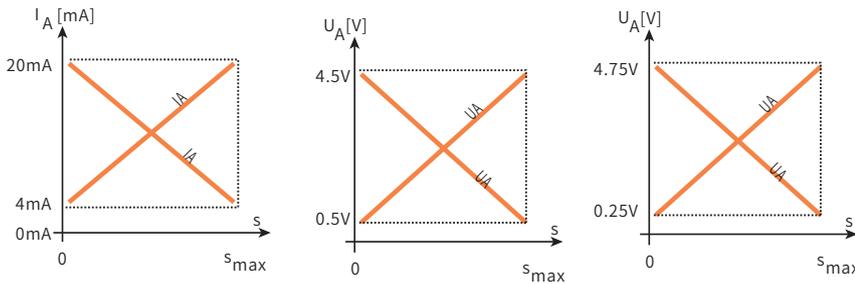


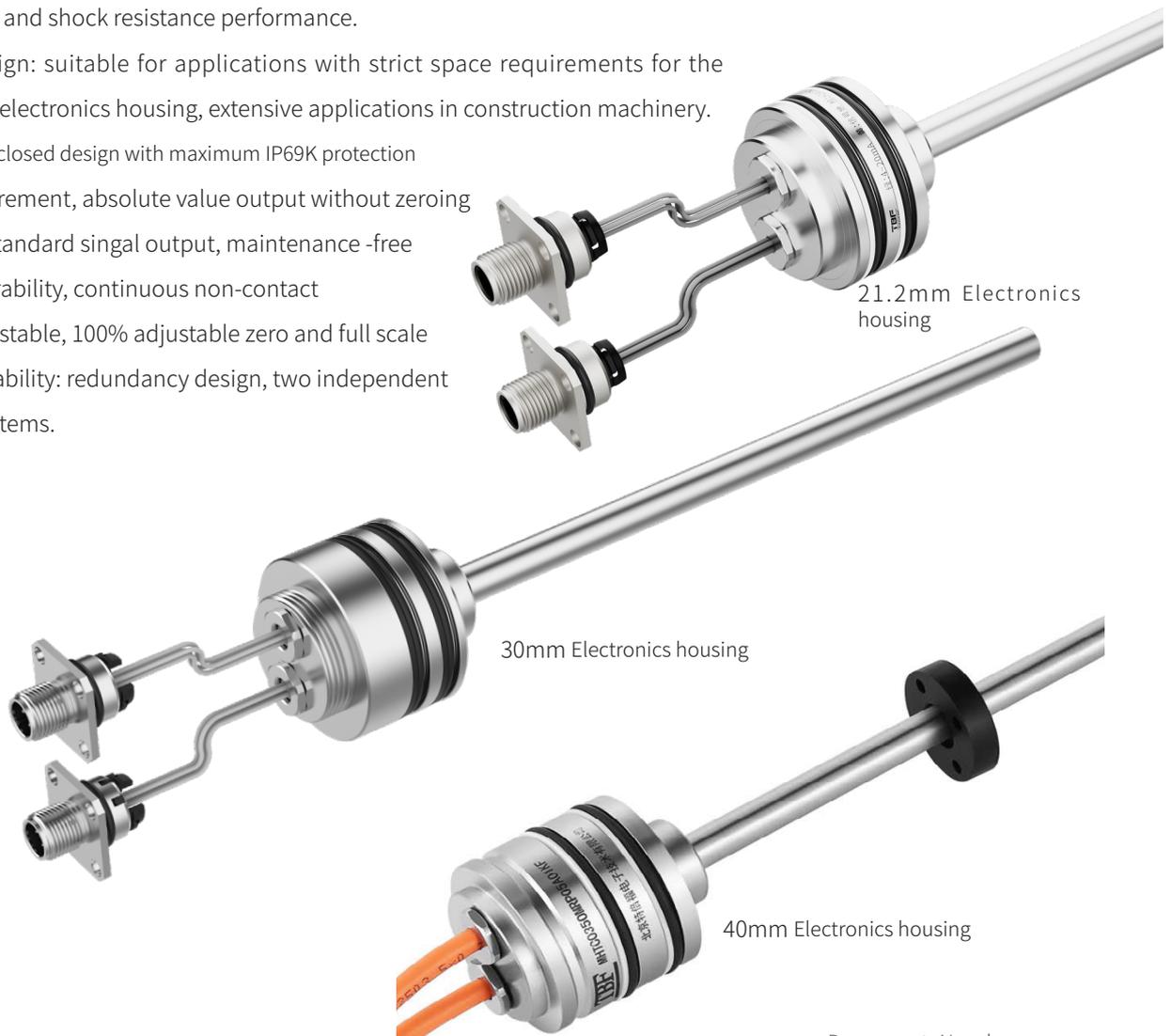


MHT Redundant displacement sensor

MHT-Analog



- + High vibration and shock resistance performance.
- + Compact design: suitable for applications with strict space requirements for the installation of electronics housing, extensive applications in construction machinery.
- + Durust: fully enclosed design with maximum IP69K protection
- + Linear measurement, absolute value output without zeroing
- + Easy to use, standard singal output, maintenance -free
- + Maximum durability, continuous non-contact
- + Full scale adjustable, 100% adjustable zero and full scale
- + Maximum reliability: redundancy design, two independent measuring systems.

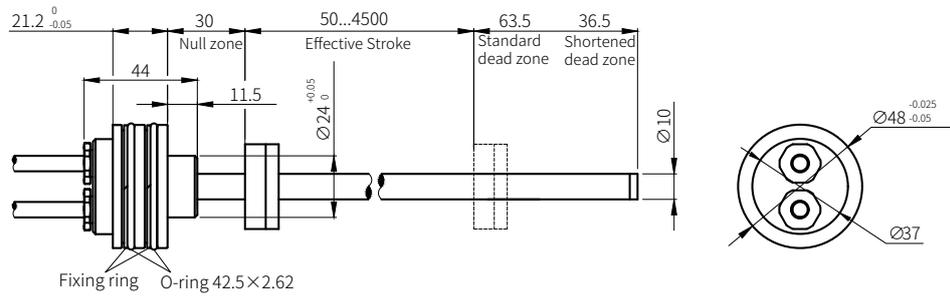


TECHNICAL PARAMETER

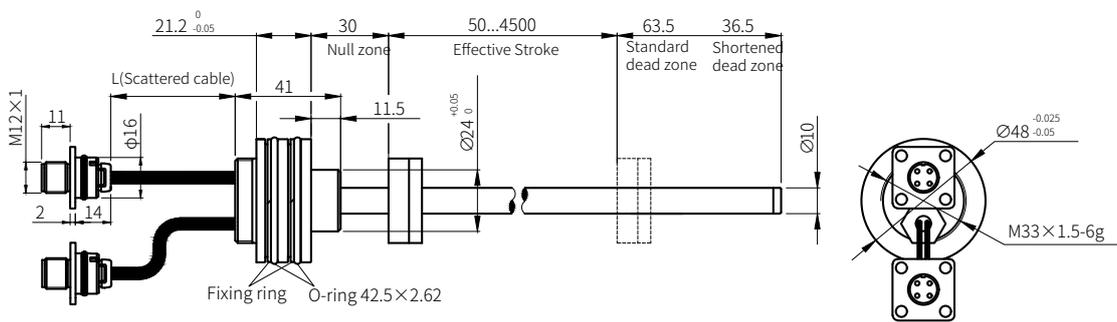
Input									
Measured data	Position								
Measurement range	50...4500mm								
Output									
Voltage	4.75~0.25VDC, 0.25~4.75VDC, 4.5~0.5VDC, 0.5~4.5VDC (Controller min. load impedance >5KΩ)								
Current	4...20mA, 20...4mA (min./max. load: 0/750Ω)								
Resolution									
Position resolution	16 bit D/A								
None-Linearity	<±0.04%F.S. (min. 0.1mm)								
Repeatability	< ±0.005%F.S								
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	Extrusion mounting								
Design/Material									
Electronics housing	Stainless steel 304								
Measuring rod	Stainless steel 304、316L								
Magnet	Standard magnet								
Operating pressure ratings	35MPa (continuous) ,70MPa (peak)								
Electrical connection									
Wiring connection	Straight out cable or connector M12x1								
Operating voltage	+24VDC(-15/+20%)								
Polarity protection	Up to -36VDC								
Overvoltage protection	Up to +36VDC								
Power consumption	≤ 110mA (varies with range size)								
Dielectric strength	500 VDC (DC ground to machine ground)								
Operating conditions									
Magnet velocity	Any								
Operating temperature	-40...85°C (105°C customizable)								
Humidity	90 % relative humidity, no condensation								
Ingress protection	IP68 / IP69K (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								

