

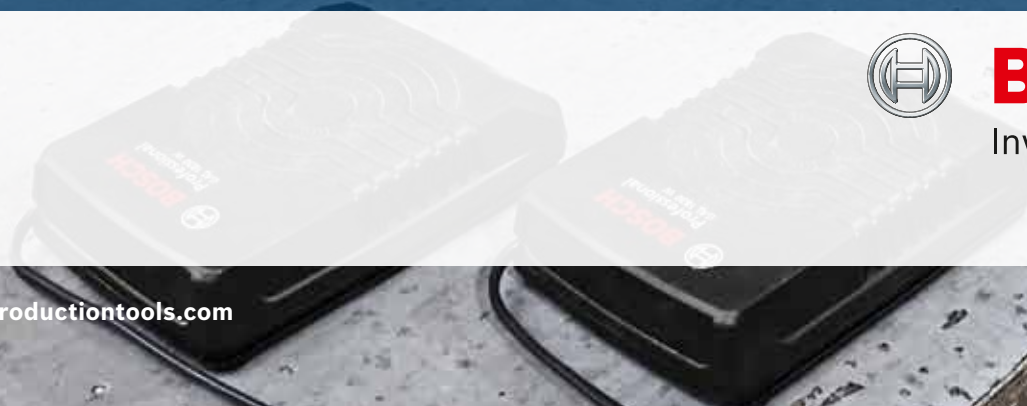
**World's
first!**

The first battery
with Wireless
Charging System



EXACT

Cordless and electric screwdrivers for industry



BOSCH

Invented for life

Cordless and electric screwdrivers for industry



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Big in performance, compact in size

| E | X | A | C | T |
|-----------|-----------------|----------|------------|------|
| Ergonomic | EXtremely Light | Accurate | Cmk proven | Tool |



The **EXACT** and **ANGLE EXACT** tools from BOSCH are cordless shut-off screwdrivers for industry – offering the greatest accuracy, longevity and energy efficiency.

In assembly situations where cables or pneumatic hoses get in the way, the **EXACT** series enables you to optimise processes, build better products and reduce your costs.

- ▶ **Bright LED light** for illuminating the work area
- ▶ **Coloured marking rings** for easy identification
- ▶ **Right-hand/left-hand rotation change** with one hand
- ▶ **Repeat protection**
- ▶ **Low weight, balanced weight distribution** for better ergonomics
- ▶ **Industrial battery design** for longest lifetime
- ▶ **Torque setting** only with a special tool
- ▶ **Highest repeatability** due to Bosch clutch design
- ▶ **Easy service** due to plug connectors and common parts
- ▶ **Bosch SEC motor:** brushless motor technology
- ▶ **Visual and audible signals** provide information about battery status and screwdriving quality
- ▶ **Cordless quality control** with the Bosch Bluetooth wireless system

CE Conformity

All electric, measuring and air tools in this catalogue meet the following standards:

EN 60745, EN 50144, EN 61029, EN 60335-1, EN 60825-1 or EN 792 or ISO EN 11148 (depending on model), EN 55014, EN 61000-3-2, -3-3 or -3-11 in accordance with EU directives 2011/65/EU, 2006/95/EC, 2006/42/EC, 2004/108/EC, 1999/5/EC.



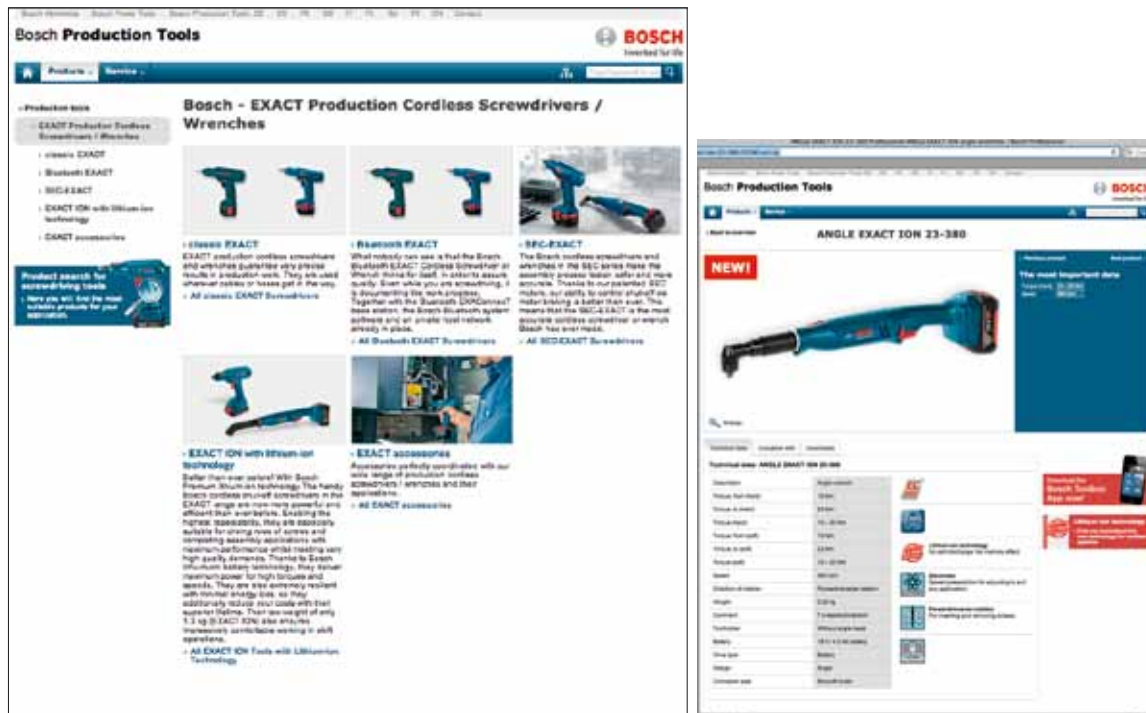
Management Service

**Certified
to
ISO 9001**

**Certificate registration no.:
12 100 36537/03 TMS**

An overview with a single click:

All production tools online



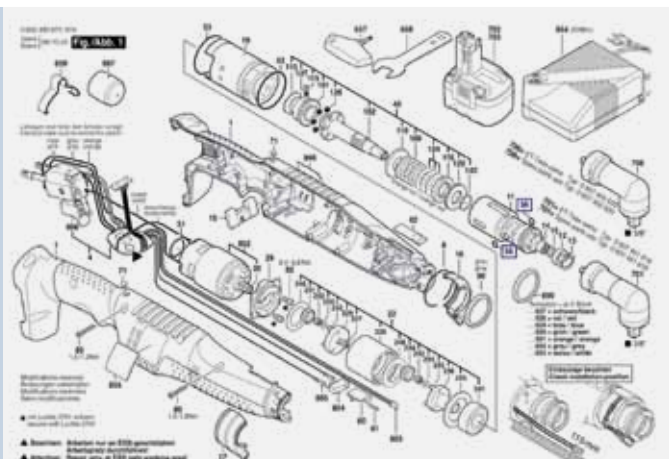
An extensive online catalogue including applications is available at www.boschproductiontools.com.

The tool selection is made easier by the ability to run comparisons between screwdrivers. For example, you can create a display of different tools and compare data such as power output or rpm.

Furthermore, you will find the latest information about measurement data, innovations and new developments from Bosch Production Tools. You can quickly obtain all relevant information needed to select the correct tools for your production.

Dimensional drawings, 3D data, homologation data, user manuals, pictures and exploded drawings can be downloaded directly from the internet.

A spare parts service informs users about which spare parts they need.



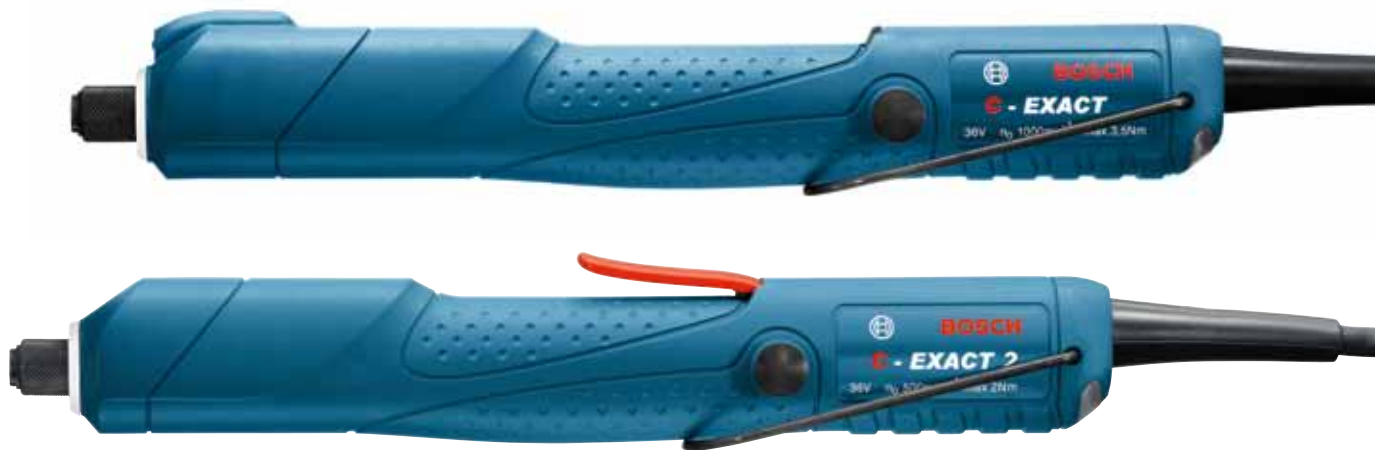
1

C-EXACT Production screwdrivers



Hopefully, you will not run out of screws

C-EXACT and PUC-EXACT. The production screwdriver system from Bosch.
The new C-EXACT electric screwdrivers offer much more than just a robust housing.
High accuracy and repeatability are guaranteed, even after driving 1 million* screws.



* according to Bosch endurance tests

Never lets you down even after 1 million screws

Robust, efficient and user-friendly

Low-voltage operation, brushless EC motor technology and key components from the EXACT cordless screwdriver series make the C-EXACT electric screwdrivers cost-effective tools with innovative performance features. When required, the clutch offers 15% more torque in left-hand rotation for loosening screws. The clutch is adjusted using a special tool. If the adjustment tool is stored in a location inaccessible to the user, the torque cannot be adjusted unintentionally. Colour marking rings enable quick identification of different screwdrivers in the assembly line.

Precise and stable under load

Whether assembling computer drives, electronics or precision mechanical equipment, the C-EXACT is the right choice when precision is what matters most.

Bosch quality testing for the C-EXACT family is extremely rigorous. In endurance testing, the C-EXACT tools must survive 1 million* cycles without failure before being released for production. During continuous operation, they must maintain an ISO 5393 standard Cmk value greater than 1.67 with a tolerance of $\pm 10\%$.

Our production tools are therefore among the most accurate on the planet.

C-EXACT electric screwdrivers

The C-EXACT screwdrivers are the first in a family of electric straight screwdrivers. They are equipped with a combination of great features and therefore set new standards for accuracy and longevity.

- ▶ Brushless EC motor technology
- ▶ Right-hand/left-hand rotation change with one hand
- ▶ ESD (ElectroStatic Discharge) compliant

PUC-EXACT power supplies

The C-EXACT electric screwdrivers use the PUC-EXACT power supply unit as a clean, silent energy source for the brushless EC motor.

The power supply unit contributes to a reduction in operating costs by efficiently supplying the tool with low voltage.

The electric screwdrivers in the C-EXACT series (electric screwdrivers with 3.5 Nm or 31 in/lbs of maximum torque) are available as a lever start or push start driver.

The PUC-EXACT power supply safely generates the low-voltage electricity needed for efficient operation.



* according to Bosch endurance tests







ElectroStatic Discharge (ESD) compliant means the screwdriving system is ideal for use in the electronics and electrical industries.




C-EXACT

Electric screwdrivers

- ▶ Bosch proves robustness and longevity by means of endurance tests with over one million work cycles
- ▶ Bosch SEC motor
All models feature brushless EC motor technology
- ▶ High shut-off accuracy with very low tolerance
- ▶ Large torque range
- ▶ Visual and audible shut-off signals

|  | Part number | Torque, hard as per ISO 5393 (Nm) | Torque, soft as per ISO 5393 (Nm) |
|---|---------------|---|---|
| Electric screwdrivers C-EXACT 1  | 0 602 495 202 | 0.2 – 0.8 | 0.2 – 0.8 |
| | 0 602 495 207 | 0.2 – 0.8 | 0.2 – 0.8 |
| Electric screwdrivers C-EXACT 2  | 0 602 495 203 | 0.5 – 2 | 0.5 – 2 |
| | 0 602 495 208 | 0.5 – 2 | 0.5 – 2 |
| Electric screwdrivers C-EXACT 4  | 0 602 495 200 | 0.5 – 3.5 | 0.5 – 3.5 |
| | 0 602 495 205 | 0.5 – 3.5 | 0.5 – 3.5 |

- ▶ Robust and durable design
- ▶ Indicators for operational readiness and overload
- ▶ Available with connections for 1 – 3 screwdrivers simultaneously
- ▶ Temperature-controlled cooling fan

| | Part number | Input voltage (V) | Input frequency (Hz) |
|--|---------------|----------------------|-------------------------|
| Power supply PUC-EXACT 3  | 0 602 495 003 | 100 – 240 AC | 50 – 60 |

| No-load speed (rpm) | Voltage (V) | Power (W) | Direction of rotation | Weight as per EPTA (kg) | Features and functions | Included accessories |
|---------------------|-------------|-----------|-----------------------|-------------------------|------------------------|--|
| 1,000 | 36 DC | 360 | R/L | 0.65 | Lever start | Connecting cable 2.5 m Suspension hook Green colour ring Torque adjustment tool |
| 1,000 | 36 DC | 360 | R/L | 0.65 | Push start | |
| 500 | 36 DC | 360 | R/L | 0.65 | Lever start | Connecting cable 2.5 m Suspension hook White colour ring Torque adjustment tool |
| 500 | 36 DC | 360 | R/L | 0.65 | Push start | |
| 1,000 | 36 DC | 360 | R/L | 0.65 | Lever start | Connecting cable 2.5 m Suspension hook Grey colour ring Torque adjustment tool |
| 1,000 | 36 DC | 360 | R/L | 0.65 | Push start | |

| Power input (W) | Output voltage (V) | Features and functions | Included accessories |
|-----------------|--------------------|--|----------------------|
| 400 | 36 DC | Power supply for up to three C-EXACT tools | Power cable 3 m |

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EXACT ION and ANGLE EXACT ION

Now with lithium-ion technology



Better than ever before!

With Bosch Premium lithium-ion technology and Wireless Charging

The handy Bosch cordless shut-off screwdrivers in the EXACT range are now more powerful and efficient than ever before.

Enabling the highest repeatability, they are especially suitable for driving rows of screws and completing assembly applications with maximum performance whilst meeting very high quality demands. Thanks to Bosch lithium-ion battery technology, they deliver maximum power for high torques and speeds. They are also extremely resilient with minimal energy loss, so they additionally reduce your costs with their superior lifetime. Their low weight of only 1.3 kg (EXACT ION) also ensures impressively comfortable working in shift operations.

Now also with:



WORLD'S FIRST: Wireless Charging

Always power ready



- ▶ Just put the cordless tool down and the battery will charge.
- ▶ Your tool is always ready to use with only one battery.
- ▶ You save time and the extra costs for a second battery to alternate with.
- ▶ The worldwide unique Bosch Wireless Charging System consists of the charging station and a special battery.



