DOGA®
Productive solutions

ASSEMBLY TOOLS AND SYSTEMS

Electric
Screwdrivers

KeL BULGARIA

DC Controlled screwdrivers

Torque Control System

A new way to optimize your tightening process

- Replace up to 8 Screwdrivers on your work bench thanks to 8 programmable digital Torque / Speed / Angle settings selectable through I/O or sensor ports.

- Set up to 8 counting programs with up to 20 screws each with different torque targets.

Best choice for Cell line Manufacturing

Easy PC Communication through USB Port

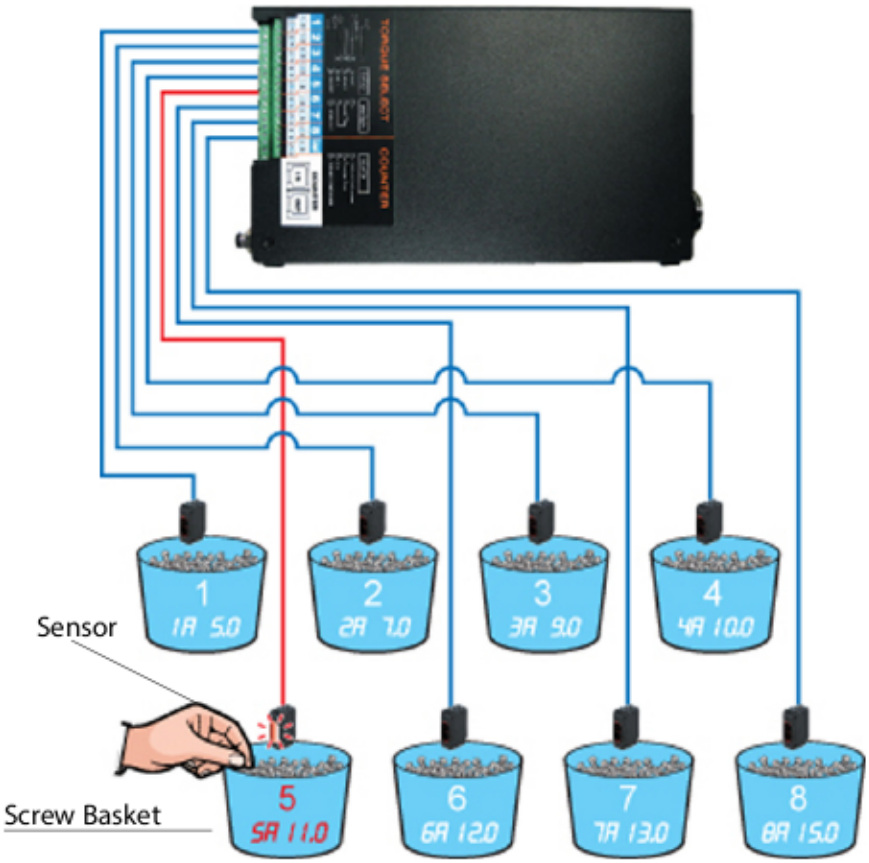
Screw counter inside (detect cross thread, screw omission...)

Tightening process management through 25P I/O port or sensor port

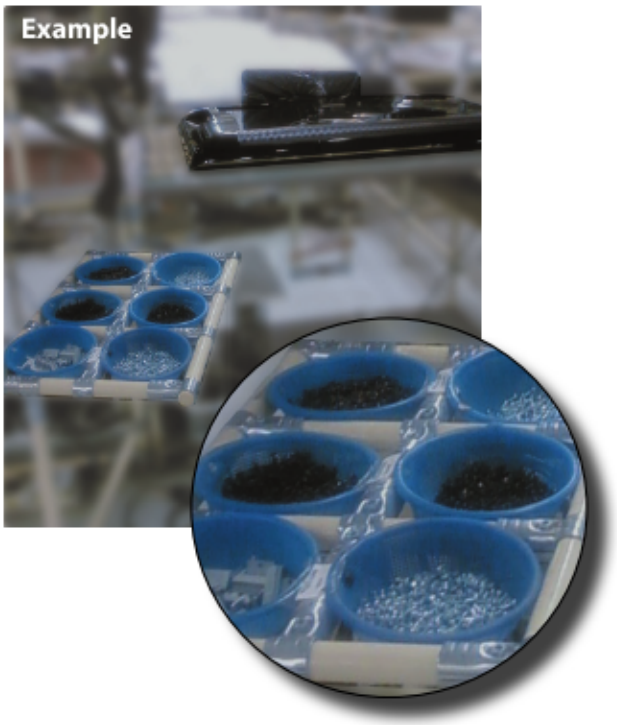
Built-in 32 Bit microprocessor

Data monitoring & Quality Control

Example of job selection through sensors



- Until 8 jobs setup (≠ Torque / Speed / Angle)/
- Each job n° is simply selected by the sensor when the operator picks up the screw or by the PLC thanks to the 25 I/O ports.
- 8 counting programs with torque sequencing.



