

MIMIC WITH FT TRACKER



The FT Tracker for Mimic allows the user to record Trajectories by guiding the robot by hand.

The FT Tracker consists of a force- torque sensor and a handle. With these attached to the robot, the user can track complex movements.

The FT Tracker provides the Mimic software with the force-torque applied to the handle. The Mimic software converts the force-torque to a change in the position and orientation in 3D-space applied to the robot TCP.

IN THE BOX

1x USB flash drive with Mimic URCap

1x Mimic FT Standard Handle

1x Mimic with FT Flange for UR

1x FT Tracker (NRS-6050-D80-UR Kit)

3x Vibration Dampers

3x M4x16 Bolts

1x Mimic Demo Suitcase

TECHNICAL SPECIFICATIONS

Force Sensor (NRS-6050-D80)

Description		Metric
Compatibility		Windows, Linux, UR & Codesys
Diameter, Ø		80 mm
Height, H		22 mm
Weight		300 g
Operating conditions, temperature		0° to 50°
Operating conditions, humidity		< 85%
Hysteresis		< 0,2 %
Crosstalk		< 5 %
Power requirement (CAN)		5 VDC @ 250 mA
Power requirement (Ethernet)		6-40 VDC @ 1000 mA
Sample rate		< 1000 Hz
Fx Fy	Max force	± 500 N
	Resolution*	0,015 N
	Overload	700 N
	Signal noise**	0,025 N
	Noise-free resolution	0,1 N
	Full scale non-linearity	< 4%
	Axis deformation	30 µm
Fz	Max force	± 500 N
	Resolution*	0,015 N
	Overload	1200 N
	Signal noise**	0,032 N
	Noise-free resolution	0,15 N
	Full scale non-linearity	< 4%
	Axis deformation	27 µm
Tx Ty	Max torque	± 10 Nm
	Resolution*	0,32*10 ⁻³ Nm
	Overload	15 Nm
	Signal noise**	0,35*10 ⁻³ Nm
	Noise-free resolution	1,5*10 ⁻³ Nm
	Axis deformation	0,2°
Tz	Max torque	± 5 Nm
	Resolution*	0,25*10 ⁻³ Nm
	Overload	15 Nm
	Signal noise**	0,4*10 ⁻³ Nm
	Noise-free resolution	0,002 Nm
	Axis deformation	0,05°

*The resolution describes the minimal increment of the different axis. The range and resolution of the sensor may vary depending on factory calibration. It can be expected that a calibrated sensor has a measuring deviation below 3% but is depending on the temperature and humidity of the environment.

**Signal noise is defined as the standard deviation of a one second signal without load

Datasheet

FT Tracker



Converter

Description	Metric
Model	NRS-ETH
Compatibility	Windows, Linux, UR & Codesys
Width, W	55 mm
Length, L	91 mm (incl. connectors)
Height, H	39 mm
Weight	115 g
Operating temperature	0° to 50°
Operating humidity	< 85 %
Power requirement (CAN)	5 VDC @ 100 mA
Power requirement (Ethernet)	6-40 VDC @ 500 mA