

Portfolio

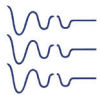
Miniature Force/Torque Sensor Kits



Resense
A Sense of Touch

Resense **6-axis force torque sensors** measure forces and torques in the 3 spatial directions (6 degrees of freedom) using silicon strain gauges.

The main advantages are **compactness and precision**. The unique hollow shaft is enabled by the sensor's multi-part deformation body. The sensors feature active compensation for zero-level shifts caused by internal and external temperature influences.



Low Noise Level

Compact silicon strain gauges enable 4 x lower noise levels compared to other F/T sensors.



High Overload Capacity

Designed to withstand up to 300% overload, allowing safe operation under high load conditions.

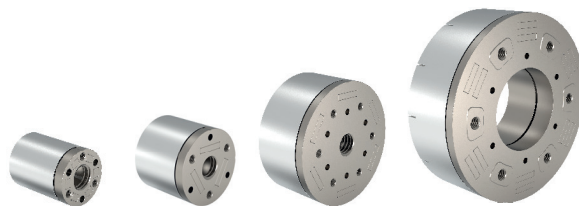


Useful Hollow Shaft

Up to 14 mm hollow shaft provides space for your cables and tubes.

The 6-axis F/T sensor kit includes the **F/T sensor**, the evaluation **electronics box** and the **application software** to visualize the measurement values.

Force/Torque Sensors



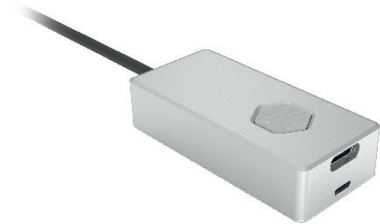
	HEX 8	HEX 12	HEX 21	HEX 32
Dimensions				
Diameter ^{a)} in mm	8.4	12.5	21.0	32.0
Height in mm	10.9	10.9	10.9	11.1
Weight in g	1.4	3.3	9.9	50.0
Nominal measurement range				
Fx, Fy, Fz in N	± 25	± 25	± 50	± 125
Mx, My, Mz in Nm	± 0.100	± 0.125	± 0.500	± 2.250
Technical specifications				
Resolution	± 10 bit (true), 3 $\times$			
Accuracy ^{b)}	1%			
Crosstalk ^{c)}	3%			
Overload capacity	300 %			

a) The diameter refers to the outer diameter and excludes any connector or cable features.

b) The accuracy is the difference between the applied and the actually measured load. The maximum measurement accuracy in percent refers to the full scale value of the sensor.

c) Crosstalk is the undesired influence of a load applied in one axis on the measured output of another axis.

Miniature Electronics Box



Dimensions	54 x 25 x 12.6 mm
Supply voltage	5 V
Interfaces	USB, UART
Sample rate	100 Hz, 500 Hz, 1 kHz
Resolution (ADC)	24 bit
Temperature range	0 – 50 °C

F/T Explorer Application Software

