

# Non-Contact Magnetostrictive

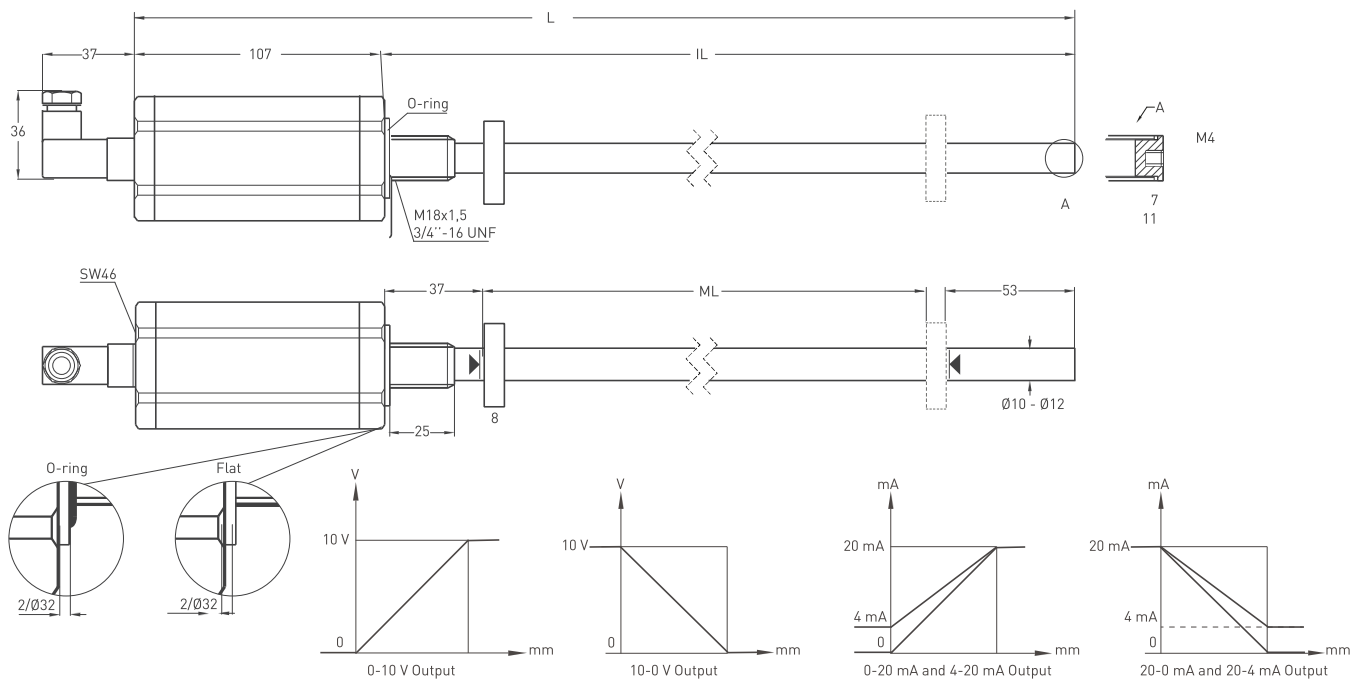
## Position Sensor

- Measuring length 50 - 5000 mm
- 12 - 16 bit resolution
- Optional mechanical installation
- Single or double outputs



