



Screwdriving technology

Automation

Air motors

Air tools

DEPRAG

**Handheld Screwdriver
pneumatic**

MICROMAT/MINIMAT ESD Screwdriver

straight design – torque ranges between 0.02 – 12 Nm

- **robust**
- **uninfluenceably accurate**
- **ergonomic**
- **durable**
- **quiet**

ESD screwdrivers are especially designed for the operation in electrostatic exposed areas, and where an ESD-safe assembly is required (specifications according to EN 100 015).

The supplied conductive pressure hose allows a simple, direct and grounded connection, without the need for an additional cable-connection.

Between the air-hose for the tool and the main air-outlet an insulating connector with a resistance of 1 M Ω (available as an optional item) can be installed.

The extraordinary constructive quality of the slender MICROMAT/MINIMAT screwdriver and the capability to be used in a heavy industrial environment, assures extreme high up-times.

The MICROMAT/MINIMAT achieves its high torque-accuracy through the proven principle of the DEPRAG disengagement- and shut-off clutch. This special clutch design enables our screwdrivers to reach extreme high torque accuracy, in many cases below $\pm 3\%$ of the standard deviation, which is kept constant over several million of cycles. DEPRAG pneumatic screwdrivers with a shut-off clutch operated at suitable surrounding conditions achieve a Cmk value of ≥ 1.67 at a $\pm 10\%$ tolerance based on 6 Sigma according to ISO 5393. A Cmk value of 1.67 means that there is a failure rate of only 0.6 per one million screw assemblies.

The ergonomic design of the housing allows a fatigue-proof operation at continued use.



TECHNICAL DATA

Screwdriver Style		Motor Size 0			
Screwdriver reversible, right shut-off Push-To-Start	Type Part no.	345-308 U ESD 376846 A	345-408 U ESD 376846 B	345-708 U ESD 385164 A	345-508 U ESD 376846 C
Screws	up to	M 3	M 3	M 3	M 3
Torque min.	Ncm / in.oz	2 / 2.84	2 / 2.84	2 / 2.84	2 / 2.84
soft pull-up max.	Ncm / in.oz	40 / 56.8	50 / 71	70 / 99.4	70 / 99.4
hard pull-up max.	Ncm / in.oz	50 / 71	50 / 71	70 / 99.4	70 / 99.4
Speed, idling	rpm	1300	950	480	300
Air consumption	m ³ /min / cfm	0.1 / 3.5	0.1 / 3.5	0.1 / 3.5	0.1 / 3.5
Main body dia.	mm / in.	17 / ¹¹ / ₁₆	17 / ¹¹ / ₁₆	17 / ¹¹ / ₁₆	17 / ¹¹ / ₁₆
Length	mm / in.	167 / 6 ⁹ / ₁₆	167 / 6 ⁹ / ₁₆	173 / 6 ¹³ / ₁₆	173 / 6 ¹³ / ₁₆
Weight	kg / lbs	0.17 / 0.38	0.17 / 0.38	0.18 / 0.40	0.18 / 0.40
Noise level	dB (A)	65	65	65	65
Air hose dia.	mm / in.	4 / ⁵ / ₃₂	4 / ⁵ / ₃₂	4 / ⁵ / ₃₂	4 / ⁵ / ₃₂
Connector thread for air-hose		M 5	M 5	M 5	M 5
Hose dia. for screw suction	mm / in.	3 / ¹ / ₈	3 / ¹ / ₈	3 / ¹ / ₈	3 / ¹ / ₈
Internal hex. drive DIN 3126		B3 (3 mm/.118")	B3 (3 mm/.118")	B3 (3 mm/.118")	B3 (3 mm/.118")
Suitable tool inserts and connecting components with a drive as per DIN 3126		A3 (3 mm/.118")	A3 (3 mm/.118")	A3 (3 mm/.118")	A3 (3 mm/.118")
Quick change chuck, mounted		yes	yes	yes	yes

Screwdriver Style		Motor Size 1			
Screwdriver reversible, right shut-off Push-To-Start	Type Part no.	347-218 U ESD 403345 A	347-318 U ESD 403345 B	347-518 U ESD 403345 C	347-618 U ESD 403345 D
Screws	up to	M 3	M 3	M 3	M 3
Torque min.	Nm / in.lbs	0.3 / 2.7	0.3 / 2.7	0.2 / 1.8	0.2 / 1.8
soft pull-up max.	Nm / in.lbs	1 / 8.85	1.4 / 12.4	2 / 17.7	2 / 17.7
hard pull-up max.	Nm / in.lbs	1 / 8.85	1.4 / 12.4	2 / 17.7	2 / 17.7
Speed, idling	rpm	1900	1300	900	600
Air consumption	m ³ /min / cfm	0.23 / 8	0.23 / 8	0.23 / 8	0.23 / 8
Main body dia.	mm / in.	28 / 1 ¹ / ₈	28 / 1 ¹ / ₈	28 / 1 ¹ / ₈	28 / 1 ¹ / ₈
Length	mm / in.	190 / 7 ¹ / ₂	190 / 7 ¹ / ₂	190 / 7 ¹ / ₂	198 / 7 ⁵ / ₆₄
Weight	kg / lbs	0.4 / 0.9	0.4 / 0.9	0.4 / 0.9	0.43 / 0.95
Noise level	dB (A)	62	62	62	62
Air hose dia.	mm / in.	5 / ³ / ₁₆	5 / ³ / ₁₆	5 / ³ / ₁₆	5 / ³ / ₁₆
Connector thread for air-hose		1/8"	1/8"	1/8"	1/8"
Hose dia. for screw suction	mm / in.	3 / ¹ / ₈	3 / ¹ / ₈	3 / ¹ / ₈	3 / ¹ / ₈
Internal hex. drive DIN 3126		F6.3 (1/4")	F6.3 (1/4")	F6.3 (1/4")	F6.3 (1/4")
Suitable tool inserts and connecting components with a drive as per DIN 3126		E6.3 (1/4")	E6.3 (1/4")	E6.3 (1/4")	E6.3 (1/4")
Quick change chuck, mounted		yes	yes	yes	yes

