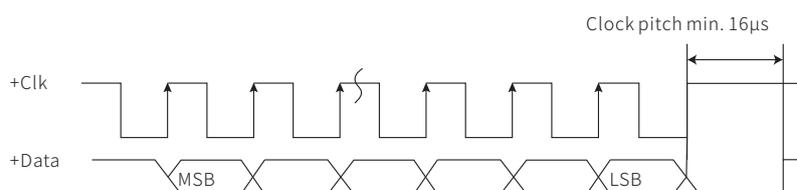




GA-SSI

GA-pressure resistant outer tube



- + Durust: fully enclosed design with maximum IP68 protection
- + Digital technology, fast response, stable and reliable
- + Linear measurement: absolute value output, no need to reset to zero
- + Easy to use: standard signal output, maintenance free
- + Maximum durability: continuous non-contact measurement
- + Resolution highest up to 0.5 µm

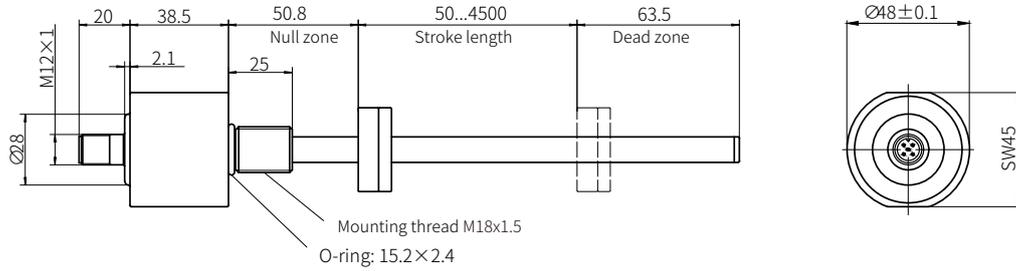


TECHNICAL PARAMETER

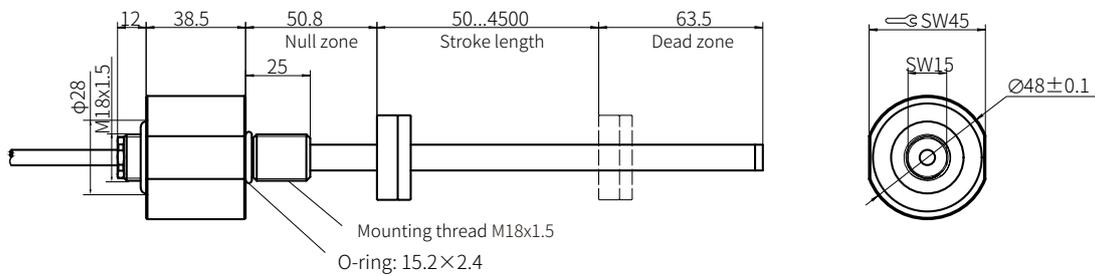
Input													
Measured data	Position												
Measurement range	50mm...4500mm												
Output													
Interface	SSI synchronous serial interface												
Data format	Binary or gray code, parity check and alarm bit optional												
Data length	8...32 bit												
Data speed	70kBd...1MBd 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>≤ 4500</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>0.8</td> </tr> </table>	Stroke length(mm)	< 300	< 750	< 1000	< 2000	≤ 4500	Update frequency (kHz)	3.7	3.0	2.3	1.2	0.8
Stroke length(mm)	< 300	< 750	< 1000	< 2000	≤ 4500								
Update frequency (kHz)	3.7	3.0	2.3	1.2	0.8								
Resolution													
Resolution	0.5/1/2/5/10/20/50/100μm												
None-Linearity	< ±0.02%F.S.(min. ±50μm)												
Repeatability	< ±0.002%F.S.(min. ±20μm)												
Temperature coefficient	< 30ppm/°C												
Mounting													
Mounting position	Any												
Thread	Metric M18x1.5												
Design/Material													
Electronics housing	Stainless steel 304												
Measuring rod	Stainless steel 304、 316L												
Operating pressure ratings	35MPa (continuous) ,70MPa (peak)												
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	< 90mA (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												

TECHNICAL DRAWING

8 PIN M12 connector



Straight out cable



For selection of supporting magnetic rings and non-permeable gaskets, please refer to the attachment for details.



