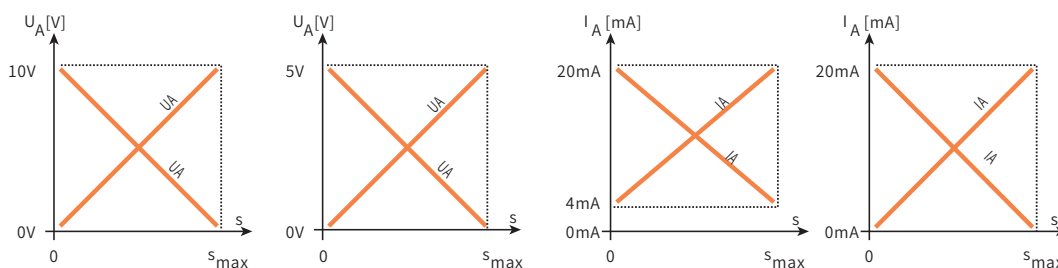




GP2-Analog

Data Sheet



- + Easily installed: integrated design, no protruding electronics housing
- + Linear measurement, absolute value output without zeroing
- + Easy to use: standard signal output, maintenance free
- + Resolution highest up to $1\mu\text{m}$
- + Widely applied in forging, building materials, rubber and plastic machinery and other fields

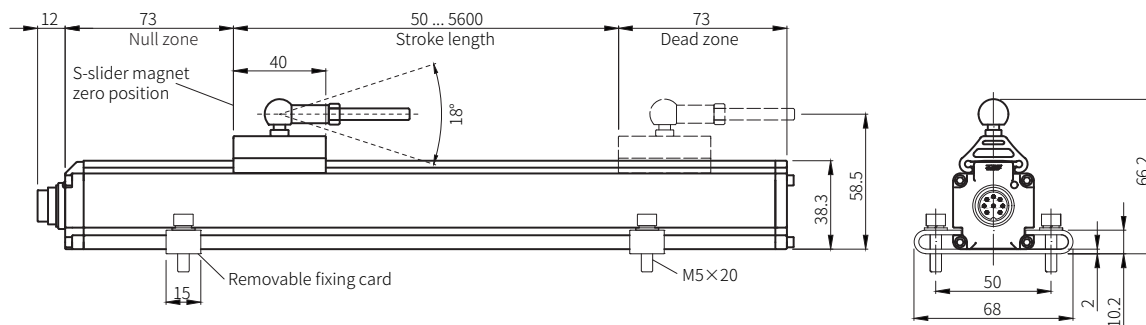


Document Number:
GP2-A(V1.1)-EN

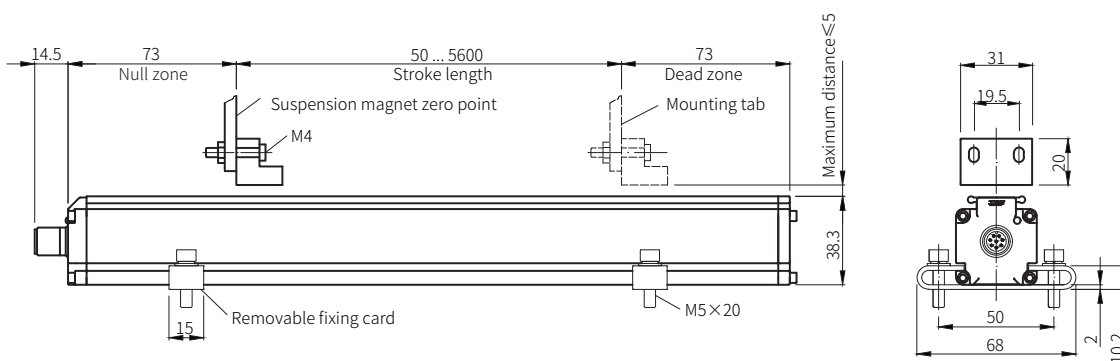
TECHNICAL PARAMETER

Input				
Measured data	Position/Velocity			
Measurement range	50mm...5600mm			
Output				
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)			
Resolution				
Position resolution	16 bit D/A			
None-Linearity	< ±0.01%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 position	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	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)			
Operating Conditions				
Magnet velocity	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 61000-6-4 Electromagnetic immunity according to EN 61000-6-2			

