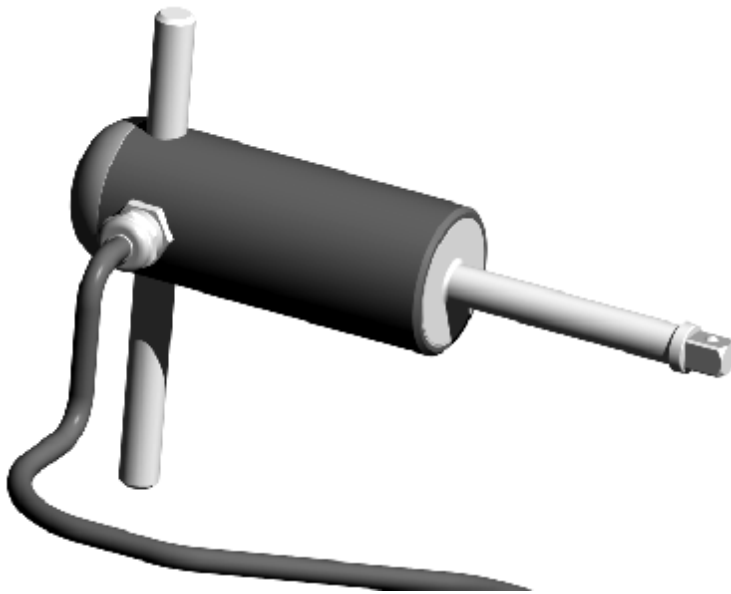


## M01 Torque Wrench

The M01 Torque Wrenches are used for accurate measurements of the bolt or nut wrenching torques at low rated value from 0.2 to 10Nm. These torque wrenches are bi-directional that is why both tightening and break-away torques can be measured. They operate on the strain gauge principle. The built-in amplifier provides a high level of the output signal.

### Special features:

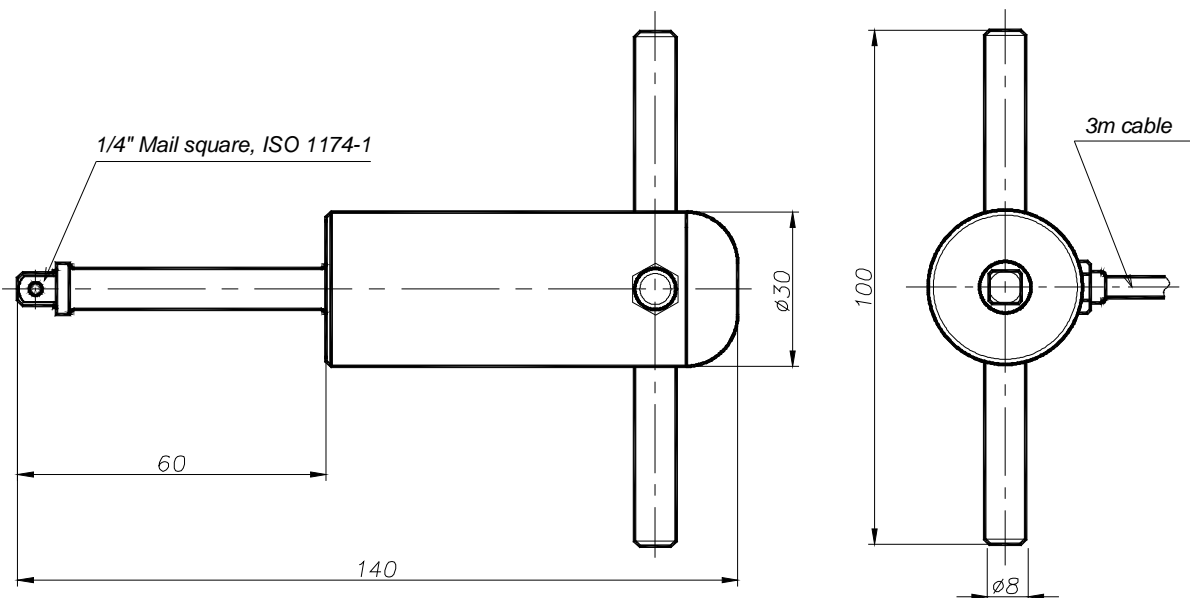
- Operating on the strain gauge principle
- Built-in amplifier
- Insensitive to lateral and axial forces and to bending moment
- Accuracy class: 0.2
- Torque output signal:  $\pm 2V$



### Type-Survey

Type	Nominal torque
M01-02	0.2Nm
M01-05	0.5Nm
M01-1	1Nm
M01-2	2Nm
M01-5	5Nm
M01-10	10Nm

### Dimensions, mm



## Technical data

### 1. Electrical and metrology parameters

Nominal output signal with positive (right-hand) nominal torque	V	+2
Nominal output signal with negative (left-hand) nominal torque	V	-2
Output signal at torque = zero	V	0
Deviation of the actual output signal at the nominal torque from the nominal value	%	± 0.2
Accuracy class		0.2
Temperature effect on the output signal, related to the actual output value	%/10°C	± 0.1
Temperature effect on the zero signal, related to the nominal output value	%/10°C	± 0.1
Linearity deviation including hysteresis, related to the nominal output value	%	± 0.1
Limit load resistance	kΩ	10
Nominal excitation voltage	V (DC)	5...12
Current consumption	mA	< 20

### 2. Parameters of resistance to environment and mechanical exposures

Nominal temperature range	° C	0...+60
Storage temperature range	° C	-10...+70
Vibration resistance:		
Frequency range	Hz	10...55
Duration	h	1
Acceleration	m/s <sup>2</sup>	40
Impact resistance:		
Number of impacts	n	1000
Duration	ms	10
Acceleration	m/s <sup>2</sup>	400
Degree of protection		IP 40

### 3. Permissible load limits and mechanical values

Nominal torque M <sub>N</sub>	Nm	0.2	0.5	1	2	5	10
Limit torque, related to M <sub>N</sub>	%	150					
Axial limit force on the rotor	N	200	250	300	500	800	1000
Lateral limit force on the rotor	N	2	4	6	8	10	20
Bending limit moment on the rotor	Nm	0.2	0.4	0.8	1	2	5
Weight	kg	0.2	0.2	0.2	0.3	0.3	0.3

In addition to the torque wrench, there is the T02 measuring unit to supply the operating voltage and indicate torque measured value.

## Scope of delivery

M01 Torque Wrench	1
Connecting cable M01.10, 3m length	1
Operating manual	1

## Accessories (to be ordered separately)

T02 Measuring Unit	1
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Modifications reserved.

TILKOM can produce torque transducers in accordance with Customized specific requirements.

**TILKOM Ltd**

Post code, 220116, box 236, Minsk, Republic of Belarus  
Phone/fax (+375-17) 271-34-27, ph. 284-01-76. E-mail: [info@tilkom.com](mailto:info@tilkom.com) [www.tilkom.com](http://www.tilkom.com)