

# MicroTorque Screwdrivers

Total solutions for micro torque fastening



*Atlas Copco*

# Intelligent

## High performance fastening when every screw

### Secure your small screw joints, from 0.5 Ncm

Ultra low torque applications — starting at 0.5 Ncm — don't need to be demanding. The MicroTorque range of electric screwdrivers from Atlas Copco has been designed to perform consistently and precisely time after time. Whether you are manufacturing high-value consumer goods or delicate electronics, the specification of the MicroTorque range has been carefully created to match your commercial needs, making micro torque more of a science and less of an art.

### Compact controller, perfect performance

The MicroTorque controller is the smallest on the market, yet delivers total control over screwdriver performance:



#### Controller:

- Up to 8 tightening steps
- Up to 32 P-sets
- Up to 16 Screw cycle sequences
- Compatible with Digitork and transducerized MT tools

#### ToolsTalk MT:

- User friendly programming over PC
- Real time monitoring MT controller

#### ToolsTalk MT Analysis:

- Trace analysis software
- Trace overlay
- Export function

#### ToolsTalk MT Net:

- Data collection software
- Torque and angle data related to date, time and controller/spindle serial numbers
- Exports function to excel

### MicroTorque screwdrivers

Optimized for assembly of low torque applications: watches, cell phones, cameras, car media, HDD and other electronics products. The MicroTorque screwdrivers is a durable range of handheld and fixtured tools from 0.5 to 500 Ncm designed flexible assembly manufacturing and mass production handheld or automated assembly operations.



ETF M(T) 50-200



ETF M(T) 5-20



ETD M 40-250 L



ETD M 3-10 A



ETD 27 ABL



ETD M 40-80 ABL

# solutions

w counts



## Quality assurance system – sharpening your competitive edge.

To ensure the highest quality of your fastening – and ultimately your company's products – Atlas Copco has developed a comprehensive quality assurance system. The controller-cable-transducer package provides fast, accurate and reliable measurement of critical parameters.

### ACTA MT4 – smart new features at a glance

- Connect to PC via USB/RS232/Ethernet
- 16 different engineering units to choose from
- Colour configurable display (Torque/Angle/Status/Trace)
- Battery for portable usage
- Programmable via keypad or software "ToolsTalk ACTA MT"
- Dual transducer inputs
- High resolution OLED colour display
- Audio signal for operator feedback
- Digital I/O signals for communication with external devices such as PLC
- ESD grounding terminal



## A range of transducers are available for quality control testing

The ACTA MT transducers provide the best accuracy on the market for micro torques



