Datasheet

Force & Torque Sensor NRS-6200-D80

Key Features

Nordbo Robotics 200 kg 6-axis force torque sensor is rigid, robust and ideal for mounting on robots for precise force control and/or teach applications. The sensor will only compress 2.3µm in z-axis given a 10kg load. This minimal deformation when being exposed to forces makes the NRS-6 ideal for applications such as grinding, polishing, buffing and deburring where high tool precision is required.
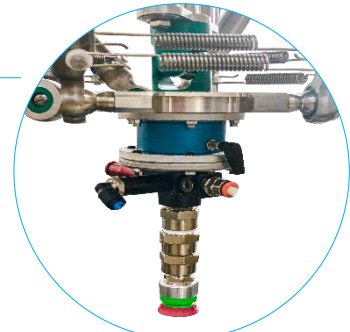
- High stiffness
- High resolution
- No programming needed
- Compact design
- Optional signal filtering
- Dust- & waterproof (IP67)

Applications

Pick and Place

Assembly

Quality Testing & Control

Part picking

Deburring

Machine Tending

Grinding & Polishing

Nordbo Robotics A/S
Agerhatten 27A Entrance 4
5220 Odense Denmark

info@nordbo-robotics.com
+45 81 81 98 81

NORDBO ROBOTICS

Datasheet

Force & Torque Sensor NRS-6200-D80

Technical Specifications

Dimensions (Diameter x Height)		80 x 25 mm		
Weight		300 g		
Supported systems		Windows, Linux, UR & Codesys		
Hysteresis		< 0,2 %		
Crosstalk		< 5 %		
Maximum sampling frequency		1000 Hz		
Operating temperature		0° to 50°		
Operating humidity		< 85%		
Power requirement (CAN)		5 VDC @ 100 mA		
Power requirement (Ethernet)		6-40 VDC @ 500 mA		

	Fx, Fy	Fz	Tx, Ty	Tz
Max force/torque	± 2000 N	± 2000 N	± 40 Nm	± 30 Nm
Resolution*	0,005 N	0,005 N	$1,2*10^{-3}$ Nm	$0,95*10^{-3}$ Nm
Overload**	± 2700 N	± 4700 N	± 55 Nm	± 55 Nm
Signal noise**	0,056 N	0,085 N	$0,8*10^{-3}$ Nm	$0,95*10^{-3}$ Nm
Noise-free resolution	0,25 N	0,35 N	$3,0*10^{-3}$ Nm	$3,5*10^{-3}$Nm
Full scale non-linearity	< 4%	< 4%	< 4%	< 4%
Axis deformation	30 µm	27 µm	0,2°	0,05°

* Signal noise is defined as the standard deviation of a typical one second no-load signal

** The sensor is not overload protected and may break if forces are not kept below the overload values for each axis.

Mechanical Dimensions