

# "Slim" Torque/Angle Transducer SCHATZ®INSPECT

**SCHATZ®**  
ADVANCED QUALITY



**previously**

**now**

- measurement range from 0.2 to 50 N·m
- accuracy class 0.5
- reference measurement of multiple nutrunners with a sting measure from 32 mm
- impulse nutrunner proof
- SCHATZ-AUTOCODE identification

## Application

From the proportion of torque/angle conclusions can be drawn with regard to the frictional reaction of the bolt head and the thread within the bolted joint. So not only the torque of the bolt tool can be measured and documented, but also if the bolt connection followed the conditions which the constructor presupposed.

Air powered, electric or impulse nutrunners can be tested or monitored during the working sequence in production. The angle provides information on the hardness of the bolting operation and the differential quotient.

For the first time the slim style of this transducer is offering reference measurements of multiple nutrunners with a sting measure from 32 mm.

Thanks to the rapid connection with square drive the torque/angle transducer is suitable for regular random-sample testing of screwing or bolting operations in mass production assembly.

## 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 sliprings.

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 to the direction of rotation.

The drive and output square according to ISO 1174 permits rapid connection between power drive and socket tool. A rugged aluminium housing protects the internal parts of the transducer, so that the measurements are possible under rough production conditions.

The transducers are equipped with a permanently 5-metre connecting cable provided with a connecting plug for SCHATZ measuring instruments or alternatively with a LEMO plug.

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

# "Slim"

## Torque/Angle Transducer

### SCHATZ®INSPECT



Technical Data	5413-1260					
Model-No.	/1	/2	/5	/10	/20	/50
Capacity N-m / lb-ft	1 / 0.738	2 / 1.475	5 / 3.688	10 / 7.38	20 / 14.75	50 / 36.88
Square	1/4"	1/4"	1/4"	1/4"	1/4"	3/8"
Weight/kg (without cable)	0.3	0.3	0.3	0.3	0.3	0.35
Maximum permissible axial force/N	20	40	100	200	400	1000
Maximum permissible bending/N-m	0.07	0.10	0.20	0.20	0.40	1.00
Accuracy class to DIN 51309 Part 3	0,5					
Accuracy	± 0.25 %					
Maximum service load	1.2 x measurement range (20% overload)					
Breaking load	1.5 x measurement range (50% overload)					
Bridge resistance	350 Ω					
Calibration resistance	40 kΩ					
Nominal sensitivity	2 mV/V					
Nominal sensor supply voltage range	10 V					
Maximum sensor supply voltage	15V					
Rated temperature range	0...70°C					
Service temperature range	-20...80°C					
Storage temperature range	-40...85°C					
Maximum rotational speed	2500 U/min					

These transducers are also available with plug (LEMO/2G/14 pts) instead of the standard 5 m cable.

Dimensions/connection dimensions			
Connecting cable	permanently connected, 5 m long		
Plug	ODU-Mini-Snap Serie B 16-pole pin		
Dimensions/mm	A	94	83
	B	20	11.5
	C	18.5	16
	D Ø	10	20

