

Measurement of friction torque of rotating body

Rotational Friction Torque Tester

NTS7-RT05 / NTS7-RT2

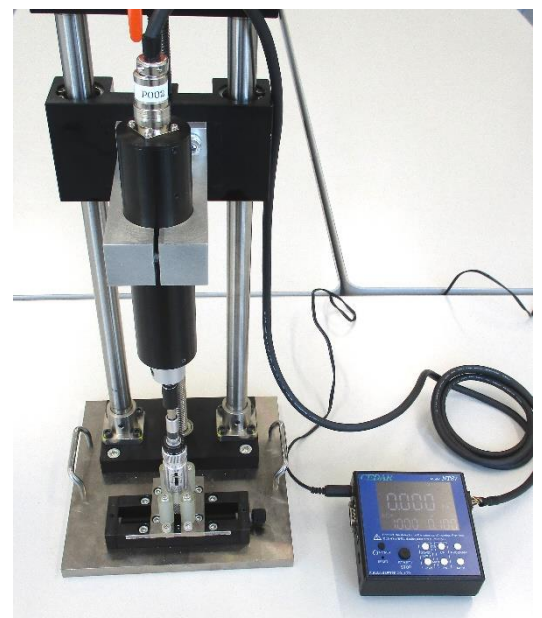
Rotation speed and rotation angle are adjustable.



Measure the rotation starting torque and friction torque during rotation of the rotating body (which does not rotate by itself)

An example of measurement

- Management of tightening torque for screws, etc.
- Inspection of idling torque screwdriver
- Inspection of opening torque of caps such as pet bottles
- Inspection of rotational torque of gears, bearings, etc.



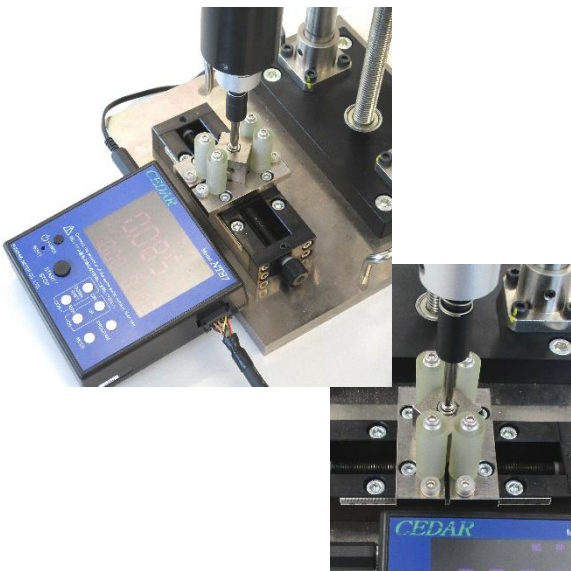
feature

- Easy-to-understand color LCD
- Prepare various commands for external control
- Rotation speed can be selected from 5 to 50RPM
*In increments of 5RPM
- Can be tightened with constant torque
- Automatically turns on/off in conjunction with AC power
- 2 types of communication ports (USB/RS232C)



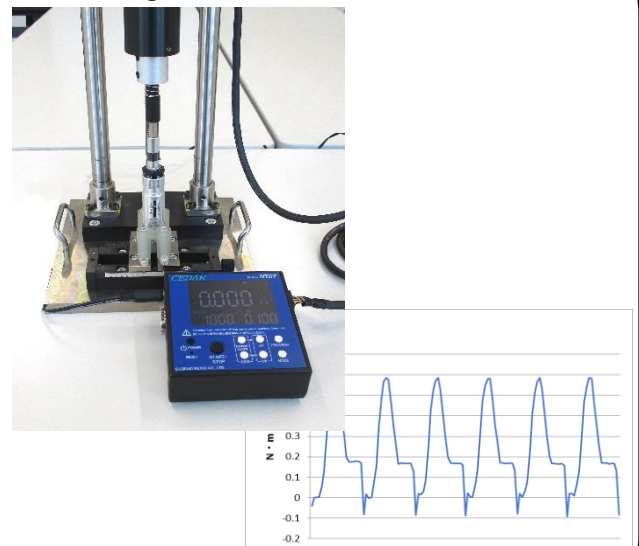
Measurement example (2 measurement modes are prepared)

