Electric EC screwdriver with torque transducer & angle encoder











Overview

- EC screwdriver with torque transducer and angle encoder
- Torque ranges from 0.1 10 Nm
- 4 programs, in C-version 32 programs
- Ergonomically shaped aluminium housing, ESD-compatible
- Push and lever start
- Brushless motor technology
- Modular system, can be expanded at any time
- Industry 4.0 capable



1/4" Hexagon Drive Insertion Depth 16mm





Model selection

TBe-x - Series

- Electric EC screwdriver with 4 programmes
- No controller necessary
- Screwdriver cable 3 metres

- USB interface for programming and parametrization
- TBe-Manager included in the scope of delivery

| Order no. | Torque range | Speed | Drive | Length | Diameter | Clamping- diameter | Weight |
|-----------|---------------|------------------|----------|--------|----------|-----------------------|---------|
| TBe-1 | 0,1 - 1,0 Nm | 50 - 1.300 U/min | 1/4" hex | 279 mm | 42 mm | 36 mm | 0,88 kg |
| TBe-5 | 0,5 - 5,0 Nm | 50 - 600 U/min | 1/4" hex | 279 mm | 42 mm | 36 mm | 0,88 kg |
| TBe-10 | 1,0 - 10,0 Nm | 20 - 400 U/min | 1/4" hex | 335 mm | 48 mm | 40 mm | 1,20 kg |



Scope of delivery TBe-x-Series

TBe-xC - Series

- Electric EC screwdriver with controller and 32 programs
- The Driver Cable 3 meters
- The Driver Cable 2 meters
- USB interface for programming and parametrization

- TBe-Manager included in scope of delivery
- Extended interfaces
- Optional hardware available (bit selector, Linear arm, scanner, ...)
- Optional worker guidance

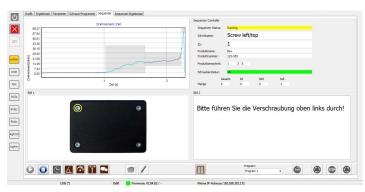
| Order no. | Torque range | Speed | Drive | Length | Diameter | Clamping- diameter | Weight |
|-----------|---------------|------------------|----------|--------|----------|-----------------------|---------|
| TBe-1C | 0,1 - 1,0 Nm | 50 - 1.300 U/min | 1/4" hex | 279 mm | 42 mm | 36 mm | 0,88 kg |
| TBe-5C | 0,5 - 5,0 Nm | 50 - 600 U/min | 1/4" hex | 279 mm | 42 mm | 36 mm | 0,88 kg |
| TBe-10C | 1,0 - 10,0 Nm | 20 - 400 U/min | 1/4" hex | 335 mm | 48 mm | 40 mm | 1,20 kg |



Optional hardware

TBe-Manager Pro

- Visualisation of the assembly process with up to 200 work steps
- Selection of tightening & other assembly operations
- Documentation of each step



Example instructions to the operator during a bolting step

| Article number | Description |
|-----------------|---|
| TBe-Manager-Pro | Screwdriving system software with Operator guidance |



Linear arm with position monitoring

| Article number | Description |
|----------------|-------------------------------------|
| Posi-fix-400 | Linear arm with position monitoring |

Linear arm with position monitoring

- Release of the screwdriving system at defined coordinates
- Teaching of the arm in worker guidance mode
- Absorption of the reaction torque for improved ergonomics
- Can only be used in combination with TBe-BPC and TBe-Manager-Pro



Article number Description TBe-BPC 8-bay Bit selector for TBe-series

Bit selector

- Pick by Light
- Up to 8 different screw bits
- Can only be used in combination with the TBe-Manager-Pro

Accessories- easy-linearfix / easy-linearfix-BIG

easy-linearfix / easy-linearfix-BIG

- Suitable for screwing, drilling, thread cutting
- Quick and safe positioning
- Quick tool change
- Flexible
- Order and safety in the workplace
- Easy running thanks to recirculating ball bearings
- Can be turned by 360°
- Absorbtion of the screwdriver weight
- Easy handling
- No backing forces
- Exhaustion-free work



