



Illustration similar

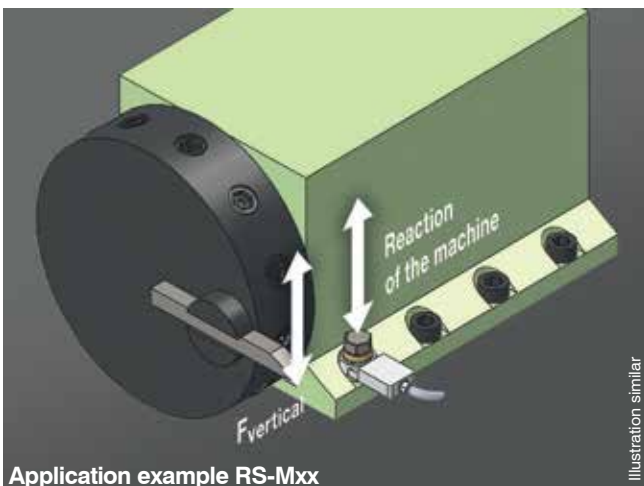
PIEZOELECTRIC FORCE SENSOR

Typical Applications

- Typical applications: Lathe finishing and hard turning
- Different sizes available
- Using the respective measuring transducer, it suits all ARTIS monitoring units

Special Features

- High sensitivity to detect smallest process force variations
- Embedded charge amplifier
- Suitable for rough environmental conditions
- Compact design



Application example RS-Mxx

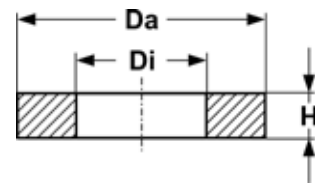
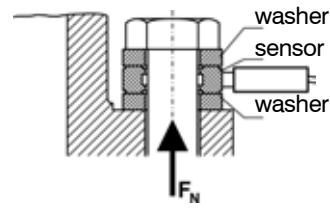
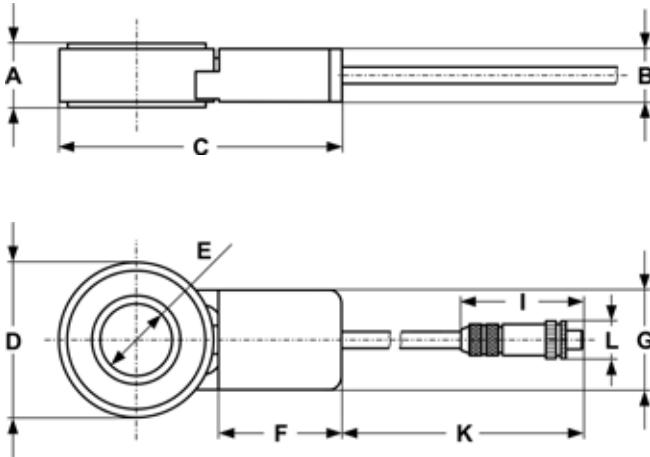
Illustration similar

RS-Mxx Sensor connection (PIN side)

| PIN | Description | Cable CMD |
|------|--|--------------|
| 1, 6 | Ground (bridged in connector) | white, pink |
| 2 | Measuring range Gnd (1145 N) 15 V (6510 N) | brown |
| 3 | Reset → 0 V Amplifier active → 15 V Reset active | green |
| 5 | Signal output ±10 V | gray |
| 8 | Supply voltage + 15 V | red |
| 4, 7 | n.c. | yellow, blue |

Piezoelectric force sensor

RS-M10, RS-M12, RS-M16



| | M10 O3PZ0211021 | M12 O3PZ0211020 | M16 O3PZ0211019 |
|-------------------------|------------------------|------------------------|------------------------|
| Nominal force | 50 kN | 100 kN | 140 kN |
| Maximum operating force | 120 % of nominal force | 120 % of nominal force | 120 % of nominal force |
| Dimensions | | | |
| A | 10.3 mm | 11.3 mm | 12 mm |
| B | 10.6 mm | 10.6 mm | 10.6 mm |
| C | 52 mm | 57 mm | 63 mm |
| D Ø | 22.76 mm | 28.6 mm | 34.5 mm |
| E Ø | 10.5 mm | 13 mm | 17 mm |
| F | 27.7 mm | 27.7 mm | 27.7 mm |
| G | 22.6 mm | 22.6 mm | 22.6 mm |
| H | 4 mm | 5 mm | 6 mm |
| I | 69 mm | 69 mm | 69 mm |
| K | 1085 mm | 1085 mm | 1085 mm |
| L | 20 mm | 20 mm | 20 mm |
| Da Ø _{-0.1} | 24 mm | 26.5 mm | 31 mm |
| Di Ø ₊₀ | 10 mm | 12.7 mm | 16 mm |
| Weight (cable incl.) | 135 g | 160 g | 197 g |
| Rec. pre-load | 18 kN | 30 kN | 45 kN |
| Sensitivity | | | |
| Measuring range 1 | 0.1145 kN/V | 0.1145 kN/V | 0.1145 kN/V |
| Measuring range 2 | 0.6510 kN/V | 0.6510 kN/V | 0.6510 kN/V |

| | Valid for all sizes |
|--|---|
| Storage temperature range | -10 °C...+70 °C |
| Operating temperature range | -10 °C...+70 °C |
| Degree of protection | IP66/IPx7, resistant to cooling lubricants |
| Insulation resistance | > 10 MOhm |
| Nominal displacement | 7.5 µm at 18 kN |
| Fundamental frequency | 35 kHz |
| Crosstalk | 0.03 N/N 0.002 N/Nm |
| Rel. linearity error | 2 % of full scale |
| Material (sensor) | Stainless steel |
| Material (washer) | Stainless steel |
| Scope of supply | Sensor, two washers |
| Sensor cable | |
| Cable length | 1 m, firmly mounted to sensor |
| Cable protection | Protective braid from steel |
| Min. bending radius | 25 mm |
| Accessories | |
| Connection Cable Code O6739797059 | Cable CMD 20, connecting cable sensor/measuring transducer, connector M12, 8 pins |
| Washer set Code O4390140002 Code O4390140003 Code O4390140004 | Pair of washers, stainless steel M10 M12 M16 |
| Conformity | CE |

For a full list of address locations, please consult the Marposs official website

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