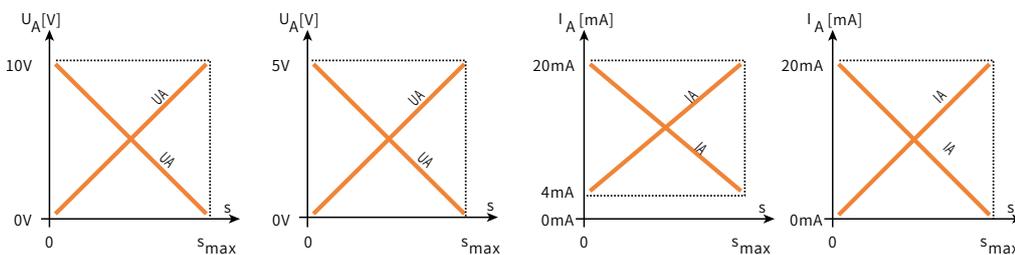




GD-Analog

GD pressure resistant outer tube



- + Compact structure: flat structure design, suitable for U-shaped and other space limited hydraulic cylinder.
- + Robust and durable, fully enclosed design, highest IP68 protection level
- + Linear measurement, absolute value output without zeroing
- + Easy to use, standard signal output, maintenance-free
- + Maximum durability, continuous non-contact
- + Full scale adjustable, 100% adjustable zero and full scale



MAGNETOSTRICTIVE SENSOR

Document Number:

GD-A(V1.2)-EN

TECHNICAL PARAMETER

Input									
Measured data	Position								
Measurement range	50mm...4500mm								
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									
Resolution	16 bit D/A								
None-Linearity	< ±0.05%F.S. (min±50μm)								
Repeatability	< ±0.005%F.S. ((min±20μm)								
Update time	<table border="1"> <tr> <td>Stroke length</td> <td>≤ 1200mm</td> <td>≤ 2400mm</td> <td>≤ 4500</td> </tr> <tr> <td>Update time</td> <td>0.5ms</td> <td>1ms</td> <td>2ms</td> </tr> </table>	Stroke length	≤ 1200mm	≤ 2400mm	≤ 4500	Update time	0.5ms	1ms	2ms
Stroke length	≤ 1200mm	≤ 2400mm	≤ 4500						
Update time	0.5ms	1ms	2ms						
Temperature coefficient	< 30ppm/°C								
Mounting									
Mounting position	Any								
Mounting form	Tight sealed flange φ18h6, 6 thread mounting holes/metric M18×1.5								
Design/Material									
Electronics housing	Stainless steel 304								
Measuring rod	Stainless steel 304/316L								
Magnet	Standard magnet/open magnet								
Operating pressure	35MPa (continuous), 70MPa (peak)								
Electrical connection									
Wiring connection	Straight out cable								
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	IP68(Customizable)								
Shock	100 g/11 ms, IEC standard 60068-2-27								
Vibration	15 g/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								
Explosion proof type	<table border="1"> <tr> <td>China</td> <td>EU</td> <td>International</td> </tr> <tr> <td>Ex d IIB T5 Gb (GDB) Ex d IIC T5 Gb (GDC) Ex d IIC T5 Gb (GDM)</td> <td>  I M2 Ex db I Mb II 2G Ex db IIC T5 Gb </td> <td>  Ex db I Mb Ex db IIC T5 Gb </td> </tr> </table>	China	EU	International	Ex d IIB T5 Gb (GDB) Ex d IIC T5 Gb (GDC) Ex d IIC T5 Gb (GDM)	 I M2 Ex db I Mb II 2G Ex db IIC T5 Gb	 Ex db I Mb Ex db IIC T5 Gb		
China	EU	International							
Ex d IIB T5 Gb (GDB) Ex d IIC T5 Gb (GDC) Ex d IIC T5 Gb (GDM)	 I M2 Ex db I Mb II 2G Ex db IIC T5 Gb	 Ex db I Mb Ex db IIC T5 Gb							

