

Explosion-Proof Magnetostrictive Linear Position Sensors



Features :

- Fully sealed structure, robust and durable
- Non-contact measurement, never wear
- Absolute position output without zeroing
- Nonlinearity, $\pm 0.01\%$ F.S of full scale
- Repeatability, $\pm 0.001\%$ F.S of full scale
- Optional zero to full



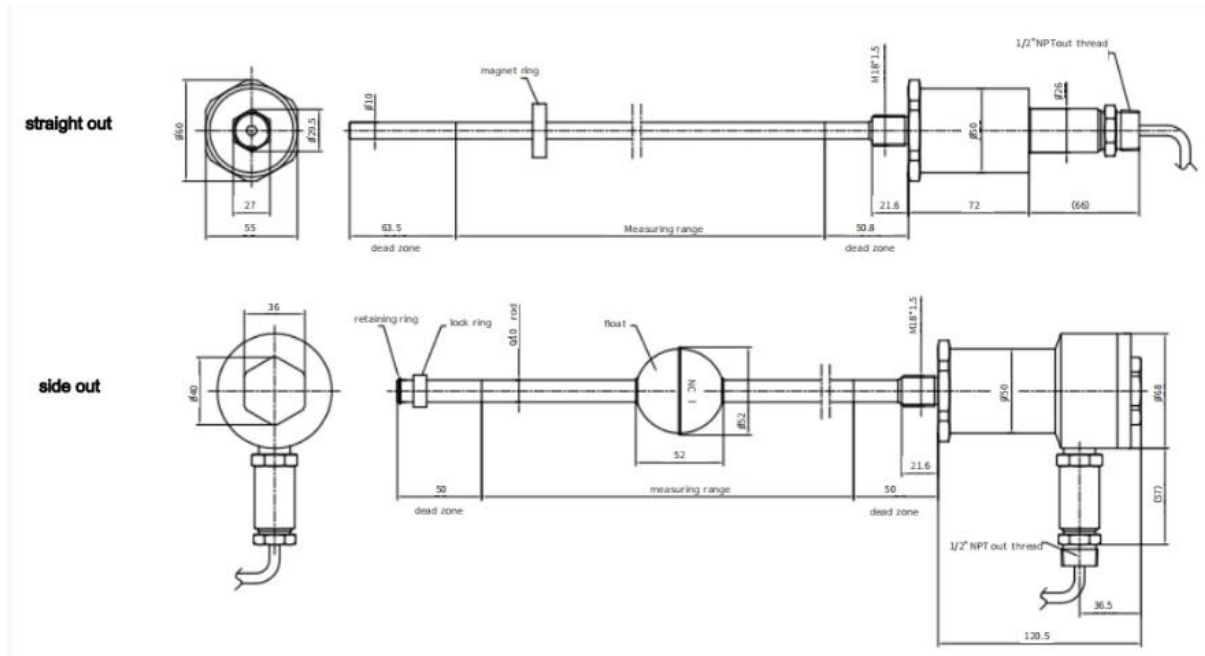
Technical parameter

Range	50~5000mm
output signal	analog、SSI
resolution	Analog 16-bit D/A or 0.0015% of full scale SSI 1/2/5/10/20/50/100 μ m
Non-linearity	< $\pm 0.02\%$ F.S (Min $\pm 50\mu$ m)
Repeatability	< $\pm 0.002\%$ F.S(Min $\pm 1\mu$ m)
Update time	0.5ms(Min<1m) 1.0ms(1m<<2m) 2.0ms(2m<range<4m) 4.0ms(4m<range<7m)

Electrical Characteristics

Outlet	Direct outlet or side
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outlet	Input voltage	24VDC (-15/+20%)
	Working current	<60mA (Varies with range)
	polarity protection	Max-30VDC
	Overpressure protection	Max36VDC
	Insulation ability	500V (Between signal ground and shell)



Structure and Materials

Electronic warehouse	304 stainless steel
Rod	304/316 stainless steel
mounting flange	304stainless steel
Outer pipe pressure	35MPa(continuous)/70MPa(peak)

