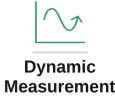


ROTATING TORQUE TRANSDUCER



- NOMINAL TORQUE 5 · 10 · 25 N·m
- DIGITAL OUTPUT USB 2.0
- ANGLE AND SPEED (OPTION)
- ¼" HEXAGON QUICK COUPLING



VERSIONS

Nominal torque	Linearity and hysteresis	Angle and speed	Process coupling
5 N·m	≤ ±0.20 %	option	¼" hexagon, quick coupling
10 N·m	≤ ±0.20 %	option	¼" hexagon, quick coupling
25 N·m	≤ ±0.20 %	option	¼" hexagon, quick coupling

Angle and speed measurement with integrated encoder as an option. Manufacturer type: EasyTORK.



OVERVIEW

Torque, angle and speed in one transducer – static and in continuous rotation, directly on the PC via USB.

The rotating torque transducer measures clockwise and anticlockwise and is fitted between drive and tool via the 1/4" hexagon quick coupling. The amplifier is built in: supply and readings run via USB, the supplied software shows torque and angle or speed in real time, stores peak values and records as a data logger.

5 · 10 · 25

nominal torques in N·m

≤ ±0.20 %

linearity and hysteresis

4800 /s

readings up to

4000 rpm

nominal speed

APPLICATIONS

- Torque wrenches and screwdrivers
- Torque limiters, tightening torque of bolts and nuts
- Drive torque of motors and pumps
- Friction of gears, bearings and seals
- Torsion springs, valves, taps, electric windows, wipers

EQUIPMENT

- Built-in amplifier, supply via USB
- Peak, first peak with release threshold, data logger
- Digital filter and reading rate adjustable
- Software and USB cable included

APPLICATION



Measurement on a screwdriver



With tablet PC (accessory)



TECHNICAL DATA

MEASUREMENT

Nominal torque	5 · 10 · 25 N·m
Linearity and hysteresis	≤ ±0.20 %
Internal resolution	24 bit
Readings per second	5 · 20 · 120 · 600 · 1200 · 2400 · 4800
Programmable resolution	0.001 N·m · 1, 2, 5, 10, 20, 50, 100
Zero function	50 %
Digital filter	moving average over 1 · 2 · 4 · 8 · 16 · 32 points
Torque units	N·m, N·mm, kN·m, kg·m, kg·mm, g·cm, lbf·in, lbf·ft
Temperature effect on zero	≤ ±0.02 % / °C
Temperature effect on sensitivity	≤ ±0.02 % / °C
Reference temperature	+23 °C
Working temperature	-10 ... +70 °C
Storage temperature	-20 ... +80 °C

MECHANICAL PROPERTIES

Sensor material	stainless steel
Case material	aluminium
Process coupling	tool holder with quick coupling, 1/4" hexagon
Signal transmission	via contacts
Nominal speed	4000 rpm
Protection class	IP40 · EN 60529

MECHANICAL LIMITS

Service torque	100 %FS	May be applied continuously without leaving the specification.
Max. permissible torque	150 %FS	May be applied without permanent change of the characteristics.
Breaking torque	> 300 %FS	Torque at which mechanical failure may occur.
Highly dynamic torque	70 %FS	Amplitude permitted for alternating load.
Nominal speed	4000 rpm	Highest permitted speed of rotation.

ELECTRICAL CONNECTION (M12 MALE · USB TYPE A)

Pin 1	VBUS (5 V DC)	red
Pin 2	D-	white
Pin 3	D+	green
Pin 4	GND	black
Pin 5	earth	—

ANGLE AND SPEED (OPTION)

Internal resolution	5760 div. / rotation
Angle resolution	0.1°
Speed indication	rpm or Hz
Direction indication	clockwise (+) or anticlockwise (-)