Greater user-friendliness and productivity:

- ▶ Batteries can stay in the tool
- ▶ Charging takes place automatically when the tool is placed on the charger, so it requires no effort
- ▶ Flexible mounting frame on the charger allows for a wide range of ergonomic positions – easy to mount at the workplace



Complete flexibility:

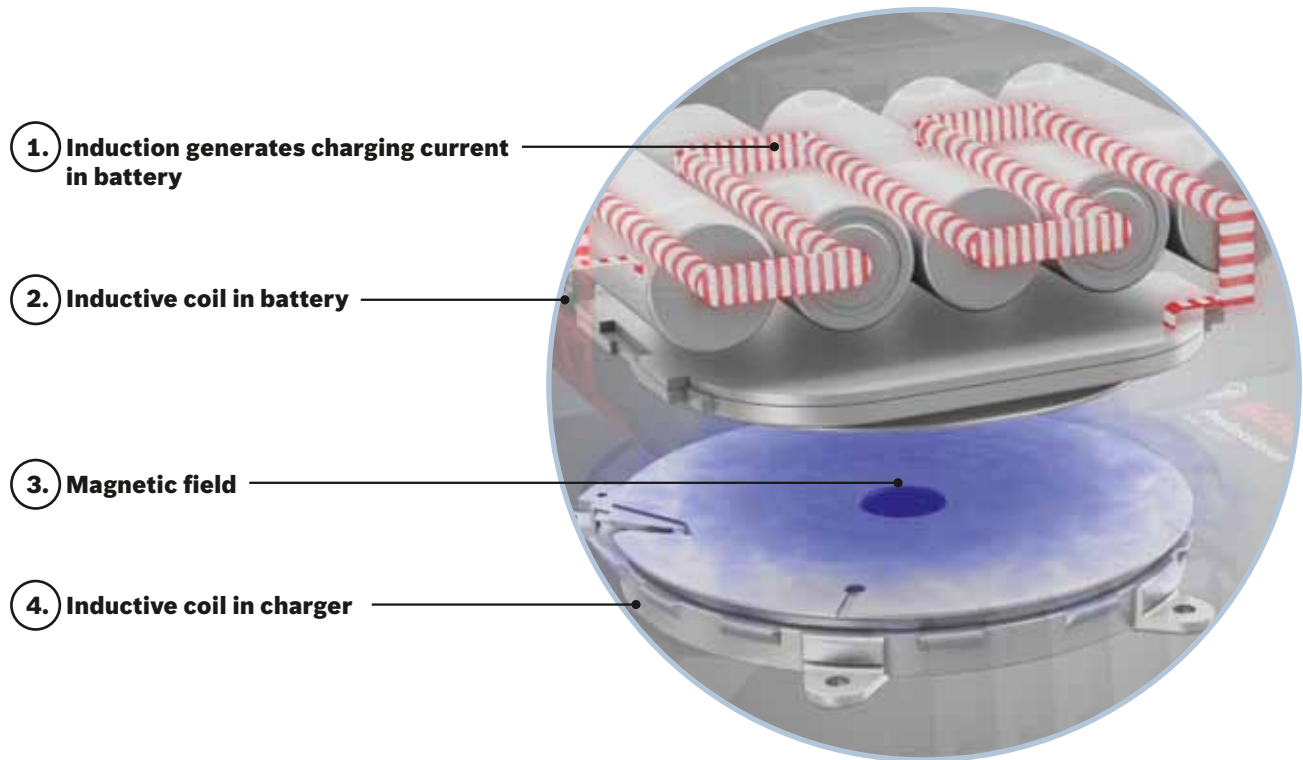
Wireless Charging battery GBA (18 V 2.0 Ah MW-B) is compatible with all 18 volt Bosch cordless tools




Very robust charging station:


No contact points and durable against water, dust and dirt





Wireless Charging packs of 5

| Pack of 5 chargers | Part number | Description | Voltage (V) | Weight as per EPTA (kg) |
|--|---------------|--------------------|-------------|-------------------------|
| GAL 1830 W Professional + mounting frame  | 0 602 494 024 | Pack of 5 chargers | 230 | 5 x 0.55 |

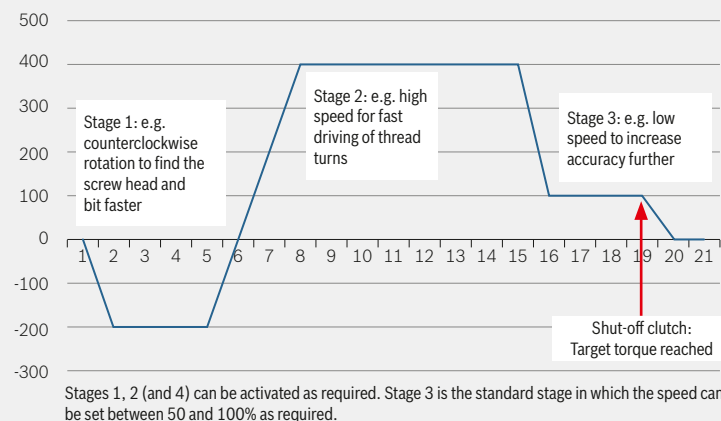
| Pack of 5 batteries | Part number | Description | Voltage (V) | Capacity (Ah) | Weight as per EPTA (kg) |
|---|---------------|---------------------|-------------|---------------|-------------------------|
| GBA 18 V 2,0 Ah MW-B Professional  | 0 602 494 021 | Pack of 5 batteries | 18 | 2.0 | 5 x 0.5 |

EXACT ION and ANGLE EXACT ION

Now with lithium-ion technology



Multi-stage screwdriving process



Greater process reliability:

- Precision shut-off clutch with $C_{mk} > 1.67$ (at a tolerance of $\pm 10\%$ in accordance with ISO 5393)
- **NEW!** Multi-stage screwdriving process, adjustable to your individual application via USB interface

Greater efficiency:

- **NEW!** Bosch Premium lithium-ion technology for long lifetime and runtime
- **NEW!** Brushless (EC) motor for 30% more efficiency (compared to conventional DC motors) and extremely long lifetime

Greater comfort:

- **NEW!** New ergonomic design and lower weight for even more comfortable working

Lower costs:

- **NEW!** Higher rotational speeds (compared to SEC-EXACT) and the screwdriving stages reduce production times and improve quality



Flexible Power System









- ▶ **Patented new interface**, to prevent mix-ups
- ▶ **Temperature monitoring and overload protection**, for extremely long lifetime
- ▶ **Double locking**, to prevent falling out
- ▶ **Charge level indicator**, to identify the charging state
- ▶ **Bosch high-performance battery cells**, with low energy loss, for the highest speeds and torques
- ▶ **Integrated cooling**, for extremely long lifetime









EXACT ION

Now with lithium-ion technology

- ▶ Precision shut-off clutch with $C_{mk} > 1.67$ (at a tolerance of $\pm 10\%$ in accordance with ISO 5393)
- ▶ Multi-stage screwdriving process, adjustable to your individual application via USB interface
- ▶ Bosch Premium lithium-ion technology for long lifetime and runtime
- ▶ Brushless (EC) motor for 30% more efficiency (compared to conventional DC motors) and extremely long lifetime
- ▶ New ergonomic design and lower weight for even more comfortable working
- ▶ Higher rotational speeds (compared to SEC-EXACT) and the screwdriving stages reduce production times and improve quality

| | Part number | Torque, hard / soft as per ISO 5393 (Nm) | Speed (no-load) |
|--|---------------|--|--------------------------|
| EXACT ION 2-700  | 0 602 494 400 | 0.5 – 2 | 350 – 700 (min. 70) |
| EXACT ION 4-2000  | 0 602 494 401 | 1 – 4 | 1,000 – 2,000 (min. 200) |
| EXACT ION 6-1500  | 0 602 494 402 | 1 – 6 | 750 – 1,500 (min. 150) |
| EXACT ION 8-1100  | 0 602 494 403 | 1.5 – 8 | 550 – 1,100 (min. 110) |
| EXACT ION 12-700  | 0 602 494 404 | 1.5 – 12 | 350 – 700 (min. 70) |
| EXACT ION 12-450  | 0 602 494 405 | 1.5 – 12 | 225 – 450 (min. 45) |





| Bit holder | Battery specifications (V) | Direction of rotation | Weight as per EPTA (kg) | Included accessories |
|--------------------------|---|-----------------------|-------------------------|--|
| 1/4" quick-release chuck | 18 V/2.0 Ah *  possible | R/L | 1.3 (including battery) | Light green colour ring Torque adjustment tool Suspension hook |
| 1/4" quick-release chuck | 18 V/2.0 Ah *  possible | R/L | 1.3 (including battery) | Grey colour ring Torque adjustment tool Suspension hook |
| 1/4" quick-release chuck | 18 V/2.0 Ah *  possible | R/L | 1.3 (including battery) | Black colour ring Torque adjustment tool Suspension hook |
| 1/4" quick-release chuck | 18 V/2.0 Ah *  possible | R/L | 1.3 (including battery) | Orange colour ring Torque adjustment tool Suspension hook |
| 1/4" quick-release chuck | 18 V/2.0 Ah *  possible | R/L | 1.3 (including battery) | Red colour ring Torque adjustment tool Suspension hook |
| 1/4" quick-release chuck | 18 V/2.0 Ah *  possible | R/L | 1.3 (including battery) | Black colour ring Torque adjustment tool Suspension hook |

* Battery not included
in scope of delivery

EXACT ION WK

Now with lithium-ion technology

- ▶ Precision shut-off clutch with $C_{mk} > 1.67$ (at a tolerance of $\pm 10\%$ in accordance with ISO 5393)
- ▶ Multi-stage screwdriving process, adjustable to your individual application via USB interface
- ▶ Bosch Premium lithium-ion technology for long lifetime and runtime
- ▶ Brushless (EC) motor for 30% more efficiency (compared to conventional DC motors) and extremely long lifetime
- ▶ New ergonomic design and lower weight for even more comfortable working
- ▶ Higher rotational speeds (compared to SEC-EXACT) and the screwdriving stages reduce production times and improve quality

| | Part number | Torque, hard / soft as per ISO 5393 (Nm)* | Speed (no-load)* |
|---|---------------|---|-----------------------|
| EXACT ION 6-1500 WK  | 0 602 494 406 | 2 – 8 | 525 – 1050 (min. 105) |
| EXACT ION 8-1100 WK  | 0 602 494 407 | 2 – 11 | 375 – 750 (min. 75) |
| EXACT ION 12-700 WK  | 0 602 494 408 | 2 – 16 | 250 – 500 (min. 50) |
| EXACT ION 12-450 WK  | 0 602 494 409 | 2 – 16 | 160 – 320 (min. 32) |

* measured with Bosch angle screwdriving head

| Bit holder | Battery specifications (V) | Direction of rotation | Weight as per EPTA (kg) | Included accessories |
|--------------------------|---|-----------------------|-------------------------|---|
| Flange for angle head ** | 18 V/2.0 Ah ***  possible | R/L | 1.4 (including battery) | Black colour ring Torque adjustment tool Suspension hook |
| Flange for angle head ** | 18 V/2.0 Ah ***  possible | R/L | 1.4 (including battery) | Orange colour ring Torque adjustment tool Suspension hook |
| Flange for angle head ** | 18 V/2.0 Ah ***  possible | R/L | 1.4 (including battery) | Red colour ring Torque adjustment tool Suspension hook |
| Flange for angle head ** | 18 V/2.0 Ah ***  possible | R/L | 1.4 (including battery) | Light blue colour ring Torque adjustment tool Suspension hook |

** Angle head not included in scope of delivery











*** Battery not included in scope of delivery

ANGLE EXACT ION

Now with lithium-ion technology

- Precision shut-off clutch with $C_{mk} > 1.67$ (at a tolerance of $\pm 10\%$ in accordance with ISO 5393)
- Multi-stage screwdriving process, adjustable to your individual application via USB interface
- Bosch Premium lithium-ion technology for long lifetime and runtime
- Brushless (EC) motor for 30% more efficiency (compared to conventional DC motors) and extremely long lifetime
- New ergonomic design and lower weight for even more comfortable working
- Higher rotational speeds (compared to SEC-EXACT) and the screwdriving stages reduce production times and improve quality

| | Part number | Torque, hard / soft as per ISO 5393 (Nm) | Speed (no-load) |
|--|---------------|--|------------------------|
| ANGLE EXACT ION 8-1100  | 0 602 494 600 | 2 – 8 | 550 – 1,100 (min. 110) |
| ANGLE EXACT ION 15-500  | 0 602 494 601 | 2 – 15 | 260 – 520 (min. 52) |
| | 0 602 494 60A | 2 – 15 | 260 – 520 (min. 52) |
| ANGLE EXACT ION 23-380  | 0 602 494 602 | 10 – 23 | 190 – 380 (min. 38) |
| ANGLE EXACT ION 30-290  | 0 602 494 607 | 10 – 30 | 145 – 290 (min. 29) |
| | 0 602 494 60B | 10 – 30 | 145 – 290 (min. 29) |
| ANGLE EXACT ION 30-300  | 0 602 494 603 | 10 – 30 | 150 – 300 (min. 30) |
| ANGLE EXACT ION 40-220  | 0 602 494 604 | 15 – 40 | 110 – 220 (min. 22) |
| ANGLE EXACT ION 50-210  | 0 602 494 605 | 15 – 50 | 90 – 180 (min. 18) |
| ANGLE EXACT ION 60-120  | 0 602 494 606 | 15 – 60 | 60 – 120 (min. 12) |

| Bit holder | Battery specifications (V) | Direction of rotation | Weight as per EPTA (kg) | Included accessories |
|------------------------|--|-----------------------|-------------------------|--|
| Flange for angle head* | 18 V/2.0 Ah **  possible | R/L | 1.7 (including battery) | Light blue colour ring Torque adjustment tool Suspension hook |
| Flange for angle head* | 18 V/2.0 Ah **  possible | R/L | 1.7 (including battery) | Light green colour ring Torque adjustment tool Suspension hook |
| 3/8" square | 18 V/2.0 Ah **  possible | R/L | 1.7 (including battery) | Light green colour ring Torque adjustment tool Suspension hook Angle screwdriving head 3/8" |
| Flange for angle head* | 18 V/4.0 Ah **  possible | R/L | 2.2 (including battery) | White colour ring Torque adjustment tool Suspension hook |
| Flange for angle head* | 18 V/4.0 Ah **  possible | R/L | 2.2 (including battery) | Grey colour ring Torque adjustment tool Suspension hook |
| 3/8" square | 18 V/4.0 Ah **  possible | R/L | 2.2 (including battery) | Grey colour ring Torque adjustment tool Suspension hook Angle screwdriving head 3/8" |
| 3/8" square | 18 V/4.0 Ah **  possible | R/L | 2.4 (including battery) | Light grey colour ring Torque adjustment tool Suspension hook Angle screwdriving head 3/8" |
| 3/8" square | 18 V/4.0 Ah **  possible | R/L | 2.4 (including battery) | Orange colour ring Torque adjustment tool Suspension hook Angle screwdriving head 3/8" |
| 3/8" square | 18 V/4.0 Ah **  possible | R/L | 2.4 (including battery) | Red colour ring Torque adjustment tool Suspension hook Angle screwdriving head 3/8" |
| 3/8" square | 18 V/4.0 Ah **  possible | R/L | 2.4 (including battery) | Black colour ring Torque adjustment tool Suspension hook Angle screwdriving head 3/8" |

* Angle head not included in scope of delivery

** Battery not included in scope of delivery

3

SEC-EXACT – Brushless motor and conventional battery technology



The **SEC-EXACT**

Time and cost advantages guaranteed with the SEC motor from Bosch

A greater degree of efficiency was the main aim when developing the series of Bosch production cordless screwdrivers with SEC motor. This sensorless and brushless motor technology once again sets the standard: the lowest energy consumption, lowest weight and highest levels of torque and speed. In addition to this, we were also able to increase the accuracy even further.



