



Screwdriving technology

Automation

Air motors

Air tools

**DEPRAG**

**NEW**

## MINIMAT-QC

### Control Screwdriver, for manual use

The Quality Control Screwdriver with Torque Measuring  
Torque Ranges between 0.4 - 35 Nm (4-310 in.lbs)

- FAST** based on the high speed of the pneumatic rotor and the extremely fast operation of the shut-off clutch.
- GOOD VALUE** based on a high price-to-performance ratio.
- SAFE** based on the redundant torque control and multiple function control.

- CONTROLS** the complete screw tightening process.
- DOCUMENTS** the torque, the cycle time, OKAY/NOT-OKAY assemblies and the number of assemblies.
- SHOWS** OKAY and NOT-OKAY assemblies via LED.



The QC Screwdriver of the MINIMAT-series is a pneumatic tool with control functions for a 100 % process quality of assemblies. In addition, the manual QC Screwdriver is able to register the reached torque values, achieved with the highly precise shut-off clutch. Based on a strain gauge torque transducer the values can be displayed and stored via the respectively connected measuring electronic of the new controller family, type ME 1000 QC.

Additionally, the ME 1000 QC allows the evaluation and registration of the torque values, direction of rotation, cycle time and OKAY assembly per part.

The screw tightening result will be evaluated and indicated directly on the screwdriver with green or red LEDs. Torque and cycle time resp. OKAY/NOT-OKAY status will be shown on the controller's display and stored. Various statistical evaluations can be done directly at the controller.

The OKAY/NOT-OKAY evaluation is done by comparing the actually achieved values with the specified and preset limit values stored for torque, cycle time and number of assemblies per work piece. The values for cycle time and torque can be entered directly or determined automatically via a teach mode.

In case of NOT-OKAY assemblies, the controller's display will indicate the reasons for the failure:

- Cycle time too long / too short
- Torque too low / too high
- Incorrect direction of rotation
- Work piece removed too early

In case of incorrect assemblies, the value integrated into the screwdriver will block the air supply until the failure is reset on the controller.

## Technical Data

### DEPRAG MINIMAT-QC Control Screwdriver straight design

Screwdriver		Motor size 1		Motor size 3	
Screwdriver reversible, right shut-off Push-to-start	<b>Type</b>	<b>347 QC-518 U</b>	<b>347 QC-618 U</b>	<b>346 QC-338 U</b>	<b>346 QC-438 U</b>
	Order no.	397062 C	397062 D	397630 D	397630 E
Torque min.	Nm/in.lbs	0.4 / 4	0.4 / 4	2 / 18	4 / 36
Torque max.	Nm/in.lbs	2 / 18	2 / 18	12 / 106	20 / 177
Speed, idling	rpm	900	600	650	320
Air Consumption	m <sup>3</sup> /min/cfm	0.23 / 8.1	0.23 / 8.1	0.4 / 14.1	0.4 / 14.1
Weight	kg/lbs	0.7 / 1.54	0.7 / 1.54	2 / 4.4	2 / 4.4
Noise level	dB (A)	77	77	80	80
Hose I.D.	mm/in.	6 / 1/4	6 / 1/4	10 / 25/64	10 / 25/64
Internal hex drive DIN 3126		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 3126		E6.3 (1/4")	E6.3 (1/4")	E6.3 (1/4")	E6.3 (1/4")

Performance data relate to an air pressure of 6.3 bar (90 PSI)

**Standard accessories:** quick coupler and nipple · 1 set of adjusting tools · 1 set of clutch springs

Optional equipment:		Motor size 1	Motor size 3
Support ring for push-to-start screwdrivers	Order no.	3870321	398704 A
Spring sleeve cpl., without screw suction	Order no.	364672 A	364672 A
Spring sleeve cpl., with screw suction (if used with finders, see brochure D 3320 E on inserting tools)	Order no.	-	364672 C
Screwdriver adaption	Order no.	400833 A	400833 D



