

MMSP

Non-Contact Magnetostrictive Position Sensor In Cylinder Applications

ANALOG 4-20mA

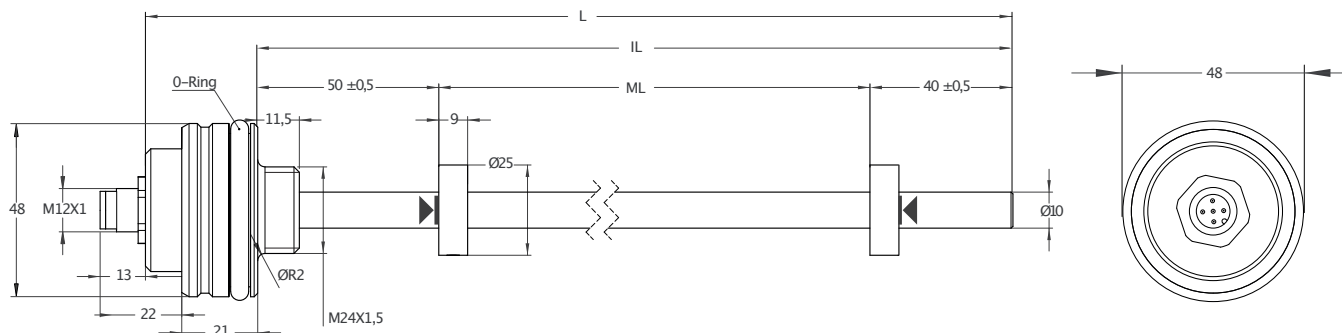


- Measuring length 50 – 3000mm
- 15 bit resolution
- 0 – 20 mA, 4 – 20 mA output
- 24 VDC power supply

Technical Specifications

| | | |
|-----------------------------|--|------|
| Measurement stroke | 50 to 3000 mm | |
| Resolution | 15 bit DAC output | |
| Repeatability | 100 µm | |
| Output | 0–20mA, 4–20mA | |
| Power supply | 24 VDC ±10% | |
| Displacement speed | max. <5m/s | |
| Linearity | 100 mm | %1 |
| | 100 – 500 mm | %0,8 |
| | 500 – 1000 mm | %0,5 |
| | 1000 – 2500 mm | %0,2 |
| Sampling rate | Up to 2 kHz (depending on stroke length) | |
| Vibration | EN 60068–2–6, 5–200 Hz 200m/s ² (20g) , 2h 30min each axis (x,y,z) | |
| Shock | EN 60068–2–2:2007 | |
| | 500m/s ² (50g) , 11ms. (x,y,z axis) | |
| Update time | 0–600mm, 0,5ms | |
| | 600–1500mm, 1ms | |
| | 1500–3000mm, 2ms | |
| Max. consumption | <50 mA – 90 mA (depending on stroke length) | |
| Max. output noise | <5 mVpp | |
| Load resistance | max. 500 Ohm | |
| Reverse polarity protection | Up to –30 VDC | |
| Overvoltage protection | Up to 30 VDC | |
| Pressure rating | <500 bar | |
| Sealing | O-ring: NBR | |
| | Backup Ring: PTFE | |
| Mounting | M18x1.5 or 3/4"–16UNF | |
| | O-ringor Flat | |
| Case material | Profile :Anodizedaluminium | |
| | Tube:Stainless steel | |
| | Caps: Stainless steel | |
| Protection level | IP 67 | |
| Operating temperature | –10°C ... +70°C | |
| Storage temperature | –30°C ... +90°C | |

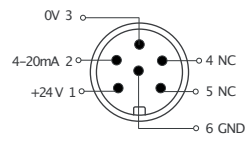
Mechanical Specifications



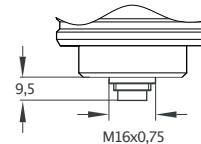
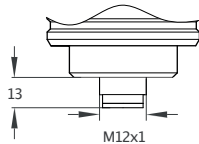
| MMSP (mm) | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 | 850 | 900 | 1000 | 1100 | 1200 | 1300 | 1400 | 1500 | 1750 | 2000 | 2250 | 2500 | 3000 | | | |
|--------------------------|---------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|--|--|
| ML (Measuring Length) | 50 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800 | 850 | 900 | 1000 | 1100 | 1200 | 1300 | 1400 | 1500 | 1750 | 2000 | 2250 | 2500 | 3000 | | | |
| IL (Installation Length) | 149 | 199 | 249 | 299 | 349 | 399 | 449 | 499 | 549 | 599 | 649 | 699 | 749 | 799 | 849 | 899 | 949 | 999 | 1099 | 1199 | 1299 | 1399 | 1499 | 1599 | 1849 | 2099 | 2349 | 2599 | 3099 | | | |
| L (Total Length) | 179 | 229 | 279 | 329 | 379 | 429 | 479 | 529 | 579 | 629 | 679 | 729 | 779 | 829 | 879 | 929 | 979 | 1029 | 1129 | 1229 | 1329 | 1429 | 1529 | 1629 | 1729 | 1979 | 2229 | 2479 | 2729 | 3229 | | |
| Dead Zone Calculation | 50 / 40 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Round Connector

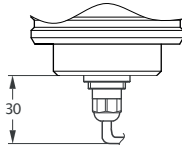
6 pin Female Connector Configuration



CN6 M12 (A) / M16 (B)
6 pin



Cable



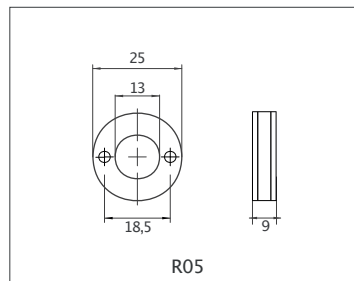
Current Output

+V : Brown
0V : Blue
0Vsense : Black
Output 1 : White (out)
Earth : Shield

Cable Length

1 M : 1 meter (standard)
(other cable lengths available)

Cursor



Ordering Procedure

| Model | Measuring range | Rod & Thread | Sealing surface | Resolution | Cursor | Output | Connector/Cable | Dead zone |
|-------|-----------------|---|----------------------|------------|------------|--|---|-----------|
| MMSP | 300 | E10 | S | B | 1R05 | V10 | CN5A | 50/40 |
| MMSP | 50 – 3000 mm | E10 : Ø10 M18x1,5 U10 : Ø10 3/4"-16UNF EO10 : Ø10 M24x1,5 EA10 : Ø10 M24x1,5 EB10 : Ø10 M30x2 | S: O-ring F: Flat | B : 15 bit | R05: 25 mm | I40 : 4-20mA I04 : 20-4mA I20 : 0-20mA I02 : 20-0mA | CN5A : M12 CN5B : M16 CN6A : M12 CN6B : M16 CN8A : M12 CN8B : M16 1M: 1 meter (standard) | 50/40 |