Faster and lighter, longer lifetime and higher accuracy

The Bosch cordless screwdrivers in the SEC series make the assembly process faster, safer and more accurate. Shut-off is better than ever thanks to our patented SEC motors. SEC-EXACT is therefore one of the most accurate cordless screwdrivers that Bosch manufactures. Making the best clutch in the world better was not easy, but we know you expect nothing less from the world's leading manufacturer of battery-operated assembly tools.

Bosch SEC-EXACT cordless screwdrivers improve your productivity.

The cordless screwdrivers in the SEC-EXACT series provide a 50 to 100% speed increase over the EXACT range. Couple that with a weight reduction in select models that provides a 70% better power-to-weight ratio, and your productivity is sure to improve. For example, the new SEC-EXACT 412 weighs 300 grams less than the EXACT 12. This weight reduction was achieved by using the 9.6 V battery pack in the entire SEC range.

The Bosch SEC motor has no brushes to wear out. But the most important feature is that this technology developed and patented by Bosch does not need a sensor to detect rotor speed and position! This provides a very efficient, wear-free motor system compared to all other brushless motors. Bosch developed and manufactures this 3-phase, brushless and sensorless motor in Europe, thus ensuring the highest quality standards are met and maintained.

To sum it all up in a word: SEC = M²!

- ▶ Faster line speeds and shorter screwdriving cycles thanks to speed increases of up to 100%
- ▶ Improved ergonomics, weight and reaction torque translates into satisfied, productive workers who like using the SEC-EXACT screwdrivers
- ▶ Reduced lifecycle costs due to wear-free components
- ▶ Bosch SEC motors are the most efficient, durable and economical motors of their type in the world

SEC = M²*

* M² = The faster, more efficient
and more economical Bosch motor!



**Brushless, sensorless
Bosch SEC motor**
Developed, patented and
manufactured by Bosch in Europe

**Plug-in connectors
for all electrical lines**
For easy servicing
when needed

**Non-contact right-hand/left-hand
rotation switch**
Wear-free components

**Integrated switch and
electronics module**
Non-contact components are
wear-free and overload protected

Battery pack contacts
Separately replaceable

SEC-EXACT

Cordless centre grip screwdrivers

Cordless centre grip screwdrivers SEC-EXACT

- ▶ Highest repeatability:
Cmk ≥ 2.0
Reduction in reaction torques
- ▶ Lowest weight in their class: using the 9.6 volt battery pack in the new series leads to a weight reduction of up to 300 grams!
- ▶ Large speed range of the entire series
- ▶ Large torque range
- ▶ Illumination of the work area
- ▶ Overload protection for electronics, motor and battery pack
- ▶ Best ergonomics: compact and very well balanced. One-handed operation for on/off and left-hand/right-hand rotation
- ▶ Robust and durable screwdrivers with proven components from the EXACT series
- ▶ Proven and highly efficient battery technology in industrial quality. Existing charging technology, battery packs and protective caps can continue to be used

| SEC-EXACT | Part number | Torque, hard as per ISO 5393 (Nm) | Torque, soft as per ISO 5393 (Nm) |
|--|---------------|-----------------------------------|-----------------------------------|
| SEC-EXACT 1106 Highest speed for short cycle times  | 0 602 492 431 | 1 – 6 | 1 – 6 |
| | 0 602 492 432 | 1 – 6 | 1 – 6 |
| SEC-EXACT 908 Combination of speed and torque  | 0 602 492 443 | 2 – 8 | 2 – 8 |
| | 0 602 492 444 | 2 – 8 | 2 – 8 |
| SEC-EXACT 610 Performance and speed  | 0 602 492 445 | 2 – 10 | 2 – 10 |
| | 0 602 492 446 | 2 – 10 | 2 – 10 |
| SEC-EXACT 459 The model for every application  | 0 602 492 435 | 2 – 9 | 2 – 9 |
| | 0 602 492 436 | 2 – 9 | 2 – 9 |
| SEC-EXACT 412 High torque and low weight  | 0 602 492 441 | 2 – 12 | 2 – 12 |
| | 0 602 492 442 | 2 – 12 | 2 – 12 |
| SEC-EXACT 402 Very precise in the lower torque range  | 0 602 492 433 | 0.5 – 2 | 0.5 – 2 |
| | 0 602 492 434 | 0.5 – 2 | 0.5 – 2 |
| SEC-EXACT 212 Slow screwdriver e.g. for hose clamps  | 0 602 492 439 | 2 – 12 | 2 – 12 |
| | 0 602 492 440 | 2 – 12 | 2 – 12 |

| No-load speed (rpm) | Bit holder | Battery specifications (V) | Direction of rotation | Weight as per EPTA (kg) | Features and functions | Included accessories |
|---------------------|------------|----------------------------|-----------------------|-------------------------|-------------------------|---|
| 1,100 | 1/4" | 9.6 V * | R/L | 0.8 | 0.7 s repeat protection | Torque adjustment tool Black colour ring |
| 1,100 | 1/4" | 9.6 V/1.8 Ah | R/L | 1.2 | 0.7 s repeat protection | |
| 900 | 1/4" | 9.6 V * | R/L | 0.8 | 0.7 s repeat protection | Torque adjustment tool Orange colour ring |
| 900 | 1/4" | 9.6 V/1.8 Ah | R/L | 1.2 | 0.7 s repeat protection | |
| 600 | 1/4" | 9.6 V * | R/L | 0.8 | 0.7 s repeat protection | Torque adjustment tool Grey colour ring |
| 600 | 1/4" | 9.6 V/1.8 Ah | R/L | 1.2 | 0.7 s repeat protection | |
| 450 | 1/4" | 9.6 V * | R/L | 0.8 | 0.7 s repeat protection | Torque adjustment tool Light blue colour ring |
| 450 | 1/4" | 9.6 V/1.8 Ah | R/L | 1.2 | 0.7 s repeat protection | |
| 400 | 1/4" | 9.6 V * | R/L | 0.8 | 0.7 s repeat protection | Torque adjustment tool Red colour ring |
| 400 | 1/4" | 9.6 V/1.8 Ah | R/L | 1.2 | 0.7 s repeat protection | |
| 400 | 1/4" | 9.6 V * | R/L | 0.8 | 0.7 s repeat protection | Torque adjustment tool Light green colour ring |
| 400 | 1/4" | 9.6 V/1.8 Ah | R/L | 1.2 | 0.7 s repeat protection | |
| 275 | 1/4" | 9.6 V * | R/L | 0.8 | 0.7 s repeat protection | Torque adjustment tool White colour ring |
| 275 | 1/4" | 9.6 V/1.8 Ah | R/L | 1.2 | 0.7 s repeat protection | |

* Battery not included
in scope of delivery

SEC-ANGLE EXACT

Cordless angle wrenches

Cordless angle wrenches SEC-ANGLE EXACT

- ▶ Highest repeatability:
Cmk ≥ 2.0
Reduction in reaction torques
- ▶ Lowest weight in their class:
using the 9.6 volt battery pack in the 25 Nm class leads to a weight reduction of up to 400 grams!
- ▶ Large speed range of the entire series
- ▶ Large torque range
- ▶ Angle heads and work light adjustable for the best ergonomics
- ▶ Illumination of the work area
- ▶ Overload protection for electronics, motor and battery pack
- ▶ Best ergonomics:
compact and very well balanced. One-handed operation for on/off and left-hand/right-hand rotation
- ▶ Robust and durable screwdrivers with proven components from the ANGLE EXACT series
- ▶ Proven and highly efficient battery technology in industrial quality. Existing charging technology, battery packs and protective caps can continue to be used

| SEC-ANGLE EXACT! | Part number | Torque, hard as per ISO 5393 (Nm) | Torque, soft as per ISO 5393 (Nm) |
|--|---------------|---|---|
| SEC-ANGLE EXACT 7-900  | 0 602 492 611 | 2 – 7 | 2 – 6.5 |
| | 0 602 492 612 | 2 – 7 | 2 – 6.5 |
| SEC-ANGLE EXACT 10-650  | 0 602 492 609 | 2 – 10 | 2 – 9 |
| | 0 602 492 610 | 2 – 10 | 2 – 9 |
| SEC-ANGLE EXACT 14-420  | 0 602 492 607 | 2 – 14 | 2 – 14 |
| | 0 602 492 608 | 2 – 14 | 2 – 14 |
| SEC-ANGLE EXACT 25-250  | 0 602 492 605 | 10 – 25 | 10 – 20 |
| | 0 602 492 606 | 10 – 25 | 10 – 20 |
| SEC-ANGLE EXACT 25-200  | 0 602 492 615 | 10 – 25 | 10 – 25 |
| | 0 602 492 616 | 10 – 25 | 10 – 25 |
| SEC-ANGLE EXACT 30-380  | 0 602 492 603 | 10 – 30 | 10 – 25 |
| | 0 602 492 604 | 10 – 30 | 10 – 25 |
| SEC-ANGLE EXACT 30-300  | 0 602 492 621 | 10 – 30 | 10 – 30 |
| SEC-ANGLE EXACT 40-280  | 0 602 492 601 | 10 – 40 | 10 – 35 |
| | 0 602 492 602 | 10 – 40 | 10 – 35 |
| SEC-ANGLE EXACT 50-210  | 0 602 492 613 | 10 – 50 | 10 – 45 |
| | 0 602 492 614 | 10 – 50 | 10 – 45 |
| SEC-ANGLE EXACT 60-170  | 0 602 492 617 | 15 – 60 | 15 – 60 |

| No-load speed (rpm) | Angle head | Battery specifications (V) | Direction of rotation | Weight as per EPTA (kg) | Features and functions | Included accessories |
|---------------------|------------------------|----------------------------|-----------------------|-------------------------|-------------------------|--|
| 900 | Flange for angle head* | 9.6 V ** | R/L | 1.0 | 0.7 s repeat protection | Torque adjustment tool Open-ended spanner Suspension hook Light blue colour ring |
| 900 | Flange for angle head* | 9.6 V / 1.8 Ah | R/L | 1.4 | 0.7 s repeat protection | |
| 650 | Flange for angle head* | 9.6 V ** | R/L | 1.0 | 0.7 s repeat protection | Torque adjustment tool Open-ended spanner Suspension hook Light green colour ring |
| 650 | | 9.6 V / 1.8 Ah | R/L | 1.4 | 0.7 s repeat protection | |
| 420 | Flange for angle head* | 9.6 V ** | R/L | 1.0 | 0.7 s repeat protection | Torque adjustment tool Open-ended spanner Suspension hook White colour ring |
| 420 | – | 9.6 V / 1.8 Ah | R/L | 1.4 | 0.7 s repeat protection | |
| 245 | 3/8" square | 9.6 V ** | R/L | 1.57 | 0.7 s repeat protection | Torque adjustment tool Open-ended spanner Suspension hook Grey colour ring |
| 245 | 3/8" square | 9.6 V / 1.8 Ah | R/L | 2.0 | 0.7 s repeat protection | |
| 200 | Flange for angle head* | 9.6 V ** | R/L | 1.5 | 0.7 s repeat protection | Torque adjustment tool Open-ended spanner Suspension hook Grey colour ring |
| 200 | Flange for angle head* | 9.6 V / 1.8 Ah | R/L | 1.9 | 0.7 s repeat protection | |
| 380 | 3/8" square | 14.4 V ** | R/L | 1.58 | 0.7 s repeat protection | Torque adjustment tool Open-ended spanner Suspension hook Orange colour ring |
| 380 | 3/8" square | 14.4 V / 2.4 Ah | R/L | 2.3 | 0.7 s repeat protection | |
| 300 | Flange for angle head* | 14.4 V ** | R/L | 1.5 | 0.7 s repeat protection | Torque adjustment tool, Open-ended spanner, Suspension hook, Grey colour ring |
| 280 | 3/8" square | 14.4 V ** | R/L | 1.58 | 0.7 s repeat protection | Torque adjustment tool Open-ended spanner Suspension hook Red colour ring |
| 280 | 3/8" square | 14.4 V / 2.4 Ah | R/L | 2.3 | 0.7 s repeat protection | |
| 210 | 3/8" square | 14.4 V ** | R/L | 1.58 | 0.7 s repeat protection | Torque adjustment tool Open-ended spanner Suspension hook Black colour ring |
| 210 | 3/8" square | 14.4 V / 2.4 Ah | R/L | 2.3 | 0.7 s repeat protection | |
| 170 | 3/8" square | 14.4 V ** | R/L | 1.58 | 0.7 s repeat protection | Torque adjustment tool, open-ended spanner, suspen- sion hook, black colour ring |

* Angle head not included in scope of delivery ** Battery not included in scope of delivery

4

EXACT

Cordless screwdrivers for industry



Cordless assembly with exceptional precision

The EXACT and ANGLE EXACT tools from BOSCH are cordless shut-off screwdrivers for industry – offering the greatest accuracy, longevity and energy efficiency. In assembly situations where cables or pneumatic hoses get in the way, the EXACT series enables you to optimise processes, build better products and reduce your costs.
















The Bosch EXACT and ANGLE EXACT cordless shut-off screwdrivers are suitable for virtually every screwdriving application.



