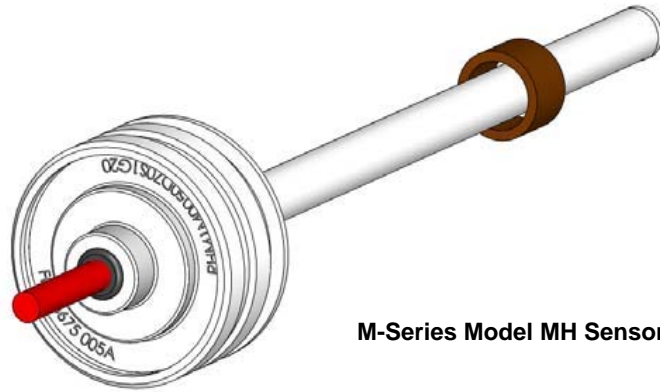


Analog Output

Analog Output: 4-20mA/0-10V



M-Series Model MH Sensor

Analog Output

Features

- Compact Design for Embedded Cylinder Applications, small space for installations
- Rugged and reliable, oil fouling resistant
- Non-contact sensing technology
- No zero, absolute displacement output
- Low power design, reduce the heat

Parameters Specifications

INPUT

Measured variables: Displacement
Measured range: 50mm-2500mm
Measured points: 1

OUTPUT

Voltage: 0 to 10Vdc (**Load resistance:** >5kΩ)
Current: 4 to 20mA (**Load resistance:** ≤500Ω at 24 Vdc power supply)

ACCURACY

Non-linearity : <±0.01% full stroke.
Repeatability: <±0.002% of full stroke.(or equal to Resolution)
Updated time: >500Hz
Resolution: 16 bit D/A(min.1um)

Operation conditions

Magnet speed: Any
Operating Temperature: -40°C to +85°C
Storage Temperature: -40°C to +85°C
Relative humidity: 90% no condensation
Electronic protection: IP67 for sensor housing

Structural materials

MH series

Sensor rod: 304L Stainless steel
Housing: 304L stainless steel
Pressure rating: **Sensor rod, 10 mm(0.39in):**
PN: 35Mpa , Pmax: 53Mpa
Sensor rod, 7 mm(0.39in):
PN: 30Mpa, Pmax: 40Mpa

Electronic connection

Wiring type: waterproof joint
Operating voltage: 24Vdc(-15/+20%)
Polarity protection: up to -30Vdc
Overvoltage protection: up to 36Vdc
Temperature coefficient: <50ppm°C

Mounting and attachment

Mounting type: Side tighten screw M5x10
Mechanical assembly: Flange housing 48mm(1.89 in.) dia., O-ring
40.87 x 3.53 mm FPM75,
Magnet type: Ring magnet OD33, OD25.4, OD17.4

Analog Output

Model MH sensor dimension reference

Model MH, rod-style Sensor: Drawing is for reference only, contact applications engineering for tolerance specific information

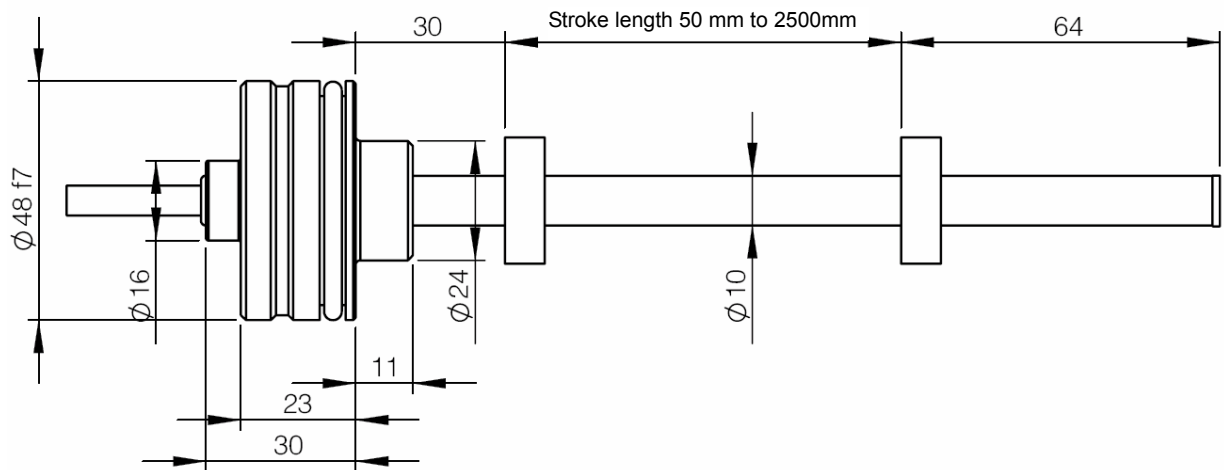


Figure 1. M-Series Model MH rod-style sensor dimension reference

Standard magnet selections(Model MH)

SELECTION OF POSTION MAGNETS

A choice of three magnets are available with the Model MH rod-style sensor. Magnets must be ordered separately with Model MH position sensors. The Magnet with holes for fixing is suitable for most applications.

MAGNET MAGNET(OD33)
with holes($\text{Ø}4.3$) for fixing



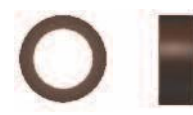
Material: Ferrite PA
O.D.: 33mm(1.3 in.)
I.D.: 13.5mm(0.53in.)
Thickness: 8mm(0.31in.)

