



Screwdriving technology

Automation

Air motors

Air tools

DEPRAG

MINIMAT-EC-Servo Screwdriver Handheld, Angle-Head Design

**The brushless, EC-electric Screwdriver
for torque ranges of 7 – 120 Nm (62 – 1062 in.lbs.)**

The DEPRAG EC-Electric Servo Screwdriver allows the free programming of the screw-tightening process. Within the performance range of the Screwdriver, torque, speed, stand-by and turn-direction may be individually adapted to fit the required tightening process.

The integrated torque- and angle measurement permits the exact control and supervision of the tightening process, as well as the documentation of important processing parameters. Thus, the highest possible precision during the tightening process is guaranteed.

The brushless EC-motor is the reason for the maintenance-free operation, eliminating wear-and-tear parts. It also achieves a high motor dynamics and is capable of reaching the necessary high peak-torque required for fastener tightening.



To operate the Screwdriver, a sequence controller (AST 30-31) with integrated power supply and a motor-cable is necessary. The motor-cable is available in different lengths.

The sequence controller already contains ready-to-use basic programs with common tightening processes, so that the operation can take place using just a few steps. This necessitates the connection to a standard PC with the supplied, very userfriendly Windows®-Software TC 30-PC. Current Software-Updates (Statistics, etc.) can be supplied as options on special request.

The integrated display- and operating keypad visualizes the operating conditions and screwdriving results and it also allows the direct changing of screwdriving parameter (i.e. Speed, Shut-Off Torque) required for the production-process - without having a PC-connection.

Over the operating keypad or the I/O-port of the controller it is possible to change the two available default screwdriving programs. Once the cycle finishes, a status signal is optically displayed on the Screwdriver and also reported back to the PLC, if a PLC is used.

When using this EC-system with a PLC, then the communication can be made using the standard supplied Profibus port.

When using either bus-ports, Profibus or Ethernet (optional) and if those ports are connected with an IP-system, then the complete assembly process (screwdriving-curve, statistics, archiving) and the data-exchange between computers is possible.

When the Data Logger program (Optional Equipment) is used, it is possible to transfer the measuring data of several controllers to a PC using different ports (i.e. USB, Ethernet).

Technical Data

Screwdriver reversible	type order no.	315EWT58-0350-E10 399853 B	315EWT58-0600-E12 399853 A	315EWT58-1200-E12 399853 C
Line voltage (DC)	V	300	300	300
Torque min.	Nm / in.lbs	7 / 62	12 / 106.2	25 / 221.3
Torque max.	Nm / in.lbs	35 / 310	60 / 531	120 / 1062
Speed min.	rpm	50	25	15
Speed max.	rpm	800	550	250
Diameter	mm / in.	58 / 2 ⁹ / ₃₂	58 / 2 ⁹ / ₃₂	58 / 2 ⁹ / ₃₂
Length	mm / in.	550 / 21 ²¹ / ₃₂	550 / 21 ²¹ / ₃₂	590 / 23
Weight	kg / lbs.	2.4 / 5.28	2.4 / 5.28	3.2 / 7.01
Noise level	dB (A)	62	62	62
External square drive	DIN 3121	E 10 (9/8")	E 12.5 (1/2")	E 12.5 (1/2")
Torque measuring system DMS (strain gage) fully bridged accuracy classification		yes 1	yes 1	yes 1
Angle encoder channel resolution	degree	A-B 1	A-B 1	A-B 1

Please also find suitable tool inserts in our brochure D 3320 E.

Required Accessories

Sequence controller 230 V	type order no.	AST 30-31-O-230 V 385455 C
Sequence controller 115 V	type order no.	AST 30-31-O-115 V 385455 D
Power unit (AC)	V / Hz V / Hz	230 / 50 (60) 115 / 50 (60)
Insulation		IP 54
LC-display		4 lines
Membrane keyboard		yes
USB interface		yes
Profi bus		yes
Ethernet		optional
Amount of connectable drivers		1
Dimensions (W x H x D)	mm / in.	170 x 295 x 340 / 6 11/16 x 11 39/64 x 13 3/8
Weight	kg / lbs. kg / lbs.	9.5 / 20.9 (EU) 9.7 / 21.3 (US)

Programming kit no. 385426 C (consisting of operating manual, software package and programming cable) is a single standard component of the sequence controller.

Motor cable (screwdriver – sequence controller)		
Length 5 m / 16.4 ft. (standard)	type order no.	KMO-AST30-31-5 m 404908 A
Length 8 m / 26.2 ft.	type order no.	KMO-AST30-31-8 m 404908 B
Length 12 m / 39.4 ft.	type order no.	KMO-AST30-31-12 m 404908 C

Optional Equipment

PC-Software	type order no.	TC 30-PC 828560
TC 30-PC statistic	order no.	828634
TC 30-PC data logger (additional modules at request)	order no.	829085
TC 30-PC to QS-STAT conversion program**)	order no.	830458
Software Extension:	type	
Shut-Off at effective torque		829613
Friction dependent tightening torque		829614
Remote display keypad module (incl. connecting cable 3 m / 10 ft.) additional length available	type order no.	AST 30-DT 388727 A
Ethernet-Module	type order no.	AST 30-EN 388729 A
Programming cabel PC to AST 30-31 (USB)	order no.	831420
Printer	type order no.	ND 100 *) 823476
Kabel AST 30-31 to ND 100	order no.	385419 A
Data cable AST 30-31 to PC	order no.	385423 A
Support Stand for AST 30-31	order no.	947405 A
Suspension ring	order no.	406767 A

*) for additional technical data please see our catalog D3022 E

**) only in connection with Data Logger program

DEPRAG

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