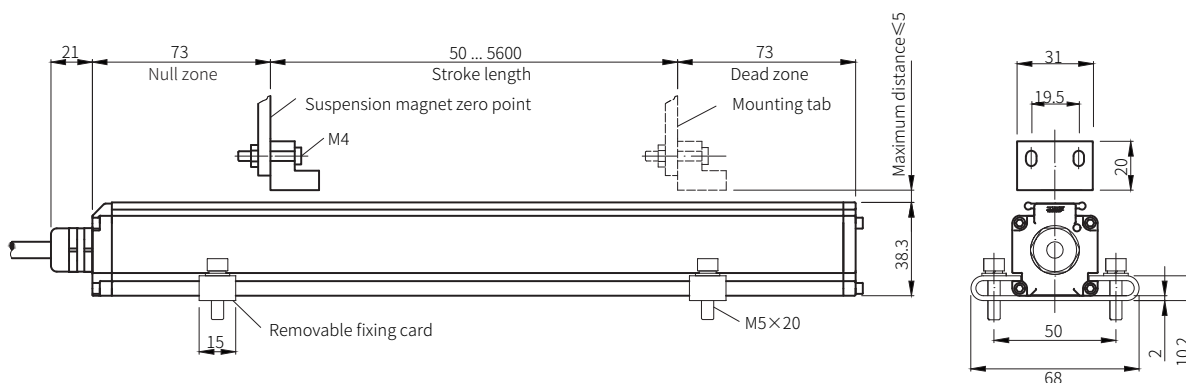
8 pin M16 connector



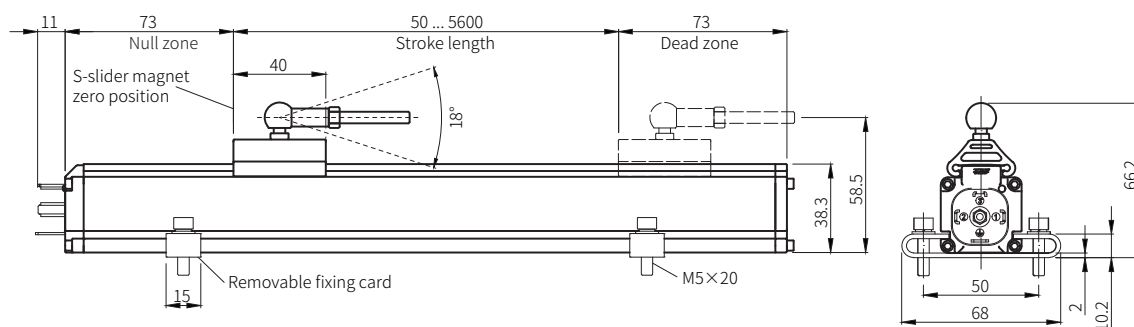
8 pin M12 connector



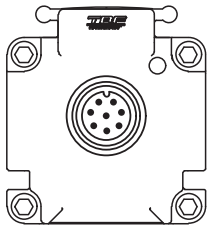
Straight out cable

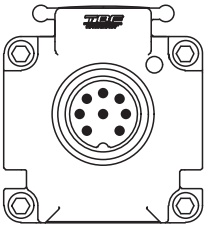


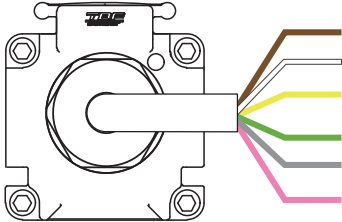
Rectangular connector

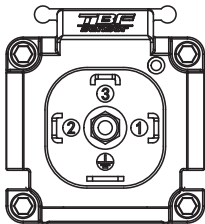
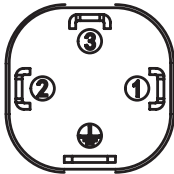


Wiring

8 pin M12 connector	D812	PIN	Function
	 View on sensor	1	Signal ground 2*
		2	Signal ground 1
		3	Signal output 2*
		4	NC
		5	Signal output 1
		6	GND
		7	+24 VDC (-15/+20%)
		8	NC

8 pin M16 connector	PIN	Current signal output	Voltage signal output
	 View on sensor	1	Signal output 1
		2	Signal ground
		3	Signal output 2*
		4	NC
		5	NC
		6	GND
		7	+24 VDC (-15/+20%)
		8	NC

Straight out cable	Color	Function
	Brown	+24 VDC (-15/+20%)
	White	GND
	Yellow	Signal ground 1
	Green	Signal output 1
	Gray	Signal output 2*
	Pink	Signal ground 2*

Rectangular connector	PIN	Function	
		1	+24 VDC (-15/+20%)
		2	Signal output
		3	GND
		4	--

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

ORDER CODE

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	
		HP00 Rectangular connector	

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)	

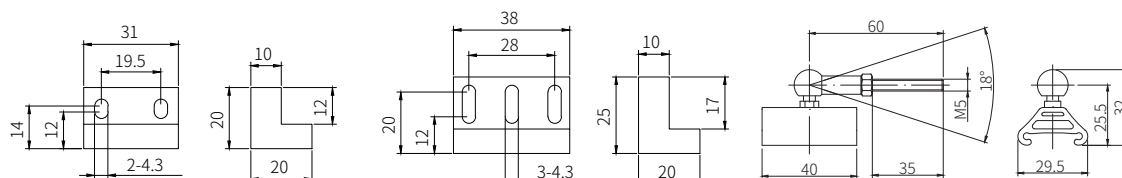
Note: forward, data grows larger when the magnet is distant from the electronics housing;
reverse, data grows larger when the magnet approaches the electronics housing.

Model selection	Model: GP2-F-0600M-D812-11-A01
	Explanation: GP2 type , suspension magnet, stroke length 600mm, 8pin M12 aviation plug, standard, position measurement, 4...20mA (forward), single magnet.



PARTS SELECTION

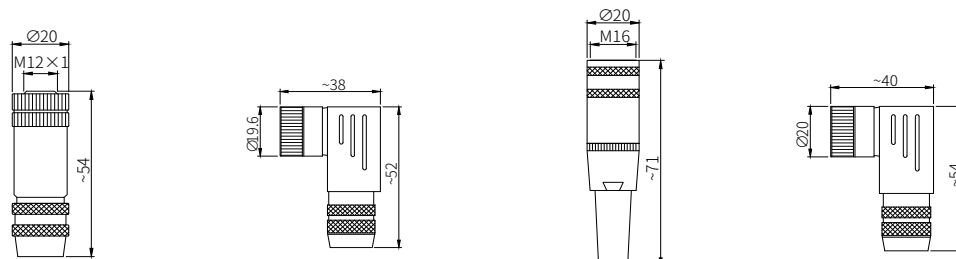
Analog



Name	Suspension magnet 31x20	Suspension magnet 38x25	Magnet slider S, joint at top
Operating temperature	-40...105°C		
Order code	12-1010	12-1009	12-1116



Name	Connecting Rod	Removable fixing card
Order Code	11-1005*	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...9mm	6...8mm
Connection	Threaded		Welding	
Order code	18-5004	18-5005	18-5002	18-5003

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