

WIRELESS DC TOOLS

BM Series





PRODUCTIVE SOLUTIONS

As an industrial process expert, we help you meet your challenges.

Productivity, safety, quality, industry 4.0 are themes on which we can offer you our expertise and our solutions. Whether in the field of assembly technology, machining or welding, our dedicated and specialised teams accompany your progress and recommend solutions and equipment to reach performance levels in line with your industrial strategy.



Certified quality

From design to commissioning, DOGA guarantees the quality of this equipments and services according to ISO 9001: 2015 certification.

5 reasons to trust us



Expertise

Our field experts propose you solutions adapted to your environment and specific needs.



Innovation

By developing the products and the services of tomorrow, we offer you new perspectives or prospects.



Performance

Our high added value solutions improve your performances and guarantee the final quality of the production.



Commitment

Aware of your objectives, we commit ourselves to helping you to reach them.



Reliability

Our organization which has been ISO 9001 certified since 1996, is the guarantee of your satisfaction.



ASSEMBLY TECHNOLOGY

As world class assembly technology player, we manufacture and market equipments and solutions for the assembly industry which contribute to the improvement of your manufacturing quality and productivity.

Our assembly, ergonomics and traceability solutions contribute to enhancing your productivity, controlling your process quality and meet the requirements of industry 4.0.

We offer products designed to last and high value-added services by relying on our teams know-how and expertise : design, production, installation, start-up, training and maintenance. We support you locally thanks to our worldwide presence through our subsidiaries and our specialized distribution network.



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SUMMARY

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Pages

- ▶ **4** **MAIN FEATURES**
 - ▶ Specification
- ▶ **5** **MODEL SPECIFICATION**
- ▶ **6** **TOOL DIMENSION**
 - ▶ Package
- ▶ **7** **FLEXIBLE FUNCTION**
 - ▶ Built-in digital display
 - ▶ Battery
 - ▶ Battery charger
- ▶ **8** **CONNECTION**
 - ▶ USB connection
 - ▶ Wifi connection to Paramon-Pro X
 - ▶ Wifi connection to PC via AP
- ▶ **9-11** **PARAMON-PRO X INTERFACE (OPTIONAL)**
 - ▶ Features
 - ▶ Operation mode (with job vs without job)
 - ▶ Sample job
 - ▶ Assembly process visualization
- ▶ **12** **OUR SERVICES**

MAIN FEATURE

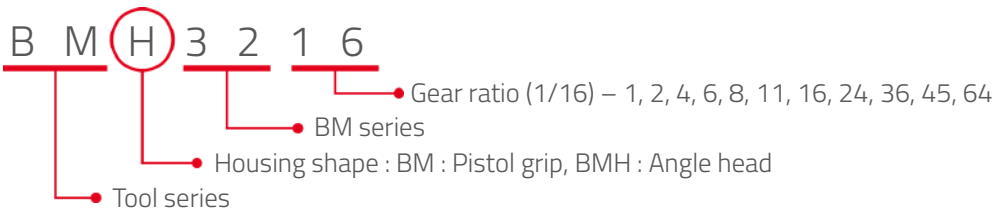


- ▶ Digital torque and angle program in 15 presets and 2 multi step sequence programs
- ▶ Models with assignable tightening strategies, batch counting and logical I/O management
- ▶ Auto speed setting by torque
- ▶ Monitoring fastening quality and count of screw numbers (with Paramon Pro X interface)
- ▶ Error information by code display
- ▶ Easy parameter setting and monitoring with ParaMon AIR (free PC software) & built-in Web server
- ▶ Real time torque data and curve display on PC software
- ▶ Real time fastening data output by USB and Wi-fi
- ▶ Modbus protocol

Specification

| | |
|-----------------------------|--|
| Electric power | DC25.2V, Lithium ion battery |
| Motor | Swiss DC servo motor |
| Torque accuracy | 10% in full scale |
| Torque repeatability | +/- 3% |
| Wifi | IEEE 802.11a/b/g/n 2.4GHz & 5GHz dual band |
| Speed | Auto speed by torque setting |
| Data memory | 65,000 data |
| USB | Micro USB port |
| Display | 1.29" AMOLED color display |
| No. of preset | 15 preset programming by USB or Wifi |