**MT TS**  
Stationary torque transducer



**MT TRA**  
Torque/angle in-line rotary transducer



**MT TH**  
Manual screwdriver torque transducer



**MT TR**  
Torque in-line rotary transducer



# The MicroTorque range – building the electronics industry



## MicroTorque Tools – Technical Data

Model	Torque range Ncm in lb		Speed r/min	Length mm	Overall width mm	Weight kg lb		Bit drive	Ordering No.
<b>Fixtured transducerized</b>									
ETF MT 5	0.5 - 5	0.04 - 0.4	600	184	20	0.4	0.90	HM 4 mm	8432 0800 10
ETF MT 10	1 - 10	0.09 - 0.9	600	184	20	0.4	0.90	HM 4 mm	8432 0800 11
ETF MT 20	2 - 20	0.18 - 1.8	800	184	20	0.4	0.90	HM 4 mm	8432 0800 12
ETF MT 50	5 - 50	0.44 - 4.4	1000	255	30	0.76	1.67	HM 4 mm	8432 0800 13
ETF MT 80	8 - 80	0.71 - 7.1	1200	274	30	1.18	2.60	HM 4 mm	8432 0800 14
ETF MT 100	10 - 100	0.88 - 8.8	1000	274	30	1.18	2.60	1/4" HEX	8432 0800 15
ETF MT 200	20 - 200	1.77 - 17.7	800	274	30	1.18	2.60	1/4" HEX	8432 0800 16
ETF MT 500	50 - 500	4.42 - 44.2	500	260	40	1.84	4.05	1/4" HEX	8432 0800 17
<b>Hand-held "Digitork", without push-to-start</b>									
ETD M 03 A	0.5 - 2.5	0.04 - 0.2	1000	132	16	0.1	0.22	Ø 2 mm	8432 0810 05
ETD M 05 A	1.5 - 5	0.13 - 0.4	750	132	16	0.1	0.22	Ø 2 mm	8432 0810 06
ETD M 10 A	3 - 10	0.27 - 0.9	750	132	16	0.1	0.22	Ø 2 mm	8432 0810 08
ETD M 20 AVB	5 - 20	0.44 - 2.2	750	146	22	0.25	0.55	HM 4 mm	8432 0810 34
ETD M 20 ACBS	5 - 20	0.44 - 2.2	750	162	22	0.25	0.55	HM 4 mm	8432 0810 31
ETD M 20 AVS	5 - 20	0.44 - 2.2	750	146	22	0.25	0.55	HM 4 mm	8432 0810 33
ETD M 25 AVB	7.5 - 25	0.66 - 2.2	750	174	22	0.25	0.55	HM 4 mm	8432 0810 09
ETD M 25 AVS	7.5 - 25	0.66 - 2.2	750	174	22	0.25	0.55	HM 4 mm	8432 0810 29
ETD M 27 ABL	7.5 - 27	0.66 - 2.4	800	185	29	0.25	0.55	HM 4 mm	8432 0815 02
<b>Hand-held "Digitork", push-to-start configurable</b>									
ETD M 40 ABL	10 - 40	0.71 - 3.6	850	225.4	36	0.52	1.1	HM 4mm	8432 0815 05
ETD M 50 ABL	15 - 50	1.33 - 4.4	850	225.4	36	0.52	1.1	HM 4mm	8432 0815 08
ETD M 80 ABL	16 - 80	1.42 - 7.1	850	225.4	36	0.52	1.1	HM 4mm	8432 0815 11
ETD M 100 L	25 - 100	2.21 - 8.8	700	240	27	0.65	1.43	1/4" HEX	8432 0810 12
ETD M 200 L	50 - 200	4.42 - 17.7	700	240	27	0.65	1.43	1/4" HEX	8432 0810 13
ETD M 250 L	75 - 250	6.62 - 23.5	600	240	27	0.65	1.43	1/4" HEX	8432 0810 24
<b>Fixtured "Digitork"</b>									
ETF M 05	1.5 - 5	0.13 - 0.4	800	184	20	0.4	0.90	HM 4 mm	8432 0810 15
ETF M 10	3 - 10	0.27 - 0.9	500	184	20	0.4	0.90	HM 4 mm	8432 0810 16
ETF M 20	5 - 20	0.44 - 1.8	650	184	20	0.4	0.90	HM 4 mm	8432 0810 17
ETF M 50	15 - 50	1.33 - 4.4	850	230	30	0.8	1.76	HM 4 mm	8432 0810 18
ETF M 80	16 - 80	1.42 - 7.1	850	272	30	1.2	2.64	HM 4 mm	8432 0810 19
ETF M 100	25 - 100	2.21 - 8.8	700	272	30	1.2	2.64	1/4" HEX	8432 0810 20
ETF M 200	50 - 200	4.42 - 17.7	600	272	30	1.2	2.64	1/4" HEX	8432 0810 21
ETF M 400	150 - 400	13.27 - 35.4	320	260	40	1.8	3.96	1/4" HEX	8432 0810 22
ETF M 800	300 - 800	26.55 - 70.8	300	322	45	2.6	5.73	1/4" HEX	8432 0810 23

<sup>a</sup> ETD M AXXX line: C - tool cable, V-integrated vacuum hose, B-reverse button, S- short lever, L- long lever.

**NOTE:** "Complete system" (single ordering number) includes: Controller, screwdriver, tool cable, ToolsTalk MT, USB communication cable and power supply.

For all models in the table declared noise and vibration emissions according to ISO 15744 and ISO 28927-2 are: sound pressure level <70 dB(A) and vibrations <2.5 m/s<sup>2</sup>.

### Tool cable

Model	Ordering No.
M - (AB)L Tool - 2 m	8432 0830 37
MT/M/M-A Tool - 2 m	8432 0830 36
M - (AB)L Tool - 3.5 m	8432 0831 02
MT/M/M-A Tool - 3.5 m	8432 0831 01

### Software

Model	Ordering No.
ToolsTalk MT Analysis (for graph analysis)	8432 0830 31
ToolsTalk MT Analysis/Net (for graph analysis and data collection)	8432 0830 45

## Controller accessories

Model	Ordering No.
Combi (Remote control + program selector)	8432 0830 88
Remote control	8432 0830 08
Digital program selector	8432 0830 34
Vacuum pump, VPX 3	8432 0830 05
Vacuum pump, VPX 6	8432 0830 06
Controller fixture table	8432 0830 84
Controller fixture wall	8432 0830 32
Footswitch	8432 0830 07
Desktop socket (with screwdriver presence sensor)	8432 0831 89
MT Stacklight table stand	8432 0830 97
MT Stacklight wall mount	8432 0830 99
Y cable for I/O connector*	8432 0831 99

\*Y cable suitable when two I/O accessories are required.