RING MAGNET(OD25.4)



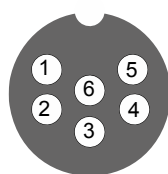
Material: Ferrite PA
O.D.: 25.4mm(1 in.)
I.D.: 13.5mm(0.53in.)
Thickness: 8mm(0.31in.)

RING MAGNET(OD17.4)



Material: Ferrite PA
O.D.: 17.4mm(0.68 in.)
I.D.: 13.5mm(0.53in.)
Thickness: 10.5mm(0.41in.)

Electronic wiring



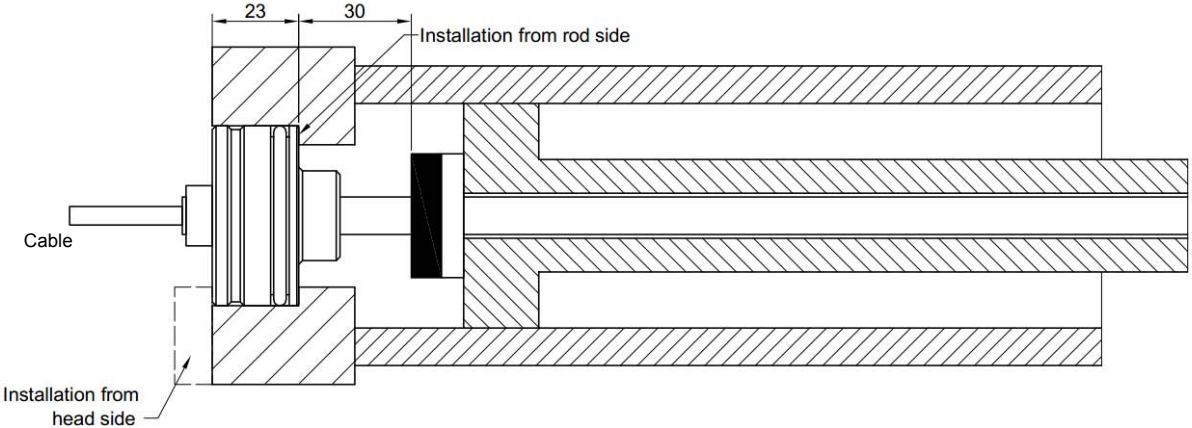
Male connector
(Face to sensor head)

Pin	Color	Description
1	Gray	Output Signal(0-20mA, 0-10V)
2	Pink	Output(GND)
3	Yellow	(+) Communication interface
4	Green	(-) Communication interface
5	Brown	(+) Power +24Vdc(-15/+20%)
6	White	(GND) Power

Model MH sensor installation references

The model MH sensor's new stainless-steel housing is designed for direct stroke measurement in hydraulic cylinders. The MH sensor can be installed from the head side or the rod side of the cylinder depending on the cylinder design.

Model MH: Drawings are for reference only contact applications engineer for tolerance specific information.



SENSOR INSTALLATION

Installation methods are possible in magnetic and non-magnetic applications (shown in Figures 1 and 2) and are entirely dependent on the cylinder design. While the most common method of installation is from the rod side of the cylinder, installation from the head side of the cylinder is also possible. In both installation methods, the cylinder is sealed by O-ring and backup ring which is ready installed on the sensor housing.

Magnetic material installation reference

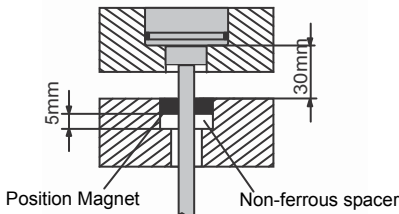


Figure 1. Model MH installation in magnetic material with spacer

Non-Magnetic material installation reference

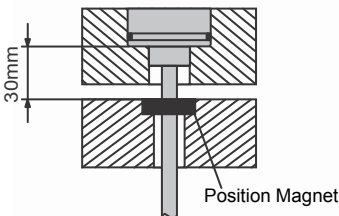
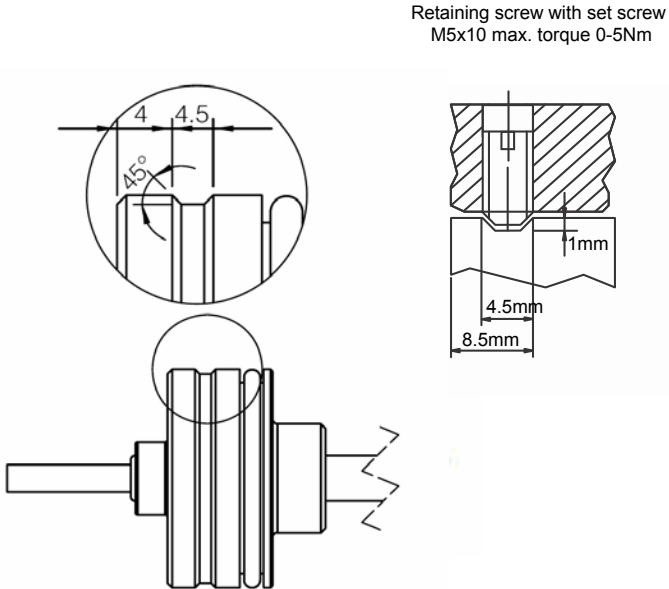


Figure 2. Model MH installation in non-magnetic material shown without spacer

Set screw details



How to Order

