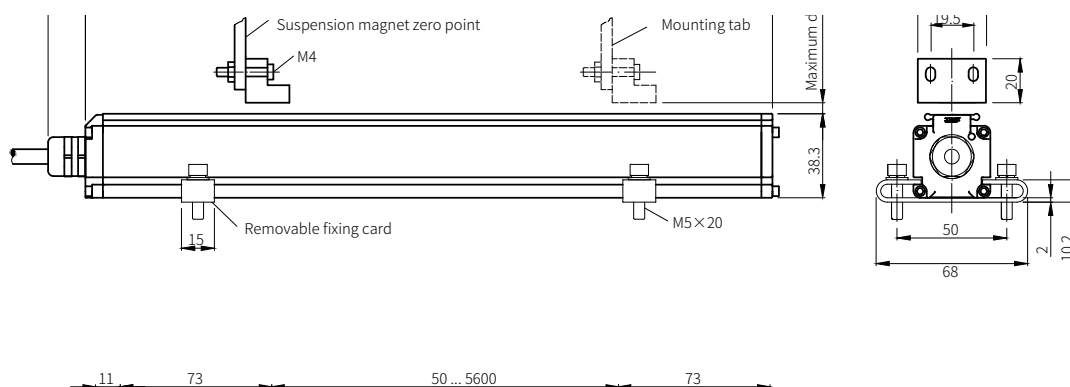


TECHNICAL PARAMETER

TECHNOLOGY PERCEIVES THE FUTURE

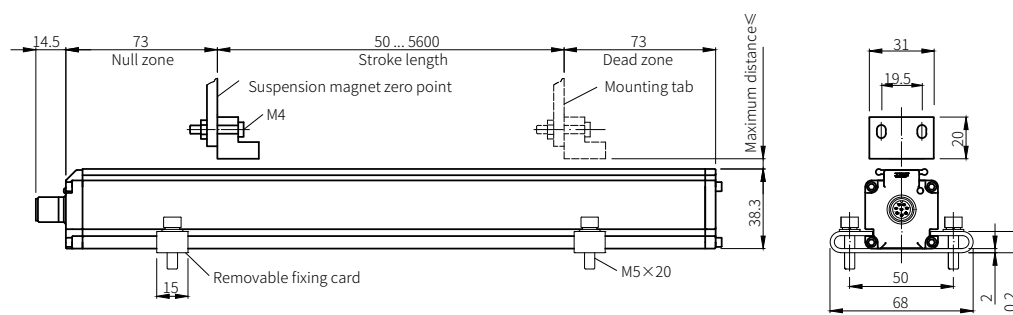
Input				
Measured data	Position/Speed			
Measurement range	50mm...5600mm			
Output				
Voltage	0...10VDC, 10...0VDC, 0...5VDC, 5...0VDC (Controller min. load impedance >5KΩ)+IO-Link			
Current	4...20mA, 20...4mA, 0...20mA, 20...0mA (min./max. load 0/750Ω)+IO-Link			
Transmission rate (IO-Link)	Rate(bit/s)	4800	38400	230400
	Port	COM1	COM2	COM3*
Resolution				
Position resolution	Analog	16 bit D/A		
	IO-Link	1/2/5*/10/20/50/100μm		
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			
Mounting				
Mounting direction	Any			
Fixation	Removable fixing card			
Design/Material				
Sensor cap	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 speed	Slider magnet ≤ 10m/s; suspension magnet, 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			

Note: "*" as default

Straight out cable
GP2- ____ - **RP** - ____GP2- ____ - **RT** - ____
FUNCTION

Color	● Brown	○ White	● Yellow	● Red	● Green	● Gray*	● Pink*
Function	24VDC (-15/+20%)	GND	SGND 1	C/Q (communication line)	Signal output 1	Signal output 2*	SGND 2

"*"adaptable for dual output signal connection

8 pin M12 connector
GP2- ____ - **D812** - ____
FUNCTION

PIN-male	1*	2	3*	4	5	6	7	8
Function	SGND 2	SGND 1	Signal output 2*	C/Q (communication line)	Signal output 1	GND	24VDC (-15/+20%)	NC

