



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**

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

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).

Between the air-hose for the tool and the main air-outlet an insulating connector can be installed to discharge electrostatic load.

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 with a tolerance requirement of $\pm 10\%$ in relation to 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

MICROMAT - straight version		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 ISO 1173		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 ISO 1173		A3 (3 mm/.118")	A3 (3 mm/.118")	A3 (3 mm/.118")	A3 (3 mm/.118")
Quick change chuck, mounted		yes	yes	yes	yes

MINIMAT - straight version		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 ⁵¹ / 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 ISO 1173		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 ISO 1173		E6.3 (1/4")	E6.3 (1/4")	E6.3 (1/4")	E6.3 (1/4")
Quick change chuck, mounted		yes	yes	yes	yes

MINIMAT - straight version		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	0.3 / 2.7
soft pull-up max.	Nm / in.lbs	1.3 / 11.5	2.4 / 21.2	3.5 / 31	5 / 44.3
hard pull-up max.	Nm / in.lbs	1.8 / 15.9	2.8 / 24.8	4 / 35.4	5 / 44.3
Speed, idling	rpm	3000	1100	750	500
Air consumption	m ³ /min / cfm	0.3 / 11	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	33 / 1 ⁵ / ₁₆
Length	mm / in.	223 / 8 ²⁵ / ₃₂	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	0.69 / 1.5
Noise level	dB (A)	67	67	67	67
Air hose dia.	mm / in.	6.5 / 1/4	6.5 / 1/4	6.5 / 1/4	6.5 / 1/4
Connector thread for air-hose		1/8"	1/8"	1/8"	1/8"
Internal hex. drive DIN ISO 1173		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 ISO 1173		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)

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

TECHNICAL DATA

MINIMAT - straight version			Motor Size 2.5		
Screwdriver reversible, right shut-off	Type	345-7258 U ESD	345-3258 U ESD	345-4258 U ESD	
Push-To-Start	Part no.	409631 A	409631 B	409631 C	
Screws	up to	M 5	M 6	M 6	
Torque	min.	Nm / in.lbs	1 / 8.85	1 / 8.85	1 / 8.85
soft pull-up	max.	Nm / in.lbs	5 / 44.3	10 / 88.5	12 / 106.2
hard pull-up	max.	Nm / in.lbs	6 / 53.1	10 / 88.5	12 / 106.2
Speed, idling	rpm	1100	640	310	
Air consumption	m ³ /min / cfm	0.35 / 12	0.35 / 12	0.35 / 12	
Main body dia.	mm / in.	40 / 1 ⁹ / ₁₆	40 / 1 ⁹ / ₁₆	40 / 1 ⁹ / ₁₆	
Length	mm / in.	245 / 9 ⁵ / ₈	245 / 9 ⁵ / ₈	245 / 9 ⁵ / ₈	
Weight	kg / lbs	0.9 / 2	0.9 / 2	0.9 / 2	
Noise level	dB (A)	76	76	76	
Air hose dia.	mm / in.	6 / 1/4	6 / 1/4	6 / 1/4	
Connector thread for air-hose		1/8"	1/8"	1/8"	
Internal hex. drive DIN ISO 1173		F6.3 (1/4")	F6.3 (1/4")	F6.3 (1/4")	
Suitable tool inserts and connecting components with a drive as per DIN ISO 1173		E6.3 (1/4")	E6.3 (1/4")	E6.3 (1/4")	
Quick change chuck, mounted		yes	yes	yes	

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

Included in delivery

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, sea 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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CERTIFIED AS PER DIN EN ISO 9001
