

TIP 1 series

Linear Position Sensor



Features

- Non-contact measurement, built-in structure, compact mechanism, and low power consumption equipment.
- The repeatability accuracy is $\pm 0.1\text{mm}$ and the nonlinearity is less than 0.05% F.S.
- Linear measurement, analog output /Canopen output.
- The maximum measurable stroke is 2500 mm

Details:

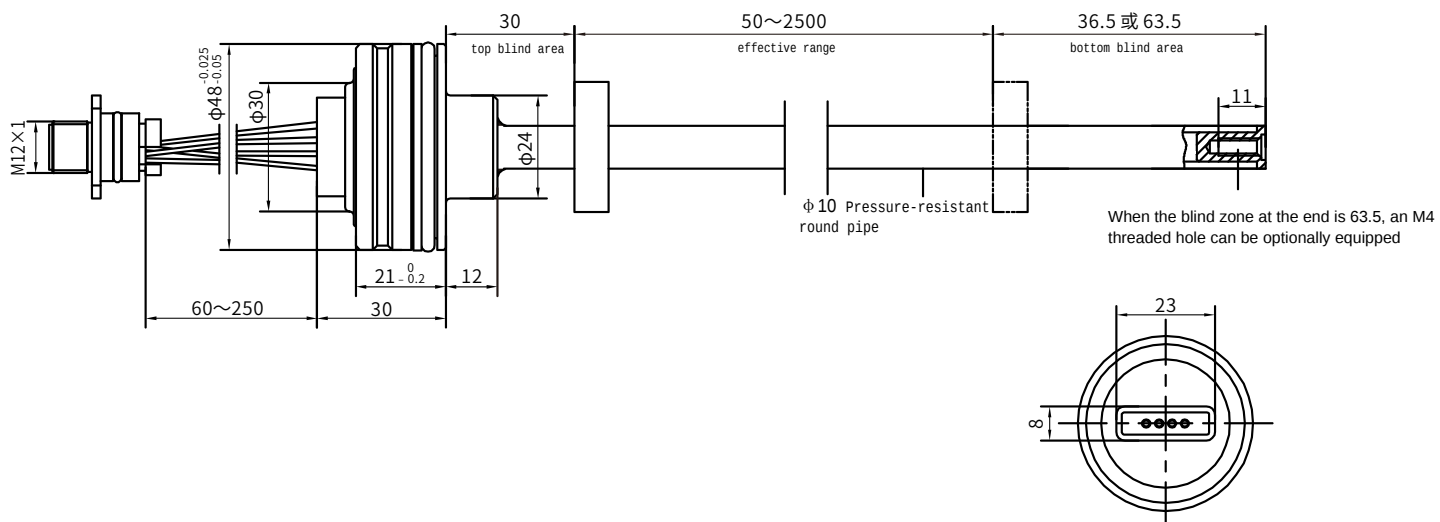
- The measuring rod is made of 304L stainless steel
- Threaded interface M18*1.5 (optional)
- 304L enclosed cylindrical flange or hexagonal electronic compartment
- External pipe pressure: 35 mpa (continuous), 70MPa(peak)
- The cable outlet method is direct cable or aviation plug
- Standard magnetic rings for position magnets and various ring-shaped magnets

usage:

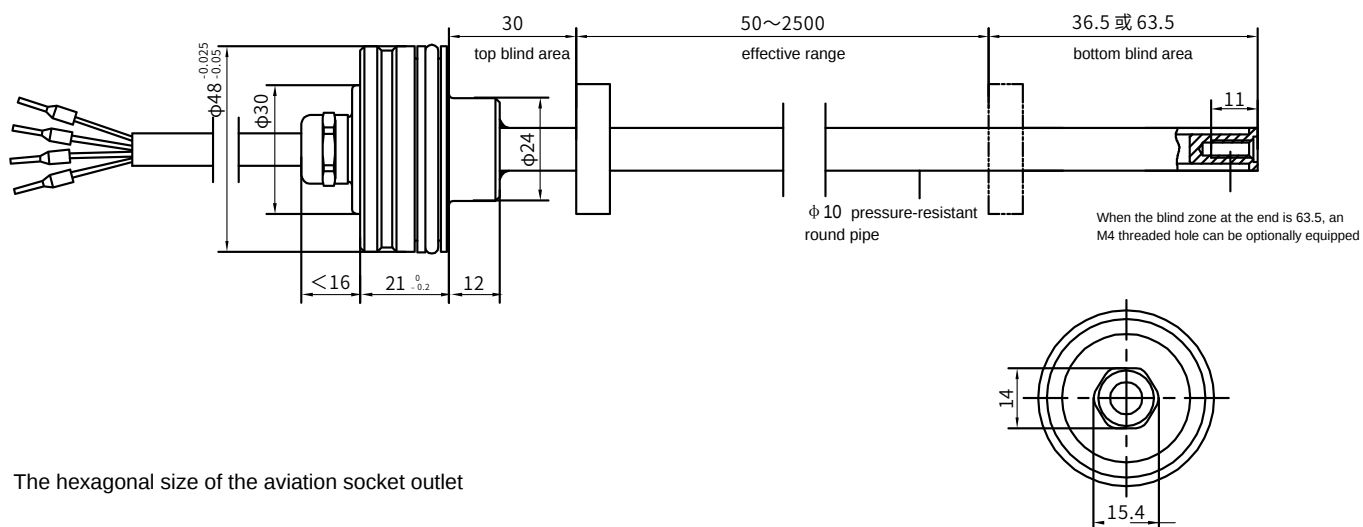
- Hydraulic press, pile driver
- Built-in oil cylinder matching
- Liquid level measurement

Dimensions:

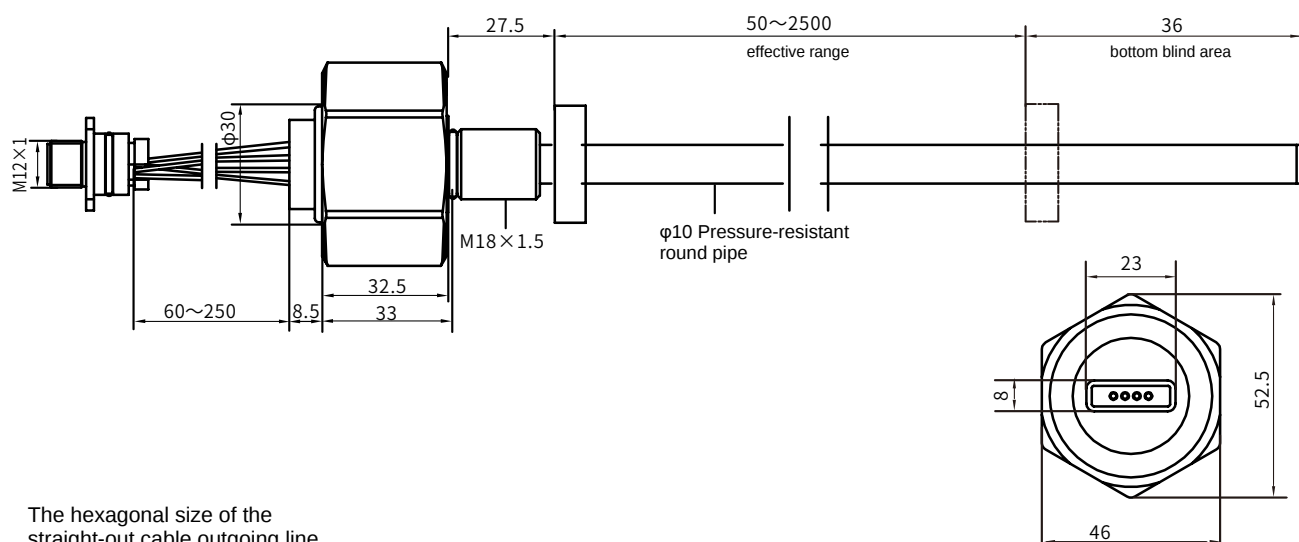
The size of the outlet flange
of the aviation socket