MODEL SPECIFICATION



Pistol Type



Angle Type

- 1 Trigger
- 2 Forward / Reverse
- 3 USB

| Type | Model | Torque (min Nm) | Torque (max Nm) | Speed (rpm) | Weight (kg) without battery | Bit Socket | Code tool alone | Code package* tool + 2 batteries |
|-----------|--------------|-----------------|-----------------|-------------|-----------------------------|------------|-----------------|----------------------------------|
| Pistol | BM3201-A | 0,1 | 1,2 | 100~2000 | 0,9 | Hex 1/4" | 4-1050670 | 4-1050693 |
| | BM3202-A | 0,2 | 2,2 | 100~2000 | 0,9 | Hex 1/4" | 4-1050671 | 4-1050694 |
| | BM3204-A | 0,4 | 4,4 | 100~1800 | 1,0 | Hex 1/4" | 4-1050672 | 4-1050695 |
| | BM3206-A | 0,6 | 6,4 | 100~1250 | 1,1 | Hex 1/4" | 4-1050673 | 4-1050696 |
| | BM3211-A | 1,5 | 11,3 | 50~690 | 1,1 | Hex 1/4" | 4-1050674 | 4-1050697 |
| | BM3216-A | 2,0 | 15,7 | 50~470 | 1,1 | Hex 1/4" | 4-1050675 | 4-1050698 |
| | BM3224-A | 3,9 | 23,5 | 50~310 | 1,1 | Hex 1/4" | 4-1050713 | 4-1050715 |
| | BM3224-Q3/8 | 3,9 | 23,5 | 50~310 | 1,1 | SQ 3/8" | 4-1050714 | 4-1050716 |
| Angle 90° | BMH3204-A | 0,4 | 4,4 | 100~1800 | 1,4 | Hex 1/4" | 4-1050676 | 4-1050699 |
| | BMH3204-Q3/8 | 0,4 | 4,4 | 100~1800 | 1,4 | SQ 3/8" | 4-1050686 | 4-1050700 |
| | BMH3206-A | 0,8 | 6,4 | 100~1250 | 1,4 | Hex 1/4" | 4-1050677 | 4-1050701 |
| | BMH3206-Q3/8 | 0,8 | 6,4 | 100~1250 | 1,4 | SQ 3/8" | 4-1050687 | 4-1050702 |
| | BMH3211-A | 1,5 | 11,3 | 50~690 | 1,6 | Hex 1/4" | 4-1050678 | 4-1050703 |
| | BMH3211-Q3/8 | 1,5 | 11,3 | 50~690 | 1,6 | SQ 3/8" | 4-1050688 | 4-1050704 |
| | BMH3216-A | 2,0 | 15,7 | 50~470 | 1,6 | Hex 1/4" | 4-1050679 | 4-1050705 |
| | BMH3216-Q3/8 | 2,0 | 15,7 | 50~470 | 1,6 | SQ 3/8" | 4-1050689 | 4-1050706 |

| Type | Model | Torque (min Nm) | Torque (max Nm) | Speed (rpm) | Weight (kg) without battery | Bit Socket | Code tool alone | Code package* tool + 2 batteries |
|-----------|--------------|-----------------|-----------------|-------------|-----------------------------|------------|-----------------|-------------------------------------|
| Angle 90° | BMH3224-A | 3,9 | 23,5 | 50~310 | 1.6 | Hex 1/4" | 4-1050680 | 4-1050707 |
| | BMH3224-Q3/8 | 3,9 | 23,5 | 50~310 | 1.6 | SQ 3/8" | 4-1050690 | 4-1050708 |
| | BMH3236-Q3/8 | 4,9 | 31,4 | 50~200 | 1,7 | SQ 3/8" | 4-1050717 | 4-1050718 |
| | BMH3245-Q3/8 | 5,9 | 39,2 | 50~160 | 1,7 | SQ 3/8" | 4-1050681 | 4-1050709 |
| | BMH3245-Q1/2 | 5,9 | 39,2 | 50~160 | 1,7 | SQ 1/2" | 4-1050691 | 4-1050710 |
| | BMH3264-Q3/8 | 7,8 | 49,1 | 50~115 | 1.9 | SQ 3/8" | 4-1050682 | 4-1050711 |
| | BMH3264-Q1/2 | 7,8 | 49,1 | 50~115 | 1.9 | SQ 1/2" | 4-1050692 | 4-1050712 |

* battery charger is not included

TOOL DIMENSION

▶ BM & BMH Unit : mm



Package

▶ Standard packing items : BM Tool, Battery pack 2EA (Battery charger is not included).

