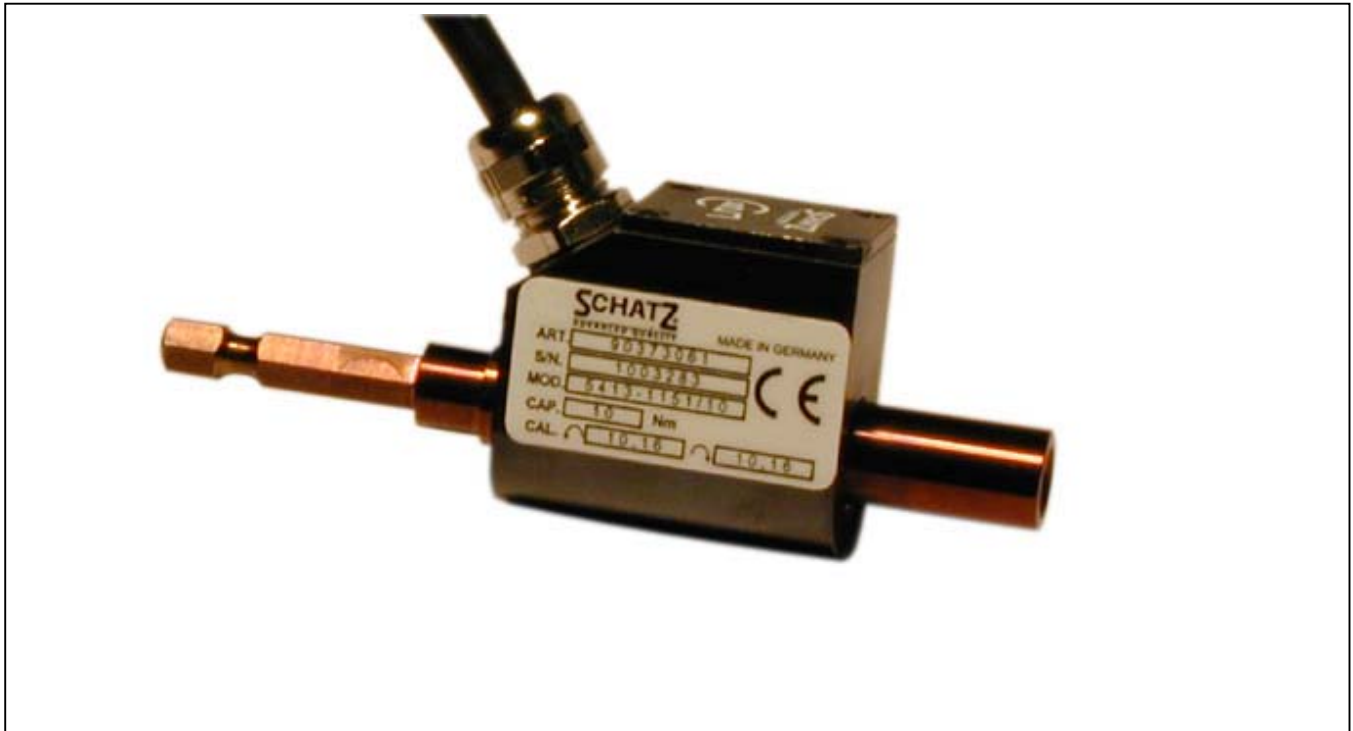


# Miniature torque transducer with rotational shaft SCHATZ®-INSPECT

**SCHATZ®**  
ADVANCED QUALITY



- measurement range from 0.1 to 20 N·m
- accuracy class 0.5
- slip ring design maintenance free
- width 24 mm
- SCHATZ-AUTOCODE identification

## Application

The torque transducer with rotating shaft is especially suitable for dynamic determination of torque at miniature pneumatic- or electronic tools as well as spindles during bolt assembly. These can be tested and monitored during the working sequence in production but also in workshops or laboratories.

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

However, the transducer is as well applicable at static operation or in a built-in application for tool control.

## Description

The measurement shaft of the torque transducer is fitted with strain gauges. Power is supplied and the measurement signals transferred via extremely low wear slip rings.

The drive and output of the torque transducer 5413-1251 show a drive with outside hexagon ¼" form E and an output inner hexagon ¼" form D according to DIN 3126.

The transducer shows extremely small dimensions and a very low weight.

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

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

# Miniature torque transducer with rotational shaft

## SCHATZ®-INSPECT

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Technical data	5413-1151/			5413-1150/		
Model No.	5413-1151/			5413-1150/		
Capacity/N-m/ lb-ft	5/3.688	10/7.38	20/14.75	5/3.688	10/7.38	20/14.75
Connection	1 / 4" hexagon form E outside/D inside			1 / 4" square		
Weight/kg	0.2	0.2	0.2	0.15	0.15	0.15
Maximum permissible axial force/N	100	100	380	100	100	380
Maximum permissible bending/ N-m	0.2	0.2	0.4	0.2	0.2	0.4
Accuracy class to DIN 51309	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	1...10 V					
Maximum sensor supply voltage	15V					
Rated temperature range	0...70°C					
Service temperature range	-20...80°C					
Storage temperature range	-50...85°C					
Maximum rotational speed	5000 rpm					

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 Series B 16-pol. pin	
Dimensions/mm	A	104
	B	40
	C	37.5
	D	24
	E	42
	F	22

