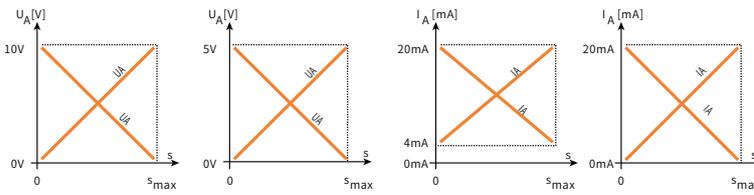




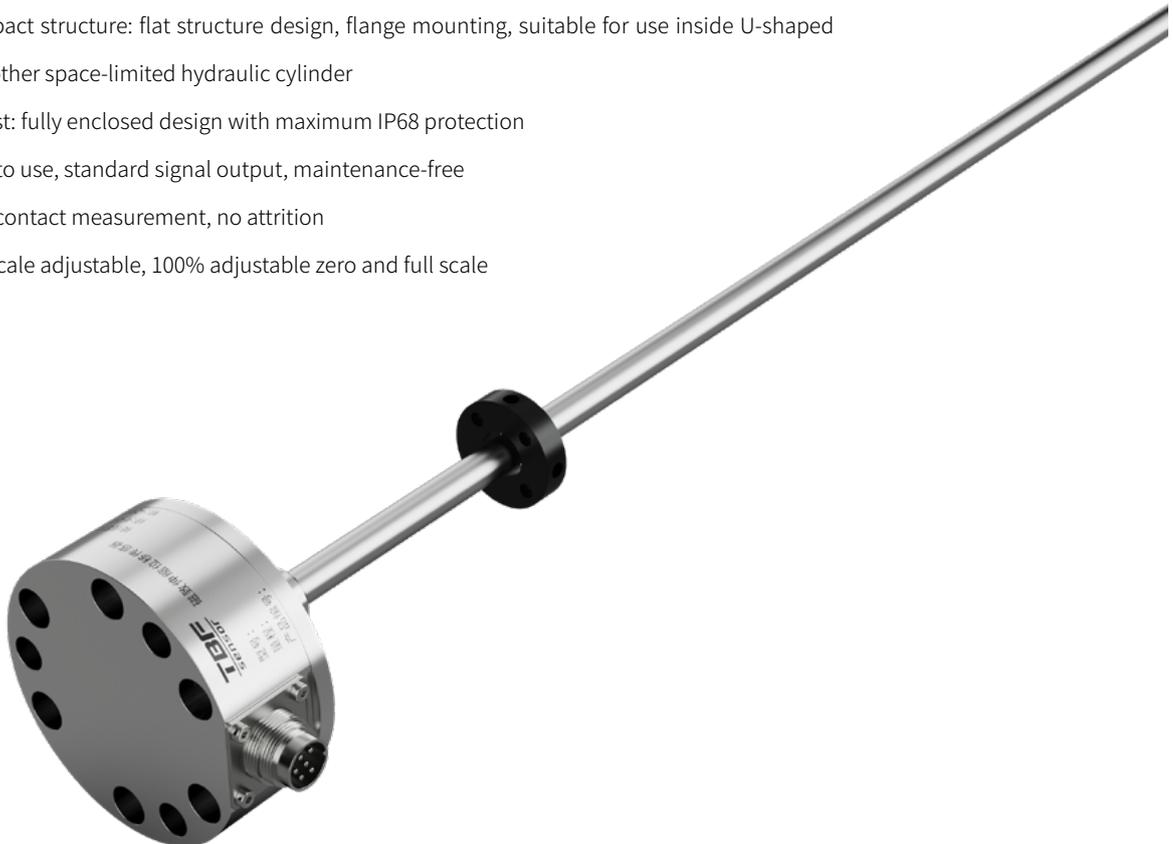
GB-Analog

GB-Series

Data Sheet



- + Compact structure: flat structure design, flange mounting, suitable for use inside U-shaped and other space-limited hydraulic cylinder
- + Durust: fully enclosed design with maximum IP68 protection
- + Easy to use, standard signal output, maintenance-free
- + Non-contact measurement, no attrition
- + Full scale adjustable, 100% adjustable zero and full scale



Input	Measured data	Position								
	Measurement range	50..4500mm								
Output	Voltage	0...10VDC, 10...0VDC, 0...5VDC, 5...0VDC, 0.5...4.5VDC (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	< ±0.02%F.S. (min. ±50μm)								
	Repeatability	< ±0.005%F.S. (min. ±20μm)								
	Update time	<table border="1"> <thead> <tr> <th>Stroke length</th> <th>≤ 1200mm</th> <th>≤ 2400mm</th> <th>≤ 4500mm</th> </tr> </thead> <tbody> <tr> <td>Update time</td> <td>0.5ms</td> <td>1ms</td> <td>2ms</td> </tr> </tbody> </table>	Stroke length	≤ 1200mm	≤ 2400mm	≤ 4500mm	Update time	0.5ms	1ms	2ms
	Stroke length	≤ 1200mm	≤ 2400mm	≤ 4500mm						
Update time	0.5ms	1ms	2ms							
Temperature coefficient	<30ppm/°C									
Mounting	Mounting position	Any								
	Mounting	Tight sealed flange Φ18h6, 6 screw mounting holes								
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 6 pin M16 aviation plug								
	Operating voltage	+24VDC(-15/+20%)								
	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	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								