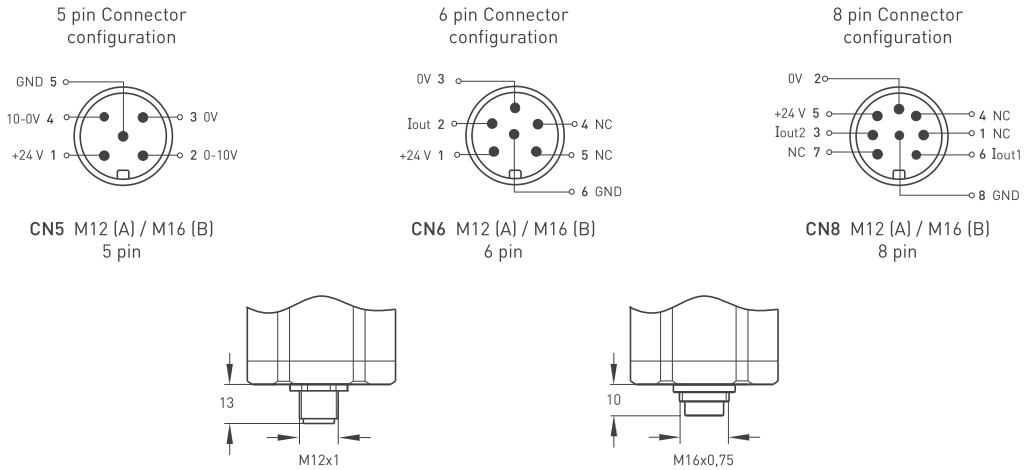
| Technical Specifications    |   |
|-----------------------------|---|
| Measurement stroke          | 50 to 5000 mm   |
| Resolution                  | 12 - 16 bit DAC output  |
| Repeatability               | 100 µm  |
| Output                      | 0-10V, 10-0V, 0-20 mA, 20-0 mA, 4-20 mA, 20-4 mA                                    |
| Power supply                | 24 VDC (22 - 26 V)  |
| Displacement speed          | max. < 5 m/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<br>200 m/s <sup>2</sup> (20g) , 2h 30 min each axis (x,y,z) |
| Shock                       | EN 60068-2-2:2007<br>500 m/s <sup>2</sup> (50g) , 11ms. (x,y,z axis)                |
| Update time                 | 0-600mm, 0,5ms<br>601-1500mm, 1ms<br>1501-3000mm, 2ms<br>3001-5000mm, 3ms           |
| Max. consumption            | 50 mA - 90 mA (depending on stroke length)  |
| Max. output noise           | < 5 mVpp  |
| Max. output value           | 10.5 Volt   |
| Reverse polarity protection | Up to -30 VDC   |
| Overvoltage protection      | Up to +30 VDC   |
| Pressure rating             | < 500 bar   |
| Mounting                    | M18 x 1.5 or 3/4"-16 UNF<br>O-ring or Flat  |
| Case material               | Profile :Anodized aluminium, Tube: Stainless steel, Caps: Stainless steel           |
| Protection level            | IP 65 - EN 60529  |
| Operating temperature       | -10°C ... +70°C   |
| Storage temperature         | -30°C ... +90°C   |

### Mechanical Specifications

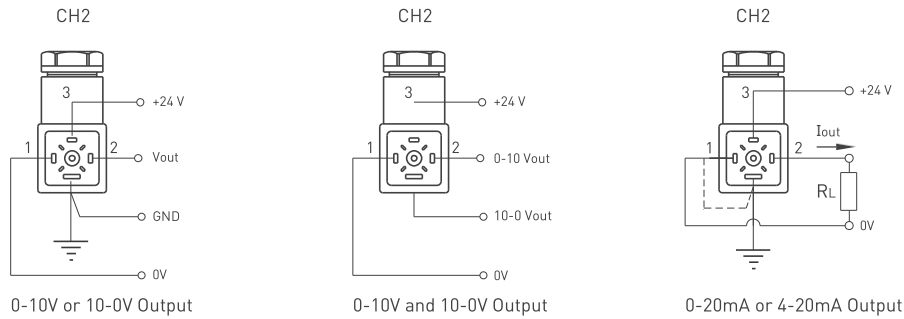


| MST[mm]                  | 50       | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 550 | 600 | 650 | 700 | 750 | 800  | 850  | 900  | 1000 | 1100 | 1200 | 1300 | 1400 | 1500 | 1750 | 2000 | 2250 | 2500 | 3000 | 4000 | 5000 |  |  |
|--------------------------|----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--|--|
| 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 | 4000 | 5000 |  |  |
| IL [Installation Length] | 148      | 198 | 248 | 298 | 348 | 398 | 448 | 498 | 548 | 598 | 648 | 698 | 748 | 798 | 848 | 898  | 948  | 998  | 1098 | 1198 | 1298 | 1398 | 1498 | 1598 | 1848 | 2098 | 2348 | 2686 | 3186 | 4186 | 5186 |  |  |
| L [Total Length]         | 255      | 305 | 355 | 405 | 455 | 505 | 555 | 605 | 655 | 705 | 755 | 805 | 855 | 905 | 955 | 1005 | 1055 | 1105 | 1205 | 1305 | 1405 | 1505 | 1605 | 1705 | 1955 | 2298 | 2548 | 2798 | 3318 | 4318 | 5318 |  |  |
| Dead Zone Calculation    | 37/53 mm |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |  |  |