21.2mm Electronics housing
Double seal type

Straight-out cable

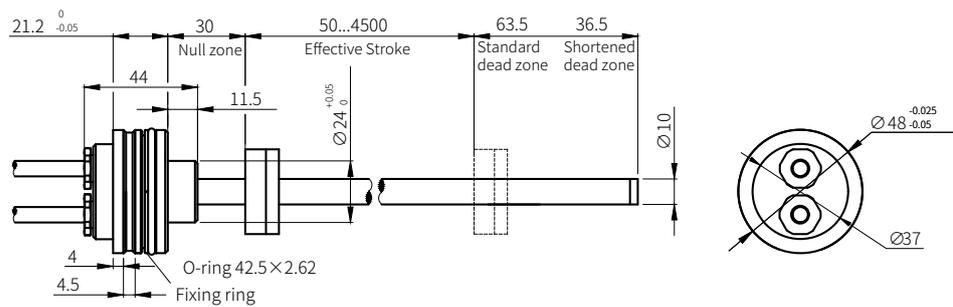


Aviation plug

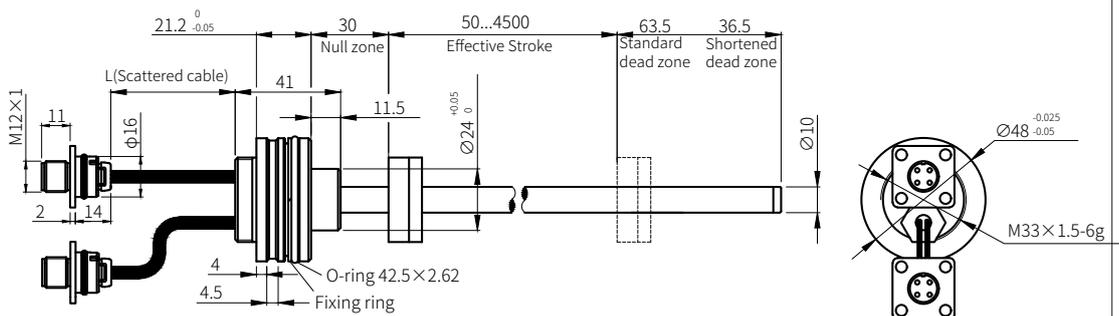


21.2mm Electronics housing
Thimble type

Straight-out cable

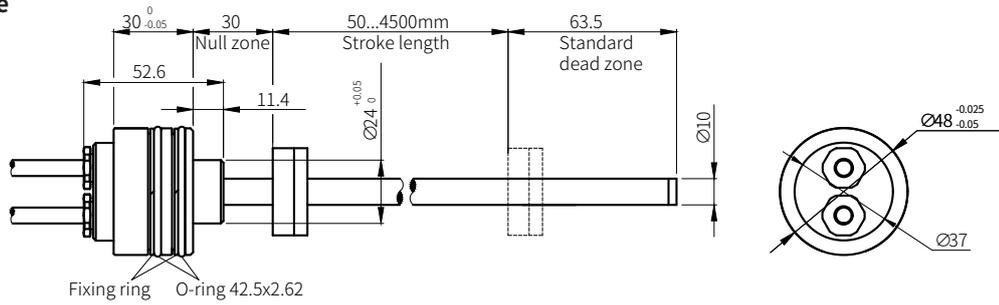


Aviation plug

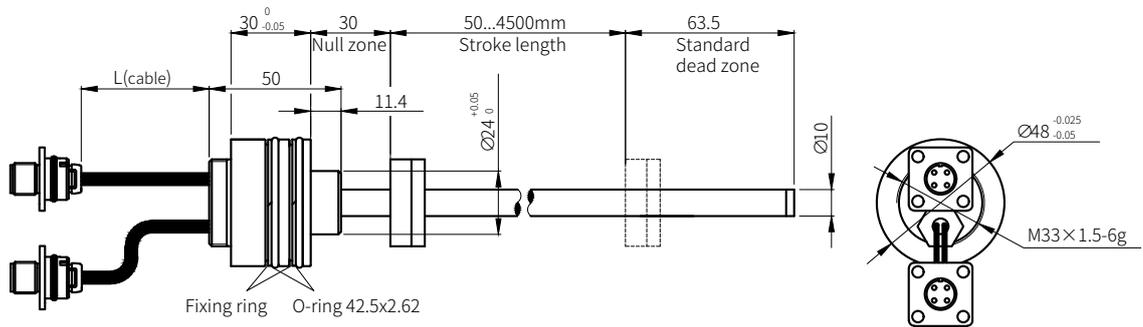


30mm Electronics housing Double seal type

Straight-out cable