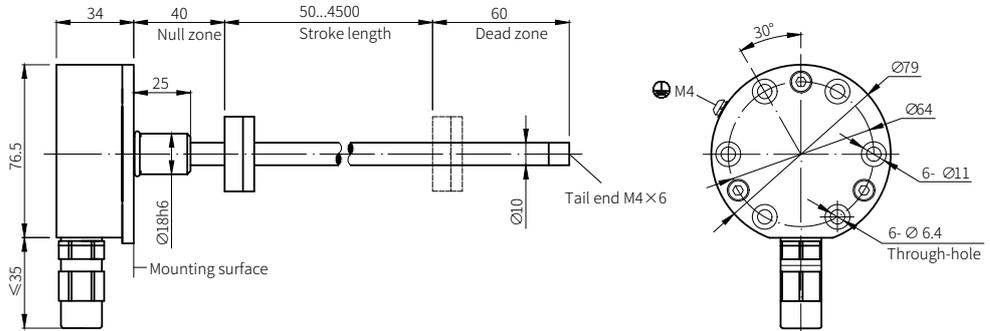
IECEX

TECHNICAL DRAWING

GDB Straight out cable

International certification

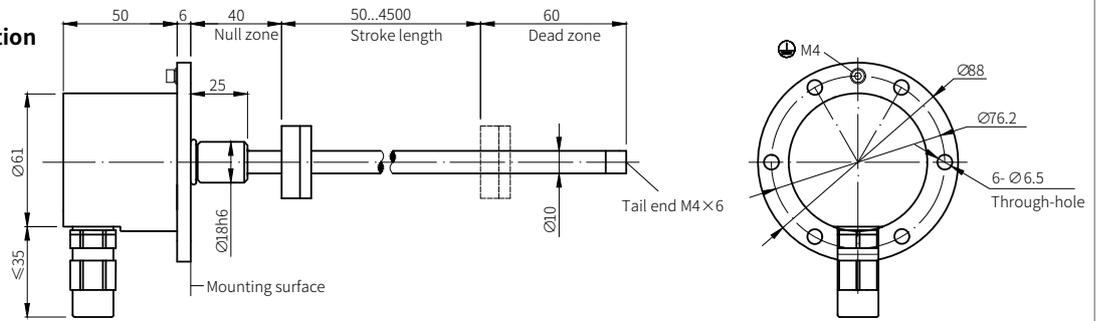
Ex db I Mb
Ex db IIC T5 Gb



GDC Straight out cable

International certification

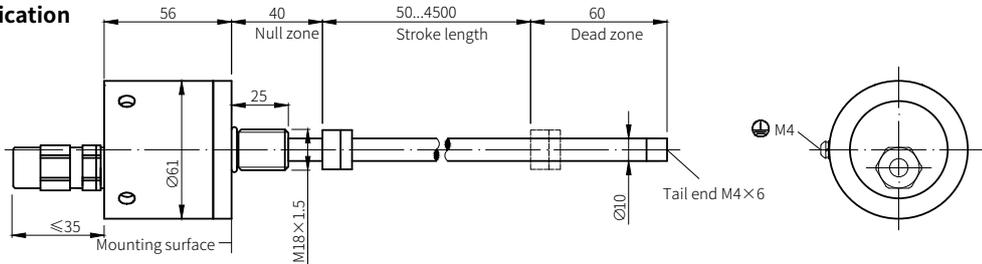
Ex db I Mb
Ex db IIC T5 Gb



GDM Straight out cable

International certification

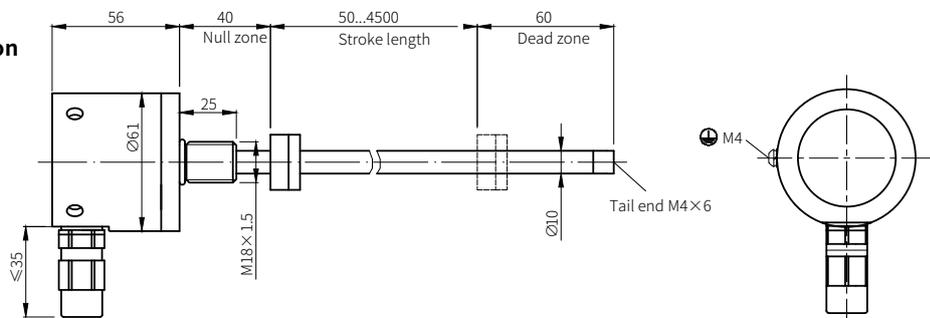
Ex db I Mb
Ex db IIC T5 Gb



GDM Side outgoing cable

International certification

Ex db I Mb
Ex db IIC T5 Gb



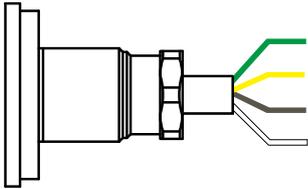
For selection of supporting magnetic rings and non-permeable gaskets, please refer to the attachment for details.



Magnetic ring

Non-permeable gasket

Wiring

Straight out cable	Color	Function
	Green	Magnetic ring position signal output
	Yellow	Magnetic ring position circuit
	Brown	+24VDC(-15/+20%)
	White	GND

ORDER CODE

GDB - R - M - - - - _____ Mounting form Tight seal mounting Φ18h6, with M4x6 thread at tail end	Stroke length 0050~4500mm (5mm increments)	Connection type RP/T__ Straight out__m high performance /temperature cable (If the cable length is less than two digits, add zeros in front.)	Ouput (Output Code)
GDC - R - M - - - - _____ Mounting form Tight seal mounting Φ18h6, with M4x6 thread at tail end	Stroke length 0050~4500mm (5mm increments)	Connection type RP/T__ Straight out__m high performance /temperature cable (If the cable length is less than two digits, add zeros in front.)	Ouput (Output Code)
GDM - M - M - - - - _____ Mounting form Metric M18x1.5, with M4x6 thread at tail end	Stroke length 0050~4500mm (5mm increments)	Connection type RP/T__ Straight out__m high performance /temperature cable SP/T__ Side out__m high performance /temperature cable (If the cable length is less than two digits, add zeros in front.)	Ouput (Output Code)

Analog Output Code [1][2][3]

[1] [2] Output	[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)	

***When selecting a model, if international certification is required, please indicate (ATEX) at the end of the model.**

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: GDB-R-0600M-RP05-A01

Explanation: GDB Explosion proof sensor, stroke length 600mm, tight seal mounting Φ18h6, with M4x6 thread at tail end, straight out 5 m high performance cable, 4...20mA (forward), single magnetic ring, Chinese certification.

Model: GDB-R-0600M-RP05-A01 (ATEX)

Explanation: GDB Explosion proof sensor, stroke length 600mm, tight seal mounting Φ18h6, with M4x6 thread at tail end, straight out 5 m high performance cable, 4...20mA (forward), single magnetic ring, International certification.



ACCESSORIES

Analog

GD

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

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