ITEM

CATEGORY

PARAMETER

GB- ____ - **RP** - ____ **Straight out cable**
 GB- ____ - **RT** - ____

Side view dimensions: 34, 40 (Null zone), 50..4500 (Stroke length), 63.5 (Dead zone), 97.5, 25, $\phi 18h6$, O-ring 15.2x2.4, Installation surface, 21, 23, $\phi 10$.

Top view dimensions: $\phi 79$, $\phi 64$, 30°, $\phi 6.4$, $\phi 11.729$, 6-M6x16.

Color	● Brown	○ White	● Yellow	● Green
Function	+24VDC(-15/+20%)	0 VDC(GND)	Signal circuit	Signal output

GB- ____ - **DP** - ____ **6 pin M16 connector**
 GB- ____ - **DT** - ____

Side view dimensions: 34, 40 (Null zone), 50..4500 (Stroke length), 63.5 (Dead zone), 90.5, 25, $\phi 18h6$, O-ring 15.2x2.4, Installation surface, 14, 21, $\phi 10$.

Top view dimensions: $\phi 79$, $\phi 64$, 30°, $\phi 6.4$, $\phi 11.729$, 6-M6x16.

PIN-Male	1	2	3	4	5	6
Function	Signal output	Signal circuit	NC	NC	+24VDC (-15/+20%)	0 VDC(GND)

View on sensor

ORDER CODE

TECHNOLOGY PERCEIVES THE FUTURE

GB - - - - M- - - -		Output (Output Code)	
Mounting	Stroke length	Connection type	
F Tight seal mounting Φ18h6	0050...4500mm (5mm increments)	RP/T__ Straight out __m high performance /high temperature cable	
R Tight seal mounting Φ18h6, with M4x6 thread at tail end		DP/T__ 6 pin M16 connector, with __ m high performance /high temperature cable	

(If the cable length is less than two digits, add zeros in front.)
 (If the avatation plug does not require a cable, please write DP00)

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

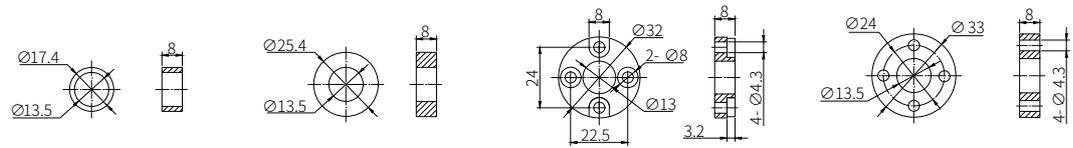
Analog Output Code	[1][2][3]
	[1][2] Current/Voltage [3] Magnet
A0	4...20mA (forward) V0 0...10V (forward) 1 one magnet
A1	20...4mA (reverse) V1 10...0V (reverse) 2 two magnets
A2	0...20mA (forward) V2 0...5V (forward)
A3	20...0mA (reverse) V3 5...0V (reverse)
	V5 0.5...4.5V (forward)

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.

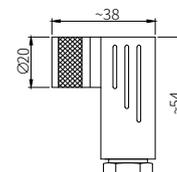
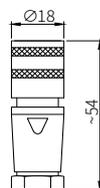
Model selection	Model: GB-F-0800M-RP05-A01
	Explanation: GB series pressure resistance outer tube type, tight sealed flange 18h6, stroke length 800mm, straight out 5m high performance cable, 4 to 20mA current output (forward), single magnetic ring.

PARTS SELECTION

TECHNOLOGY PERCEIVES THE FUTURE



Name	Ring magnet	Ring magnet	Ring magnet	Ring magnet
Operating temperature	-40...125°C			
Order code	12-1032	12-1019	12-1024	12-1001
Fitting non-permeable gasket				
Name	Non-permeable gasket	Non-permeable gasket	Non-permeable gasket	Non-permeable gasket
Operating temperature	-40...125°C			
Order code	12-1037	12-1021	12-1025	12-1008



Name	6 pin M16 female connector	6 pin M16 female connector (90 degree angle)
End view drawing		
Material	Galvanized nickel	
Fitting diameter	4...6mm	6...8mm
Connection	Welding	
Order code	18-3001	18-3003

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