

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 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

TECHNICAL DATA

| MICROMAT - straight version | | Motor Size 0 | | | |
|--|---------------------------|--------------------------------------|--------------------------------------|---------------------------------------|---------------------------------------|
| Screwdriver reversible, right shut-off | Type | 345-308UESD | 345-408UESD | 345-708UESD | 345-508UESD |
| 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 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 | Type | 347-218UESD | 347-318UESD | 347-518UESD | 347-618UESD |
| 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 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 | Type | 347-228UESD | 347-328UESD | 347-428UESD | 347-528UESD |
| 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 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 | | |
|--|---------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| | | 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 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

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 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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