easy-linearfix-B with stops

| Order no. | Working radius (pull-out length) | Screwdriver weight | Working height | Torque absorbtion | Inclusive tool holder |
|-----------------------|-------------------------------------|-----------------------|----------------|-------------------|--------------------------|
| EASY-LINEARFIX | 130 - 460 mm | 0,5 - 2,5 kg | 60 - 430 mm | max. 15 Nm | HST-EPF-H45 |
| EASY-LINEARFIX-600 | 130 - 600 mm | 0,5 - 2,5 kg | 60 - 430 mm | max. 15 Nm | HST-EPF-H45 |
| EASY-LINEARFIX-700 | 130 - 700 mm | 0,5 - 2,5 kg | 60 - 430 mm | max. 15 Nm | HST-EPF-H45 |
| EASY-LINEARFIX-750 | 130 - 750 mm | 0,5 - 2,5 kg | 60 - 430 mm | max. 15 Nm | HST-EPF-H45 |
| EASY-LINEARFIX-B | 160 - 500 mm | 0,5 - 2,5 kg | 60 - 430 mm | max. 25 Nm | HST-EPF-H45 |
| EASY-LINEARFIX-B-800 | 160 - 800 mm | 0,5 - 2,5 kg | 60 - 430 mm | max. 25 Nm | HST-EPF-H45 |
| EASY-LINEARFIX-B-900 | 160 - 900 mm | 0,5 - 2,5 kg | 60 - 430 mm | max. 25 Nm | HST-EPF-H45 |
| EASY-LINEARFIX-B-1000 | 160 - 1.000 mm | 0,5 - 2,5 kg | 60 - 430 mm | max. 25 Nm | HST-EPF-H45 |

Accessories - Carbon torque arms

Carbon torque arms

- optimized for industrial applications
- Torque relieving up to 15 Nm
- 2 axis precise positioning of the screw
- Improved ergonomics, results in less exhaustion of the operator
- Smooth-running through high quality components
- Minimal weigth
- Maintenance-free
- Very robust, thanks to the best quality of carbon fibre
- Absorption of weight and reaction force
- Suitable for different tools



Carbon torque arms - TAC Series

Horizontal application

| Order no. | Length min. | Length max. | Torque max. | Incl. tool holder |
|-------------|-------------|-------------|-------------|-------------------|
| TAC-10-1000 | 495 mm | 1.105 mm | 10 Nm | TAC-15-BTH |
| TAC-10-1500 | 665 mm | 1.605 mm | 10 Nm | TAC-15-BTH |
| TAC-15-1000 | 486 mm | 1.066 mm | 15 Nm | - |
| TAC-15-1500 | 646 mm | 1.556 mm | 15 Nm | - |
| TAC-15-2000 | 806 mm | 2.046 mm | 15 Nm | - |

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Accessories - Carbon torque arms

Basic Tool Holder

| Tool grip | | | | | |
|------------|-----|---------|-------|---------------------------------|-----------------|
| Order no. | no. | ø min | ø max | Description | Compatible with |
| - | 1 | 26,5 mm | 44 mm | Basic Tool Holder | TAC-10 (*) |
| TAC-15-BTH | 2 | 27 mm | 45 mm | Basic Tool Holder with 2 screws | TAC-15 |





Multi-position tool holder

| | | Too | ol grip | | |
|----------------|-----|-------|---------|---|-----------------|
| Order no. | no. | ø min | ø max | Description | Compatible with |
| TAC-15-MTH-INT | 1 | n/a | n/a | Multi-position tool holder interface | TAC-15 |
| TAC-15-MTH | 2 | 27 mm | 45 mm | Multi-position tool holder | TAC-15 |
| MTH-EXT-90 | 3 | n/a | n/a | Extension 90 mm for Multi-position tool holder | TAC-15 |















Accessories - Carbon torque arms

Floating balancer TSB

- Tools can be hung up weightlessly (floating)
- Allows precise work
- Protects tools against damage and soiling
- Allows rational work
- Carrying capacity of 0,5 3 kg



| Order no. | Carrying capacity | Weight | Diameter / height | Cable pull-out |
|-----------|-------------------|--------|-------------------|----------------|
| TSB-0 | 0,5 - 1,5 kg | 0,5 kg | 128 / 237 mm | 1.000 mm |
| TSB-00 | 0,5 - 1,5 kg | 0,2 kg | 128 / 237 mm | 500 mm |
| TSB-03 | 1,0 - 3,0 kg | 1,4 kg | 148 / 290 mm | 1.300 mm |

Accessories - Automatic screw feeders

FK Series

For small screws in the production environment

- For nine different screw diameters
- Various screw head shapes can be used
- Screw length max. 18 mm
 - FK-xxx for standard screws



| Order no. | FK-505 Series |
|------------------------|-----------------------------------|
| Input | 100 - 240 V, 50/60Hz, 15 VA |
| Output | DC 12 V, 200 mA |
| DC plug | EIAJ Type |
| Dimensions (L x W x H) | 120 x 155 x 138 mm |
| Weight (basic unit) | FK-505: 1,1 kg |
| Screw capacity | ca. 1,5 Sek. for a screw |
| Screw length max. | 18 mm |
| Screw conveyance | Inclined plane (fixed rail width) |
| Work environment | +10 ~ +30°C (no condensation) |
| Storage temperature | -10 ~ +50°C (no condensation) |
| Noise level | 66 dB |
| Environmental load | Level 2 |
| Operating environment | Use exclusively in dry rooms |

