

Torque/Angle Transducer

With Rotary Shaft in Miniature Version

SCHATZ
ADVANCED QUALITY



- Measurement ranges from 1 to 20 Nm
- Accuracy class 0.5
- 360 angle pulses per rotation
- Rotational direction detection
- Slipping design maintenance-free
- SCHATZ®AUTOCODE identification
- With fixed cable or LEMO-connection

Application

The torque/angle transducer is particularly suitable for the dynamic measurement of torques during screwed or bolted assembly with simultaneous measurement of the angle. Air powered, electric or impulse miniature nutrunners can be tested or monitored during the working sequence in production and in the work-shop or laboratory. The angle provides information on the hardness of the screwing or bolting action and the differential quotient.

The transducer is suitable for regular random-sample testing of repeatable accuracy of nutrunners in mass-production assembly because the hexagonal drive enable it to be fitted quickly.

The torque/angle transducer can also be used for static operation or for continuous operation in measuring friction.

Data can be send for example via RS 232 or infra-red to a PC.

Description

The measurement shaft of the torque/angle transducer is fitted with strain gauges. Power is supplied and the measurement signals transferred via extremely low wear slippings. There is also an incremental disc with 360 windows on the measurement shaft. This passes through a photoelectric transducer. The angle pulse conditioning stage delivers two phase-displaced signals which correspond th the direction of rotation.

The drive and output to ISO3126permits rapid connection between power driver and socket tool. The 5 meter long connecting cable for the fixed cable version is provided with a connection plug for our measuring instruments. The lost cables for the transducers without cable varies between 1.5 to 25 meter.

The integrated SCHATZ-AUTOCODE automatically identifies and calibrates the transducer at connection.

Torque/Angle Transducer

With Rotary Shaft and Hexagonal Drive



Technical Data	Model No.: 5413-1251/...					
Model-No.	1251/5	1251/10	1251/20	1251/5-S	1251/10-S	1251/20-S
Capacity* Nm/ftlb	5	10	20	5	10	20
Square	1/4"	1/4"	1/4"	1/4"	1/4"	1 /4"
Weight/kg	0,4	0,4	0,4	0,4	0,4	0,4
Maximum permissible axial force/N	100	200	400	100	200	400
Maximum permissible bending/Nm	0,1	0,20	0,40	0,1	0,2	0,4
Accuracy Class to DIN 1319	0,5	0,5	0,5	0,5	0,5	0,5
Accuracy	+/-0,25%	+/-0,25%	+/-0,25%	+/-0,25%	+/-0,25%	+/-0,25%
Maximum.service load	1,2 x measurement range (20% overload)					
Breaking load	1,5 x measurement range (50% overload)					
Bridge resistance	350 Ohm					
Calibration resistance	40 K/Ohm					
Nominal sensitivity	2,2 mV/V					
Nominal transducer supply voltage range	10 V					
Maximum transducer supply voltage	15 V					
Rated temperature range	0...70°C					
Service temperature range	-20...80°C					
Storage temperature range	-50...85°C					

Dimensions/connection dimensions						
Connecting cable	Permanently connected, 5m long			Serie -S with LEMO F2C 314N		
Plug	ODU-Mini-Snap Serie B 16-pole pin					

These dimensions are nominal values - we reserve the right to make technical modifications