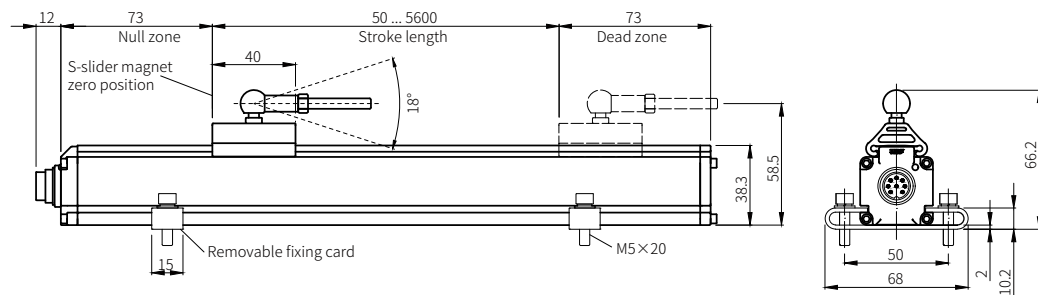


View on sensor

"*"adaptable for dual output signal connection

8 pin M16 connector

GP2- ____ - D816- ____


Current signal output

PIN-Male	1	2	*3	4	5	6	7	8
Function	Output 1 (current signal)	SGND	*Output 2 (current signal)	C/Q (communication line)	NC	GND	24VDC (-15/+20%)	NC



View on sensor

Voltage signal output

PIN-Male	1	2	*3	4	5	6	7	8
Function	NC	SGND	*Output2 (voltage signal)	C/Q (communication line)	Output1 (voltage signal)	GND	24VDC (-15/+20%)	NC

Note: Pin effectiveness depends to actual signal.
"*" adaptable for dual output signal connection

ORDER CODE

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GP2 - - - - M - - - - -			
Magnet	Stroke length	Connection type	Output
S Magnet slider joint at top	0050...5600mm (5mm increments)	RP__ Straight out __m high performance cable	(Output Code)
F Suspension magnet		RT__ Straight out __m high temperature cable (Fill in zero if less than 2 places)	
		D812 8 pin M12 connector	
		D816 8 pin M16 connector	

Analog Output Code [1][2][3]-[4] [5][6]

[1] System	[2] Resolution	[3] Output	[4][5] Current/Voltage		[6] Magnet
L +IO-Link (COM3)	1 5μm*	1 Position	A0 4...20mA (forward)	V0 0...10V (forward)	1 one magnet *
	2 2μm	2 Position and speed*	A1 20...4mA (reverse)	V1 10...0V (reverse)	2 two magnets
	3 10μm	3 2 positions	A2 0...20mA (forward)	V2 0...5V (forward)	
	4 50μm	4 2 positions and 2 speeds	A3 20...0mA (reverse)	V3 5...0V (reverse)	
	5 100μm	5 Configurable outputs			
	7 20μm				
	8 1μm	(Speed : μm/s)			

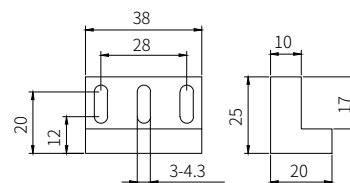
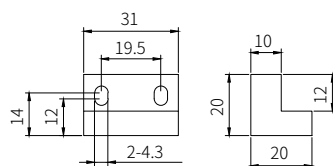
Note: forward, data grows larger when the magnet is distant from the electronics housing;
reverse, data grows larger when the magnet approaches the electronics housing.

Model selection | Model: GP2-F-0600M-D812-L11-A01

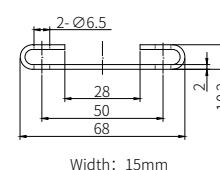
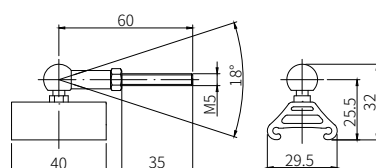
Explanation: GP2 type II generation, Suspension magnet, stroke length 600mm, 8pin M12 aviation plug, Interface Analog+IO-Link, IO-Link resolution 5μm, position measurement, analog output of 4..20mA (forward), single magnet.

PARTS SELECTION

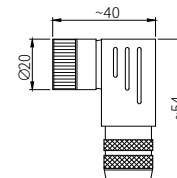
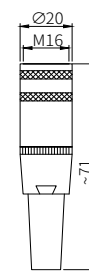
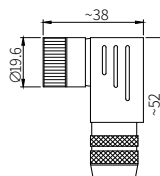
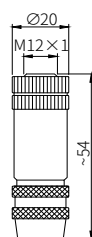
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Name	Suspension magnet 31x20	Suspension magnet 38x25
Operating temperature	-40...105°C	
Order code	12-1010	12-1009



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



Name	8 pin M12 female connector	8 pin M12 female connector (90 degree angle)	8 pin M16 female connector	8 pin M16 female connector (90 degree angle)
End view drawing				
Material	Galvanized nickel			
Fitting diameter	8...10mm	6...8mm	6...8mm	6...8mm
Connection	Threaded		Welding	
Order code	18-5004	18-5005	18-5002	18-5003

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