

TIP series

Linear Position Sensor



Feature:

- Non-contact measurement, built-in structure, real-time monitoring with LED light.
- Repeatability accuracy less than 0.005% F.S., nonlinearity less than 0.05% F.S.
- High resolution, when outputting SSI signal, it can reach 0.5um.
- Linear measurement, absolute analog output (0-10)V/(4-20)mA.
- SSI synchronous serial, encoder replacement available.
- Maximum measurement stroke 5000 mm, other ranges can be customized.

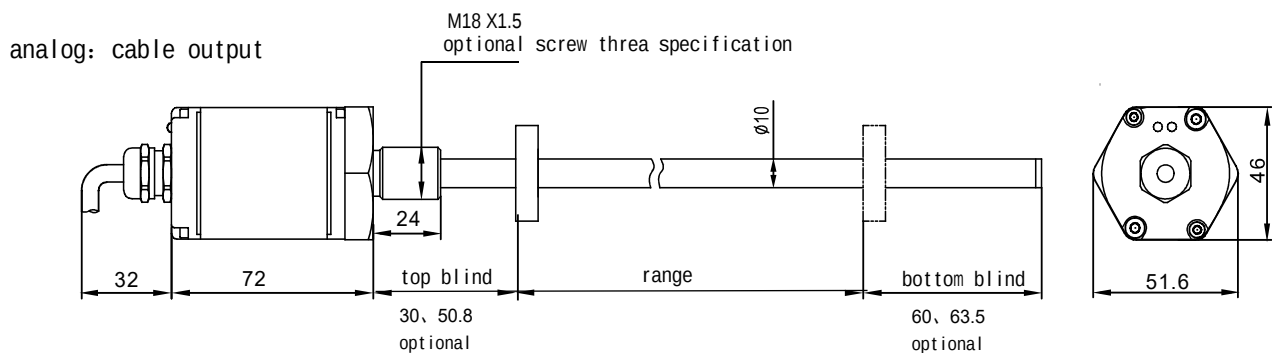
Detail:

- Rigid measuring rod: 304L stainless steel
- Threaded interface: M18*1.5 (optional)
- Electronic housing: Aluminum alloy IP67
- 304L closed stainless steel (optional)
- Outer tube pressure: 35 MPa (continuous), 70 MPa (peak)
- Cable exit: Direct cable or aviation plug
- Position magnet: Standard magnetic ring and various annular magnets

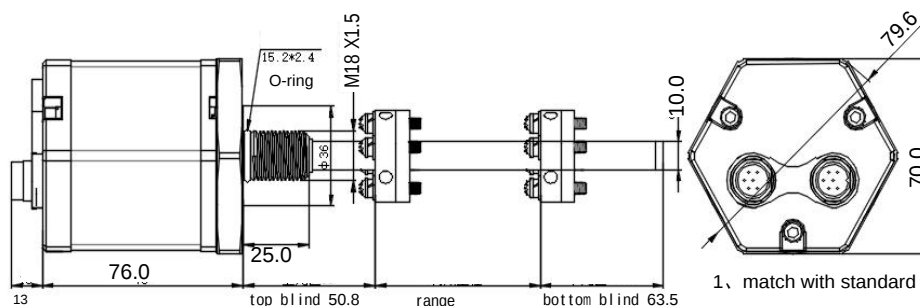
Usage:

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

Dimensions:



analog: double output structure size

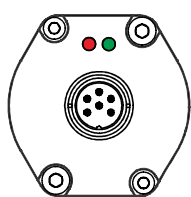


1、match with standard magnetic ring, magnetic spacer,fixing screws;

2、aviation with cable connector, match with 6 pin aviation female connector as default;

EEM33-82-N (6 hole M16 straight connector)
EEM33-94-N (6 hole M16 angled connector 90°)

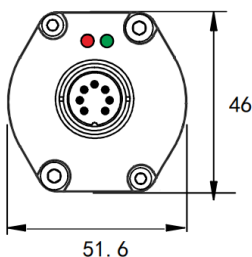
The red and green LED indicator on the sensor end cover provides real-time monitoring and fault diagnosis of the sensor.



green	red	Function
shine	off	works
shine	flash	magnet off the range
shine	shine	no magnet detected
flash	shine	in programming

analog	pin	wire color	function definition
	1	white	
	2	brown	
	3		
	4		
	5	blue	+24VDC±20% supply
	6	pink	0VDC supply circuit

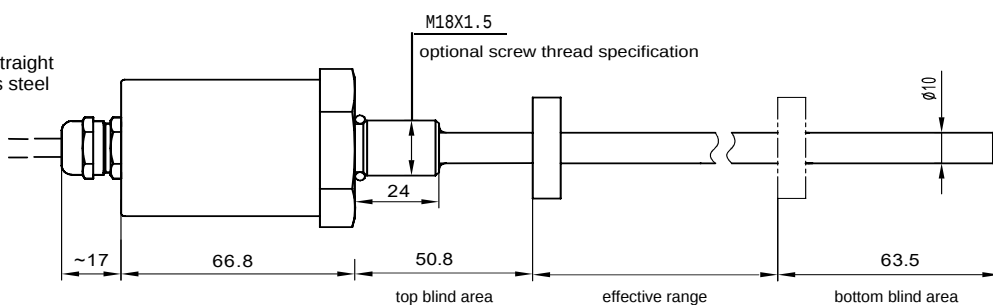
SSIoutput : aviation interface



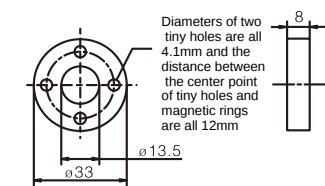
analog	pin	wire color	function definition
	1	grey	data -
	2	brown	data+
	3	white	clock+
	4	green	clock-
	5	blue	+24VDC±20% supply
	6	pink	0VDC supply circuit
	7		