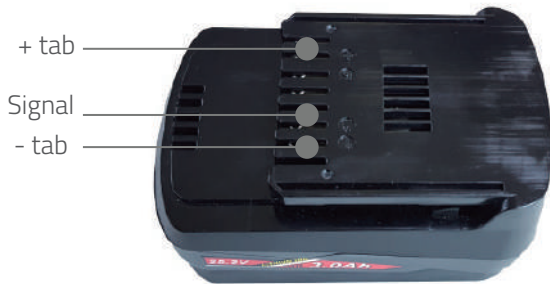


FLEXIBLE FUNCTION

Built-in digital display



Battery



| | |
|-------------------|-----------|
| Model | BL25201 |
| Voltage | 25.2V |
| No of cell | 3.6V x 7 |
| Weight | 505 gr |
| Code | 4-1050683 |

▶ Don't use the battery for any other tools or purpose

Battery charger



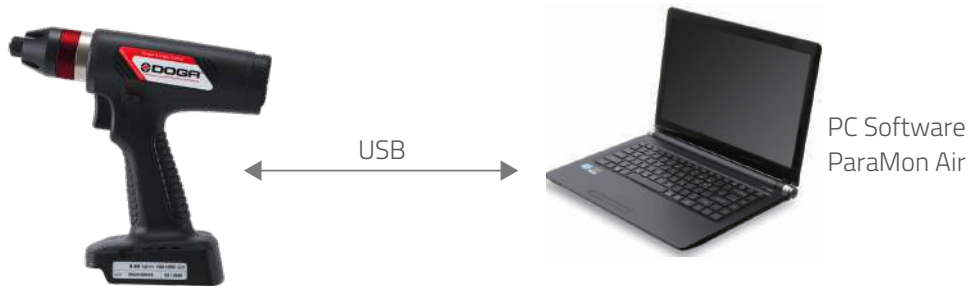
| | |
|------------------------------|------------------------------------|
| Model | D25247A |
| Input | AC220 - 240V, 50/60Hz, 1.1A |
| Output | DC18-25.2V, 4.0A |
| Fuse | 250VAC T3.15A |
| Operating environment | 0 ~ 40 / 15 ~ 80% RH (without dew) |
| Full charging time | 50 minutes |
| Safety class | Class II |
| Weight | 620 gr |
| Code | 4-1050684 |

LED Display Information

- Blink Ready
- Charging
- Complete
- Blink Battery Overheat
- Blink Charging Not Possible