EXACT

Cordless centre grip screwdrivers

- ▶ Precision shut-off clutch with $C_{mk} > 1.67$
- ▶ Low weight
- ▶ Large torque range
- ▶ Repeat protection
- ▶ Visual and audible signals inform the worker about the battery status
- ▶ A visual and audible signal informs the worker about the screwdriving result
- ▶ Bright LED light for illuminating the work area
- ▶ One-handed operation for right-hand/left-hand rotation change
- ▶ Modular design with many common parts
- ▶ Colour marking rings for easy identification
- ▶ Protective cap for quick-release chuck
- ▶ Tool holder available
- ▶ Suspension hook available

|  | Part number | Torque, hard as per ISO 5393 (Nm) | Torque, soft as per ISO 5393 (Nm) |
|---|---------------|---|---|
| EXACT 2 Very precise in the lower torque range  | 0 602 490 433 | 0.6 – 2 | 0.6 – 2 |
| EXACT 4 High speed for short cycle times  | 0 602 490 437 | 1 – 4 | 1 – 4 |
| EXACT 6 Combination of speed and torque  | 0 602 490 431 | 1 – 6 | 1 – 6 |
| | 0 602 490 432 | 1 – 6 | 1 – 6 |
| EXACT 7 Slow screwdriver e.g. for hose clamps  | 0 602 490 439 | 1.5 – 7 | 1.5 – 7 |
| EXACT 8 Performance and speed  | 0 602 490 443 | 1.5 – 8 | 1.5 – 8 |
| EXACT 9 High torque and low weight  | 0 602 490 435 | 1.5 – 9 | 1.5 – 9 |
| EXACT 12 Highest torques  | 0 602 490 441 | 1.5 – 12 | 1.5 – 12 |
| | 0 602 490 442 | 1.5 – 12 | 1.5 – 12 |
| EXACT 60 Extremely low speeds of 60 rpm  | 0 602 490 469 | 1.5 – 5.5 | 1.5 – 5.5 |
| EXACT 700 High speed and high torque  | 0 602 490 447 | 1.5 – 8 | 1.5 – 8 |
| EXACT 1100 Highest speed  | 0 602 490 471 | 1 – 4 | 1 – 4 |

| No-load speed (rpm) | Bit holder | Battery specifications (V) | Direction of rotation | Weight as per EPTA (kg) | Features and functions | Included accessories |
|---------------------|------------|----------------------------|-----------------------|-------------------------|-------------------------|---|
| 600 | 1/4" | 9.6 V * | R/L | 0.8 | 0.7 s repeat protection | Torque adjustment tool Light green colour ring |
| 900 | 1/4" | 9.6 V * | R/L | 0.8 | 0.7 s repeat protection | Torque adjustment tool Grey colour ring |
| 600 | 1/4" | 9.6 V * | R/L | 0.8 | 0.7 s repeat protection | Torque adjustment tool Black colour ring |
| 600 | 1/4" | 9.6 V / 1.8 Ah | R/L | 1.2 | 0.7 s repeat protection | |
| 150 | 1/4" | 9.6 V * | R/L | 0.8 | 0.7 s repeat protection | Torque adjustment tool White colour ring |
| 650 | 1/4" | 12 V * | R/L | 0.9 | 0.7 s repeat protection | Torque adjustment tool Orange colour ring |
| 350 | 1/4" | 9.6 V * | R/L | 0.8 | 0.7 s repeat protection | Torque adjustment tool Light blue colour ring |
| 400 | 1/4" | 12 V * | R/L | 0.9 | 0.7 s repeat protection | Torque adjustment tool Red colour ring |
| 400 | 1/4" | 12 V / 2.4 Ah | R/L | 1.6 | 0.7 s repeat protection | |
| 60 | 1/4" | 9.6 V * | R/L | 0.8 | 0.7 s repeat protection | Torque adjustment tool White colour ring |
| 700 | 1/4" | 12 V * | R/L | 0.9 | 0.7 s repeat protection | Torque adjustment tool Orange colour ring |
| 1,100 | 1/4" | 9.6 V * | R/L | 0.8 | 0.7 s repeat protection | Torque adjustment tool Grey colour ring |

* Battery not included
in scope of delivery

ANGLE EXACT

Cordless angle wrenches

- ▶ Precision shut-off clutch with $C_{mk} > 1.67$
- ▶ Low weight
- ▶ Large torque range
- ▶ Repeat protection
- ▶ Visual and audible signals for the battery status as with centre grip
- ▶ Visual and audible signals for the shut-off signal as with centre grip
- ▶ Bright LED light for illuminating the work area
- ▶ All models with right-hand/left-hand rotation change function on the switch
- ▶ Modular design with many common parts
- ▶ Colour marking rings for easy identification
- ▶ Protective caps available for angle heads
- ▶ Use of the same batteries/chargers as for models with centre grip
- ▶ All models with suspension hook
- ▶ Tool weight with angle head and battery is 1.6 kg

|  | Part number | Torque, hard as per ISO 5393 (Nm) | Torque, soft as per ISO 5393 (Nm) |
|--|---------------|-----------------------------------|-----------------------------------|
| ANGLE EXACT 2 Low torques and low speed: suitable for titanium screws  | 0 602 490 647 | 0.7 – 2 | 0.7 – 2 |
| ANGLE EXACT 3 Very precise in the lower torque range  | 0 602 490 656 | 0.7 – 3 | 0.7 – 3 |
| ANGLE EXACT 6 High speed  | 0 602 490 652 | 1.5 – 6 | 1.5 – 6 |
| ANGLE EXACT 7 Very low speed: suitable for titanium screws  | 0 602 490 669 | 2 – 7 | 2 – 7 |
| ANGLE EXACT 8 Combination of speed and torque  | 0 602 490 638 | 2 – 9 | 2 – 8 |
| | 0 602 490 651 | 2 – 9 | 2 – 8 |
| ANGLE EXACT 15 High torque and very low weight  | 0 602 490 635 | 2 – 15 | 2 – 15 |
| | 0 602 490 636 | 2 – 15 | 2 – 15 |
| | 0 602 490 650 | 2 – 15 | 2 – 15 |




| No-load speed (rpm) | Angle head | Battery specifications (V) | Direction of rotation | Weight as per EPTA (kg) | Features and functions | Included accessories |
|---------------------|-------------|----------------------------|-----------------------|-------------------------|-------------------------|--|
| 110 | – | 9.6 V * | R/L | 1.0 | 0.7 s repeat protection | Torque adjustment tool Open-ended spanner Suspension hook Light green colour ring |
| 420 | – | 9.6 V * | R/L | 1.0 | 0.7 s repeat protection | Torque adjustment tool Open-ended spanner Suspension hook Light green colour ring |
| 650 | – | 9.6 V * | R/L | 1.0 | 0.7 s repeat protection | Torque adjustment tool Open-ended spanner Suspension hook Black colour ring |
| 110 | – | 9.6 V * | R/L | 1.0 | 0.7 s repeat protection | Torque adjustment tool Open-ended spanner Suspension hook Orange colour ring |
| 420 | 3/8" square | 9.6 V / 1.8 Ah | R/L | 1.6 | 0.7 s repeat protection | Torque adjustment tool Open-ended spanner Suspension hook Orange colour ring |
| 420 | – | 9.6 V * | R/L | 1.0 | | |
| 250 | 3/8" square | 9.6 V * | R/L | 1.2 | 0.7 s repeat protection | Torque adjustment tool Open-ended spanner Suspension hook Red colour ring |
| 250 | 3/8" square | 9.6 V / 1.8 Ah | R/L | 1.6 | | |
| 250 | – | 9.6 V * | R/L | 1.0 | | |

* Battery not included
in scope of delivery

ANGLE EXACT and ANGLE EXACT CF

Cordless angle wrenches




- See page 38 for features
- Tool weight with angle head and battery is 2.6 kg

| ANGLE EXACT! | Part number | Torque, hard as per ISO 5393 (Nm) | Torque, soft as per ISO 5393 (Nm) |
|--|---------------|-----------------------------------|-----------------------------------|
| ANGLE EXACT 17 High speed  | 0 602 490 675 | 6 – 17 | 6 – 13 |
| ANGLE EXACT 23 Good combination of torque and speed  | 0 602 490 673 | 7 – 23 | 7 – 20 |
| ANGLE EXACT 30 High torque  | 0 602 490 671 | 8 – 30 | 8 – 28 |
| | 0 602 490 672 | 8 – 30 | 8 – 28 |

The ANGLE EXACT CF models are suitable for tube nut or crowfoot heads due to their speed and torque limitation in left-hand rotation.

This special technology prevents damage to the screwdriving head.

The screwdriving heads are not manufactured by Bosch.

| ANGLE EXACT! | Part number | Torque, hard as per ISO 5393 (Nm) | Torque, soft as per ISO 5393 (Nm) |
|---|---------------|-----------------------------------|-----------------------------------|
| ANGLE EXACT 14 CF Low weight and the highest performance  | 0 602 490 690 | 1.4 – 10 (without head) | 1.4 – 10 (without head) |
| ANGLE EXACT 22 CF Good combination of torque and speed  | 0 602 490 693 | 5 – 16 (without head) | 5 – 14.3 (without head) |
| ANGLE EXACT 29 CF High torque  | 0 602 490 691 | 5.7 – 21 (without head) | 5.7 – 20 (without head) |

| No-load speed (rpm) | Angle head | Battery specifications (V) | Direction of rotation | Weight as per EPTA (kg) | Features and functions | Included accessories |
|---------------------|---|----------------------------|-----------------------|-------------------------|-------------------------|---|
| 560 | Flange for angle head (angle head not included) | 14.4 V * | R/L | 1.5 | 0.7 s repeat protection | Torque adjustment tool Open-ended spanner Suspension hook White colour ring |
| 320 | Flange for angle head (angle head not included) | 14.4 V * | R/L | 1.5 | 0.7 s repeat protection | Torque adjustment tool Open-ended spanner Suspension hook Orange colour ring |
| 220 | requires HD angle head | 14.4 V * | R/L | 1.5 | 0.7 s repeat protection | Torque adjustment tool Open-ended spanner Suspension hook Red colour ring |
| 220 | requires HD angle head | 14.4 V / 2.4 Ah | R/L | 2.4 | 0.7 s repeat protection | |

* Battery not included in scope of delivery

| No-load speed (rpm) | Angle head | Battery specifications (V) | Direction of rotation | Weight as per EPTA (kg) | Features and functions | Included accessories |
|---------------------|------------------------------------|----------------------------|-----------------------|-------------------------|--|---|
| 350 (without head) | Custom head, not supplied by Bosch | 9.6 V * | R/L | 1.0 | 0.7 s repeat protection Same specifications as ANGLE EXACT 15 in right-hand rotation, reduced performance in left-hand rotation | Torque adjustment tool Open-ended spanner Suspension hook Red colour ring |
| 440 (without head) | Custom head, not supplied by Bosch | 14.4 V * | R/L | 1.5 | 0.7 s repeat protection Same specifications as ANGLE EXACT 23 in right-hand rotation, reduced performance in left-hand rotation | Torque adjustment tool Open-ended spanner Suspension hook Orange colour ring |
| 300 (without head) | Custom head, not supplied by Bosch | 14.4 V * | R/L | 1.5 | 0.7 s repeat protection Same specifications as ANGLE EXACT 30 in right-hand rotation, reduced performance in left-hand rotation | Torque adjustment tool Open-ended spanner Suspension hook Red colour ring |

* Battery not included in scope of delivery

5

BT-EXACT

Bluetooth cordless screwdrivers



Who says there are no screws loose here?

The Bluetooth EXACT cordless screwdriver system thinks for itself. The BT-EXACT screwdrivers take their commands from the EXAConnect controller, which stores the work progress in real time. The system can talk to and take commands from external devices like a PLC, barcode scanner or host network if desired. Improve your assembly process and never forget to drive a screw again.



Higher production quality due to Bluetooth EXACT

Quality control with cordless screwdrivers: Higher production quality due to Bluetooth EXACT

The BT-EXACT screwdriver sends radio signals (screw joint OK or not OK) to the EXAConnect controller, which also sends commands back to the BT-EXACT screwdriver. An EXAConnect can control seven screwdrivers simultaneously, making the system very cost-effective. A class 2 Bluetooth module ensures uncompromising data transfer with a 56-Bit encryption and security mode 3 in accordance with Bluetooth Standard 1.2. Screwdrivers and controllers use proprietary communication only. The software can be configured to prevent Bluetooth from disturbing other wireless systems to ensure interference-free communication. An adjustable antenna power output function allows the system to limit its electromagnetic emissions to virtually zero.

Barcode scanners, PLCs, stack lights and host network systems can be easily connected to the EXAConnect via the built-in I/O ports, RS 422 interfaces and the network connection. The system can also run as a stand-alone without additional hardware. The screwdriver is prevented from operating outside of the range of the EXAConnect.

The system is unique compared to other products; it does not require additional software to communicate with a network or computer. All information in the

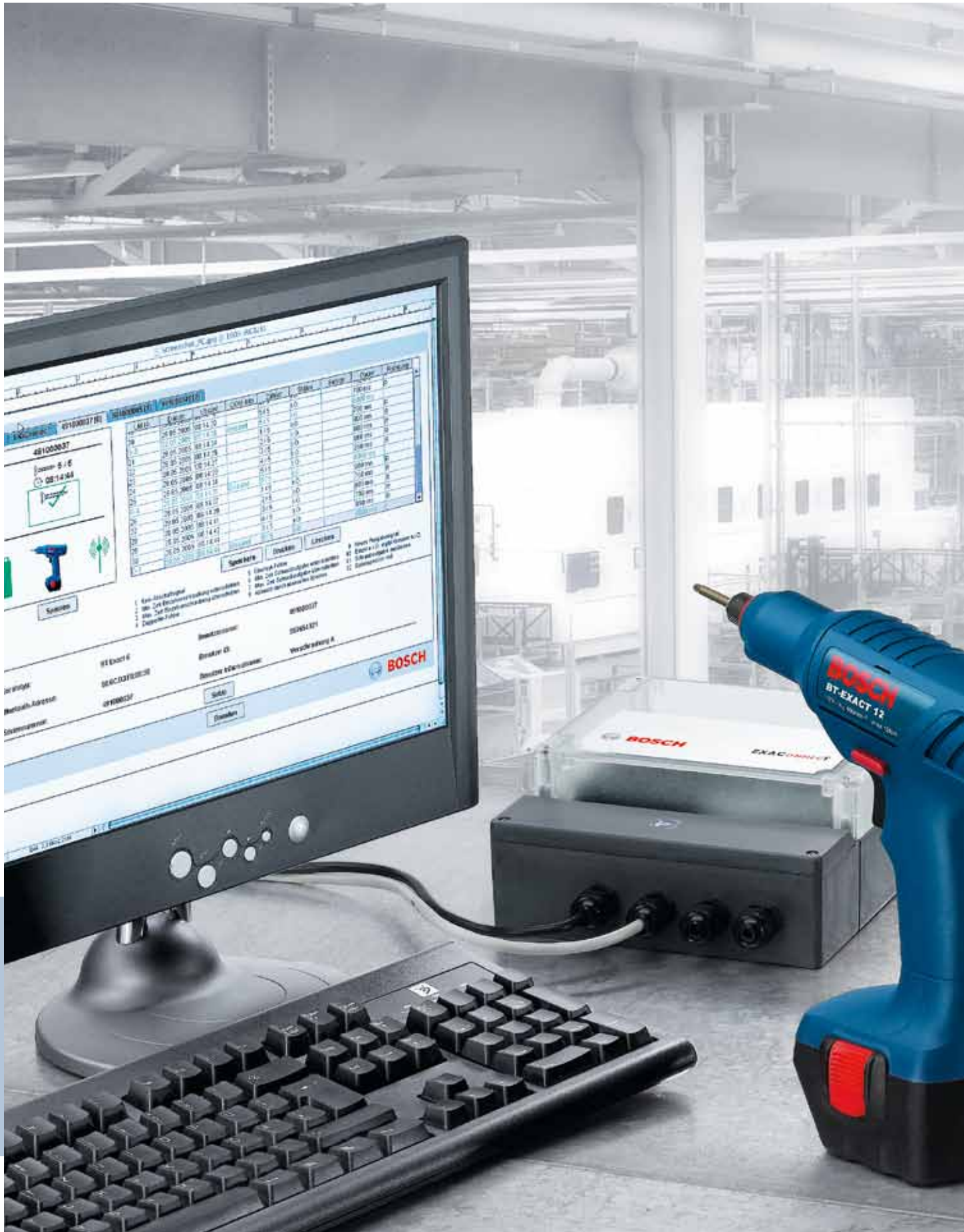
EXAConnect controller is accessed by using a web browser. All software and firmware is stored within the EXAConnect controller.

The Bosch Bluetooth system: Quality control redefined

The EXAConnect can control a BT-EXACT screwdriver by workpiece, screw and number of screwdriving applications. The OK/NOK monitoring can be enhanced if desired using runtime and other parameters to accurately determine cross-threading of screws or missing screws, and it can detect the direction of rotation to detect screw removal.