ELECTRICAL PROPERTIES

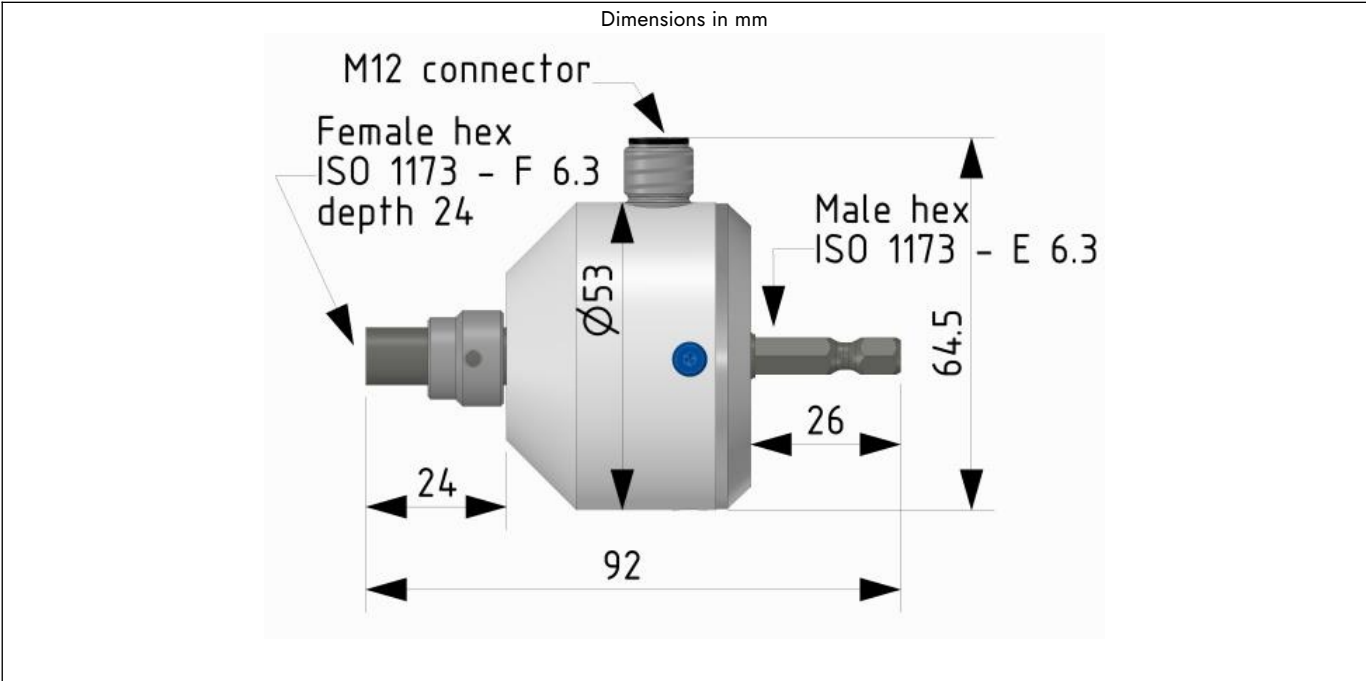
Output	digital, USB 2.0
Power supply	5 V DC via USB port
Electrical connection	M12 male connector

FUNCTIONS

Peak function	clockwise (+) and anticlockwise (-)
First peak function	release threshold programmable
Release peak function	release threshold programmable
Software	peak and data logger mode, export to ASCII and Excel



DIMENSIONS (mm)



DIMENSIONS PER DRAWING		
Dimension	Value (mm)	Note
Total length	92	over both couplings
Body diameter	Ø 53	
Height	64.5	including M12 connector
Female hexagon	24	ISO 1173 form F 6.3, depth 24 mm
Male hexagon	26	ISO 1173 form E 6.3

SCOPE OF DELIVERY AND ACCESSORIES	
Item	Design
Included	transducer, PC software, USB cable
USB cable	4-pole straight M12x1 female connector, length 2 m
Tablet PC (accessory)	Windows 10/11, 10" touch screen, min. 1024 × 768, for measurements in the field
Software	real-time display, peak and data logger mode, export to ASCII and Excel

COMPLIANCE AND CERTIFICATION

Protection Rating	IP40 according to EN 60529	
Compliance	CE, RoHS, REACH · EN 61326-1 (2013), EN 61010-1 (2013)	
Calibration	Calibration report clockwise and anticlockwise on request	
Certifications (on request)		Accredited calibration certificate (ISO/IEC 17025), clockwise and anticlockwise