Torque mode for motor control by torque



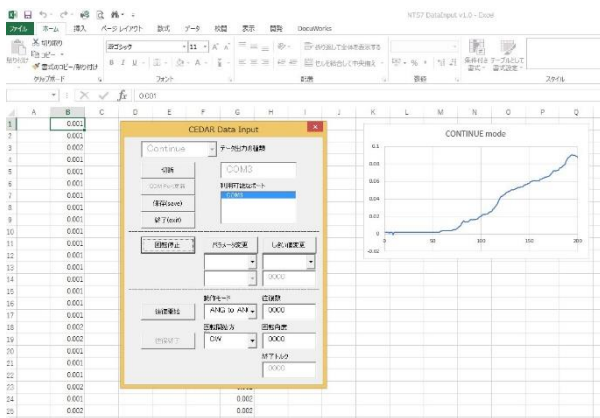
*Usage example Screw tightening

Angle mode for motor control based on rotation angle



*Usage example Torque driver inspection

Linked with personal computer or PLC
Prepare various commands for external control.



Command list

- Rotation start*****Start rotation of the motor
- Rotation stop*****Stop the rotation of the motor
- Measurement mode*****Set the measurement mode
- Measurement channel*****Set the measurement channel
- Pass/fail judgment upper limit value***** Sets the pass/fail judgment upper limit value for the current channel.
- Pass/fail judgment lower limit value***** Sets the pass/fail judgment lower limit value for the current channel.
- Buzzer notification*****Set the buzzer notification method.
- Rotation direction*****Rotation direction setting
- Rotation speed*****Rotation speed setting
- Stop command*****Set conditions to stop
- Data output*****Set the type of output data
- External port output*****Set the contents to be output to the external port
- Angle command*****Set the angle to rotate

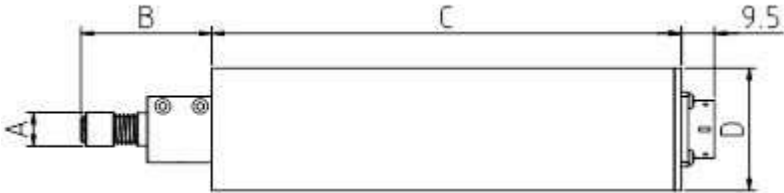

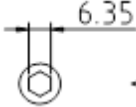
Product Specifications

Model	NTS7-RT05		NTS7-RT2
Rated input voltage	24VDC		
Measurement range	2.0 ~ 500.0 [mN·m]		0.020 ~ 2.000 [N·m]
unit of measure	mN·m / cN·m		N·m / cN·m
accuracy	± 1.0% (± 5 digits for 499 digits or less)		
sampling period	1000 data / 1 second		
Rotational speed	5 to 50 [rpm] *Adjustable every 5 rpm		
Direction of rotation	CW direction	right-hand thread tightening direction	
	CCW direction	Right-hand thread loosening direction	
control angle	About 0.968°		
rotation angle	Can be set from 1° to 9999°		
communication port	USB, RS232C		
external port	1ch input, 3ch output		
Attached document	Inspection report, calibration certificate, traceability system diagram *All listed on one sheet		

Measurement mode

Measurement mode		content	Continuous data output during motor rotation
Torque mode	PP	Based on the measured torque, the motor stop judgment is performed.	○
		Displays the measured torque while the motor is rotating. Displays the maximum torque when stopped.	
angle mode	PA	angle mode	○
		Judgment to stop the motor is made based on the rotation angle. Displays the measured torque while the motor is rotating. Displays the maximum torque when stopped.	
truck	TR	Mainly used for calibration.	—

detector shape

Model	RT05	RT2
External shape		
A tip outer diameter	Φ 10.3 mm	Φ 12.0 mm
B tip length	38.0 mm	55.5 mm
C body length	133.5 mm	168.5mm
D body outer diameter	Φ 37.0 mm	Φ 42.0 mm
Applicable bit	 (Hios Shank H4)	 (B type)
Allowable radial load (tip of bit holder)	20 [N]	30 [N]
Allowable thrust load	40 [N]	80 [N]

