

# **MINIMAT-ED Digital Electric Screwdriver**

Straight handle design: torque ranges between 0.24 - 18 Nm



- flexible
- economical
- comfortable
- process reliable
- robust

**A good team:** The MINIMAT-ED handheld screwdriver, combined with the ComCenter ED, is the ideal solution for a wide range of applications. The powerful MINIMAT-ED is available in eight versions for torques between 0.24 to 18 Nm at speeds of 1500 rpm. The speeds can be individually adjusted up to the maximum speed for each screwdriver type.

The special highlight: The set torque and the final value is shown directly on the screwdriver display - for maximum precision and user-friendliness!

The MINIMAT-ED is recommended for a wide range of applications, particularly for workplaces with varying tightening parameters. There are opportunities for use in controller and control cabinet installations, in reworking stations, in series production or in repair facilities.



## MINIMAT-ED Handheld Screwdriver - Advantages

- Flexible: The required torque can be set directly on the screwdriver by the push of a button.
- **Economical:** Attractive purchase price and compact size due to the fully integrated controller.

#### Ergonomic:

- End value displayed on the screwdriver
- Adjustable search run
- Programming using tablet/smartphone via ComCenter ED
- Suspension hanger for balancer hookup
- Ergonomic design

- Trigger-start or push-to-start
- Speed for each step is adjustable
- Integrated quick change chuck for easy bit/socket exchange
- Low noise level
- Flexible power cable

#### Process reliable:

- Torque precision
- Status display by LED lights red/green
- Integrated diagnostics

- Password protected against unauthorized changes to the preset parameter
- ESD-safe

#### ■ Robust

As robust as all DEPRAG MINIMAT screwdriver series: absolutely reliable and renowned for durability. The brushless drive enables high performance with low maintenance requirements.

Torque accuracies of < 3% standard deviation and thus Cmk values of  $\ge$  1.67 with a tolerance of  $\pm$  15% can be reached \* with MINIMAT-ED handheld screwdrivers. Statistically speaking, the error rate is less than 0.6 per one million screw assemblies.

\*) under suitable process conditions



#### **ComCenter ED**

The ComCenter ED enables user-friendly parameterisation of screwdriving programs using the web interface. The integrated input/output port can now also be used to select MINIMAT-ED screwdriving programs. In addition, an external start release of the screwdriver is available. The main advantage: If this function is activated, the handheld screwdriver can be used in combination with other products or a higher-level PLC.

This value-for-money option presents attractive opportunities. One example is combination with a position control stand (PKS). Only when the screwdriver has reached the right position is the correct screwdriving program selected and the start approval given.

Furthermore, there is the option of use in applications where sensors are used for supervision, such as in the detection of components, pick-and-place procedures or the use of a toolbox or scanner.

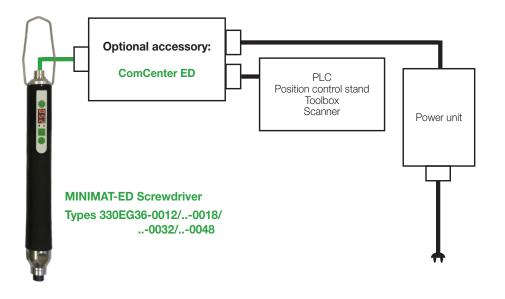
### Your advantages:

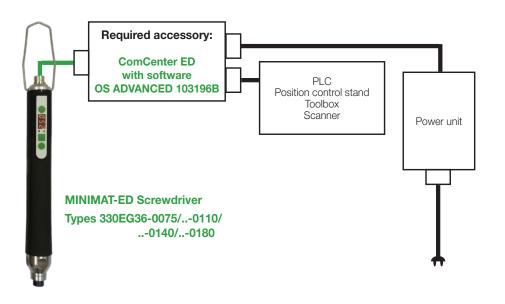
- flexible
- low cost solution
- for varying tightening parameters
- upgraded communication

### Important note:

A ComCenter ED with OS ADVANCED software (material no. 103196B) is mandatory for screwdriver types 330EG36-0075/..-0110/..-0140/..-180. Operation of the above-mentioned screwdrivers is not possible without ComCenter ED.

## System structure and components





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It is necessary to use a torque support (e.g. stand, handgrip) for torque: over 4 Nm for straight design and over 10 Nm for pistol grip. Suitable torque supports can be found in our brochure D3345E.