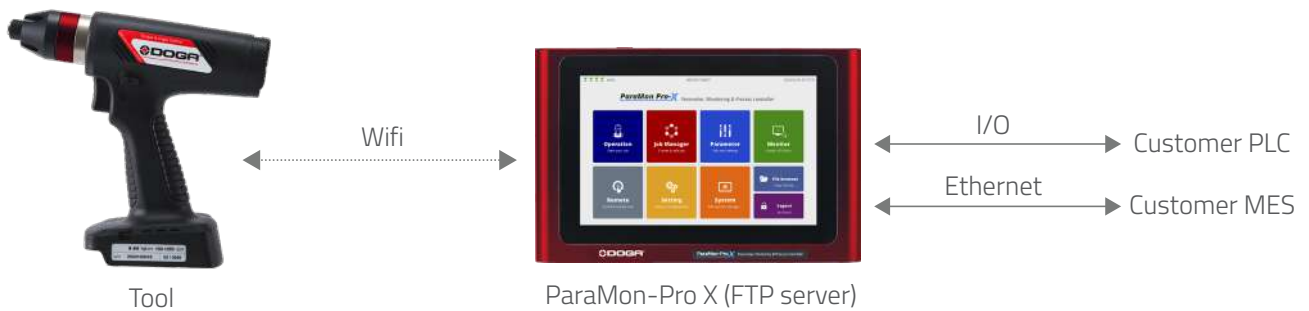
CONNECTION

USB connection



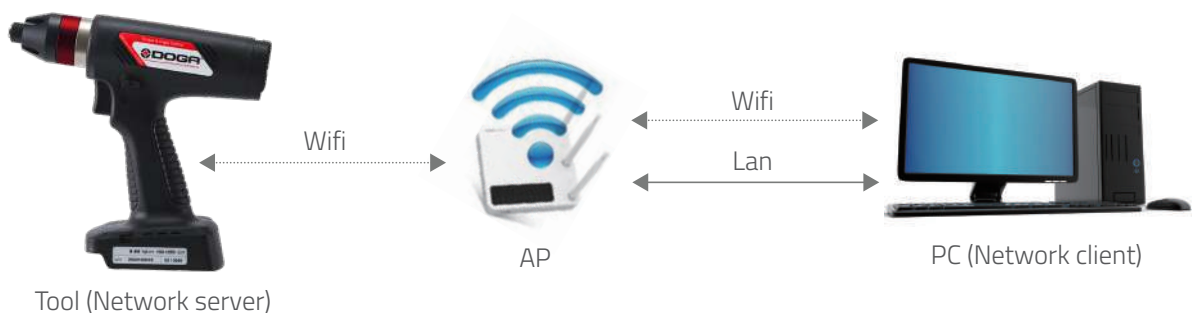
- ▶ Initial network and parameter setting, data monitoring
- ▶ Data download from the internal memory (max 65 000)
- ▶ Tool firmware update

Wifi connection to Paramon-Pro X



- ▶ Connect up to 8 BM tools
- ▶ Error-proofing through assembly sequencing and process monitoring
- ▶ Simple and user friendly sequence programming interface
- ▶ 2 x USB 2.0 ports - Bar code scanning (optional)
- ▶ HDMI port for display extension

Wifi connection to PC via AP



- ▶ Parameter setting, data monitoring on PC with ParMon Air or custom software
- ▶ Protocols are open for programming the custom software

PARAMON-PRO X INTERFACE (OPTIONAL)



- ▶ Total 8 tools can be connected
- ▶ Parameter setting, Data monitoring
- ▶ Error-proofing through assembly sequencing and process monitoring
- ▶ Fastening data auto saving with file system
- ▶ Tool remote control
- ▶ Barcode scanner can be connected

Features

| | |
|--------------------------|--|
| Input power | AC220 - 240V, 50/60Hz, 0.35A |
| Dimensions | 300 (W) x 196 (H) x 80 (D) - Wall mount bracket included |
| Display | 10.1" TFT LCD Touch |
| Com port | Ethernet, 2 x USB, I/O (input 16, output 16), RS 232 (Barcode reading) |
| Memory | Internal : 8GB + extra memory slot with file system External : Micro SD card up to 32GB |
| Wifi | Wireless USB adapter 2.4 & 5GHz Plug-in dual channel module kit |
| Display extension | HDMI |
| Weight | 3,54 kg |
| Code | 4-1050685 |

Operation mode (with job vs without job)



VS



| Operation mode | With Job (Sequencing mode with logical steps) | Without Job (Multi tool tightening mode) |
|------------------------|---|---|
| Feature | <ul style="list-style-type: none"> Five types of steps (fastening / Input / output / delay / message) are provided for sequence programming. The combination of steps is called a job. Up to 1,000 jobs are supported. Fastening data is auto saved in the file system. | <ul style="list-style-type: none"> Not support process control. Display fastening data receiving from tools in real-time. Fastening data is auto saved in the file system. |
| Tools | <ul style="list-style-type: none"> The tool works only in the fastening step. In the fastening step, only one tool can be assigned. Two or more tools cannot work simultaneously. Suitable for single operator environments. | <ul style="list-style-type: none"> No restrictions on the use of the tool. All tools can be work simultaneously. Suitable for multiple operator environments. |
| Barcode Scanner | <ul style="list-style-type: none"> To load the desired job by scanning barcode. | <ul style="list-style-type: none"> To select the preset torque on the tools. |

Sample job



Displays information of the product to be assembled in text or image.