8 different jobs with one Hybrid screw driver.

Jobs may be selected as well through PLC, socket tray...

DC Controlled screwdrivers

HD Series

0,3 to 9,8 NM

- Brushless DC motor (service free)
- ESD free by body grounding
- Torque repeatability ~ 7%
- Inside memory chip for tool data and recognition
- Built - in air clutch
- Angle monitoring
- Sequencing programs
- Noise level < 70 dB
- Vibration level < 2,5 m/s²

40 Volts hybrid screwdrivers — *0,3 - 4,4 Nm*

Model	Torque Range (Nm)	Speed rotation (rpm)	Drive	Starting system	Weight (Kg)	Code
HD081A	0,3 - 0,78	1000 to 1700	Hex 1/4"	Lever	0,44	**6-1058880**
HD150A-G	0,5 - 1,5	500 to 1700	Hex 1/4"	Lever	0,44	**6-1027470**
HD220A-G	0,7 - 2,2	400 to 1250	Hex 1/4"	Lever	0,44	**6-1027471**
HD450A-G	0,98 - 4,4	300 to 600	Hex 1/4"	Lever	0,51	**6-1027472**
HD150PA-G	0,5 - 1,5	500 to 1700	Hex 1/4"	Push to start	0,44	**6-1027473**
HD220PA-G	0,7 - 2,2	400 to 1250	Hex 1/4"	Push to start	0,44	**6-1027475**
HD450PA-G	0,98 - 4,4	300 to 600	Hex 1/4"	Push to start	0,51	**6-1027474**

Standard packing : screwdriver, 14P-3M cable, test bits.

40 Volts hybrid spindles — *0,5 - 4,4 Nm*

Model	Torque Range (Nm)	Speed rotation (rpm)	Drive	Starting system	Weight (Kg)	Code
HDA150A	0,5 - 1,5	500 to 1700	Hex 1/4"	Remote	0,44	**6-1042224**
HDA220A	0,7 - 2,2	400 to 1250	Hex 1/4"	Remote	0,44	**6-1042225**
HDA450A	0,98 - 4,4	300 to 600	Hex 1/4"	Remote	0,51	**6-1042226**

Standard packing : screwdriver, 14P-3M cable, test bits.

35 Volts hybrid screwdrivers — *1,17 - 9,8 Nm*

Model	Torque Range (Nm)	Speed rotation (rpm)	Drive	Starting system	Shape	Weight (Kg)	Code
HD35N-A	1,17 to 3,4	500 to 1500	Hex 1/4"	Lever	Straight	0,7	**6-1077880**
HD50N-A	1,47 to 4,9	300 to 1050	Hex 1/4"	Lever	Straight	0,7	**6-1077881**
HD100N-A	3 to 9,8	250 to 500	Hex 1/4"	Lever	Straight	0,75	**6-1077882**
HD35NP-A	1,17 to 3,4	500 to 1500	Hex 1/4"	Push to start	Straight	0,7	**6-1070035**
HD50NP-A	1,47 to 4,9	300 to 1050	Hex 1/4"	Push to start	Straight	0,7	**6-1070036**
PHD35N-A/U*	1,17 to 3,4	500 to 1500	Hex 1/4"	Trigger	Pistol	0,82	**6-1070032**
PHD50N-A/U*	1,47 to 4,9	400 to 1100	Hex 1/4"	Trigger	Pistol	0,82	**6-1070033**
PHD100N-A/U*	3 to 9,8	250 to 500	Hex 1/4"	Trigger	Pistol	0,86	**6-1070034**
PHD35N-A/D**	1,17 to 3,4	500 to 1500	Hex 1/4"	Trigger	Pistol	0,82	**6-1070040**
PHD50N-A/D**	1,47 to 4,9	400 to 1100	Hex 1/4"	Trigger	Pistol	0,82	**6-1070041**
PHD100N-A/D**	3 to 9,8	250 to 500	Hex 1/4"	Trigger	Pistol	0,86	**6-1070042**

Standard packing : screwdriver, 14P-3M cable, test bits.

