



Torque and angle, straight to your MES.

A production-ready line of electronic torque wrenches. The tool runs the Open Protocol server itself, so a plant MES or SCADA connects to it directly over Wi-Fi with no gateway, no controller and no software installed on the operator's PC.

10–1200 Nm

TORQUE RANGE

±2 %

OF READING

25

MODELS, 6 SERIES

IP54

PROTECTION

What makes it different

- ✓ **The wrench is the Open Protocol server.** Connected tools from the established names still need a controller or gateway to reach the plant floor. This one does not: your MES reads every result over Wi-Fi in real time.
- ✓ **Zero-install browser configurator.** Presets, calibration, results and diagnostics are served by the tool itself and open in Chrome or Edge over USB, Bluetooth or Wi-Fi. It works offline, and firmware for both the compute and radio modules updates from the same browser.
- ✓ **Torque and angle on every model,** with the full tightening trace captured, not just a peak value.

Specification

Classification	ISO 6789-1, type II, class A	Housing	Aircraft aluminium, carbon fibre
Accuracy	±2 % of reading (20–100 % of limit)	Protection	IP54
Hysteresis	≤ 2.0 %	Overload alarm	110 % of the rated limit
Resolution	Down to 0.05 Nm	Operating range	0 to +40 °C, ≤ 80 % RH
Measuring chain	16-bit, 4000 Hz; 50 Hz filter	Endurance	≥ 10,000 cycles MTBF
Angle	6-axis IMU 1000 Hz, 0–360°, 0.1°	Insert size	9 × 12 · 14 × 18 · 19 × 19 mm
Modes	Track · Peak · Torque plus Angle · Cal check	Power	Removable Li-Ion 21700, 6–8 h; external charger
Units	Nm · kgf·cm · lbf·ft · lbf·in	PC link	USB Type-C
Direction	Clockwise and counter-clockwise	Wireless	Wi-Fi · Bluetooth LE
Display	2.4" colour IPS, three shop themes	Integration	Open Protocol / TCP, buffered on link loss
Working range	20 % to 100 % of each model's limit	Log	2,000 or 50,000 records by package; CSV export

Calibration and metrology

Calibration and verification follow ISO 6789-2 and run from the browser against a motorised reference bench. The tool is exercised to full scale in the direction under test, zeroed, then measured at 20, 60 and 100 % of its limit, repeated across runs, in both directions. Each direction gets its own preload, its own zero and its own curve.

- ✓ Relative deviation at every point against the tolerance band of the class
- ✓ Repeatability across runs, and the hysteresis loop measured up and back down
- ✓ Uncertainty budget with expanded uncertainty U at k=2, and a pass or fail verdict per point computed with U included
- ✓ Exportable certificate: one self-contained file with the chart embedded, ready to print

Certification. The design is finished and the full production package is complete; pilot units are in hand today. CE marking (RED, EMC, LVD) is targeted for **Q1 2027**. An accredited ISO 6789-2:2017 calibration certificate is underway. Current status and timeline are shared on request.