Accessories

All products come with an AC adapter. Measurement bits etc. are as follows.

order number	Detector	measuring bit	cable	others
NTS7-RT05-L2-A-O1	RT05	Phillips bits (#0, #1)	•Detector cable	rubber foot
NTS7-RT2-L2-A-O1	RT2	Phillips bits (#1, #2)	•External port cable	

AC adapter

model	SMI36-24-1
Rated voltage, current	AC100V to 240V, 1.0A or less
Frequency rating	50Hz~60Hz
Output voltage, current	24.0V, 1.5A or less
certification	PSE, FCC, CCC, CE, UKCA

detector cable

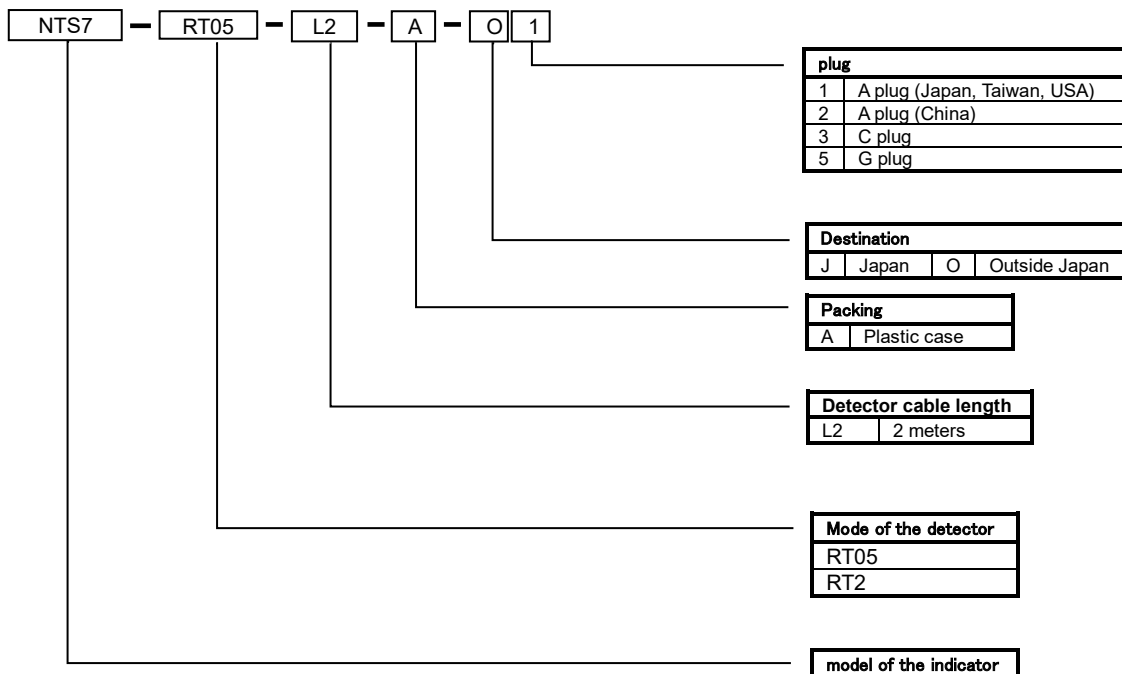
model	RT-12P-2M
length	2m

Cable for external port

model	EXT-5P-1M
length	1m

About order number

The order number indicates the "detector model", "detector cable length", "case", "destination", and "AC adapter plug" after the display model.



SHRADDHA IMPEX
 Authorized Distributor
 Email: shraddhaimpex@gmail.com / sales@shraddhaimpex.net
 Web: www.shraddhaimpex.net
 Contact: +91 9819530352 / +91 8591279918

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