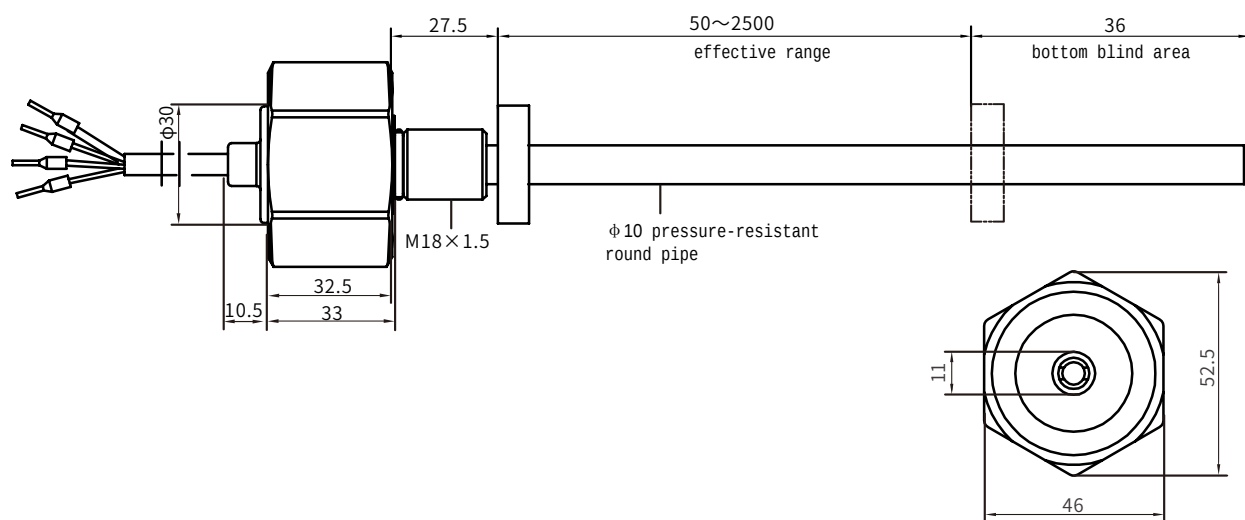
Straight cable outlet flange type



The hexagonal size of the aviation socket outlet

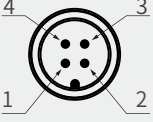


The hexagonal size of the straight-out cable outgoing line

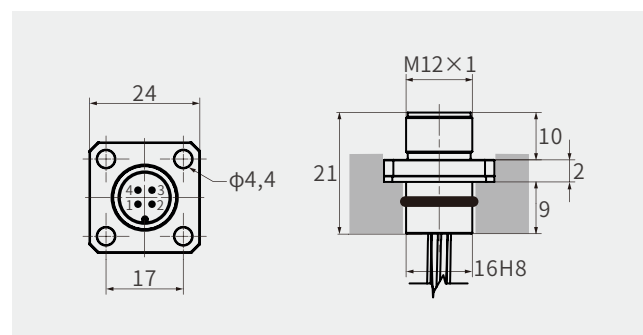


wiring define — analog

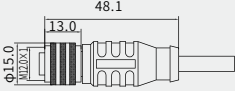
analog (aviation socket)

M12 4 pin defination		PA	PB	PC
	1	power	none	power
	2	signal	power	none
	3	ground	ground	ground
	4	none	signal	signal

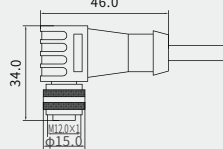
M12 4pin socket



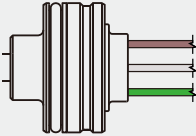
analog (definition of the color of the direct insertion female connector)

M12 5 hole straight female connector		wire color		
	define	PA	PB	PC
	power	brown	white	brown
	ground	blue	blue	blue
	signal	white	black	black

analog (Definition of bent plug wire)

M12 5pole bent female connector		wire color		
	define	PA	PB	PC
	power	brown	white	brown
	ground	blue	blue	blue
	signal	white	black	black

analog (wire output)

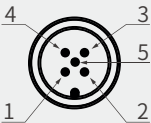
wire output	PT	
	wire color	defination
	brown	power
	white	ground
	green	signal

analog (cable output)

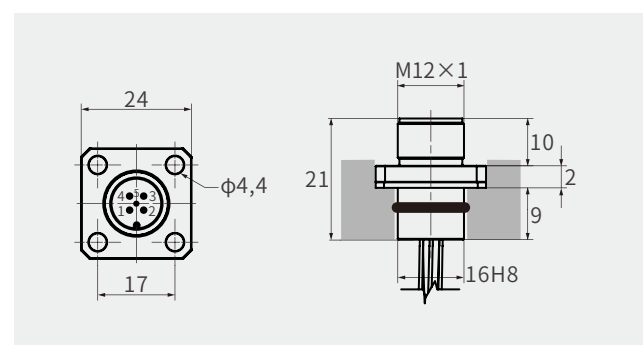
TIP1 used cable	wire color	defination
	brown	power
	white	ground
	green	signal

wiring define —CAN

CAN (aviation socket)

