

## 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 can be installed to discharge electrostatic load.



**Handheld Screwdriver pneumatic**

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  $\geq 1.67$  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

<b>MICROMAT - straight version</b>		<b>Motor Size 0</b>			
Screwdriver reversible, right shut-off	<b>Type</b>	<b>345-308UESD</b>	<b>345-408UESD</b>	<b>345-708UESD</b>	<b>345-508UESD</b>
Push-To-Start	Part no.	376846A	376846B	385164A	376846C
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
soft pull-up	max.	Ncm / in.oz	40 / 56.8	50 / 71	70 / 99.4
hard pull-up	max.	Ncm / in.oz	50 / 71	50 / 71	70 / 99.4
Speed, idling	rpm	1300	950	480	300
Air consumption	m <sup>3</sup> /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 <sup>9</sup> / <sub>16</sub>	167 / 6 <sup>9</sup> / <sub>16</sub>	173 / 6 <sup>13</sup> / <sub>16</sub>	173 / 6 <sup>13</sup> / <sub>16</sub>
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
<b>MINIMAT - straight version</b>		<b>Motor Size 1</b>			
Screwdriver reversible, right shut-off	<b>Type</b>	<b>347-218UESD</b>	<b>347-318UESD</b>	<b>347-518UESD</b>	<b>347-618UESD</b>
Push-To-Start	Part no.	403345A	403345B	403345C	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
soft pull-up	max.	Nm / in.lbs	1 / 8.85	1.4 / 12.4	2 / 17.7
hard pull-up	max.	Nm / in.lbs	1 / 8.85	1.4 / 12.4	2 / 17.7
Speed, idling	rpm	1900	1300	900	600
Air consumption	m <sup>3</sup> /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 <sup>51</sup> / <sub>64</sub>
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
<b>MINIMAT - straight version</b>		<b>Motor Size 2</b>			
Screwdriver reversible, right shut-off	<b>Type</b>	<b>347-228UESD</b>	<b>347-328UESD</b>	<b>347-428UESD</b>	<b>347-528UESD</b>
Push-To-Start	Part no.	392476A	392476B	392476D	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
soft pull-up	max.	Nm / in.lbs	1.3 / 11.5	2.4 / 21.2	3.5 / 31
hard pull-up	max.	Nm / in.lbs	1.8 / 15.9	2.8 / 24.8	4 / 35.4
Speed, idling	rpm	3000	1100	750	500
Air consumption	m <sup>3</sup> /min / cfm	0.3 / 11	0.3 / 11	0.3 / 11	0.3 / 11
Main body dia.	mm / in.	33 / 1 <sup>5</sup> / <sub>16</sub>	33 / 1 <sup>5</sup> / <sub>16</sub>	33 / 1 <sup>5</sup> / <sub>16</sub>	33 / 1 <sup>5</sup> / <sub>16</sub>
Length	mm / in.	223 / 8 <sup>25</sup> / <sub>32</sub>	223 / 8 <sup>25</sup> / <sub>32</sub>	223 / 8 <sup>25</sup> / <sub>32</sub>	223 / 8 <sup>25</sup> / <sub>32</sub>
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		
		345-7258UESD	345-3258UESD	345-4258UESD
Screwdriver reversible, right shut-off Push-To-Start	Type	409631A	409631B	409631C
	Part no.			
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	310
Air consumption	m <sup>3</sup> /min / cfm	0.35 / 12	0.35 / 12	0.35 / 12
Main body dia.	mm / in.	40 / 1 <sup>9</sup> / <sub>16</sub>	40 / 1 <sup>9</sup> / <sub>16</sub>	40 / 1 <sup>9</sup> / <sub>16</sub>
Length	mm / in.	245 / 9 <sup>5</sup> / <sub>8</sub>	245 / 9 <sup>5</sup> / <sub>8</sub>	245 / 9 <sup>5</sup> / <sub>8</sub>
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)

<b>Included in delivery</b>	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.	364670A	364672A	364672A	364680A
Spring sleeve cpl., with vacuum connection (in connection with finder, see leaflet: 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 brochure D3345E.



▶ Please also find suitable tool inserts in our brochure D3320E.



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