* : Top exit cable

** : handle exit cable

Controllers

- Com port usage selector
- USB Port for PC communication or firmware upgrade
- 25P I/O interface
- RS-232C Port
- Air pressure inlet (out dia 4 mm)

HDC-40i/HDC-35i

- Delivered with USB Com cable, air filter, air hose.

No	ITEM		SPECIFICATION	
1	Model		HDC-40i - **6-1042211** for HD40V	HDC-35i - **6-1077883** for HD35 V
2	Input	Electric	AC120VC ou AC220V, 50~60 Hz/0,5 A	AC120VC ou AC220V, 50~60 Hz/2,5 A
3		Air pressure	Min 5 bar/Max 6,5 bar	
4	Output	Electric	DC40V, 3A	DC35V, 3A
5	Fuse		AC250V, 10A	AC250V, 5A
6	Dimension/Weight		97(w) 222(d) 129(h) mm / 2,1kg	104(w) 226,4(d) 144(h)mm / 2,6 Kg
7	Job parameters		Torque, Speed, Angle, Soft start, Torque tunning in 8 preset numbers	
8	Job selection		1) Front panel button 2) 25P I/O interface 3) F1 button on the driver	
9	Torque Calibration		From - 20% to +20%	
10	Auto detection of the connected Driver		Auto detection of the offset value from the EEP-rom inside the driver	
11	Error display		Error display by code no. in system, communication & pattern error group	
12	Fastening quality control		OK/NG monitoring of screw fastening by preset pattern of angles, times	
13	Screw Counter		Save the total screw number, and monitor the number of OK fastenings.	
14	Monitoring and parameter		Monitoring and parameter settings on PC program (MS Windows base)	
15	Communication port		USB or RS232C (option)	
16	Built in counter program		8 counting programs, 20 screws per program. Auto-sequencing of fastening strategies.	

Accessoires

Driver Cable 3M

Delivered with the tool
Code : 6-1042205
Option driver table 5m:
Code : 6-1042250

Standard :

USB Com Cable

Delivered with the controller
Code : 6-1042213

Options :

Pistol Grip for HD-G 40V
Code : 6-1042210
I/O sub-D25 mable cable
Code : 4-1200770

Angle head kit for 1/4" square HD-G 40V
Code : 6-1000251
Angle head kit for 1/4" HD220/450
Code : 6-1000111
Angle head kit for 1/4" Hex HD35/50/100
Code : 6-1000110

DC Controlled screwdrivers

SD Series

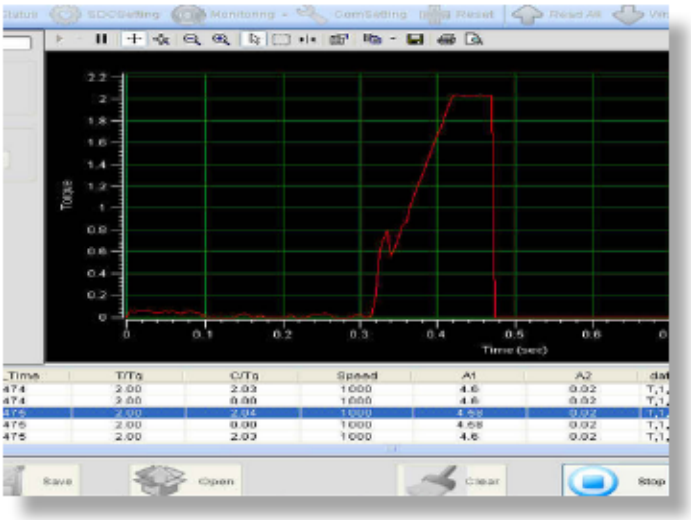
0,016 to 2,7 NM

- Noise level < 70 dB
- Vibration level < 2,5 m/s²
- Sequency programs
- 24V Swiss DC Servo motor
- Over 5 millions cycles of life expectancy
- Torque accuracy 10 % in full scale
- Torque repeatability ±3%
- 190 - 1000 rpm Speed control (scale : 50 rpm)
- 8 programs memory
- Real time monitoring - torque, rpm, angle
- ESD free with conductive material
- Suitable for clean room
- Real time torque and angle curve
- Auto speed : optimized speed/torque target

