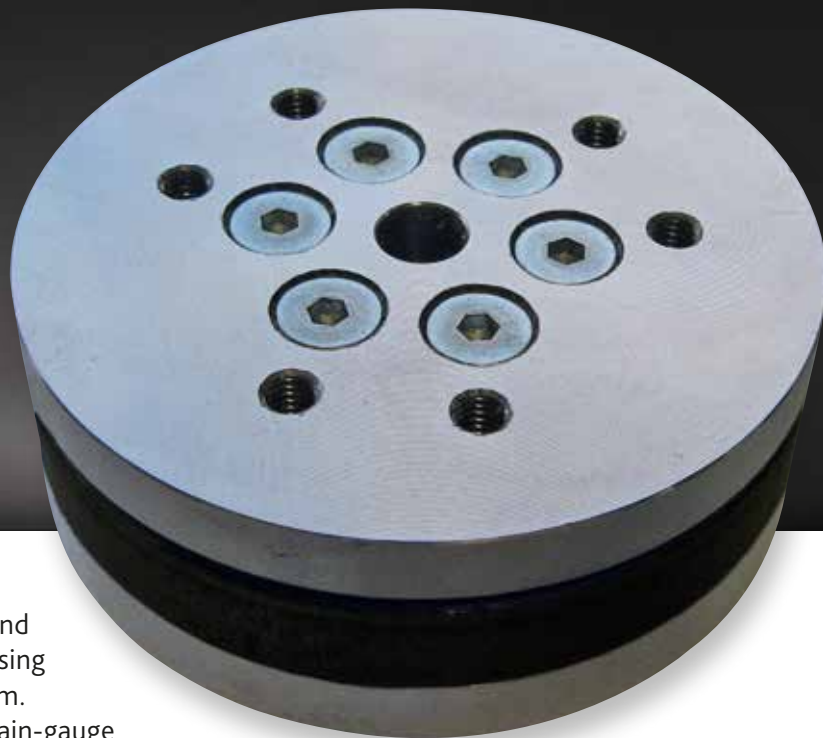


FTSens

6 axis torque and force sensor with CAN Bus communication



The FTSens is capable of measuring 3 forces and 3 torques (in a Cartesian reference system) using a CAN bus line to transmit data in digital form. The sensor is based on semiconductor strain-gauge technology; the mechanical assembly contains all the signal conditioning electronics and a microcontroller for communication.

Specifications

Power supply	5V±10%, current consumption max 100mA, provided from CAN Bus connector
Communication	CAN Bus 2.0B, 1Mbps
Channels	Six, 3 torques (Tx, Ty, Tz) and 3 forces (Fx, Fy, Fz)
Measure range	2000 N (Fx, Fy, Fz) 40 Nm (Tx, Ty) 30 Nm (Tz)
Resolution	0.25 N (Fx, Fy, Fz) 0.049 Nm (Tx, Ty) 0.037 Nm (Tz)
Output data	16 bit, 6 channels, up to 1K messages/sec
Microcontroller	dsPIC30F4013 16bit, 30MIPS, 48K Flash, 2K RAM, CAN, SPI
Alarms	CAN communication, memory, ADC and PGA
Digital filter	6 independent 5th order IIR
A/D Converter	16 bit, 250ksps
Gain settings	Fixed analog gain
Offset correction	digital offset correction
Utilities	In field reprogramming, device configuration, graphical data analysis
Operating conditions	0 to 50°C, humidity <85% without condensation
Dimensions [Φ,H]	45x18mm
Weight	122g