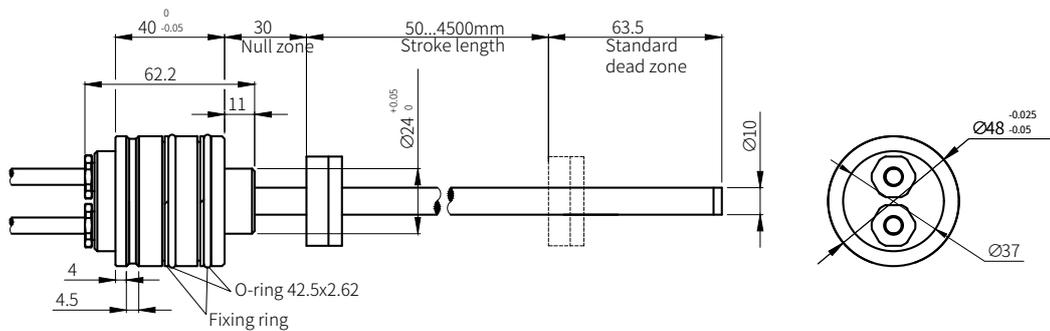


Aviation plug

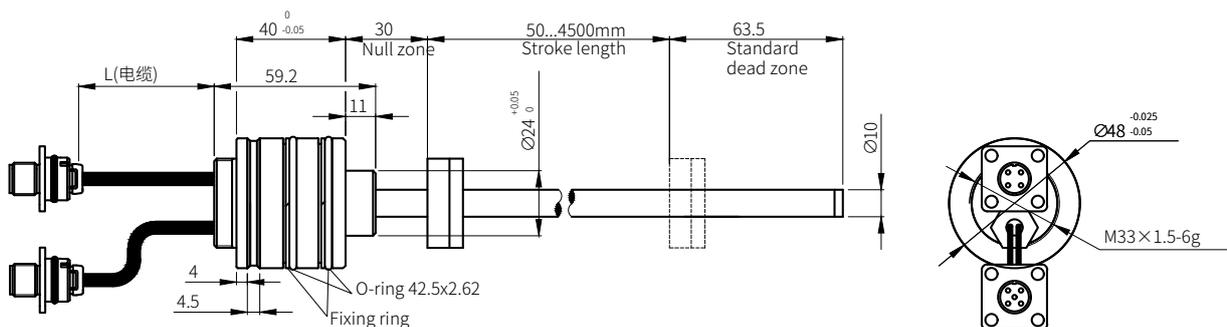


40mm Electronics housing Double seal type

Straight-out cable



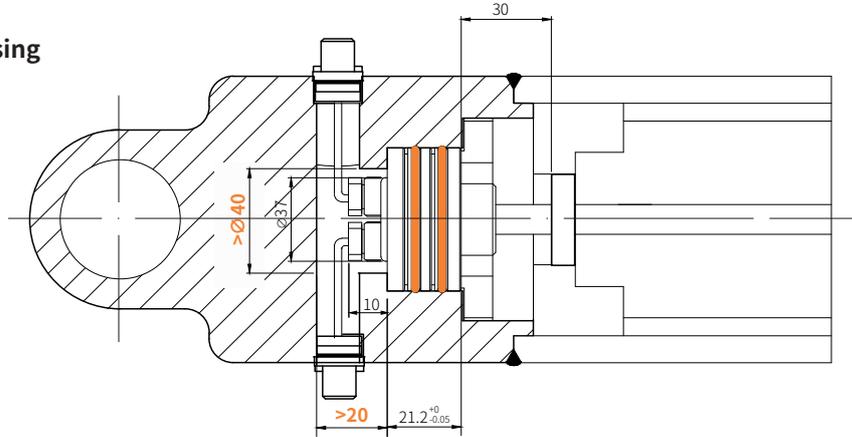
Aviation plug



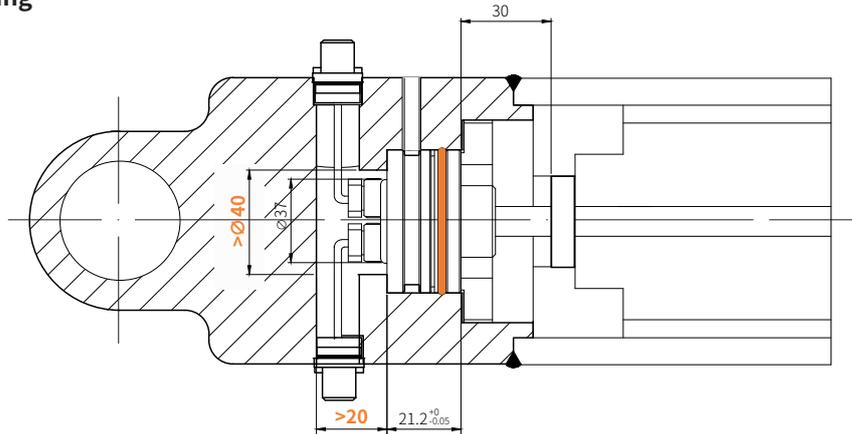
MECHANICAL MOUNTING DIAGRAM

- + Secure the magnet with non-permeable gasket.
- + The size of hole in the piston rod depends on factors such as hydraulic