Model	Starting system	Torque Range (Nm)	Autospeed** (rpm)	Manual speed (rpm)	Drive	Weight (Kg)	Controller	Code
SDA 120-E/FV	Remote	0,016 - 0,15	240 to 1000	150 to 1000	Half-moon 4 mm	0,46	SDC-24	**6-1000238**
SDA 200-E/FV	Remote	0,05 - 0,2	420 to 1000	300 to 1000	Half-moon 4 mm	0,46	SDC-24	**6-1000239**
SDA 300-E/FV	Remote	0,1 - 0,3	360 to 890	200 to 1000	Half-moon 4 mm	0,46	SDC-24	**6-1000240**
SDA 600-A/FV	Remote	0,15 - 0,6	190 to 710	150 to 1000	1/4" Hex	0,46	SDC-24	**6-1088880**
SDA1000-A/FV	Remote	0,19 - 0,98	130 to 430	100 to 750	1/4" Hex	0,67	SDC-24	**6-1000246**
SDA 05 N-A	Remote	0,11 - 0,48	300 to 1000	100 to 1000	1/4" Hex	0,68	SDC-40	**6-1000266**
SDA 09 N-A	Remote	0,15 - 0,87	300 to 1000	100 to 1000	1/4" Hex	0,69	SDC-40	**6-1000267**
SDA 18N-A-FV	Remote	0,4 - 1,7	300 to 1000	100 to 1000	1/4" Hex	0,75	SDC-40	**6-1041800**
SDA28N-A-FV	Remote	0,5 - 2,7	190 to 1000	100 to 1000	1/4" Hex	0,75	SDC-40	**6-1000248**
SD 120-E	Lever	0,03 - 0,15	240 to 1000	150 to 1000	Half-moon 4 mm	0,26	SDC-24	**6-1000241**
SD 200-E	Lever	0,05 - 0,2	420 to 1000	300 to 1000	Half-moon 4 mm	0,3	SDC-24	**6-1000242**
SD 300-E	Lever	0,1 - 0,3	360 to 890	200 to 1000	Half-moon 4 mm	0,3	SDC-24	**6-1000243**
SD 600-A	Lever	0,15 - 0,6	190 to 710	150 to 1000	1/4" Hex	0,33	SDC-24	**6-1077801**
SD1000-A	Lever	0,19 - 0,98	130 to 430	100 to 750	1/4" Hex	0,38	SDC-24	**6-1077800**
SD1500-A	Lever	0,3 - 1,47	120 to 399	100 to 700	1/4" Hex	0,38	SDC-24	**6-1000596**
SD05N-A	Lever	0,11 - 0,48	300 to 1000	100 to 1000	1/4" Hex	0,64	SDC-40	**6-1000268**
SD09N-A	Lever	0,15 - 0,87	300 to 1000	100 to 1000	1/4" Hex	0,65	SDC-40	**6-1000269**
SD18N-A	Lever	0,4 - 1,7	300 to 1000	100 to 1000	1/4" Hex	0,75	SDC-40	**6-1000252**
SD28N-A	Lever	0,5 - 2,7	190 to 780	100 to 1000	1/4" Hex	0,75	SDC-40	**6-1000253**

** : optimized speed according torque target.
SDA : fixtured spindle
SD : hand held, lever start

Real time torque & angle curve



Controller

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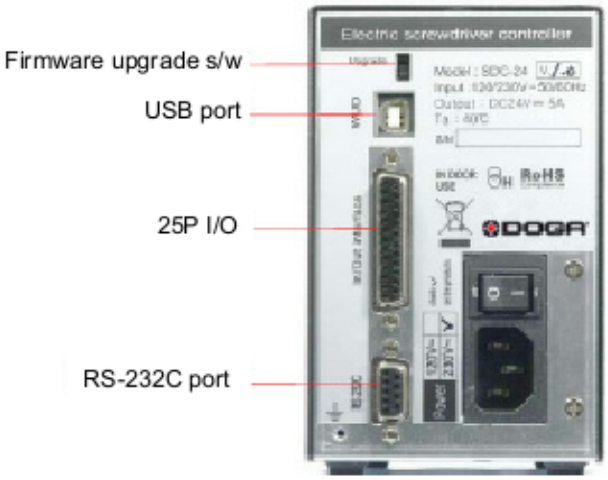


SDC-24 or SDC-40

No	Item		SDC-24 **Code 6-1000245**	SDC-40 **Code 6-1041801**
1	Input		AC120VC or AC220V, 50-60Hz 2A	3A
2	Output		DC24V, 5A	DC40V, 3A
3	Control Range	Torque	0,1 - 1,47 Nm	0,1 - 2,7 Nm
		Speed	100 - 1,000 rpm	300 - 1000 rpm
		Angle	0,4° step	
4	Preset parameters		Torque, (Speed) & Angle	
5	Preset # selecting		1) Front panel button 2) 25P I/O interface	
6	Torque calibration		-10% - + 10%	
7	Auto recognition		Auto detection of connected driver when power ON of controller	
8	Error display		Error code display (3 groups)	
9	Fastening quality control		Fastening data verification (NG/OK) against the pre-setting pattern of angle	
10	Screw counter		Total 8 programs of tightening screw number and sequence	
11	Parameter setting and monitoring		MS Windows PC software, Smart-Manager of front panel	