Displayed message remains at the preset time.

Press the start button to start assembly.

Select the tool to be used for fastening. Set the preset torque of the tool and the number of screws.

OK and NG are output to the tower lamp according to the assembly result.

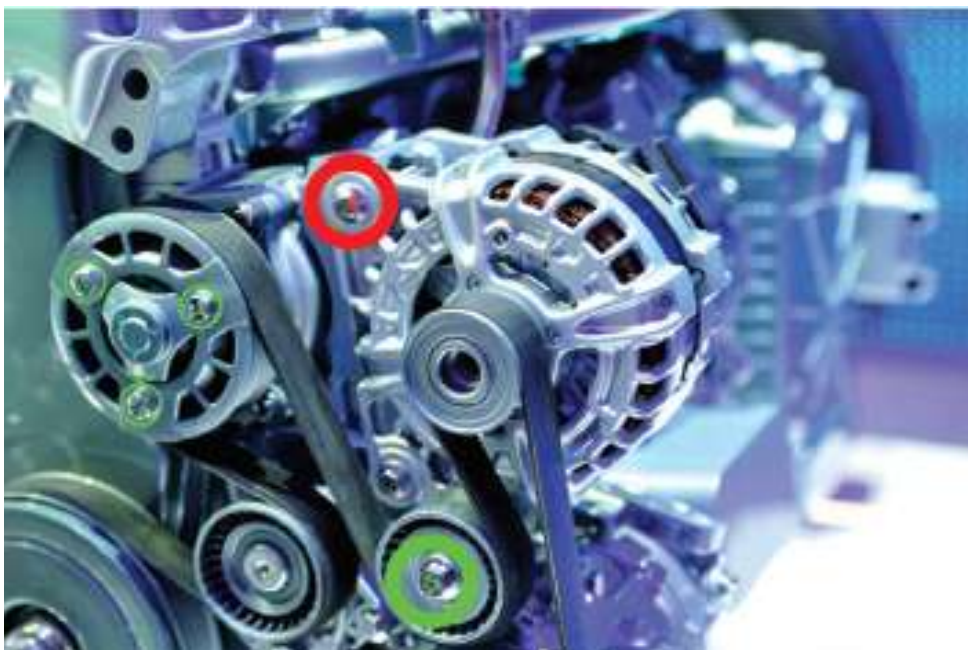
Assembly process vizualisation



Visualize the assembly procedure with just a few touches.

- ▶ Take a picture of the work-piece
- ▶ Set position of screw according to the fastening order
- ▶ Up to 99 screws can be set per fastening step
- ▶ Radius / Width of the circle can be adjusted to fit the size of the screw
- ▶ Color of the product and color of the circle overlap, you can change the color of the circle

Below is the screen that is actually performing the job.



OUR SERVICES

If DOGA put at your disposal reliable, accurate and user friendly tightening solutions it is our duty to advise you the right solution for your application.

Our Product Manager and Support engineering team are there to analyse your manufacturing process and share with you our innovating solutions to improve your assembly process. Thanks to our technical integration service CELPRO we provides you with Turn-key solutions from the design to the commissioning.



TURNKEY SOLUTIONS

Around the various options of our product ranges, we offer you solutions adapted to your needs.

- ▶ Custom Design
- ▶ Adaptation of existing models
- ▶ Integration of automation system



TECHNICAL ASSISTANCE

To ensure optimized the performance and the durability of our tools we put at your disposal.

- ▶ Installation and start-up
- ▶ Maintenance agreement
- ▶ On-site maintenance
- ▶ Maintenance in our workshop



TRAINING

Through its CETI training center, Doga offers specialized training courses around its trades :

- ▶ Theoretical
- ▶ Technical & practical
- ▶ Audit & Consulting

Find all our ASSEMBLY TECHNOLOGY products on our website by scanning this QR code