## **System Components**

MINIMAT-ED Screwdriver	Туре	330EG36-0012	330EG36-0018	330EG36-0032	330EG36-0048
Straight handle design, size 36	Part no.	440000A	440000B	440000E	440000C
Torque min.	Nm / in.lbs	0.24 / 2.1	0.36 / 3.2	0.64 / 5.66	1.0 / 8.85
Torque max.	Nm / in.lbs	1.2 / 10.6	1.8 / 15.9	3.2 / 28.3	4.8 / 42.5
Speed	rpm	1500	1500	1200	900
Diameter	mm / in.	36 / 1.4	36 / 1.4	36 / 1.4	36 / 1.4
Length	mm / in.	290 / 11.3	290 / 11.3	290 / 11.3	290 / 11.3
Weight	kg / lbs.	0.75 / 1.65	0.75 / 1.65	0.75 / 1.65	0.75 / 1.65
Noise level	dB(A)	63	63	65	65
Internal hex drive DIN ISO 1173		F6.3 (1/4")	F6.3 (1/4")	F6.3 (1/4")	F6.3 (1/4")
Suitable inserting tools and connection parts with inserting end DIN ISO 1173		E6.3 (1/4")	E6.3 (1/4")	E6.3 (1/4")	E6.3 (1/4")
Required accessories					
Motor cable length 2 m/6.6 ft. Motor cable length 5 m/16.5 ft. Motor cable length 8 m/26.4 ft. Motor cable length 10 m/33 ft.	Part no. Part no. Part no. Part no.	151515A 151515B 151515C 151515D			
Power supply cable (EU) length 2 m/6.6 ft. Power supply cable (USA) length 2 m/6.6 ft. Power supply cable (UK) length 2 m/6.6 ft. Power supply cable (China) length 2.5 m/8.25 ft Power supply cable (Brazil) length 1.8 m/5.94 ft		833790 833791 833792 832927 207388			
Power unit	Part no.	126422A			
Optional accessories					
Spring sleeve cpl.	Part no.	364672A			
Spring sleeve cpl., with vacuum connection (in connection with finder, see leaflet: Inserting tools D3320E)	Part no.			364672C	
Screwdriver adaption	Part no.			118246B	
ComCenter ED with software OS BASIC	Part no.	103196A			
ComCenter ED with software OS ADVANCED	Part no.			103196B	

Optional additional software for the ComCenter Suitable for the screwdriver types	ED	with software OS BASIC 103196A / OS ADVANCED 103196B 330EG36-0012/0018/0032/0048
Upgrade to software OS ADVANCED activation key	Part no.	160491
DEPRAG Friction Value Process activation key	Part no.	201820 (only in combination with OS ADVANCED software)
DEPRAG Operator Guidance activation key	Part no.	146536
DEPRAG Cockpit Advanced 1/5/10/20/50 licenses	Part no.	145795/145796/145797/145798/145799
DEPRAG Cockpit Professional 1/5/10/20/50 licenses	Part no.	145440/142967/142968/142978/142979

Our software solutions undergo continuous improvements. We recommend that you regularly update your software. In this way you will always receive the most up-to-date security updates, upgraded features and drivers. With the most current version of the software you can be sure that your device is optimally prepared for Industry 4.0.

## **System Components**

Power unit

ComCenter ED with software OS ADVANCED Part no.

MINIMAT-ED Screwdriver Straight handle design, size 36	<b>Type</b> Part no.	<b>330EG36-0075</b> 440000F	<b>330EG36-0110</b> 440000G	<b>330EG36-0140</b> 440000H	<b>330EG36-0180</b> 440000I
Torque min.	Nm / in.lbs	1.5 / 13.3	2.2 / 19.5	2.8 / 24.8	3.6 / 31.9
Torque max.	Nm / in.lbs	7.5 / 66.4	11 / 97.35	14 / 123.9	18 / 159.3
Speed	rpm	560	390	290	220
Diameter	mm / in.	36 / 1.4	36 / 1.4	36 / 1.4	36 / 1.4
Length	mm / in.	327 / 12.75	327 / 12.75	327 / 12.75	327 / 12.75
Weight	kg / lbs.	0.95 / 2.1	0.95 / 2.1	0.95 / 2.1	0.95 / 2.1
Noise level	dB(A)	62	62	62	62
Internal hex drive DIN ISO 1173		F6.3 (1/4")	F6.3 (1/4")	F6.3 (1/4")	F6.3 (1/4")
Suitable inserting tools and connection parts with inserting end DIN ISO 1173		E6.3 (1/4")	E6.3 (1/4")	E6.3 (1/4")	E6.3 (1/4")
Required accessories					
Motor cable length 2 m/6.6 ft. Motor cable length 5 m/16.5 ft. Motor cable length 8 m/26.4 ft. Motor cable length 10 m/33 ft.	Part no. Part no. Part no. Part no.	151515A 151515B 151515C 151515D			
Power supply cable (EU) length 2 m/6.6 ft. alternatives	Part no.	833790			
Power supply cable (USA) length 2 m/6.6 ft. Power supply cable (UK) length 2 m/6.6 ft. Power supply cable (China) length 2.5 m/8.25 ft	Part no. Part no. Part no.	833791 833792 832927			
Power supply cable (Brazil) length 1.8 m/5.94 ft.	Part no.	207388			