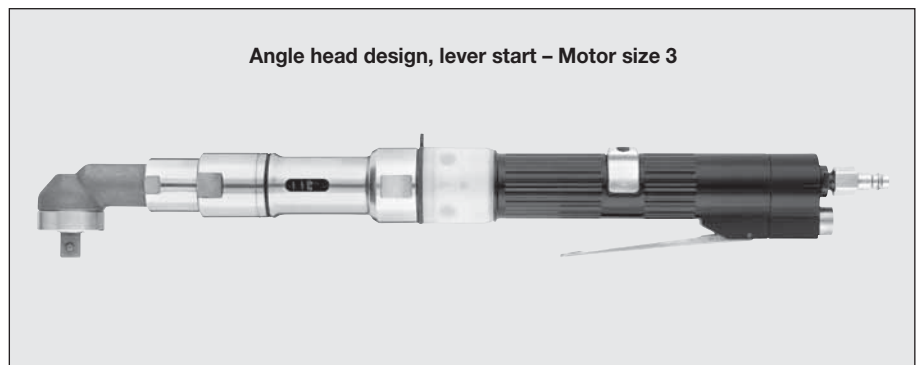
## Technical Data

### DEPRAG MINIMAT-QC Control Screwdrivers angle head design

Screwdriver		Motor size 3	
		377 QC-331 U 398814 D	377 QC-431 U 398814 E
Screwdriver reversible, right shut-off Lever-start	<b>Type</b> Order no.		
Torque min.	Nm/in.lbs	4 / 36	6 / 54
Torque max.	Nm/in.lbs	22 / 195	35 / 310
Speed, idling	rpm	280	180
Air consumption	m <sup>3</sup> /min/cfm	0.4 / 14.1	0.4 / 14.1
Weight	kg/lbs	2.5 / 5.5	2.5 / 5.5
Noise level	dB (A)	80	80
Hose I.D.	mm/in.	10 / <sup>25</sup> / <sub>64</sub>	10 / <sup>25</sup> / <sub>64</sub>
External square drive DIN 3121		E12.5 (1/2")	E12.5 (1/2")
Suitable inserting tools and connection parts with inserting end DIN 3121		G12.5 (1/2")	G12.5 (1/2")

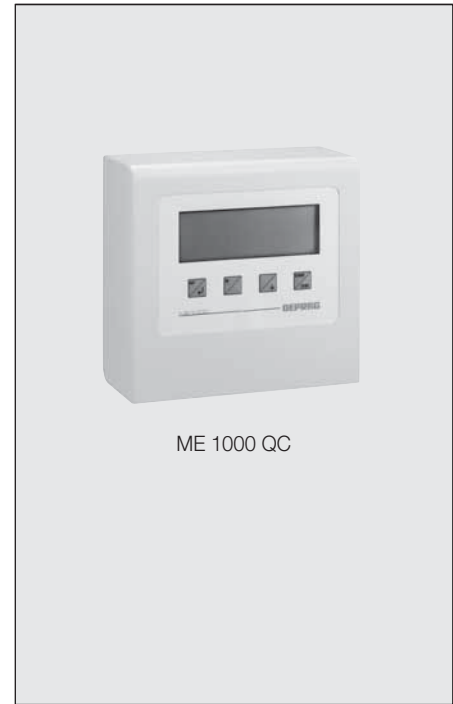
Performance data relate to an air pressure of 6.3 bar (90 PSI)

**Standard accessories:** quick coupler and nipple · 1 set of adjusting tools · 1 set of clutch springs



## Required Accessories

Suitable for QC-Screwdriver	Straight design Motor size 1 and 3	Angle head design Motor size 3
<b>Torque Measuring Electronic Type</b> Order no.	<b>ME 1000 QC</b> 385439 A	
Technical Data:		
Measuring acquisition	Torque	
Measuring channels	1	
Operating mode	Peak value, measurement series	
Total measuring range	0.1 - 400 Nm	
Number of measuring ranges	Adapted to transducers	
LCD-display	alphanumeric, 4 lines 20 digits per line	
Data output (printer or PC)	RS 232 9600 Baud	
PLC connection	24 V, DC-isolated in-/outputs	
Linearity:	$\leq \pm 1 \%$	
Accuracy over the complete measuring range	$\leq \pm 1 \%$	
Scan rate	analog peek memory	
Voltage	24 VDC	
Power consumption	30 VA	
Current protection	IP 54	
Dimensions (w x h x d)	205 x 200 x 90 mm / 8 x 7.8 x 3.5 in.	
Weight	2.8 kg	
	For more information about the electronic please see our brochure D 3024 E	
<b>Required accessories for ME 1000 QC:</b>		
Power supply		
ME 1000 QC-EU-SWITCH    Order no.	385473 A	
ME 1000 QC-US-SWITCH    Order no.	385473 B	
Connecting cable (lengths 2/4/6 m) (for connecting Electronic and Control screwdriver)	385466 A/B/C	385468 A/B/C



### Optional Accessories:

Suitable for Measuring electronic	ME 1000 QC	
Network software (for PC)    Order no.	on demand	
Interface converter (for PC)    Order no.	825382	
Connecting cable (network)		
2 m    Order no.	349961 A	
4 m    Order no.	349961 B	
10 m    Order no.	349961 C	
20 m    Order no.	349961 D	
50 m    Order no.	349961 E	
100 m    Order no.	349961 F	
Printer *) <b>Type</b>	<b>ND 40</b>	<b>ND 100</b>
Order no.	200715 A	823476
Printer cable (ME1000-printer)    Order no.	385470 A	on demand
Connecting cable (ME1000-PC/RS232)    Order no.	385471 A	
Suitable for QC-Screwdriver	Straight design motor size 1 and 3 Angle head design motor size 3	
Proximity switch for part sensing		
capacitive (2 m cable)    Order no.	354841 A	
inductive (2 m cable)    Order no.	354906 A	

\*) more technical data as per our brochure D 3022 E

# DEPRAG

**DEPRAG SCHULZ GMBH u. CO.**

P.O. Box 1352, D-92203 Amberg, Germany  
Kurfürstenring 12-18, D-92224 Amberg  
Phone (0 96 21) 371-0, Fax (0 96 21) 371-120  
www.deprag.com  
info@deprag.de



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