Magnetic ring

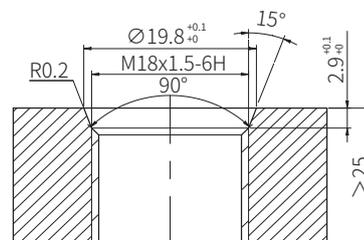


Non-permeable gasket

MECHANICAL MOUNTING DIAGRAM

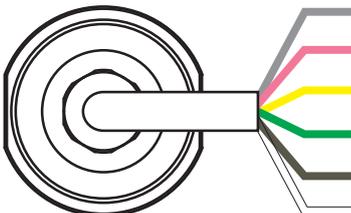
Thread fixation

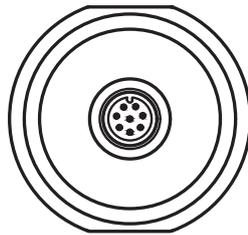
GA series built-in pressure resistant outer tube sensors are equipped with metric M18x1.5 threads to be fixed.



Metric M18x1.5, reference to the hole size

Wiring

5-core straight out wire	Color	Function
	Gray	Data-
	Pink	Data+
	Yellow	Clock+
	Green	Clock-
	Brown	9VDC...36VDC
	White	GND

8 Pin M12 connector	PIN	Function	
	 <p>View on sensor</p>	1	Clock+
		2	Data+
		3	Clock-
		4	NC
		5	Data-
		6	GND
		7	9VDC...36VDC
		8	NC

ORDER CODE

GA	M	Stroke length	Connection type	Output
Thread	Stroke length	Connection type	Output	
M Metric M18x1.5	0050~4500mm (5mm increments)	D812 8 pin M12 connector	(Output Code)	
R Metric M18x1.5, with M4x6 thread at tail end		RP/T__ Straight out__m high performance / temperature cable (If the cable length is less than two digits, add zeros in front.)		

SSI Output Code	S [1][2][3][4][5][6]			
[1] Data length	[2] Format	[3] Resolution	[4] Options	[5][6] Mode
1 25 bit	B Binary	1 5µm 6 2µm	1 Standard	00 Forward
2 24 bit	G Gray	2 10µm 8 1µm		01 Reverse
3 26 bit		3 50µm 9 0.5µm		05 Forward+alarm bit + parity check bit
		4 100µm		
		5 20µm		

K=Anti-vibration program (If there are special needs, please fill in the end of the model number.)

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

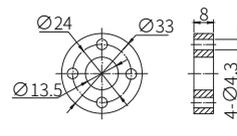
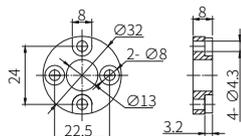
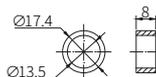
Model: GA-M-0390M-RP05-S1B1100

Explanation: GA series pressure resistance outer tube type, mounting thread metric M18x1.5, range 390mm, straight out 5m high performance cable , out put SSI ,25 bit, Binary, resolution 5µm standard, forward.



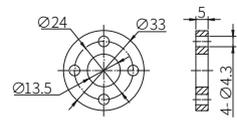
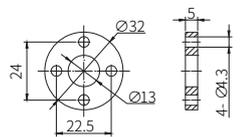
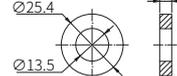
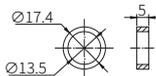
ACCESSORIES

SSI

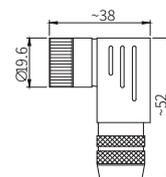
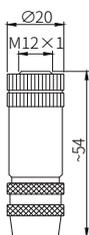


Name	Ring magnet				
Operating temperature	-40~125°C				
Order code	12-1020	12-1032	12-1019	12-1024	12-1001

Non-permeable gasket



Name	Non-permeable gasket				
Operating temperature	-40~125°C				
Order code	12-1037	12-1037	12-1021	12-1025	12-1008



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

■ For more customizable products, please contact us.

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