

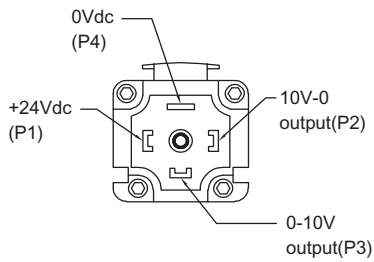
The 18 series non-contact absolute position transducer adopts the non-contact magnetostrictive measuring technology for precise, direct and absolute measurement. The absence of electrical contact on the cursor eliminates all wear and guarantees almost unlimited mechanical life expectancy. The non-contact (Floating) cursor provides exceptional ease of installation with a variety of available cursor position target.

The high versatile profile housing (IP67, need to match a suitable connector) offers full protection against outside agents for use in harsh environments with high contamination and presence of dust. Mounting is accomplished using clamps that allow precise mechanical adjustment. The 18 series is the most reliable and durable non-contact absolute position transducer among all.

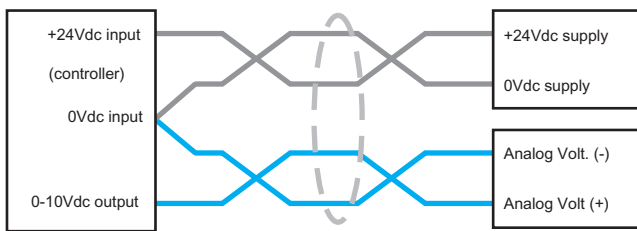
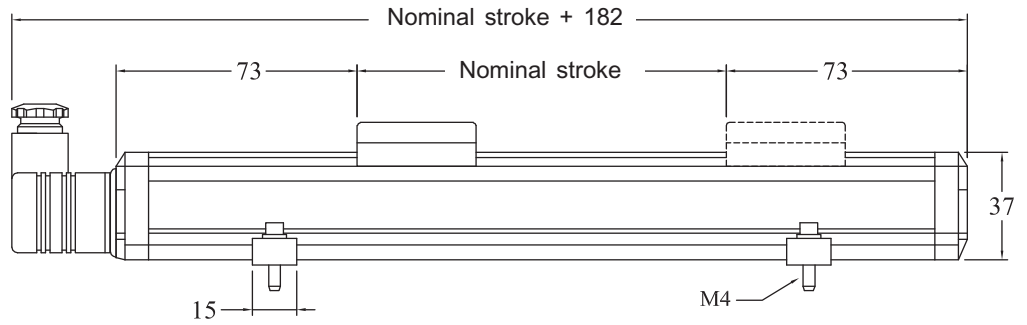


Specifications

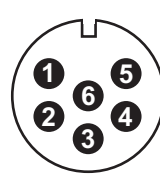
Order Code	180
Output	0-10Vdc, 10-0Vdc dual-output. minimum load 5k Ω
Measurement Type	Linear displacement
Resolution	Infinite, restricted by output ripple
Input Voltage	+24Vdc (20.4 - 28.8Vdc)
Input Protection	Polarity protection up to -30Vdc, Over voltage protection up to 36Vdc
Current Consumption	50-140mA (stroke range dependent)
Dielectric Strength	500Vdc (DC ground to machine ground)
Repeatability	< $\pm 0.005\%$ of full scale
Non-Linearity	< $\pm 0.02\%$ of full scale (minimum $\pm 90\mu\text{m}$)
Update Time	0.5 ms up to 1200 mm / 1.0 ms up to 2400 mm 2.0 ms up to 4800 mm / 5.0 ms up to 7600 mm
Operation Temp.	-40 to 75°C, Humidity 90% non-condensing
Sealing	IP65 / IP67 (with connector)
Vibration Rating	15g / 10-2000Hz / IEC standard 68-2-6
Shock Rating	100g single hit per IEC standard 68-2-27
EMC	Emission EN 61000-6-3, Immunity EN 61000-6-2 EN 61000-4-2/3/4/6



4 pins connector
(View toward sensor pins)

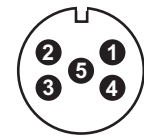


(connection example)



D60 connector
(View toward sensor pins)

1	0-10V output
2	Pin 1 DC Gnd
3	10-0V output
4	Pin 3 DC Gnd
5	+24 Vdc
6	0 Vdc



5 pins M12 connector
(View toward sensor pins)

1	+24Vdc
2	0-10V output
3	0 Vdc
4	10-0V output
5	DC Gnd

Order Code

1 8 0 X X X X X X X X

Output

0-10Vdc, 10-0Vdc Dual-output

Connector

- 0 = 4 pins connector (IP65)
- 1 = Cable outlet (P.A4 to select cable length)
- 2 = D60 connector (not include 6 pins female connector)
- 3 = 4 pins connector (IP67)
- 4 = 5 pins M12 connector (not include 5 pins female connector)

Mounting (P. A1)

- 1 = 42.5mm mounting
- 2 = 42.5mm isolation mounting
- 3 = 50mm mounting

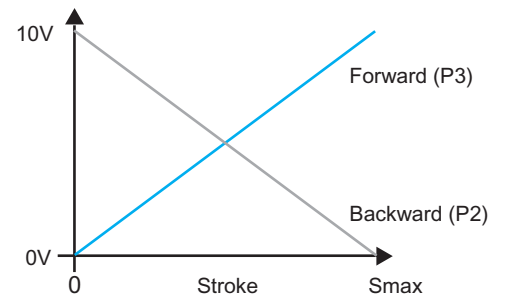
Magnet Type (P. A1)

- 1 = Captive
- 2 = Floating
- 3 = Die-cast
- 4 = Large floating

Stroke Length

0 1 0 0 , 0 1 3 0 , 0 1 5 0 , 0 1 7 5 , 0 2 0 0 , 0 2 2 5 , 0 2 5 0
 0 2 7 5 , 0 3 0 0 , 0 3 6 0 , 0 4 0 0 , 0 4 2 5 , 0 4 5 0 , 0 5 0 0
 0 5 2 5 , 0 5 5 0 , 0 6 0 0 , 0 6 5 0 , 0 7 0 0 , 0 7 5 0 , 0 8 0 0
 0 8 7 5 , 0 9 0 0 , 0 9 5 0 , 1 0 0 0 , 1 1 0 0 , 1 2 5 0 , 1 3 5 0
 1 5 0 0 , 1 6 0 0 , 1 7 5 0 , 2 0 0 0 , 2 2 5 0 , 2 5 0 0 , 2 7 5 0
 3 0 0 0 , 3 2 5 0 , 3 5 0 0 , 4 0 0 0 (other length upon request)

	Cable	Voltage
1	Black	0-10V Output
2	White	DC Gnd
3	Yellow	10-0V Output
4	Green	N.C.
5	Red	+24 Vdc
6	Blue	0 Vdc



Caution:

Please do not connect controller analog input (-) to machine 0V or ground. Only connect directly to transducer 0V (P4).

Use 4 wires shielded twisted pair cable, dia. 0.2mm.

Do not connect power supply +24Vdc to transducer 0Vdc, and at the same time connect power supply 0Vdc to transducer output. This will cause transducer permanent failure.

(Warning: warranty does not include such source of failure)