M12 5pin wire defination		PC
	1	none
	2	power
	3	ground
	4	CAN high
	5	CAN low

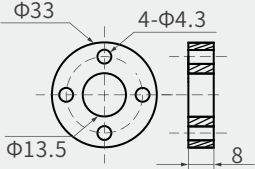
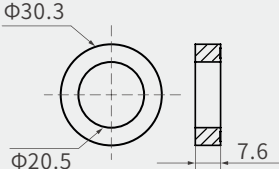
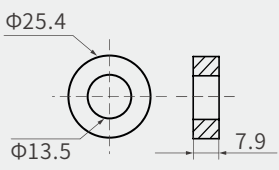
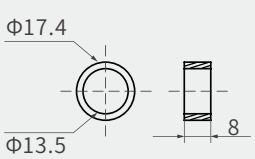
M12 5 pin socket



CAN (output cable)

C A N used cable	wire color	defination
	brown	power
	white	ground
	yellow	CAN high
	green	CAN low

Accessary size

magnetic ring / type	size / specification	Description
type : Z-TIP1-P01 include: one magnetic ring, one gasket, and four screws with spring washers		Magnetic isolation gasket: The size is the same as that of the magnetic ring, with a thickness of 5mm. Screw: GB/T7 0.1, M4X18, material 30 4. Spring gasket: GB / T 93, Φ4, material 3 04
type : Z-TIP1-P02 Includes: 1 magnetic ring, 2 gaskets, 1 retaining ring		Magnetic isolation gasket: The size is the same as that of the magnetic ring, with a thickness of 5mm. Retaining ring: GB/T8 93, 18
型号 : Z-TIP1-P03 Includes: 1 magnetic ring, 2 gaskets, 1 retaining ring		Magnetic isolation gasket: The size is the same as that of the magnetic ring, with a thickness of 5mm. Retaining ring: GB/T8 93, 26
type : Z-TIP1-P04 Includes: 1 magnetic ring, 2 gaskets, 1 retaining ring		Magnetic isolation gasket: The size is the same as that of the magnetic ring, with a thickness of 5 mm. Retaining ring: GB /T 89 3, 18

Parameters:

parameter	unit	detail
range	mm	50 - 2500 (25mm per level、range customized) ,
output signal		(0.5-4.5) / (0.25-4.75) VDC (min load > 10K Ohm) (4 - 20) mA (max load 250 Ohm), CAN bus ISO DIS11898, CANopen approval
resolution		range / 4096 mm ,
Linearity	± %	analog: range > 250mm (< 0.05% F.S.), range ≤ 250mm min ± 150um
Repeatability	± %	0.04.F.S (< 0.04% F.S.)
Hysteresis	±	< 0.04% .F.S
refresh frequency	ms	2
transmission rate		min 1M bit/s
working temperature	℃	-40 - +105
Temperature drift coefficient	ppm/℃	< 30
working voltage	V	(9-32) VDC MAX=36 VDC(overload protection)
power consumption	W	< 1
Electrical impact	V	500 (Between the electrical and mechanical ground)
Reverse voltage protection	V	max - 30 VDC
impact index	g	100(single) / IEC standard 68-2-27
vibration	g	10 / 10-2000HZ / IEC 标准68-2-26
Protection class		IP 67
certificate level		accord with CE standard (pass EMC approval)
working humidity		90% (relative humidity) no condensation

instructions:

TIP1	-	XXXX	-	XXX	-	XXXX	-	XXX	-	X
series										
test range										
0050: 50mm										
0200: 200mm										
1000: 1000mm										
...										
structure										
101 :插入法兰 φ48										
圆柱形										
102 :螺纹法兰 M18*1.5										
六边形										
output signal										
V1: 0.25-4.75 V DC										
V2: 0.5 -4.5 V DC										
V3: 0 - 10 V DC										
A1: 4 - 20 mA										
KA01: output 1m cable										
05: output 5m cable										
SA02: 4pin M12 aviation connector (A/V)										
SA03: 5pin M12 aviation connector (CAN)										
C1: CANopen										
C1XX:										
baud rate										
1:1000Kbit/s										
2:500 Kbit/s										
3:250 Kbit/s										
4:125 Kbit/s										
resolution										
1:0.1mm										