The system can be programmed to count and report only individual screwdriving applications or the entire screwdriving task. Three LED lights on the BT-EXACT screwdriver tell the worker the battery status and show whether the screw was properly tightened and whether the tool is locked, unlocked or out of range of the EXAConnect. The system collects and reports all this data to ensure that your assembly process always runs perfectly.





Seven screwdrivers at a single glance: Powerful system software

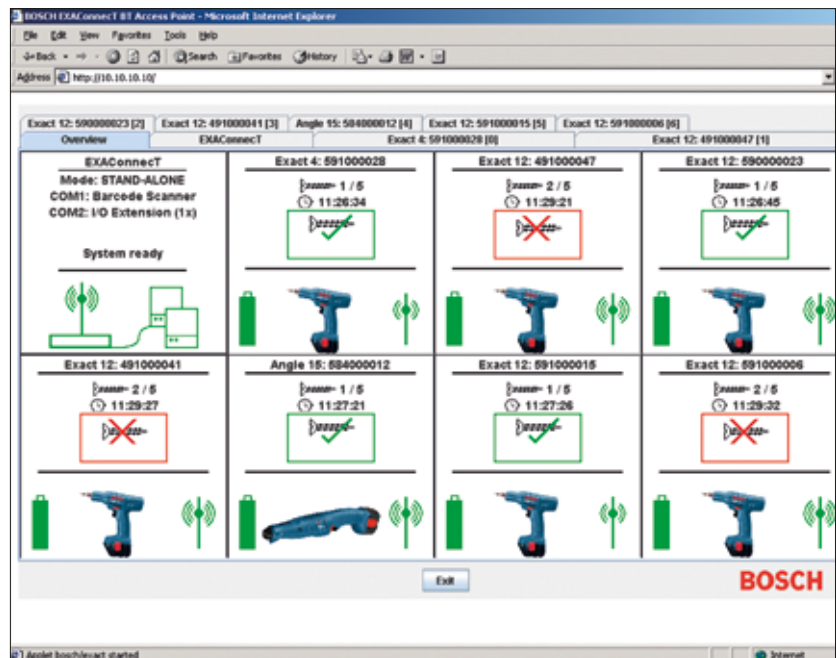
Quality control should be easy, not complicated. Our software combines powerful control, great flexibility and easy-to-use programming to give you the capability to control the BT-EXACT screwdrivers, the EXAConnect controller and your assembly line from anywhere.

The system runs in a web browser without the need for additional user interface software. It is password protected to ensure data security of the system.

Clicking on the "Overview" tab lets you view and control up to seven BT-EXACT screwdrivers running on one EXAConnect controller.

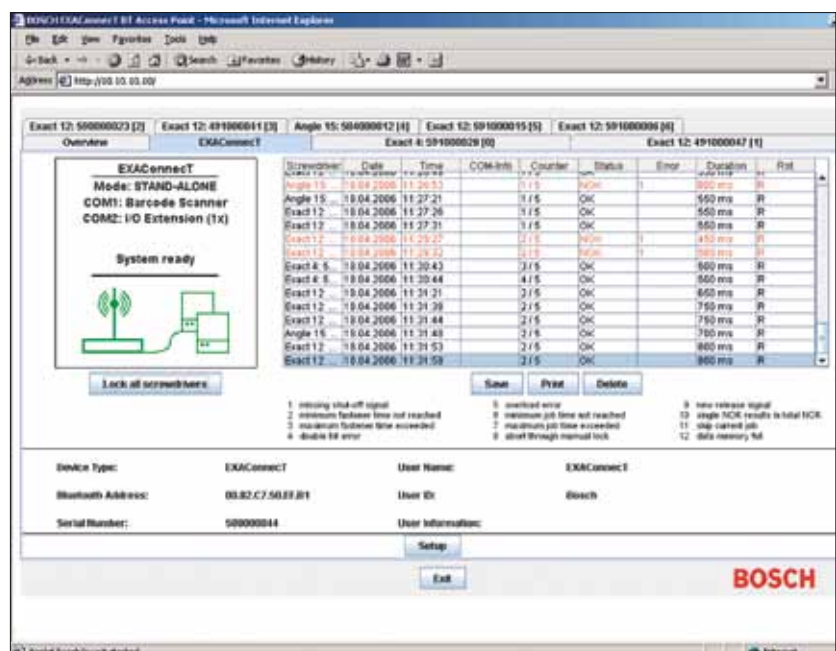
Each BT-EXACT screwdriver displays antenna signal strength, battery status, work progress and joint condition (OK/NOK shown in green or red).

The serial number and name of each BT-EXACT screwdriver are also displayed. The name of each BT-EXACT screwdriver can be customised for specific applications or locations within the assembly process.



Clicking on the 'EXAConnect' tab shows the detailed data for up to seven BT-EXACT screwdrivers in real time. The system can display extensive data such as BT-EXACT screwdriver name, date, time of event, screw runtime, direction of rotation, error messages, work progress and additional input data (such as barcode scans or sequence numbers).

The system also displays the status of the EXAConnect controller and lists the BT-EXACT screwdrivers that are connected. System error messages are displayed here, along with detailed information about the configuration.

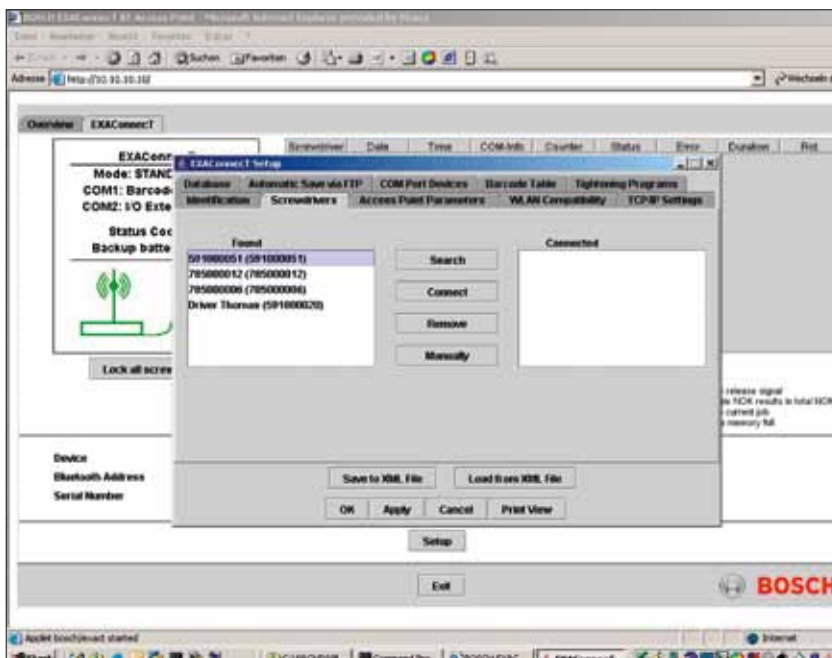


Fine tuning for seven precision instruments:

A symphony of data control

Configuration of the system is easy. All functions of the EXAConnect controller are programmed from only one user-friendly configuration screen. Standard protocols including Profibus, Ethernet TCP/IP, DeviceNet and FTP, serial interfaces, stack lights and RS 422 ports are managed from there. Each individual BT-EXACT screwdriver can be programmed to send data to differ-

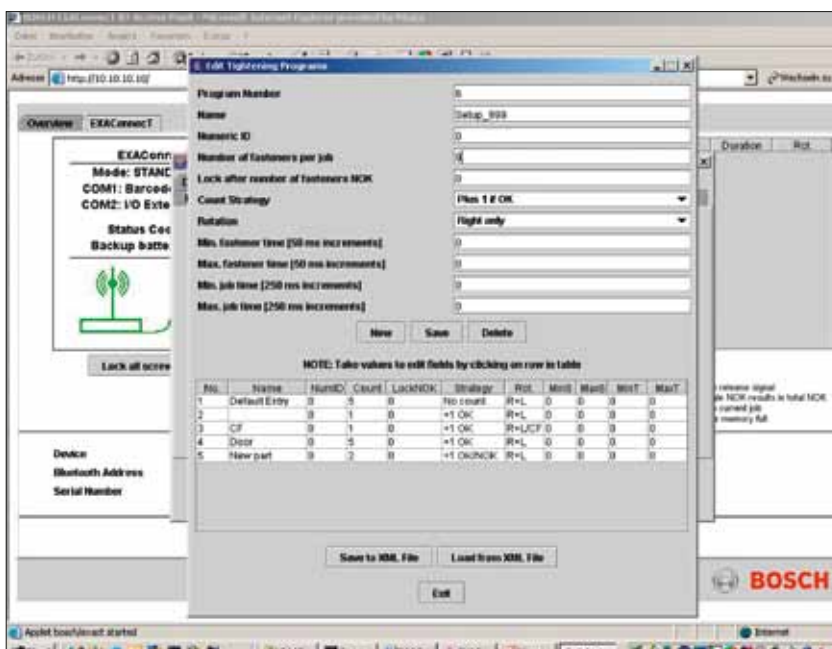
ent outputs simultaneously. Each BT-EXACT screwdriver can accept data from a variety of inputs. All this capability is managed by only one setup screen for each BT-EXACT screwdriver.



The system has separate configuration windows for the EXAConnect controller and the BT-EXACT screwdrivers. The configuration screen shows part of the EXAConnect configuration menu. The system can be password protected to prevent unauthorised use.

Each BT-EXACT screwdriver must be “found” and “connected” by the controller only one time; it will remain “connected” until removed by reprogramming.

Our unique system software can be configured to effectively stop the system from interfering with specific Wi-Fi channels.



The screwdriver configuration menu on the left controls everything from screw count to rework strategy to data output choices. The BT-EXACT screwdriver and the EXAConnect controller can be configured to send and receive data from a variety of systems, including a host ethernet system, PLC systems, barcode scanners or our digital I/O module.

The system can also monitor screw runtime to accurately determine cross-threading or missing screws.

Rework strategies to evaluate the assembly process can be defined in detail, including customer-specific programming that is created by Bosch.

EXAConnect – the controller

The core of the quality control system

The EXAConnect Bluetooth controller packs a lot of firepower in a small, easy to install package. The enclosure is IP54 (NEMA 12) rated for dust and moisture resistance.

The controller has its own processor, flash memory and operating system, so it can run as a stand-alone unit or connect to a variety of controls.

Various status LEDs and a two-digit display that can be seen through the clear cover alert you of connection status or system notifications.



The EXAConnect controller forms the link between your process control network and the Bluetooth-connected BT-EXACT cordless screwdriver. Information about the screwdriving process can be exchanged bi-directionally in real time to ensure that each BT-EXACT cordless screwdriver knows exactly what it has to do and when to do it. One EXAConnect controller can run seven BT-EXACT screwdrivers simultaneously, making it very cost-effective compared to other systems.

The EXAConnect controller can output data from up to seven BT-EXACT screwdrivers via the Ethernet connection (up to four BT-EXACT screwdrivers to a PLC via the 24-volt inputs and outputs). When controlling seven BT-EXACT screwdrivers via a PLC, an additional digital I/O module is required. Refer to page 49 for details.

A wide-range power supply ensures the system works anywhere in the world without the need for additional power transformers. An internal backup memory and real-time clock ensure that critical data is always saved, even in the event of a power loss.

| | Part number | Voltage supply | 24-V power supply (output) | Standard interfaces |
|--|---------------|-----------------------|----------------------------|--|
| EXAConnect Bluetooth screwdriver controller | 0 602 491 003 | 100 – 240 V, 50/60 Hz | max. 4.8 W | Ethernet (TCP/IP) 1 x RS-232 2 x RS-422 4 x 24-V inputs 4 x 24-V outputs |

Software requirements:

Operating system: Microsoft Windows XP, Windows 7

Browser: Internet Explorer, Netscape Navigator, Mozilla Firefox

Required plugin (freeware): Java Runtime Environment 1.4.2 or higher

Digital I/O module

Expansion module for up to 7 BT-EXACT screwdrivers

The digital I/O module is used with the EXAConnect controller. It allows 24-volt signals from up to seven BT-EXACT screwdrivers to be sent to a PLC. The module is IP54 (NEMA 12) rated for dust and moisture resistance.



The digital I/O module takes its power from the EXAConnect controller and receives its screwdriving data from the controller's RS 422 interface. The module has 16 inputs and outputs for exchanging data with a PLC. Configuration is done via the EXAConnect software (in a web browser).

The EXAConnect controller is capable of supporting up to four BT-EXACT screwdrivers (via a PLC) with limited data transmission. The digital I/O module is needed when 2 to 7 BT-EXACT screwdrivers have to communicate detailed information with a PLC.








The I/O module is not required when using an ethernet connection to a host network. There are different possible PLC configurations for any given situation. Contact your distributor for details.

| | Part number | Power input | Standard interfaces |
|------------------------------|---------------|-------------|--|
| Bluetooth digital I/O module | 0 602 491 004 | 24 V | Ethernet (TCP/IP) 2 x RS-422 16 x 24-V inputs 16 x 24-V outputs |

BT-EXACT

Cordless centre grip screwdrivers

- ▶ Precision shut-off clutch with $C_{mk} > 1.67$
- ▶ Low weight
- ▶ Large torque range
- ▶ Repeat protection
- ▶ A visual and audible signal informs the worker about the battery status
- ▶ Visual and audible signals inform the worker about the screwdriving result
- ▶ Bright LED light for illuminating the work area
- ▶ One-handed operation for right-hand/left-hand rotation change
- ▶ Modular design with many common parts
- ▶ Colour marking rings for easy identification
- ▶ Protective cap for quick-release chuck
- ▶ Tool holder
- ▶ Suspension hook available
- ▶ All models require the EXAConnect wireless controller

| EXACT | Part number | Torque, hard as per ISO 5393 (Nm) | Torque, soft as per ISO 5393 (Nm) |
|--|---------------|---|---|
| BT-EXACT 2 Bluetooth-capable  | 0 602 491 433 | 0.6 – 2 | 0.6 – 2 |
| BT-EXACT 4 Bluetooth-capable  | 0 602 491 437 | 1 – 4 | 1 – 4 |
| BT-EXACT 6 Bluetooth-capable  | 0 602 491 431 | 1 – 6 | 1 – 6 |
| BT-EXACT 7 Bluetooth-capable  | 0 602 491 439 | 1.5 – 7 | 1.5 – 7 |
| BT-EXACT 8 Bluetooth-capable  | 0 602 491 443 | 1.5 – 8 | 1.5 – 8 |
| BT-EXACT 9 Bluetooth-capable  | 0 602 491 435 | 1.5 – 9 | 1.5 – 9 |
| BT-EXACT 12 Bluetooth-capable  | 0 602 491 441 | 1.5 – 12 | 1.5 – 12 |

| No-load speed (rpm) | Bit holder | Battery specifications (V) | Direction of rotation | Weight as per EPTA (kg) | Features and functions | Included accessories |
|---------------------|------------|----------------------------|-----------------------|-------------------------|--------------------------|---|
| 600 | 1/4" | 9.6 V * | R/L | 0.8 | Class 2 Bluetooth module | Torque adjustment tool Light green colour ring |
| 900 | 1/4" | 9.6 V * | R/L | 0.8 | Class 2 Bluetooth module | Torque adjustment tool Grey colour ring |
| 600 | 1/4" | 9.6 V * | R/L | 0.8 | Class 2 Bluetooth module | Torque adjustment tool Black colour ring |
| 150 | 1/4" | 9.6 V * | R/L | 0.8 | Class 2 Bluetooth module | Torque adjustment tool White colour ring |
| 650 | 1/4" | 12 V * | R/L | 0.9 | Class 2 Bluetooth module | Torque adjustment tool Orange colour ring |
| 350 | 1/4" | 9.6 V * | R/L | 0.8 | Class 2 Bluetooth module | Torque adjustment tool Light blue colour ring |
| 400 | 1/4" | 12 V * | R/L | 0.9 | Class 2 Bluetooth module | Torque adjustment tool Red colour ring |