MT Stacklight table version

GHP Small

GHP Mini



Remote control



Digital Program Selector



Vacuum adapter



Blank nozzles



Vacuum pump



Shaker tray

## Torque arm

Model	Ordering No.
GHP Mini	8432 0830 02
GHP Small	8432 0830 03
GHP Large	8432 0830 04

## Torque arm handles

Model	Ordering No.
Handle between GHP Mini and ETF 05, 10, 20	8432 0830 90
Handle between GHP Small and ETF 50, 100, 200	8432 0830 53
Handle between GHP Large and ETF 400, 500, 800	8432 0830 54

## Torque arm adapters

Model	Ordering No.
Adapter between GHP Mini and ETF 5-20	8432 0830 70
Adapter between GHP Mini and ETD M 3-10	8432 0831 81
Adapter between GHP Mini and ETD M 20-25 AVB	8432 0830 83
Adapter between GHP Small and ETF 50-200	8432 0830 72
Adapter between GHP Small and ETD M-L	8432 0830 73
Adapter between GHP Large and ETF 400-800	8432 0830 74
Universal adapter for GHP Small (LUM, EBL, DL, SL)	8432 0831 80

NOTE: The adapters and the handles are not included with the torque arm package, need to be ordered separately.

## Shaker tray

Model	Slot mm	Ordering No.
<b>SGQ Large<sup>a</sup> (110x110x35 mm)</b>		
SGQ 15	1.5	8432 0830 09
SGQ 20	2	8432 0830 10
SGQ 25	2.5	8432 0830 11
SGQ 30	3	8432 0830 12
SGQ 35	3.5	8432 0830 13
SGQ 40	4	8432 0830 14
SGQ 45	4.5	8432 0830 15
SGQ 50	5	8432 0830 16
SGQ 55	5.5	8432 0830 17
SGQ 60	6	8432 0830 18
<b>MSG Small<sup>b</sup> (70x70x15 mm)</b>		
MSG 05	0.5	8432 0830 19
MSG 06	0.6	8432 0830 20
MSG 07	0.7	8432 0830 21
MSG 08	0.8	8432 0830 22
MSG 09	0.9	8432 0830 23
MSG 10	1.0	8432 0830 24
MSG 11	1.1	8432 0830 25
MSG 12	1.2	8432 0830 26
MSG 13	1.3	8432 0830 27
MSG 14	1.4	8432 0830 28
MSG 15	1.5	8432 0830 29

<sup>a</sup> SGQ type (big version): For screws up to 30 mm length. From Ø 1.5 up to Ø 6 mm.

<sup>b</sup> MSG type (small version): For screws up to 10 mm length. From Ø 1.5 up to Ø 6 mm.

## Vacuum adapters and nozzles

Model	Ordering No.
ETD 03-25 xVx (36-44 mm bit / nozzle Ø 6 mm)	8432 0770 02
ETD 20-25 ACBx (44 mm bit / nozzle Ø 6 mm)	8432 0770 08
ETD 20-25 ACBx (64 mm bit / nozzle Ø 6 mm)	8432 0770 10
ETD 40-80 L (44 mm bit / nozzle Ø 6 mm)	8432 0770 13
ETD 40-80 L (64 mm bit / nozzle Ø 6 mm)	8432 0770 15
ETD 40-80 L (44 mm bit / nozzle Ø 8 mm)	8432 0770 17
ETD 40-80 L (64 mm bit / nozzle Ø 8 mm)	8432 0770 05
ETD 100-250 L (50 mm bit / nozzle Ø 6 mm)	8432 0770 20
ETD 100-250 L (70 mm bit / nozzle Ø 6 mm)	8432 0770 23
ETD 100-250 L (50 mm bit / nozzle Ø 8 mm)	8432 0770 27
ETD 100-250 L (70 mm bit / nozzle Ø 8 mm)	8432 0770 30
ETD 100-250 L (90 mm bit / nozzle Ø 8 mm)	8432 0770 25
ETF 5-80 (44 mm bit / nozzle Ø 6 mm)	8432 0770 33
ETF 5-80 (64 mm bit / nozzle Ø 6 mm)	8432 0770 35
ETF 5-80 (44 mm bit / nozzle Ø 8 mm)	8432 0770 38
ETF 5-80 (64 mm bit / nozzle Ø 8 mm)	8432 0770 40
ETF 100-200 (70 mm bit / nozzle Ø 8 mm)	8432 0770 43
ETF 400-800 (70 mm bit / nozzle Ø 10 mm)	8432 0770 45
Blank nozzle Ø 6 mm	8432 0760 02
Blank nozzle Ø 8 mm	8432 0760 00
Blank nozzle Ø 10 mm	8432 0760 06