Optional accessories		
Spring sleeve cpl.	Part no.	364672A
Spring sleeve cpl., with vacuum connection (in connection with finder, see leaflet: Inserting tools D3320E)	Part no.	364672C
Screwdriver adaption	Part no.	118246B

126422A

103196B

Part no.

Optional additional software for the ComCenter ED Suitable for the screwdriver types		with software OS ADVANCED 103196B 330EG36-0075/0110/0140/0180	
DEPRAG Friction Value Process activation key	Part no.	201820	
DEPRAG Operator Guidance activation key	Part no.	146536	
DEPRAG Cockpit Advanced 1/5/10/20/50 licenses	Part no.	145795/145796/145797/145798/145799	
DEPRAG Cockpit Professional 1/5/10/20/50 licenses	Part no.	145440/142967/142968/142978/142979	

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# **System Components**

Toolbox	Туре	TB 7	
Technical data:	Part no.	398097B	
Tool holders		7	
Tool size	mm/in.	up to Ø 24/0.9 (AF 19)	
Voltage / Amperage	V / mA	DC 24 / 100	
Input/output interface		SUB-D 15-pin connector	
Start signal		4-pin connector	
Dimensions (W x H x D)	mm/in.	225 x 50 x 120 / 8.8 x 1.9 x 4.7	
Weight	kg/lbs.	1.2/2.6	
Verbindungskabel ComCenter ED - Toolbox	Part no.	122840A (length 5 m/16.5 ft.)	
Connection cable ComCenter ED - PKS	Part no.	101289D	
Connection cable ComCenter ED - PFC100	Part no.	952227A	
S	Part no.	127545A	
Router		The router enables direct WiFi access to the ComCenter ED for use as an Access Point. It is operated via the Ethernet port (RJ45) of the ComCenter ED. This means that settings can easily be changed or screwdriving programs created or adjusted at any time with a smartphone, tablet or other mobile device.	

Additional accessories for integration in the manual work station can be found in our brochure D3345E. For more details to the software products, please see brochure D3900E.

# ComCenter ED - comparison of the software

Characteristics	ComCenter ED in combination with standard software OS BASIC	ComCenter ED in combination with software OS ADVANCED
Maximum number of screwdriving programs	5 tightening programs / 5 loosening programs	16
Maximum number of program steps	3	25
Tightening to torque	$\overline{\checkmark}$	$\overline{\checkmark}$
Tightening to torque with angle control	×	$\overline{\checkmark}$
Tightening to angle	$\overline{\checkmark}$	$\overline{\checkmark}$
Tightening to angle with torque control	×	$\overline{\checkmark}$
Loosening to angle	$\overline{\checkmark}$	$\overline{\checkmark}$
DEPRAG Friction Value Process	×	$\overline{\checkmark}$
Search run / save values / waiting time	×	$\overline{\checkmark}$
Statistics	×	$\overline{\checkmark}$
Automatic speed reduction	×	$\overline{\checkmark}$
Documentation	7 days production	7 days production
DEPRAG Operator Guidance	×	$\overline{\checkmark}$
Communication interfaces	I/O interface	I/O interface and http interface
Category B (VDI/VDE 2862)	$\overline{\checkmark}$	$\overline{\checkmark}$
Category C (VDI/VDE 2862)	$\overline{\checkmark}$	$\overline{\checkmark}$

Please note: In combination with OS ADVANCED, the MINIMAT-ED screwdriver requires display version 2.0.

The display can be upgraded in house at DEPRAG.

Please send the MINIMAT-ED screwdriver to Amberg for the update.