The full line — 25 models in 6 series

MODEL	RANGE, NM	STEP, NM	WEIGHT	LENGTH
Series GN1 — 10 to 80 Nm · compact bodies for precision fastening				
GN1-50	10–50	0.05	0.8 kg	360 mm
GN1-60	12–60	0.05	0.8 kg	360 mm
GN1-80	16–80	0.05	0.8 kg	360 mm
Series GN2 — 12 to 120 Nm · versatile span for general assembly				
GN2-60	12–60	0.05	1.0 kg	390 mm
GN2-80	16–80	0.05	1.0 kg	390 mm
GN2-100	20–100	0.1	1.0 kg	390 mm
GN2-120	24–120	0.1	1.0 kg	390 mm
Series GN3 — 20 to 180 Nm · professional grade for production lines				
GN3-100	20–100	0.1	1.1 kg	420 mm
GN3-120	24–120	0.1	1.1 kg	420 mm
GN3-150	30–150	0.1	1.1 kg	420 mm
GN3-180	36–180	0.1	1.1 kg	420 mm
Series GN4 — 30 to 300 Nm · reinforced for intensive, high-cycle duty				
GN4-150	30–150	0.1	1.6 kg	540 mm
GN4-200	40–200	0.1	1.6 kg	540 mm
GN4-250	50–250	0.2	1.6 kg	540 mm
GN4-300	60–300	0.2	1.6 kg	540 mm
Series GN5 — 60 to 600 Nm · high torque for large fasteners and structures				
GN5-300	60–300	0.2	4.0 kg	1100 mm
GN5-400	80–400	0.2	4.0 kg	1100 mm
GN5-500	100–500	0.2	4.0 kg	1100 mm
GN5-600	120–600	0.5	4.0 kg	1100 mm
Series GN6 — 120 to 1200 Nm · maximum torque, flange and structural joints				
GN6-600	120–600	0.5	5.5 kg	1600 mm
GN6-700	140–700	0.5	5.5 kg	1600 mm
GN6-800	160–800	0.5	5.5 kg	1600 mm
GN6-900	180–900	0.5	5.5 kg	1600 mm
GN6-1000	200–1000	0.5	5.5 kg	1600 mm
GN6-1200	240–1200	0.5	5.5 kg	1600 mm

Every model works from 20 % to 100 % of its rated limit. Accuracy is ± 2 % of reading across the line.

How it is specified

Beyond the 25 models, each tool is ordered in one of three **packages** and one of three **connectivity tiers**. The hardware is identical across packages – capability is set in software, so a tool moves up a tier without new hardware and without losing its calibration. Upgrades are carried out at the works; the tool returns with an updated passport and a fresh calibration certificate.

GN3 – 180 – A / N series – upper limit, Nm – package / connectivity

FUNCTION	BASIC (B)	ASSEMBLY (A)	CONTROL (K)
Torque, ± 2 % of reading; Track and Peak strategies	•	•	•
Presets with tolerances and pre-signal	P1–P3	P1–P9	P1–P9
USB-C, browser configurator, firmware update, self-test	•	•	•
Bluetooth, drop and shock sensors, usage counters	•	•	•
Calibration check against a reference instrument	•	•	•
Angle with wrench-elasticity compensation; Torque plus Angle	–	•	•
Tightening curve and dT/d θ gradient in the configurator	–	•	•
On-board log, records	2,000	50,000	50,000
results.csv archive on the memory card	–	•	•
Batch: bolt counter, position in batch in every record	–	•	•
CSV and JSON export	–	•	•
Residual-torque audit, first-movement method	–	–	•
Prevailing-torque allowance for self-locking fasteners	–	–	•
Validity checks: loading rate, minimum rise	–	–	•
Measurement method written into the result	–	–	•

CONNECTIVITY	NO NETWORK	+ NETWORK (N)	+ NET & ID (NQ)
USB Type-C, Bluetooth LE	•	•	•
Wi-Fi 2.4 GHz, on-board Open Protocol server	–	•	•
Result transmitted in real time (buffered and resent on link loss)	–	•	•
Logs and protocols pulled over the network	–	•	•
Work bound to operator and shift	–	•	•
QR / 1D / 2D scanner	–	–	•
Tightening bound to the unit being built	–	–	•

The + Network and ID tier covers series GN1 to GN4. On GN5 and GN6 the station controller performs identifier scanning.

Working with us

OEM and white-label	Your brand, packaging and documentation across all 25 models	Minimum order	From one unit
		Lead time	Up to two months, subject to stock
Licensing	Open Protocol server firmware, browser configurator and FOTA	Delivery terms	By agreement
Contract R&D	Component or full-stack integration into your platform	Warranty	From one year

About us. Founded in 2016. Before this line we designed and supplied electronics for other companies, including the electronic modules for another manufacturer's torque wrenches; through that brand our electronics has already worked on the assembly lines of major automotive plants. Seven people: two founding architects, engineers in power electronics, analogue electronics and mechanical design, plus assembly and finance. Engineering and assembly in Armenia, component manufacturing partly in China.