# MMS101



2022/07/08

## Outline

This is a 6-axis force torque sensor which has 3-axis force and 3-axis moment. It has a hybrid structure of a MEMS chip and a metal structure, realizing 6-axis detection. This product has AFE ICs built in its module and produces digital output (SPI). Correction coefficients used for matrix operation (other axis interference components are removed) are stored in memories inside the AFE ICs. Since they can be read out immediately before the measurement start, users do not have to control the sensor and the correction coefficients. Additionally, the LDO built in the module reduces noises. This product is extremely small and light, suitable for fingertips of robot hands.

## Application

Robot Hand

## Features

☐ Very small : Φ9.6(W) × 9.0(H) mm
☐ Light weight : 3 g
☐ High load capacity Fx, Fy, Fz : 200N / Mx, My, Mz : 1.8N・m
☐ Load rating Fx, Fy, Fz : 40N / Mx, My, Mz : 0.4N・m

## Main specifications

| | |
|---|---|
| Power Supply [V] | VDD : 3.8~14.0V/<br>VDDIO : 1.14~3.6V |
| Operating Temperature Range [deg.C] | 5~45 |
| Load rating (Force) | ±40 |

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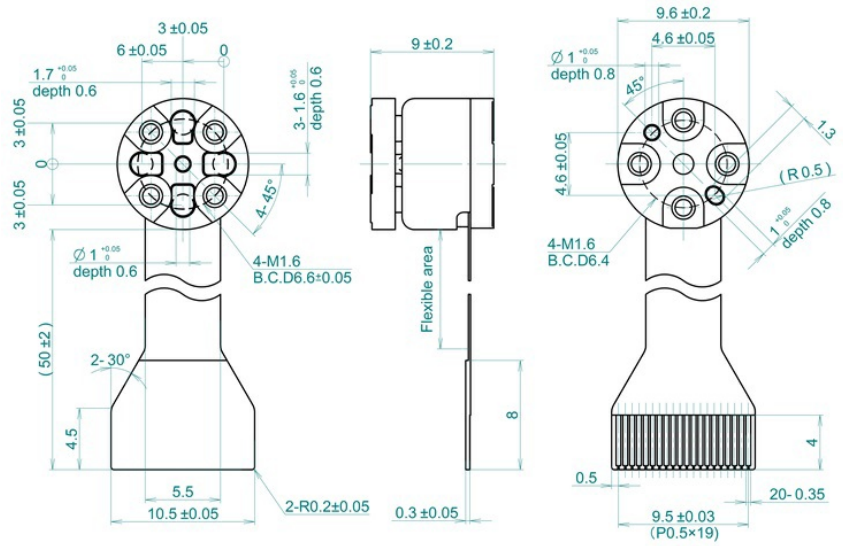
| | |
|---|---|
| [N] | |
| Load rating (Moment) [N·m] | ±0.4 |
| Accuracy [%F.S.] | ±5 |
| Interface | SPI |
| Current consumption [mA] | 10 |
| Overload (Force) [N] | 200 |
| Overload (Moment) [N·m] | 1.8 |
| Conversion Time [ms] | MMS101_PKG.jpg |
| Package |  <br>MMS101_PKG.jpg |

## Package Size

Φ9.6 × 9.0

## Weight

3g

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