* Battery not included
in scope of delivery

BT-ANGLE EXACT

Cordless angle wrenches

- ▶ Precision shut-off clutch with $C_{mk} > 1.67$
- ▶ Low weight
- ▶ Large torque range
- ▶ Repeat protection
- ▶ Visual and audible signals for the charging state
- ▶ Visual and audible signals for the shut-off
- ▶ Bright LED light for illuminating the work area
- ▶ One-handed operation for right-hand/left-hand rotation change
- ▶ Modular design with many common parts
- ▶ Colour marking rings for easy identification
- ▶ Protective cap available for angle heads
- ▶ Angle heads and batteries are not included in scope of delivery
- ▶ Use of the same batteries/chargers as for models with centre grip
- ▶ Suspension hook available
- ▶ All Bluetooth models require the EXAConnect wireless controller
- ▶ Tool weight with angle head and battery is 1.6 kg (BT-ANGLE EXACT 17, 23, 30: 2.6 kg)

|  | Part number | Torque, hard as per ISO 5393 (Nm) | Torque, soft as per ISO 5393 (Nm) |
|--|---------------|---|---|
| BT-ANGLE EXACT 2 Bluetooth-capable  | 0 602 491 647 | 0.7 – 2 | 0.7 – 2 |
| BT-ANGLE EXACT 3 Bluetooth-capable  | 0 602 491 656 | 0.7 – 3 | 0.7 – 3 |
| BT-ANGLE EXACT 6 Bluetooth-capable  | 0 602 491 652 | 1.5 – 6 | 1.5 – 6 |
| BT-ANGLE EXACT 7 Bluetooth-capable  | 0 602 491 669 | 2 – 7 | 2 – 7 |
| BT-ANGLE EXACT 8 Bluetooth-capable  | 0 602 491 651 | 2 – 9 | 2 – 8 |
| BT-ANGLE EXACT 15 Bluetooth-capable  | 0 602 491 650 | 2 – 15 | 2 – 15 |
| BT-ANGLE EXACT 17 Bluetooth-capable  | 0 602 491 675 | 6 – 17 | 6 – 13 |
| BT-ANGLE EXACT 23 Bluetooth-capable  | 0 602 491 673 | 7 – 23 | 7 – 20 |
| BT-ANGLE EXACT 30 Bluetooth-capable  | 0 602 491 671 | 8 – 30 | 8 – 28 |

| No-load speed (rpm) | Angle head | Battery specifications (V) | Direction of rotation | Weight as per EPTA (kg) | Features and functions | Included accessories |
|---------------------|--|----------------------------|-----------------------|-------------------------|--------------------------|--|
| 110 | Flange for angle head * | 9.6 V ** | R/L | 1.0 | Class 2 Bluetooth module | Torque adjustment tool Open-ended spanner Suspension hook Light green colour ring |
| 420 | Flange for angle head * | 9.6 V ** | R/L | 1.0 | Class 2 Bluetooth module | Torque adjustment tool Open-ended spanner Suspension hook Light green colour ring |
| 650 | Flange for angle head * | 9.6 V ** | R/L | 1.0 | Class 2 Bluetooth module | Torque adjustment tool Open-ended spanner Suspension hook Black colour ring |
| 110 | Flange for angle head * | 9.6 V ** | R/L | 1.0 | Class 2 Bluetooth module | Torque adjustment tool Open-ended spanner Suspension hook Orange colour ring |
| 420 | Flange for angle head * | 9.6 V ** | R/L | 1.0 | Class 2 Bluetooth module | Torque adjustment tool Open-ended spanner Suspension hook Orange colour ring |
| 250 | Flange for angle head * | 9.6 V ** | R/L | 1.0 | Class 2 Bluetooth module | Torque adjustment tool Open-ended spanner Suspension hook Red colour ring |
| 560 | Flange for angle head * | 14.4 V ** | R/L | 1.5 | Class 2 Bluetooth module | Torque adjustment tool Open-ended spanner Suspension hook White colour ring |
| 320 | Flange for angle head * | 14.4 V ** | R/L | 1.5 | Class 2 Bluetooth module | Torque adjustment tool Open-ended spanner Suspension hook Orange colour ring |
| 220 | Requires HD angle head Flange for HD angle head (HD angle head not included) | 14.4 V ** | R/L | 1.5 | Class 2 Bluetooth module | Torque adjustment tool Open-ended spanner Suspension hook Red colour ring |

* Angle head not included in scope of delivery

** Battery not included in scope of delivery

6

Accessories EXACT original accessories



Function ensured: EXACT original accessories

The new Wireless Charging System, intelligent battery chargers, original BOSCH battery packs, 4-EXACT power supply unit, general accessories and dimensional drawings.



Bosch cordless technology

Maximum efficiency hard-wired



**Always
power ready**



**Bosch CoolPack for
up to 100% more
lifetime**



**100% compatibility
within the 18 volt range**

WORLD'S FIRST! Wireless Charging System

Greater user-friendliness and productivity:

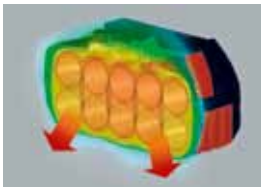
- ▶ Batteries can stay in the tool
- ▶ Charging takes place automatically when the tool is placed on the charger, so it requires no effort
- ▶ Flexible mounting frame on the charger allows for a wide range of ergonomic positions – easy to mount at the workplace



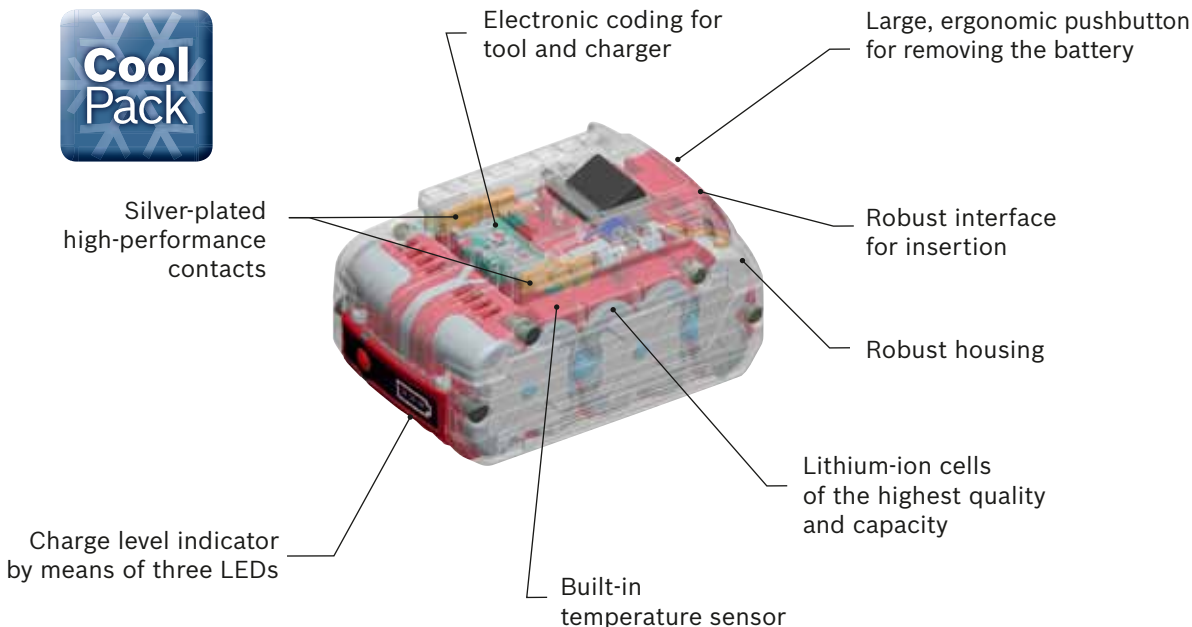
Bosch cordless technology

Maximum efficiency hard-wired

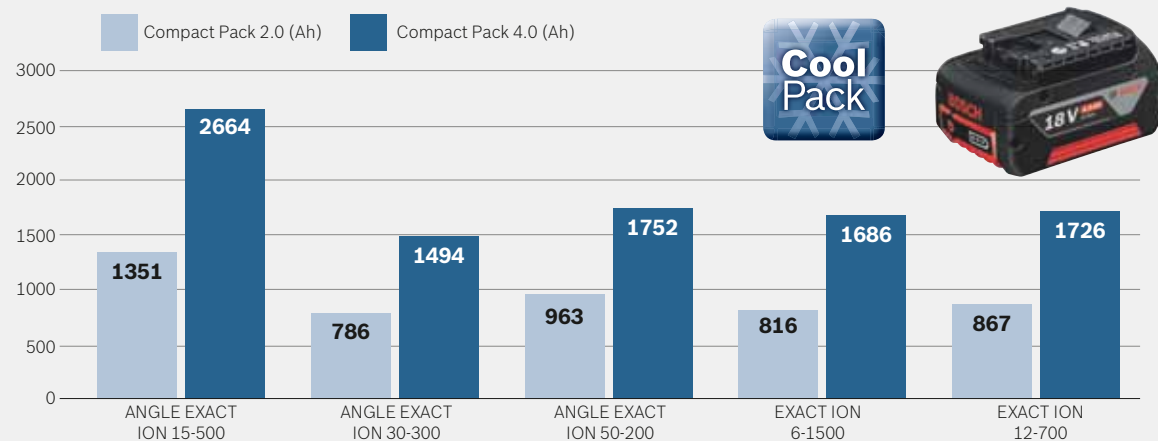
Exceptional runtime and lifetime thanks to CoolPack



Red **CoolPack** housing made of heat-conductive material for up to 100% more lifetime compared to a Bosch battery without **CoolPack**.
Bosch **CoolPack** ensures balanced warming and reduces heat build-up!



Number of screwdriving applications per battery charge




Results of endurance test 02/2013, at maximum torque and a medium-hard screwdriving application at 80° rotation angle, measured from a threshold torque of 50%, at screw size M8

Battery packs and chargers




for EXACT ION and ANGLE EXACT ION


Wireless Charging battery packs and chargers

| Lithium-ion | Part number | Description | Voltage (V) | Capacity (Ah) | Weight as per EPTA (kg) |
|---|---------------|---------------------|-------------|---------------|-------------------------|
| GBA 18 V 2,0 Ah MW-B Professional  | 0 602 494 021 | Pack of 5 batteries | 18 | 2.0 | 5 x 0.5 |

| Wireless Charging quick charger | Part number | Description | Voltage (V) | Weight as per EPTA (kg) |
|--|---------------|--------------------|-------------|-------------------------|
| GAL 1830 W + mounting frame 100% fully charges the Wireless Charging battery 18 V/2.0 Ah in 30 mins!  | 0 602 494 024 | Pack of 5 chargers | 230 | 5 x 0.55 |




Li-ion battery packs and chargers




| Lithium-ion | Part number | Description | Voltage (V) | Capacity (Ah) | Weight as per EPTA (kg) |
|---|---------------|----------------------|-------------|---------------|-------------------------|
| 18 V/2.0 Ah  | 0 602 494 002 | Pack of 12 batteries | 18 | 2.0 | 12 x 0.35 |
| 18 V/4.0 Ah  | 0 602 494 004 | Pack of 12 batteries | 18 | 4.0 | 12 x 0.6 |
| 18 V/5.0 Ah  | 0 602 494 003 | Pack of 12 batteries | 18 | 5.0 | 12 x 0.6 |


| Li-Ion quick charger | Part number | Description | Voltage (V) | Weight as per EPTA (kg) |
|---|---------------|--------------------|-------------|-------------------------|
| AL 1860 CV 100% fully charges the Bosch Li-Ion batteries 18 V/2.0 Ah in 30 mins, 18 V/4.0 Ah in 45 mins and 18 V/5.0 Ah in 65 mins!  | 0 602 494 006 | Pack of 8 chargers | 230 | 8 x 0.8 |

Battery packs and chargers

for EXACT, SEC-EXACT and BT-EXACT

| Nickel cadmium | Part number | Description | Voltage (V) | Capacity (Ah) | Weight as per EPTA (kg) |
|--|-------------|----------------------|-------------|---------------|-------------------------|
| 9.6 V batteries  | 2607335877 | Battery pack | 9.6 | 1.8 | 0.4 |
| | 0602490022 | Pack of 10 batteries | 9.6 | 1.8 | 4 |
| | 2607335659 | Battery pack | 9.6 | 2.4 | 0.5 |
| | 0602490009 | Pack of 10 batteries | 9.6 | 2.4 | 5 |
| 12 V batteries  | 2607335879 | Battery pack | 12 | 1.8 | 0.6 |
| | 0602490023 | Pack of 10 batteries | 12 | 1.8 | 6 |
| | 2607335375 | Battery pack | 12 | 2.4 | 0.7 |
| | 0602490004 | Pack of 10 batteries | 12 | 2.4 | 7 |
| 14.4 V batteries  | 2607335881 | Battery pack | 14.4 | 1.8 | 0.7 |
| | 0602490024 | Pack of 10 batteries | 14.4 | 1.8 | 7 |
| | 2607335655 | Battery pack | 14.4 | 2.4 | 0.8 |
| | 0602490007 | Pack of 10 batteries | 14.4 | 2.4 | 8 |

| Nickel metal hydride | Part number | Description | Voltage (V) | Capacity (Ah) | Weight as per EPTA (kg) |
|--|-------------|----------------------|-------------|---------------|-------------------------|
| 9.6 V batteries  | 2607335681 | Battery pack | 9.6 | 2.6 | 0.55 |
| | 0602490025 | Pack of 10 batteries | 9.6 | 2.6 | 5.5 |
| 12 V batteries  | 2607335683 | Battery pack | 12 | 2.6 | 0.7 |
| | 0602490026 | Pack of 10 batteries | 12 | 2.6 | 7 |
| 14.4 V batteries  | 2607335685 | Battery pack | 14.4 | 2.6 | 0.8 |
| | 0602490027 | Pack of 10 batteries | 14.4 | 2.6 | 8 |

| Quick charger | Part number | Voltage (V) | Weight as per EPTA (kg) |
|---|-------------------------|-------------|-------------------------|
| AL 2450 DV Multivolt charger. Charges all Bosch NTC battery packs from 7.2 to 14.4 volts with APT insertion end.  | 2 607 225 027 | 230 | 1.0 |
| | 2 607 225 029 (UK Plug) | | |

The 4-EXACT power supply – constant power for work stations

Constant power supply for the EXACT and ANGLE EXACT tools.

Cannot be used for SEC-EXACT and SEC-ANGLE EXACT tools.

Cannot be used for EXACT ION and ANGLE EXACT ION tools.

The 4-EXACT power supply unit is designed to be a constant voltage source for all screwdrivers in the EXACT and ANGLE EXACT series. The 4-EXACT is ideal for assembly situations in which the mobility of cordless tools is not necessary (or not wanted). It uses an “empty” battery housing as an adapter for a 5 metre long cable that is plugged directly into the tool.

