

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 DIN EN 61340-5-1 und DIN EN 61340-5-2). The supplied conductive pressure hose allows a simple, direct and grounded connection, with-out the need for an additional cable-connection. 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 ergonomic design of the housing allows a fatigue-proof operation at continued use.

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

*) under suitable process conditions

MICROMAT - straight version			Motor Size 0			
Screwdriver reversible, right shut-off Push-To-Start		Type Part no.	345-308UESD-HM 400119A	345-408UESD-HM 400119B	345-708UESD-HM 400119C	345-508UESD-HM 400119D
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		m³/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
Bit drive with quick change chuck			4 mm Halfmoon	4 mm Halfmoon	4 mm Halfmoon	4 mm Halfmoon
Bits			4 mm Halfmoon	4 mm Halfmoon	4 mm Halfmoon	4 mm Halfmoon

MINIMAT - straight version			Motor Size 1			
Screwdriver reversible, right shut-off Push-To-Start		Type Part no.	347-218UESD 403345A	347-318UESD 403345B	347-518UESD 403345C	347-618UESD 403345D
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		m³/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.	347-228UESD 392476A	347-328UESD 392476B	347-428UESD 392476D	347-528UESD 392476C
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		m³/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
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MINIMAT - straight version			Motor Size 2.5		
Screwdriver reversible, right shut-off Push-To-Start		Type Part no.	345-7258UESD 409631A	345-3258UESD 409631B	345-4258UESD 409631C
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
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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.	378379A	378379A	378379A	378379A
Spiral hose, antistatic	Part no.	–	346697P	346697P	346697P
Support ring	Part no.	–	3870323	389775B	–
Spring sleeve cpl.	Part no.	4032802A	364672A	364672A	364680A
Spring sleeve cpl., with vacuum connection (in connection with finder, see catalog: Inserting Tools D3320E)	Part no.	–	364672A	364672C	364680D



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 catalog D3345E.



Please also find suitable tool inserts in our catalog D3320E.

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