pressure and piston speed. The minimum hole size is $\Phi 10$ ($\Phi 7$ measuring rods) or $\Phi 13.5$ ($\Phi 10$ measuring rods).
- + The top mounting hole of the cylinder is greater than 40mm in diameter and 20mm in depth.
- + The thimble is made of flat head top wire, and the force distance is $< 0.5\text{N.m}$.

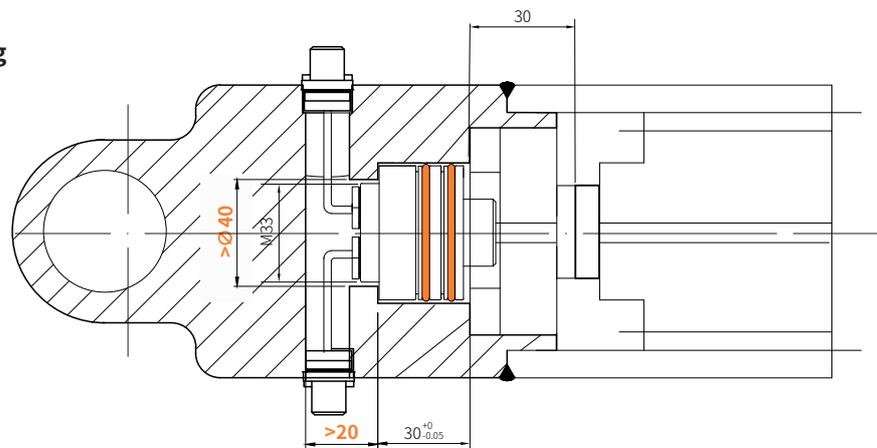
21.2mm Electronics housing Double seal type