Accessories - Automatic screw feeders

FK Series

Technical Data

Shape of the screws

| Order no. | ø Screw diameter | Screw length (min.) | Screw length with spring disk (min.) | Screw length with spring disk and washer (min.) | | |
|----------------------|------------------|---|--------------------------------------|---|--|--|
| FK 514 | M1.4 | 1,4 mm | - | - | | |
| FK 517 | M1.7 | 1,6 mm | - | - | | |
| FK 520 | M2.0 | 1,8 mm | 3,0 mm | 5,0 mm | | |
| FK 523 | M2.3 | 2,5 mm | 4,0 mm | 5,0 mm | | |
| FK 526 | M2.6 | 2,8 mm | 4,0 mm | 6,0 mm | | |
| FK 530 | M3.0 | 3,0 mm | 4,0 mm | 6,0 mm | | |
| FK 535 | M3.5 | 3,5 mm | 6,8 mm | 8,0 mm | | |
| FK 540 | M4.0 | 4,0 mm | 6,8 mm | 8,0 mm | | |
| FK 550 | M5.0 | 5,0 mm | 8,0 mm | 10,0 mm | | |
| Appropriate screws | | 9 different screw di | ameters | | | |
| Screw type, material | | Metric screws plate and plastic, iron or magnetic material | | | | |
| Shape of the scrows | | Flat head, button-head, mushroom head bolt, round and flat-head screws, WH, | | | | |

with spring screw and washer

Accessories - Automatic screw feeders



NJ-Series

- Screwdriver can be used with standard bit and suction equipment
- Special screws can be used (also screws with washers or spring washers)
- Various expansion containers available
- Thanks to exchangeable rails, different screw sizes are supported

NJR-Series

 Special screws can be used (also screws with washers or spring washers)

- Robot operation
- Smooth production flow
- Signal for missing screw on the screw holder
- Various expansion holders available

Complements the Quicher series:

NJ-45

 Automatic screw feeder for vacuum take-up of the screws (allows automation with miniature screws)

| | NJ-Series | NJR-Series |
|------------------------|--|--|
| Input | AC 230V | AC 230V |
| Output | DC 12 V, 500 mA | DC 12 V, 500 mA |
| Power connection | AC power supply | AC power supply |
| Dimensions (L x W x H) | 130 x 215 x 136 mm | 130 x 275 x 136 mm |
| Weight (with rail) | ca. 3,2 kg | ca. 4,2 kg |
| Chamber capacity | approx. 150 screws | approx. 150 screws |
| Guard | Motor stop in case of overload and safety switch | Motor stop in case of overload and safety switch |

Accessories- Automatic screw feeders

NJ / NJR Series

| Order no. | Screw diameter | Appropriate rail | Max. screw length |
|--------------|----------------|------------------|-------------------|
| HST-NJ-2320 | M2.0 | HST-NJ-R20 | 18,0 mm |
| HST-NJ-2323 | M2.3 | HST-NJ-R23 | 18,0 mm |
| HST-NJ-2326 | M2.6 | HST-NJ-R26 | 18,0 mm |
| HST-NJ-2330 | M3.0 | HST-NJ-R30 | 18,0 mm |
| HST-NJ-4535 | M3.5 | HST-NJ-R35 | 18,0 mm |
| HST-NJR-4540 | M4.0 | HST-NJ-R40 | 18,0 mm |
| HST-NJR-4550 | M5.0 | HST-NJ-R50 | 18,0 mm |

| Order no. | Screw diameter | Appropriate rail | Max. screw length |
|--------------|----------------|------------------|-------------------|
| HST-NJR-2320 | M2.0 | HST-NJ-RR20 | 18,0 mm |
| HST-NJR-2323 | M2.3 | HST-NJ-RR23 | 18,0 mm |
| HST-NJR-2326 | M2.6 | HST-NJ-RR26 | 18,0 mm |
| HST-NJR-2330 | M3.0 | HST-NJ-RR30 | 18,0 mm |
| HST-NJR-4535 | M3.5 | HST-NJ-RR35 | 18,0 mm |
| HST-NJR-4540 | M4.0 | HST-NJ-RR40 | 18,0 mm |
| HST-NJR-4550 | M5.0 | HST-NJ-RR50 | 18,0 mm |







Screw removal (Hand)



Screw removal (Robot)



Expansion container





| Notes | | |
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