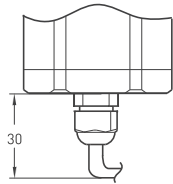
## Round Connector



## Hydraulic Type Connector



## Cable



### Voltage Output

+V : Brown  
 0V : Blue  
 0V sense : Black  
 Output 1 : White (0-10V)  
 Output 2 : Orange (10-0V)  
 Earth : Shield

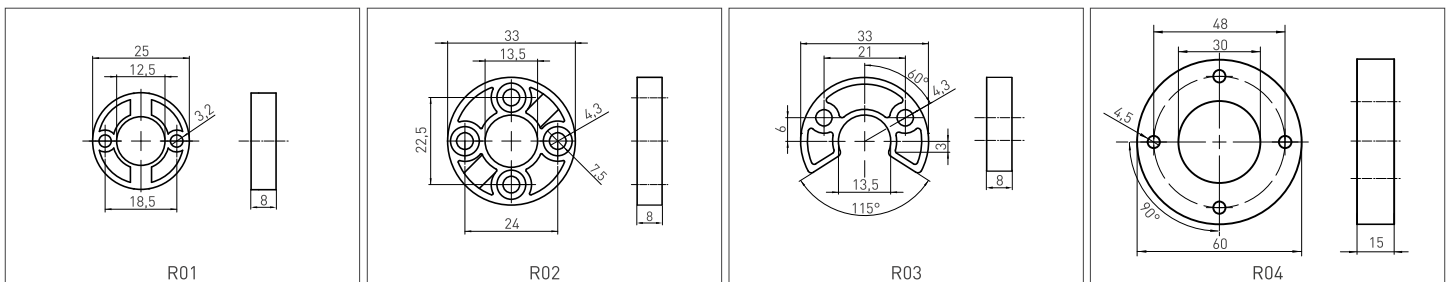
### Current Output

+V : Brown  
 0V : Blue  
 0V sense : Black  
 Output 1 : White (Iout1)  
 Output 2 : Orange (Iout2)  
 Earth : Shield

### Cable Length

1M : 1 meter (standard)  
 [Different cable length optional.]

## Cursor



## Ordering Procedure

| Model | Measuring range | Rod & Thread   | Sealing surface      | Accuracy  | Cursor  | Output   | Connector / Cable  | Dead zone  |
|-------|-----------------|--|----------------------|---|---|--|--|--|
| MST   | 900             | E12  | S                    | A   | 1R02  | V10  | CH2  | 37/53  |
| MST   | 50 - 5000 mm    | E10 : Ø10, M18x1,5<br>E12 : Ø12, M18x1,5<br>U10 : Ø10, 3/4"-16 UNF<br>U12 : Ø12, 3/4"-16 UNF<br>E010 : Ø10, M24x1,5<br>E012 : Ø12, M24x1,5<br>EA10 : Ø10, M24x1,5<br>EA12 : Ø12, M24x1,5<br>EB10 : Ø10, M30x2<br>EB12 : Ø12, M30x2 | S: O-ring<br>F: Flat | A: 16 bit<br>B: 15 bit<br>C: 14 bit<br>D: 13 bit<br>E: 12 bit | 1R01: 25 mm<br>1R02: 33 mm<br>1R03: 33 mm<br>1R04: 60 mm<br><br>1R01: 1 cursor<br>2R01: 2 cursors | V10 : 0-10V I40 : 4-20mA<br>2V10 : 0-10V/0-10V 2I40 : 4-20mA/4-20mA<br>V01 : 10-0V I04 : 20-4mA<br>2V01 : 10-0V/10-0V 2I04 : 20-4mA/20-4mA<br>V11 : 0-10V/10-0V I41 : 4-20mA/20-4mA<br>V50 : 0-5V I20 : 0-20mA<br>2V50 : 0-5V/0-5V 2I20 : 0-20mA/0-20mA<br>V05 : 5-0V I02 : 20-0mA<br>2V05 : 5-0V/5-0V 2I02 : 20-0mA/20-0mA<br>V51 : 0-5V/5-0V I21 : 0-20mA/20-0mA | CH2: Hydraulic type (standard)<br>CN5A: M12<br>CN5B: M16<br>CN6A: M12<br>CN6B: M16<br>CN8A: M12<br>CN8B: M16<br><br>1M: 1 meter (standard)<br>Different cable lengths available (optional) | ≤ 2000 mm : 30/53<br>37/53<br>47/53<br>57/53<br>67/53<br>77/53<br>30/60<br>51/63<br>> 2000-3000 mm : 130/53<br>> 3000-5000 mm : 150/53 |