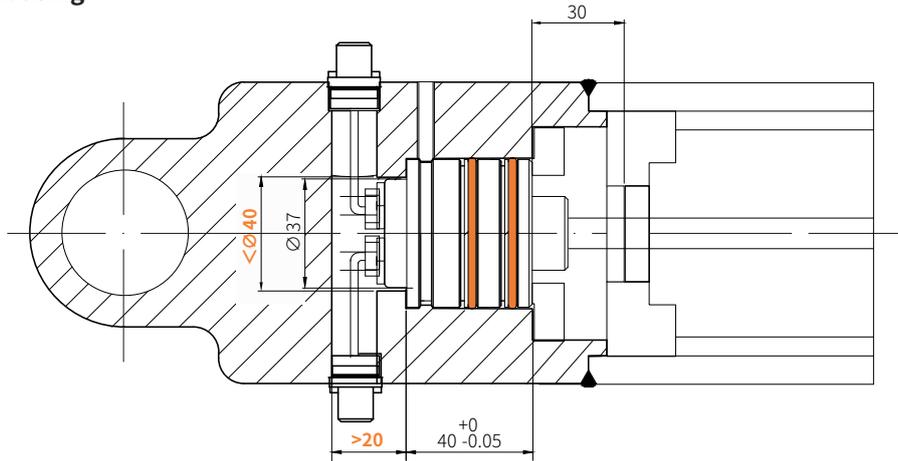
21.2mm Electronics housing Thimble type



30mm Electronics housing Double seal type

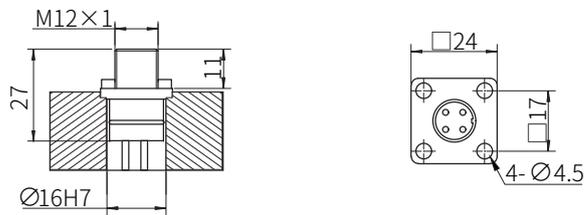


**40mm Electronics housing
Double seal type**



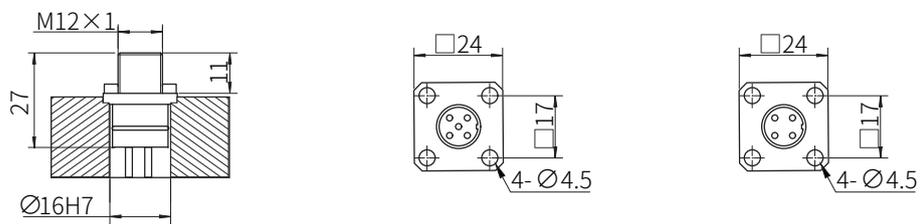
21.2/30mm Electronics housing Aviation plug

3 single lines, 0.5mm²



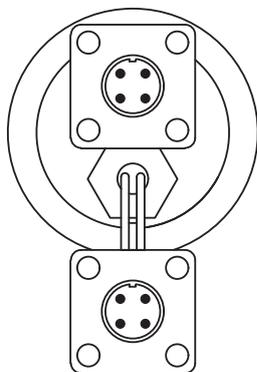
40mm Electronics housing Aviation plug

3 single lines, 0.5mm²



Wiring

21.2/30mm Electronics housing ,Aviation plug	PIN	Function
--	-----	----------



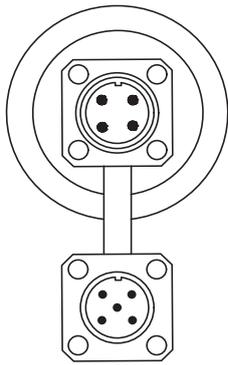
View on sensor

1	+24VDC(-15/+20%)
2	NC
3	0 VDC(GND)
4	Signal output

40mm Electronics housing Aviation plug

PIN

Function



View on sensor



4 pin M12

1	+24VDC(-15/+20%)
2	NC
3	0 VDC(GND)
4	Signal output



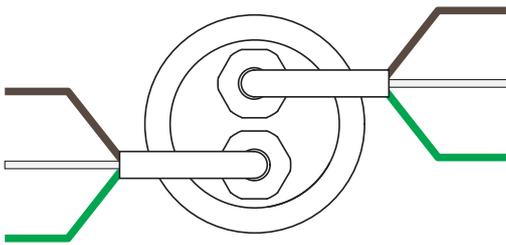
5 pin M12

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

21.2/30mm Electronics housing Straight-out cable

Color

Function

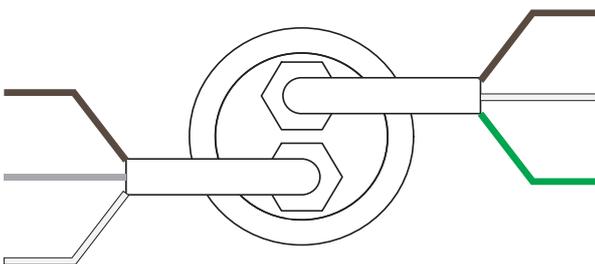


Brown	+24VDC(-15/+20%)
White	0 VDC(GND)
Green	Signal output

40mm Electronics housing Straight-out cable

Color

Function



Brown	+24VDC(-15/+20%)
White	0 VDC(GND)
Green	Signal output

Brown	+24VDC(-15/+20%)
Gray	Signal output
White	0 VDC(GND)

ORDER CODE

MHT - [] - [] - [] [] [] M - [] [] [] [] - [] [] []