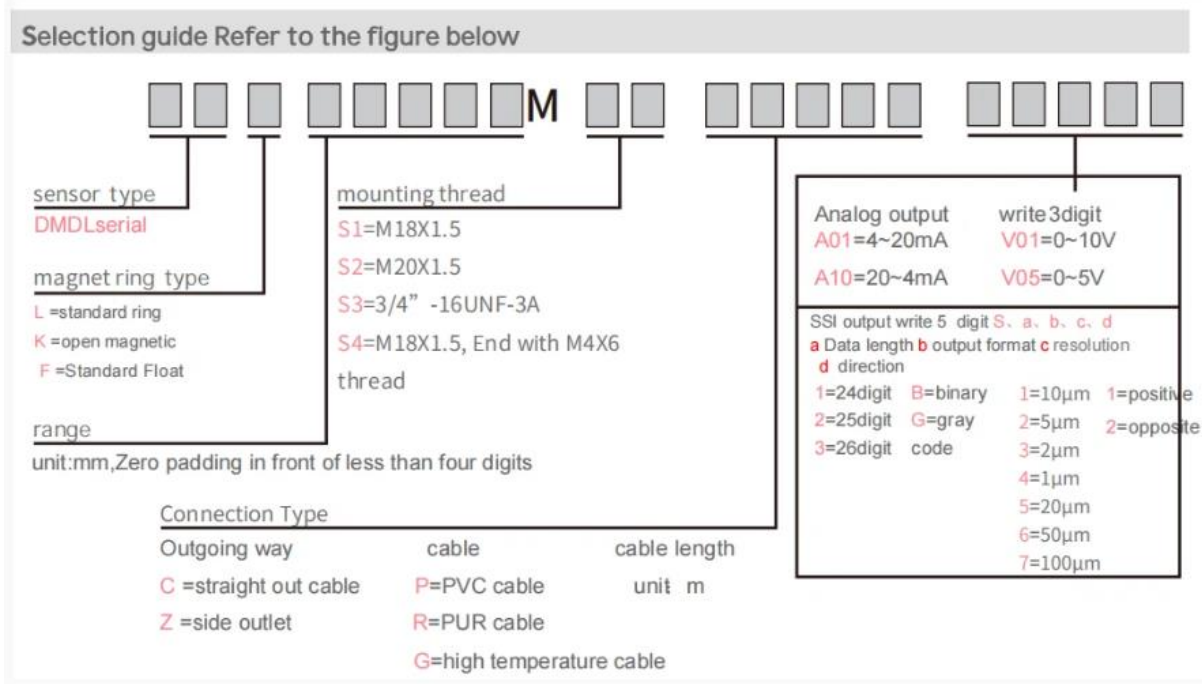
Working conditions

Magnet speed	Any
Ambient temperature	-40°C+85°C
Humidity/Dew Point	humidity90% , no condensation
Temperature Coefficient	<±0.007% F.S/°C
Electrical protection	IP67 IP68-Special custom

Common Faults and Troubleshooting Methods of Magnetostrictive Displacement Sensor

Output signal	Error	Possible cause of failure	Solution
4-20mA	Output <4mA	The sensor works in the upper dead zone	Adjust the installation position
	Output >20mA	The sensor works in the lower dead zone	Adjust the installation position
	Output 0mA	1. The magnetic ring falls off 2. Power supply failure 3. The wiring is not firm	Check ferrite, power supply and wiring
	Unstable output	1. The magnetic ring is not installed firmly 2. Insufficient power supply	Check ferrule and power supply
0-5V	Output <0V	The sensor works in the upper dead zone	Adjust the installation position
	Output >5V	The sensor works in the lower dead zone	Adjust the installation position
	Output 0V	1. The magnetic ring falls off 2. Power supply failure 3. The wiring is not firm	Check ferrite, power supply and wiring
	Unstable output	1. The magnetic ring is not installed firmly 2. Insufficient power supply	Check ferrule and power supply
0-10V	Output <1V	The sensor works in the upper dead zone	Adjust the installation position
	Output >10V	The sensor works in the lower dead zone	Adjust the installation position
	Output 0V	1. The magnetic ring falls off 2. Power supply failure 3. The wiring is not firm	Check ferrite, power supply and wiring
	Unstable output	1. The magnetic ring is not installed firmly 2. Insufficient power supply	Check ferrule and power supply

Selection guide refer to the following figure



Application

- ◆ hydraulic control system, metallurgical equipment, wind power generation
- ◆ engineering machinery, rubber machinery
- ◆ port machinery, injection molding machine
- ◆ flight simulator