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

STANDARD EQUIPMENT

Air hose ESD-applicable 1.5 m / 4.9 ft. · Torque adjustment tool · Assortment of clutch springs

TECHNICAL DATA

Screwdriver Style		Motor Size 2			
Screwdriver reversible, right shut-off Push-To-Start	Type Part no.	347-228 U ESD 392476 A	347-328 U ESD 392476 B	347-428 U ESD 392476 D	347-528 U ESD 392476 C
Screws	up to	M 4	M 4	M 4	M 5
Torque	min.	Nm / in.lbs	0.5 / 4.4	0.4 / 3.5	0.4 / 3.5
	soft pull-up	max.	Nm / in.lbs	1.3 / 11.5	2.4 / 21.2
	hard pull-up	max.	Nm / in.lbs	1.8 / 15.9	2.8 / 24.8
Speed, idling		rpm	3000	1100	750
Air consumption		m ³ /min / cfm	0.3 / 11	0.3 / 11	0.3 / 11
Main body dia.		mm / in.	33 / 1 ⁵ / ₁₆	33 / 1 ⁵ / ₁₆	33 / 1 ⁵ / ₁₆
Length		mm / in.	223 / 8 ²⁵ / ₃₂	223 / 8 ²⁵ / ₃₂	223 / 8 ²⁵ / ₃₂
Weight		kg / lbs	0.68 / 1.5	0.69 / 1.5	0.69 / 1.5
Noise level		dB (A)	67	67	67
Air hose dia.		mm / in.	6.5 / 1/4	6.5 / 1/4	6.5 / 1/4
Connector thread for air-hose			1/8"	1/8"	1/8"
Internal hex. drive DIN 3126			F6.3 (1/4")	F6.3 (1/4")	F6.3 (1/4")
Suitable tool inserts and connecting components with a drive as per DIN 3126			E6.3 (1/4")	E6.3 (1/4")	E6.3 (1/4")
Quick change chuck, mounted			yes	yes	yes

Screwdriver Style		Motor Size 2.5		
Screwdriver reversible, right shut-off Push-To-Start	Type Part no.	345-7258 U ESD 409631 A	345-3258 U ESD 409631 B	345-4258 U ESD 409631 C
Screws	up to	M 5	M 6	M 6
Torque	min.	Nm / in.lbs	1 / 8.85	1 / 8.85
	soft pull-up	max.	Nm / in.lbs	5 / 44.3
	hard pull-up	max.	Nm / in.lbs	6 / 53.1
Speed, idling		rpm	1100	640
Air consumption		m ³ /min / cfm	0.35 / 12	0.35 / 12
Main body dia.		mm / in.	40 / 1 ⁹ / ₁₆	40 / 1 ⁹ / ₁₆
Length		mm / in.	245 / 9 ⁵ / ₈	245 / 9 ⁵ / ₈
Weight		kg / lbs	0.9 / 2	0.9 / 2
Noise level		dB (A)	76	76
Air hose dia.		mm / in.	6 / 1/4	6 / 1/4
Connector thread for air-hose			1/8"	1/8"
Internal hex. drive DIN 3126			F6.3 (1/4")	F6.3 (1/4")
Suitable tool inserts and connecting components with a drive as per DIN 3126			E6.3 (1/4")	E6.3 (1/4")
Quick change chuck, mounted			yes	yes

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

STANDARD EQUIPMENT

Air hose ESD-applicable 1.5 m / 4.9 ft. · Torque adjustment tool · Assortment of clutch springs



It is necessary to use a torque support (e.g. stand, handgrip) for maximum torque: over 4 Nm for straight handle design.
Suitable torque supports can be found in our brochure D 3340 E.

OPTIONAL EQUIPMENT

		Motor Size 0	Motor Size 1	Motor Size 2	Motor Size 2.5
Connection piece (Connector thread 1/4" f / 1/4" m)	Part no.	378379 A	378379 A	378379 A	378379 A
Spiral hose, antistatic	Part no.	–	346697 P	346697 P	346697 P
Support ring	Part no.	–	3870323	389775 B	–
Spring sleeve cpl.	Part no.	364670 A	364672 A	364672 A	364680 A
Spring sleeve cpl., with vacuum connection (in connection with finder, see leaflet: Inserting Tools D 3320 E)	Part no.	–	364672 A	364672 C	364680 D

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



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