

Magnetostrictive Displacement Sensors Operating Manual

R Series
RB2 Structure
Analog interface

 **400-809-1101**
Customer Service Hotline



■ Use Regulations

Magnetostrictive displacement sensor is used to detect the displacement of motion mechanism. According to the selection regulations, the magnets matched with magnetostrictive displacement detection electronic components are selected for detection applications in different occasions. During use, ensure that the cable, connector, magnet and sensor body are the original parts of the manufacturer.

Please do not open the shell of the sensor without authorization, so as not to affect the normal warranty period of the product.

■ Safety matters

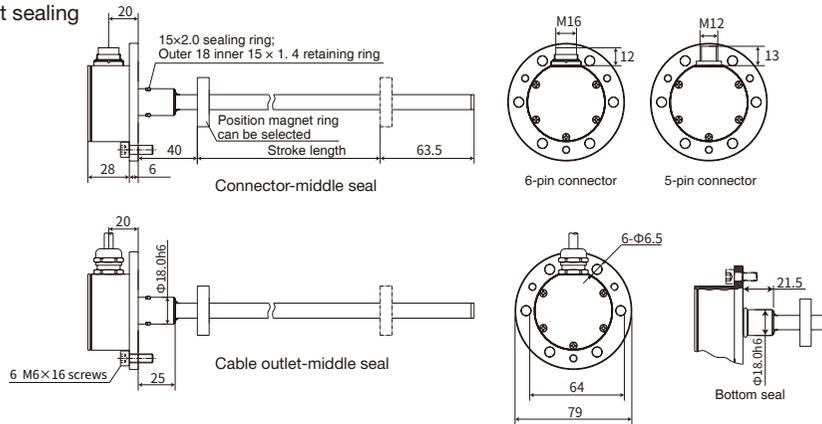
Please read the manual carefully before powering up the sensor. First, confirm the outlet mode and pin signal of the sensor, and make correct electrical connection to prevent power-on from damaging the sensor or causing misoperation of the equipment. During the construction and use of the sensor, the current of high-power equipment such as welding machine should be avoided from entering the working circuit of the sensor.

If you find that the sensor data is abnormal or the appearance has obvious changes, please stop using it immediately, and contact the manufacturer to confirm the current state of the sensor before continuing to use it.

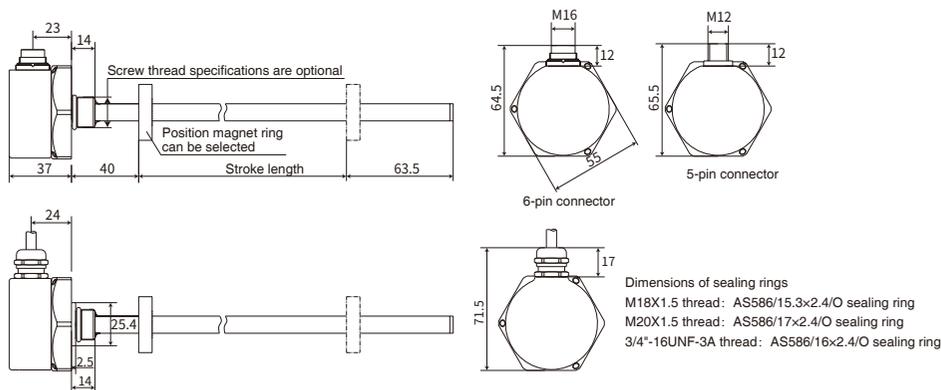
■ Installation Dimensions

RB2 series pressure-resistant tubu shell, built-in installation design for hydraulic system, pressure-resistant 35MPa continuous, flexible and simple installation mode.

Compact sealing



Hexagon flange type



■ Electric interface

Analog



| • 6-pin male connector arrangement (facing the sensor head) | | | |
|---|----------------|----------------|--|
| Pin | Cable color 1* | Cable color 2* | Pin/wire function definition |
| 1 | Blue | Grey | No. 1 magnet ring position signal(+) |
| 2 | Green | Pink | No. 1 magnet ring position signal(-) |
| 3 | yellow | yellow | No.2 magnet ring position signal (No.1 Magnet velocity) Signal (+) |
| 4 | white | Green | No.2 magnet ring position (No.1 magnet velocity) signal (-) |
| 5 | Red | Brown | +24Vdc±20% power supply |
| 6 | Black | white | 0 V d c (power supply circuit) |

Note: * Cable color 1: cable PUR sheath, orange, -20~90 C

* Cable color 2: cable PVC sheath orange,-20~105 C

Analog



| • 5-pin male connector arrangement (facing the sensor head) | | | |
|---|----------------|----------------|--|
| Pin | Cable color 1* | Cable color 2* | Pin/wire function definition |
| 1 | Red | Brown | +24Vdc±20% power supply |
| 2 | yellow | Grey | No.2 magnet ring position signal (No.1 Magnet velocity) Signal (+) |
| 3 | Black | white | 0 V d c (power supply circuit) |
| 4 | Blue | yellow | No. 1 magnet ring position signal(+) |
| 5 | Green | Green | 0 V d c (current/voltage circuit) |

■ Application environment

Magnetostrictive displacement sensor is a kind of magnetic measurement sensor. Make sure there is no strong magnetic field around the sensor, which may interfere with the data.

The displacement output signal cable of magnetostrictive displacement sensor should be away from the power cable or large current or strong pulse interference source.

Confirm the environmental parameters including temperature, vibration, etc., and ensure that the working conditions are within the nominal working parameters of the sensor.

■ Installation

The installation of magnetostrictive displacement sensor mainly includes sensor body, magnet and cable fixing.

The installing forms of the sensor body are: thread installing, clamp installing and matching fixing installing. Before installation, make sure that the packaging is in good condition, and the sensor body has no obvious bending and bumping. The sensor body should be assembled according to the specific installation form.

When installing magnets, please use matching magnetic insulation gaskets to ensure normal magnetic field circuit.

When installing plugs or cables, please connect them accurately according to the electrical interfaces in the instructions.

■ After-sales support

If the sensor malfunctions, please contact the after-sales department of the company in time. Do not attempt to repair it yourself.