- ▶ Automatically detects the correct voltage for the screwdriver connected
- ▶ Limits worker movement to 5 metres
- ▶ Power supply weight is 13.6 kg

Now you can use the same screwdrivers for mobile and stationary applications and simultaneously reduce your maintenance and spare parts costs. The system can also be used in conjunction with our Bluetooth EXACT screwdrivers.

| | Part number |
|--|---------------|
| Bosch 4-EXACT power supply 230 V  | 0 602 490 507 |










| | Part number |
|---|---------------|
| Adapter cable 9.6 V  | 0 602 490 503 |
| Adapter cable 12 V  | 0 602 490 504 |
| Adapter cable 14.4 V  | 0 602 490 505 |

A 5 metre long cable connects any EXACT or ANGLE EXACT screwdriver to the power supply. The cable and adapter allow for easy conversion of a cordless tool to an “electric screwdriver”.



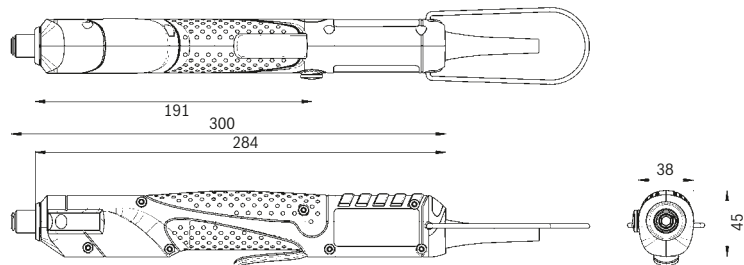
C-EXACT and PUC-EXACT

Accessories and dimensional drawings

| Accessories | | Part number | Quantity |
|---|--|---------------|----------|
| Protective cap For all 1/4" quick-release chucks Prevents damage to the workpiece |  | 3 605 500 210 | 5 |
| Colour rings For quick identification of the torque range Suitable for all C-EXACT straight screwdrivers and all EXACT cordless screwdrivers with centre grip |  black | 3 600 106 010 | 5 |
| |  red | 3 600 106 011 | 5 |
| |  light blue | 3 600 106 012 | 5 |
| |  light green | 3 600 106 013 | 5 |
| |  orange | 3 600 106 014 | 5 |
| |  grey | 3 600 106 017 | 5 |
| |  white | 3 600 106 019 | 5 |
| |  mixed (1 of each: black, red, blue, green, orange) | 3 600 106 015 | 5 |

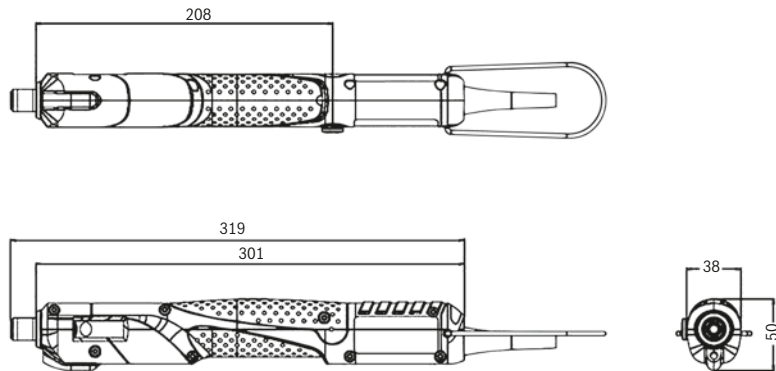
C-EXACT lever start

Dimensions in mm



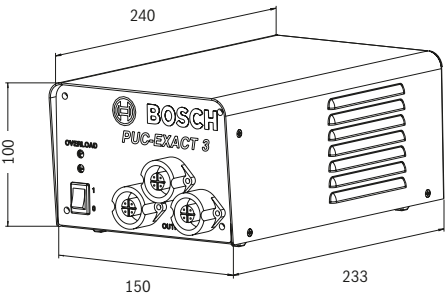
C-EXACT push start

Dimensions in mm

















PUC-EXACT 3

Dimensions in mm

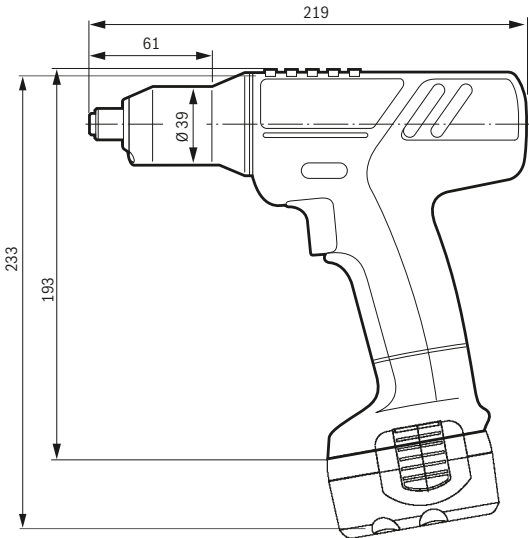


EXACT and SEC-EXACT

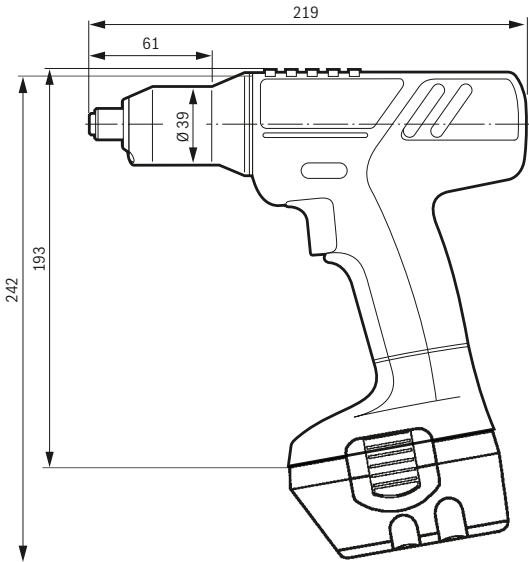
Accessories and dimensional drawings

| Accessories | | Part number | Quantity |
|--|--|---------------|----------|
| Protective cap For all 1/4" quick-release chucks Prevents damage to the workpiece |  | 3 605 500 210 | 5 |
| Colour rings For quick identification of the torque range Suitable for all C-EXACT straight screwdrivers and all EXACT cordless screwdrivers with centre grip |  black | 3 600 106 010 | 5 |
| |  red | 3 600 106 011 | 5 |
| |  light blue | 3 600 106 012 | 5 |
| |  light green | 3 600 106 013 | 5 |
| |  orange | 3 600 106 014 | 5 |
| |  grey | 3 600 106 017 | 5 |
| |  white | 3 600 106 019 | 5 |
| |  mixed (1 of each: black, red, blue, green, orange) | 3 600 106 015 | 5 |
| Tool holder (for all tools with centre grip) |  | 0 602 490 001 | 10 |
| Protectors Prevent damage to the workpiece Suitable for all EXACT cordless screwdrivers with centre grip Will not block motor air vents Available only as a pack of 10 |  transparent | 0 602 490 011 | 10 |
| |  red | 0 602 490 012 | 10 |
| |  blue | 0 602 490 013 | 10 |
| |  green | 0 602 490 014 | 10 |

All 9.6 volt EXACT, BT-EXACT and SEC-EXACT models
Dimensions in mm




All 12 volt EXACT and BT-EXACT models
Dimensions in mm



ANGLE EXACT and ANGLE EXACT CF

Accessories

| Accessories | | | Part number | Quantity |
|--|--|---|---------------|---------------|
| Colour rings For quick identification of the torque range Suitable for all ANGLE EXACT tools |  | black | 3 600 106 027 | 5 |
| |  | red | 3 600 106 028 | 5 |
| |  | light blue | 3 600 106 029 | 5 |
| |  | light green | 3 600 106 030 | 5 |
| |  | orange | 3 600 106 031 | 5 |
| |  | grey | 3 600 106 032 | 5 |
| |  | white | 3 600 106 033 | 5 |
| | Protectors Prevent damage to the workpiece Suitable for all ANGLE EXACT tools Will not block motor air vents Available only as a pack of 10 |  | transparent | 0 602 490 015 |
|  | | blue | 0 602 490 017 | 10 |
|  | | green | 0 602 490 018 | 10 |
|  | | red | 0 602 490 019 | 10 |

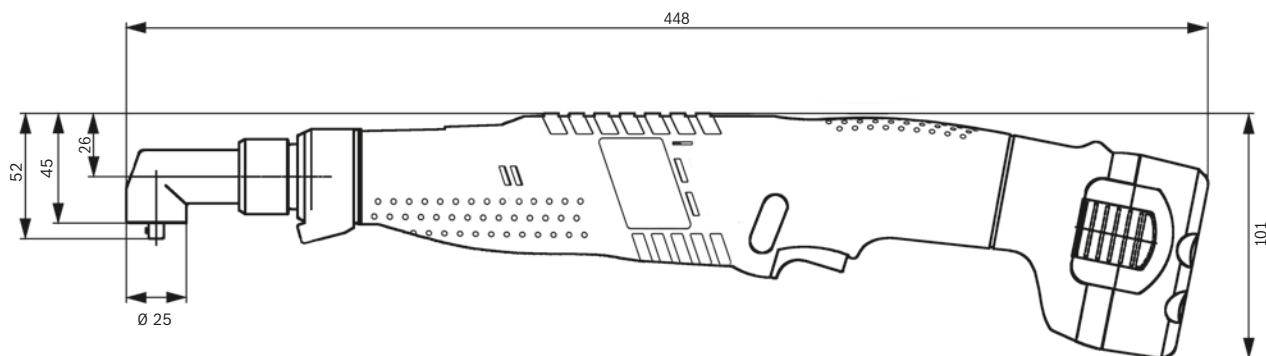
| | Part number | Max. torque (Nm) | Drive end | Weight (kg) | Quantity | |
|---|---|------------------------|-----------|-------------------|----------|---|
| Straight head  | 0 607 453 631 | 6 | 1/4" QRC | 0.2 | 1 | |
| Angle head For ANGLE EXACT 2, 3, 6, 7, 8, 15, 17, 23 7-900, 10-650, 14-420 Gear ratio 1.4:1 |  | 0 607 453 617 | 27 | 1/4" square | 0.2 | 1 |
| |  | 0 607 453 618 | 27 | 1/4" internal hex | 0.2 | 1 |
| |  | 0 607 453 620 | 27 | 3/8" square | 0.2 | 1 |
| |  | 0 607 453 630 | 27 | 1/4" QRC | 0.2 | 1 |
| HD angle head Required for ANGLE EXACT 30 (gear ratio 1.4:1) |  | 0 607 451 618 | 35 | 3/8" square | 0.22 | 1 |
| Protective cap For angle heads  | Suitable for 0 607 453 617, -618, -620, -630 | 3 605 500 171 | – | – | 1 | |
| | Suitable for 0 607 451 618 | 3 605 500 175 | – | – | 1 | |
| Protective cap Prevents damage to the workpiece Suitable for SEC-ANGLE EXACT 25-250, 30-380, 40-280, 50-210, 60-170 | | 3 609 202 A29 | – | – | 1 | |

ANGLE EXACT, - CF and BT-ANGLE EXACT

Dimensional drawings

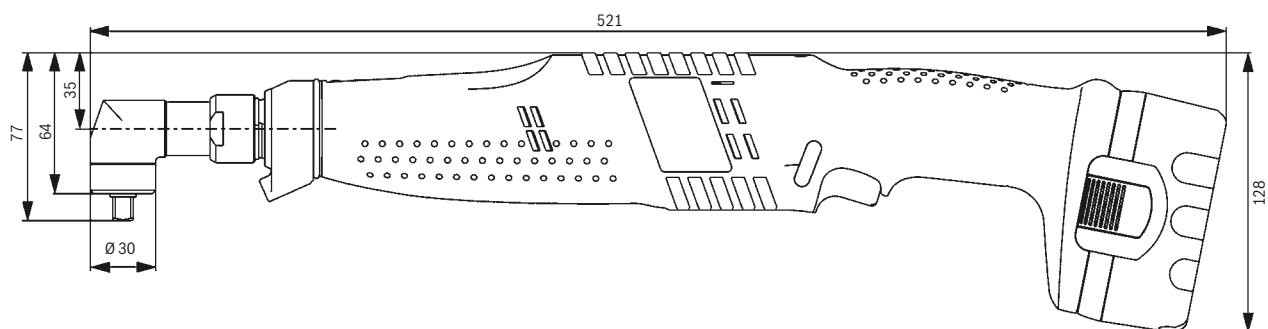
ANGLE EXACT models 2, 3, 6, 7, 8, 15, 14 CF

Dimensions in mm



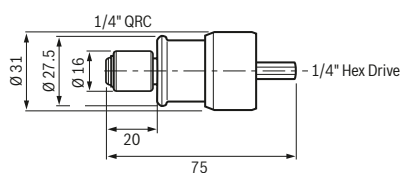
ANGLE EXACT models 17, 23, 30, 22 CF, 29 CF

Dimensions in mm



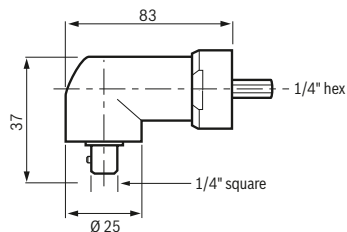
0 607 453 631

Dimensions in mm



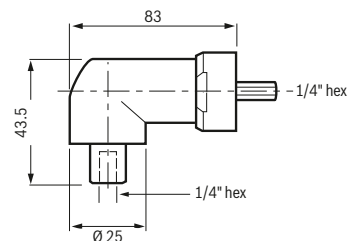
0 607 453 617

Dimensions in mm



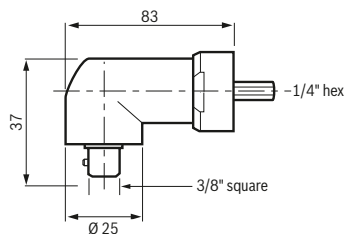
0 607 453 618

Dimensions in mm



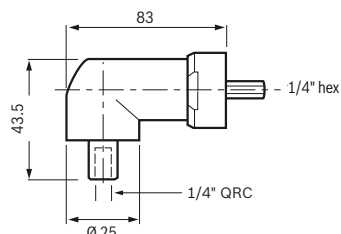
0 607 453 620

Dimensions in mm



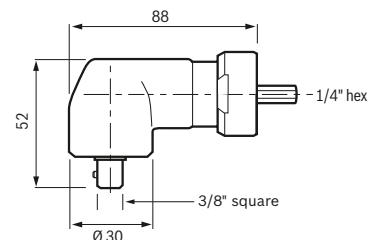
0 607 453 630

Dimensions in mm



0 607 451 618

Dimensions in mm

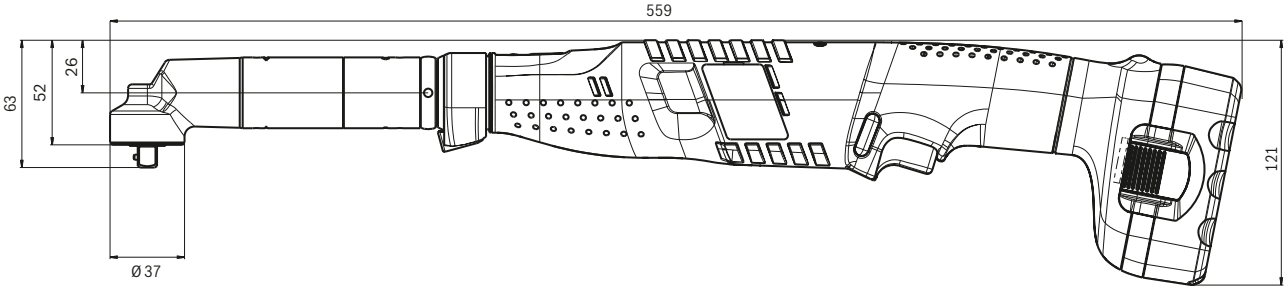


SEC-ANGLE EXACT

Dimensional drawings

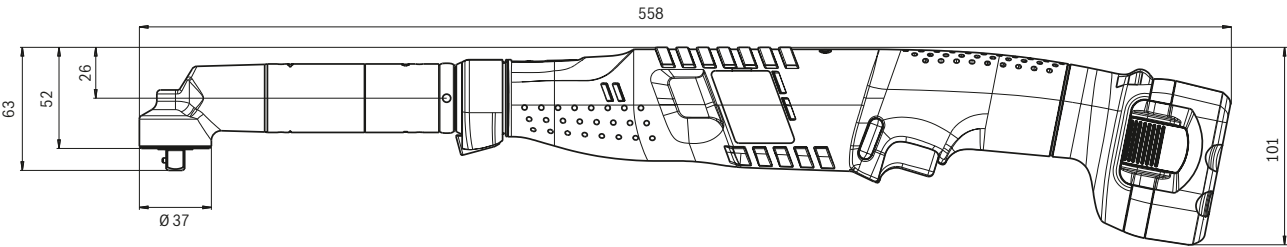
SEC-ANGLE EXACT models 60-170, 50-210, 40-280, 30-380