IP68 high level:

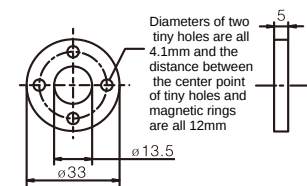
integrated design with straight cable output in stainless steel (no indicate)



accessary size:

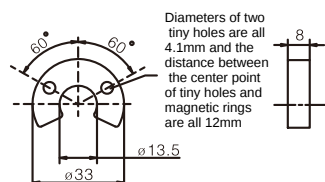
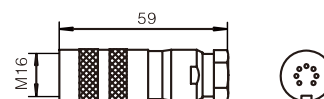


standard magnetic ring
TIP-AC-P01

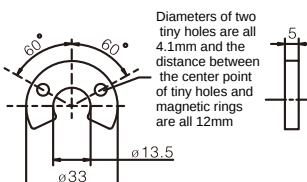


magnetic spacer

EEM33-73-N 7pin aviation straight female connector

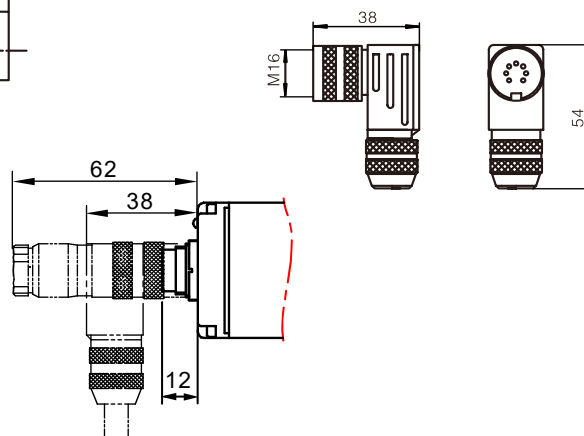


gapped magnetic ring
TEP-AC-P03



gapped magnetic spacer

EEM33-74-N 7 pin aviation angled female connector



Parameters:

Parameter	Unit	Details
Range	mm	50 - 5000 (25mm per level, optional range) ,
Output signal		0 - 10 VDC (min load>5K Ohm), 4 - 20 mA(max load 500 Ohm), SSI
Resolution		analog: 16 bites D/A , SSI: 0.5um、1um、5um、10um
Linearity	± %	analog: range>300mm(< 0.05% F.S.), range≤300mm max±150um SSI时: range>300mm(< 0.01% F.S.), range≤300mm max±50um
Repeatability	± %	0.0015.F.S (< 0.0015% F.S) SSI: ±1 resolution unit, min S=1um
Delay		<10 um
Refresh frequency	HZ	range≤1m:2000, 1m<range≤2m:1000, 2m<range≤5m: 500.
Transmission speed		50KBD-1MBD output cable length: <3 <50 <100 <200 <400m SSI speed: 1000 400 300 200 100 KBD
Working temperature	℃	-40 - +85
Output voltage fluctuation	%	< 0.02 % F.S. (Min 5mVpp)
Working Voltage	V	24 VDC(±10%) MAX=36 VDC(overload protection)
Power consumption	mA	80
Electrical impact	V	500 (Between electrical ground and machine ground)
Inverting voltage protection	V	max - 30 VDC
Shock index	g	100(single shock) /IEC standard 68-2-27
Anti-vibration	g	10/10-2000HZ/IEC standard 68-2-26
Protection level		IP 67 / 68
certificate level		accord with CE- standard (on EMC approval)
working humidity		90% (related humidity) dewlessness
temperature coefficient		analog: <30ppm/℃ 、 SSI: <15 ppm/℃。

Instructions:

TIP	-	XXXX	-	XXX	-	XXXX	-	XXX	-	X
series										
range										
0050: 50mm										
0200: 200mm										
1000: 4000mm										
...										
structure										
101 :screw flange M18*1.5										
102 :screw flange 3/4-NUF-3A										
103 :integrated stainless steel										
104 : analog double output										
output signal										
V1: 0-10 V DC										
A1: 4-20 mA DC										
SSi										
bites	code		resolution		direction					
1:24	B:bianery		1:0.01 mm		0: forward					
2:25	G:gray		2:0.005 mm		1:reverse					
3:26位			3:0.001 mm							
			4:0.002 mm							
			5:0.0005 mm							

A:top blind area 30mm bottom blind area 60mm
B:top blind area 50.8mm bottom blind area 63.5mm