## MicroTorque Transducer – Technical Data

Model	Capacity		Overall length mm	Drive	Ordering No.
	Ncm	in lb			
<b>Manual screwdriver torque transducer</b>					
MT TH 1	1.0	0.09	115	Ø 3 mm	8432 0820 10
MT TH 2	2.0	0.18	115	Ø 3 mm	8432 0820 11
MT TH 5	5.0	0.44	115	Ø 3 mm	8432 0820 12
MT TH 10	10.0	0.88	115	Ø 3 mm	8432 0820 13
MT TH 20	20.0	1.77	115	1/4"	8432 0820 14
MT TH 50	50.0	4.42	124	1/4"	8432 0820 15
MT TH 100	100.0	8.85	124	1/4"	8432 0820 16
MT TH 200	200.0	17.70	124	1/4"	8432 0820 17
<b>Static reaction torque transducer</b>					
MT TS 1	1.0	0.09	81	Ø 3 mm	8432 0820 18
MT TS 2	2.0	0.18	81	Ø 3 mm	8432 0820 19
MT TS 5	5.0	0.44	81	Ø 3 mm	8432 0820 20
MT TS 10	10.0	0.88	81	Ø 3 mm	8432 0820 21
MT TS 20	20.0	1.77	81	Ø 3 mm	8432 0820 22
MT TS 50	50.0	4.42	98	1/4"	8432 0820 23
MT TS 100	100.0	8.85	98	1/4"	8432 0820 24
MT TS 200	200.0	17.70	98	1/4"	8432 0820 25
MT TS 500	500.0	44.25	111	1/4"	8432 0820 52
<b>In-line rotary torque transducer</b>					
MT TR 2	2.0	0.18	76	Ø 3 mm	8432 0820 29
MT TR 5	5.0	0.44	76	Ø 3 mm	8432 0820 30
MT TR 10	10.0	0.88	76	Ø 5 mm	8432 0820 31
MT TR 20	20.0	1.77	76	Ø 5 mm	8432 0820 32
MT TR 50	50.0	4.42	105	1/4"	8432 0820 33
MT TR 100	100.0	8.85	105	1/4"	8432 0820 34
MT TR 200	200.0	17.70	105	1/4"	8432 0820 35
MT TR 500	500.0	44.25	105	1/4"	8432 0820 36
<b>In-line rotary torque and angle transducer</b>					
MT TRA 2	2.0	0.18	76	Ø 3 mm	8432 0820 41
MT TRA 5	5.0	0.44	76	Ø 3 mm	8432 0820 42
MT TRA 10	10.0	0.88	76	Ø 5 mm	8432 0820 43
MT TRA 20	20.0	1.77	76	Ø 5 mm	8432 0820 44
MT TRA 50	50.0	4.42	105	1/4"	8432 0820 45
MT TRA 100	100.0	8.85	105	1/4"	8432 0820 46
MT TRA 200	200.0	17.70	105	1/4"	8432 0820 47
MT TRA 500	500.0	44.25	105	1/4"	8432 0820 48

## Torque analyzer

Model	Ordering No.
ACTA MT 4 (programmable over keypad)	8432 0820 04
ToolsTalk MT Analysis (trace analysis)	8432 0830 31
Transducer cable	8432 0830 35
RS232 cable ACTA MT	8432 0831 39



ACTA MT 4



Stationary transducer.

## Fasteners for joint kits

Lens head screw	Bit Drive	Ordering No.
DIN7985 PH0 M1.6x4 V2A	PH0	4023 0005 01
ISO14583 TX6 M2.0x10 V2A	TX6	4023 0005 02
ISO14583 TX8 M2.5x10 V2A	TX8	4023 0005 03
ISO14583 TX10 M3.0x10 V2A	TX10	4023 0005 04
ISO14583 TX20 M4.0x12 V2A	TX20	4023 0005 05
ISO14583 TX25 M5.0x12 V2A	TX25	4023 0005 06
ISO14583 TX30 M6.0x12 V2A	TX30	4023 0005 07

## Stationary torque transducers, accessories

Joint Kit	Ordering No.
M1.6 for MT TS - 3H7 adapter (up to 20 Ncm)	8432 0830 79
M2 for MT TS - 1/4" adapter (up to 50 Ncm)	8432 0830 78
M2.5 for MT TS- 1/4" adapter (up to 100 Ncm)	8432 0830 77
M3.0 for MT TS- 1/4" adapter (up to 200 Ncm)	8432 0830 87
M4.0 for MT TS- 1/4" adapter (up to 300 Ncm)	8432 0830 86
M5.0 for MT TS- 1/4" adapter (up to 600 Ncm)	8432 0830 85
M6.0 for MT TS- 1/4" adapter (up to 800 Ncm)	8432 0832 67



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