Dimensions in mm



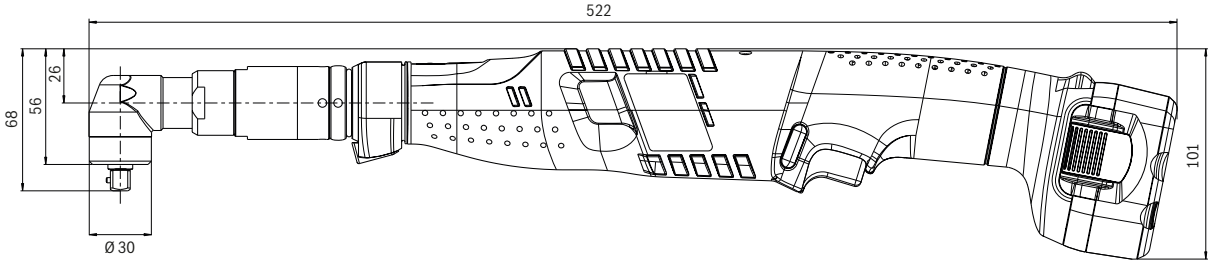
SEC-ANGLE EXACT model 25-250

Dimensions in mm



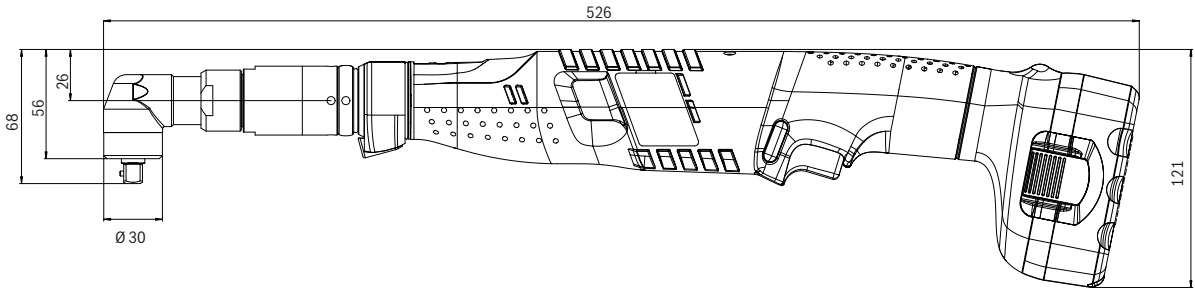
SEC-ANGLE EXACT model 25-200

Dimensions in mm



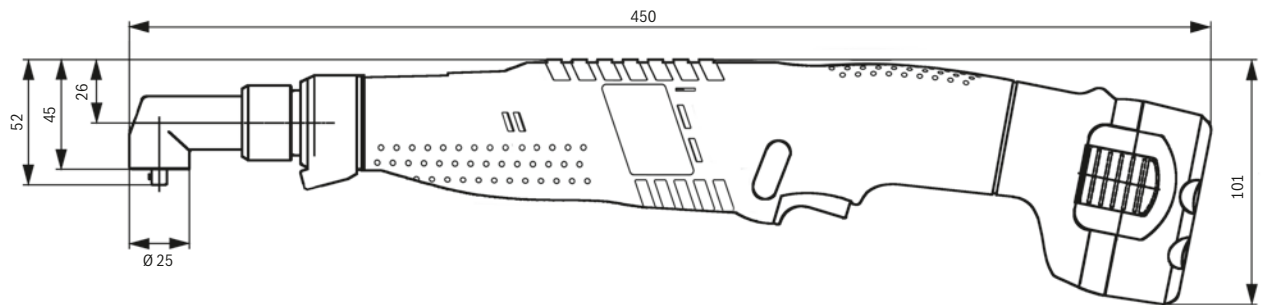
SEC-ANGLE EXACT model 30-300

Dimensions in mm
















SEC-ANGLE EXACT models 7-900, 10-650, 14-420













Dimensions in mm



EXACT ION and ANGLE EXACT ION

Accessories

| EXACT ION accessories | | | Part number | Quantity |
|---|---|---|---------------|---------------|
| Colour rings For quick identification of the torque range Suitable for all EXACT ION centre grip screwdrivers |  | black | 3 600 106 010 | 5 |
| |  | red | 3 600 106 011 | 5 |
| |  | light blue | 3 600 106 012 | 5 |
| |  | light green | 3 600 106 013 | 5 |
| |  | orange | 3 600 106 014 | 5 |
| |  | grey | 3 600 106 017 | 5 |
| |  | white | 3 600 106 019 | 5 |
| | Protectors Prevent damage to the workpiece Suitable for all EXACT ION centre grip screwdrivers Will not block motor air vents Available only as a pack of 10 |  | transparent | 0 602 494 016 |
|  | | red | 0 602 494 018 | 10 |
|  | | blue | 0 602 494 017 | 10 |
|  | | green | 0 602 494 019 | 10 |
| Battery pack protectors Prevent damage to the battery Will not block the CoolPack housing Suitable for 18 volt Li-Ion battery packs Available only as a pack of 10 |  | transparent – for the 2.0 Ah Compact battery pack | 0 602 494 014 | 10 |
| |  | transparent – for the 4.0 Ah Premium battery pack | 0 602 494 015 | 10 |

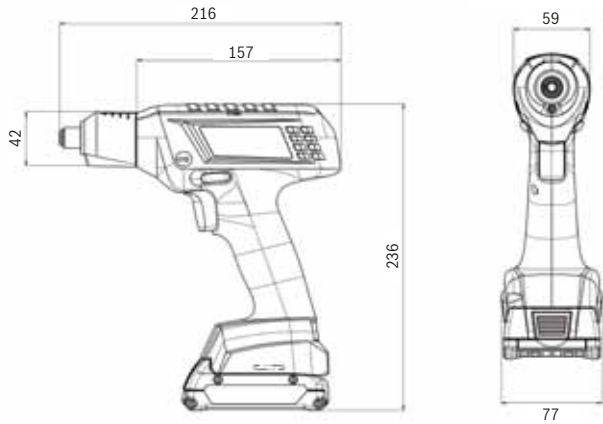
| ANGLE EXACT ION accessories | | | Part number | Quantity |
|---|---|---|---------------|---------------|
| Colour rings For quick identification of the torque range Suitable for all ANGLE EXACT ION centre grip screwdrivers |  | black | 3 600 106 027 | 5 |
| |  | red | 3 600 106 028 | 5 |
| |  | light blue | 3 600 106 029 | 5 |
| |  | light green | 3 600 106 030 | 5 |
| |  | orange | 3 600 106 031 | 5 |
| |  | grey | 3 600 106 032 | 5 |
| |  | white | 3 600 106 033 | 5 |
| | Protectors Prevent damage to the workpiece Suitable for all ANGLE EXACT ION centre grip screwdrivers Will not block motor air vents Available only as a pack of 10 |  | transparent | 0 602 494 010 |
|  | | red | 0 602 494 012 | 10 |
|  | | blue | 0 602 494 011 | 10 |
|  | | green | 0 602 494 013 | 10 |
| Battery pack protectors Prevent damage to the battery Will not block the CoolPack housing Suitable for 18 volt Li-Ion battery packs Available only as a pack of 10 |  | transparent – for the 2.0 Ah Compact battery pack | 0 602 494 014 | 10 |
| |  | transparent – for the 4.0 Ah Premium battery pack | 0 602 494 015 | 10 |

EXACT ION, -WK and ANGLE EXACT ION

Accessories and dimensional drawings

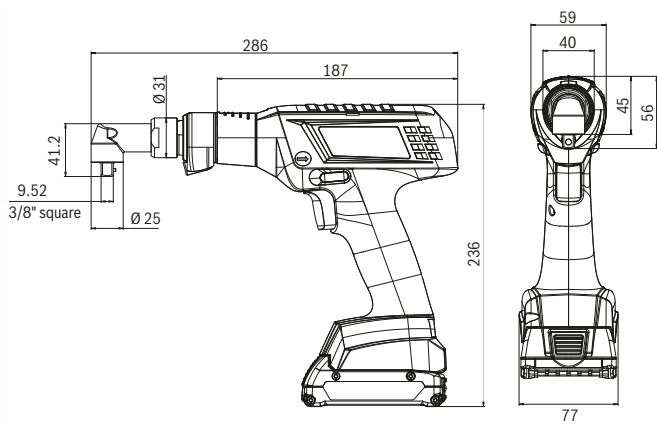
EXACT ION

Dimensions in mm



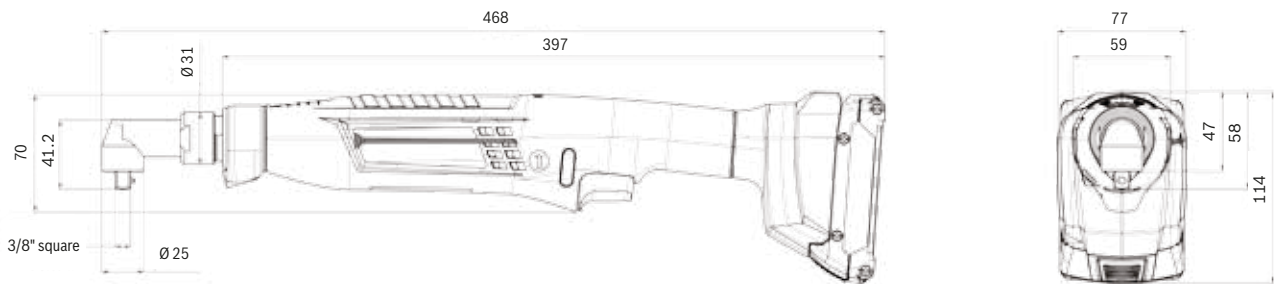
EXACT ION WK

Dimensions in mm



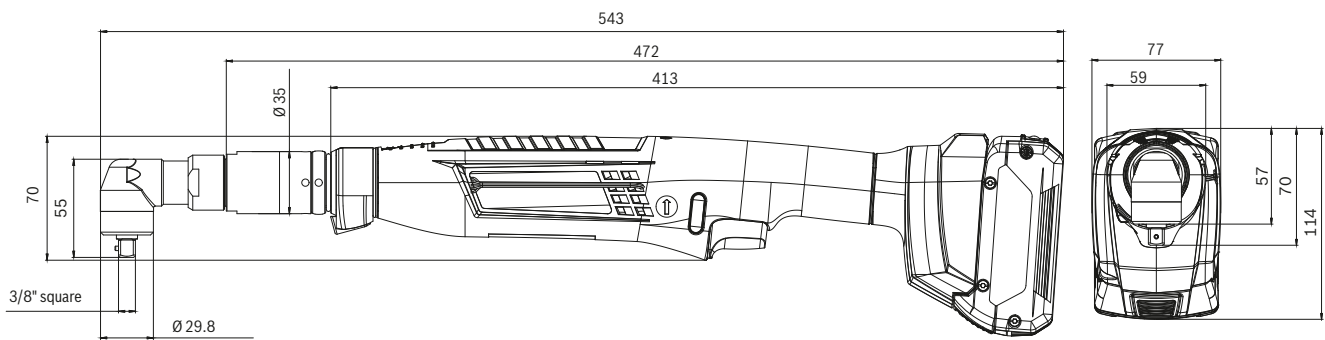
ANGLE EXACT ION model: 15-500 and 8-1100

Dimensions in mm



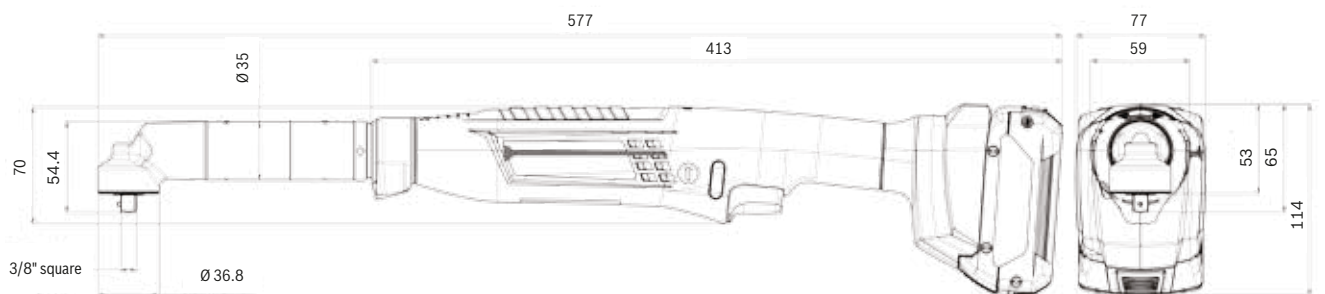
ANGLE EXACT ION model: 23-380 and 30-290

Dimensions in mm



ANGLE EXACT ION model: 30-300, 40-220, 50-210 and 60-120

Dimensions in mm



Bosch Service Quality



The Bosch CD-ROM service information system

provides information on Bosch power tools – including spare parts lists and exploded drawings and saves you time and money in spare parts management.



The Bosch online catalogue

offers everything that customers need to know about Bosch production tools. Furthermore, they can find out the latest news about trade-fair dates and innovations from the Bosch Production Tools Division.



The Bosch spare parts service

guarantees, in 99% of all cases, that the spare part you require is in stock, ensuring you can quickly return to your work.



The Bosch recycling service

offers environmental protection that anybody can actively take part in. Bosch production tools, cordless tools and battery packs that are past their lifetime are taken back at no charge via specialist retailers or directly and sent for recycling.

Stamp box:

Bosch Powertools
Robert Bosch Ltd
PO box 98
Uxbridge
UB9 5HN
UK
+ 44 (0) 344 7360 109*
E-mail: ProductionTools@de.bosch.com
www.boschproductiontools.com

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