Mounting type

- G** Double seal type (21.2mm Electronics housing)
- K** Thimble type (21.2mm Electronics housing)
- I** Double seal type (30mm Electronics housing)
- N** Double seal type (40mm Electronics housing)

Rod

- C** Rod Φ 10mm (dead zone 63.5mm)
- D** Rod Φ 7mm (dead zone 63.5mm)
- E** Rod Φ 10mm (shortened dead zone 36.5mm)
- R** Rod Φ 10mm with M4x6 thread (dead zone 63.5mm)

Stroke _ _ _ _ M

M=mm (5mm increments)

Connection type

Fill: [1] [2] [3] [4] [5]

[1] and [2]: Cable connection

- R** straight-out cable
- DG** 4/5 pin aviation plug

[3]: Cable performance

- P** high performance cable
- T** high temperature cable

[4] and [5]: Cable length

- _ _ unit: meter(R)
Fill in zero if less than 2 places
- _ _ unit: 10 millimetre(DG)

Output signal mode

Fill: [1][2][3]

[1][2][3] Output

	Channel A	Channel B
A01	4 ~ 20mA	4 ~ 20mA
A04	20 ~ 4mA	20 ~ 4mA
A21	4 ~ 20mA	20 ~ 4mA
V11	0.25 ~ 4.75V	0.25 ~ 4.75V
V12	0.5 ~ 4.5V	0.5 ~ 4.5V
V13	4.75 ~ 0.25V	4.75 ~ 0.25V
V14	4.5 ~ 0.5V	4.5 ~ 0.5V
V21	0.25 ~ 4.75V	4.75 ~ 0.25V
V22	0.5 ~ 4.5V	4.5 ~ 0.5V

KF= waterproof and anti-vibration program (Note: for special request, fill in last digit.)

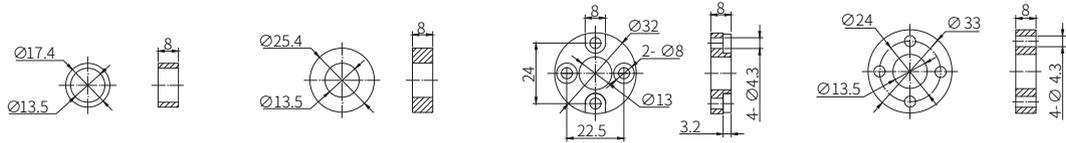
Model | MHT-K-C-0390M-DGP10-A01

Explanation: MHT redundancy design thimble type (electronics housing thickness 21.2mm) with measuring rod diameter of 10mm (dead zone 63.5mm), range 390mm, straight out 100mm scattered cable with 4 pin aviation plug, channel A:4~20mA, channel B:4~20mA.

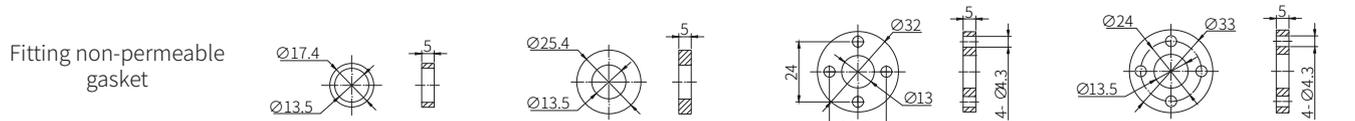


ACCESSORIES

Analog



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



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



Connector	5 pin M12 female connector	5 pin female connector (90 degree angle)
Name	Integral cable	Integral cable
Cable	5 wire 0.25mm ² shielded cable	5 wire 0.25mm ² shielded cable
Color/Diameter	Orange/ Ø 6	Orange/ Ø 6
Plug surface	 <ul style="list-style-type: none"> 1-Brown 2-Green 3-White 4-Gray 5-Yellow 	 <ul style="list-style-type: none"> 1-Brown 2-Green 3-White 4-Gray 5-Yellow
Length	5...30M	5/10/15/20/30M
Order code	16-1035	16-1040

Building 6, Dazu Enterprise Bay,
8th yard of Liangshuihe 2nd street, BDA Beijing P.R.China

Tel: +86 10-67948976 67948916
Fax: +86 10-67948979
Technical support: +86 (0)13370126657

■ For more customizable products,
please contact us.

Beijing Tebeifu Electronic Technology Co., Ltd.