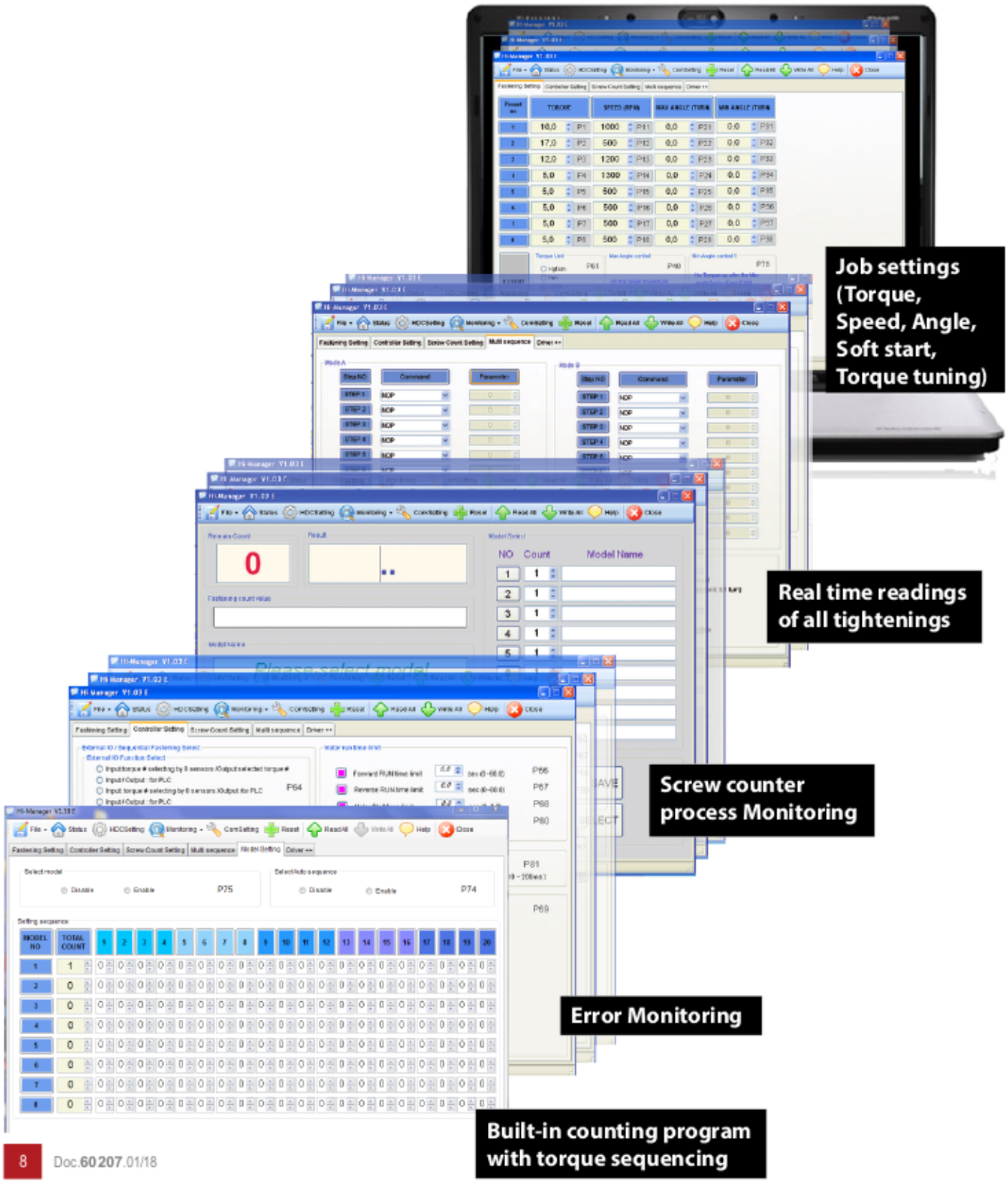
ACCESSORIES : (delivered with the controller)
- Driver cable SD 10 PC, 3 M **Code : 6-1074440**
- USB com cable **Code : 6-1042213**

OPTION :
- 5 meters tool cable **Code : 6-1074420**
- I/O sub-d25 male cable **Code : 4-1200770**

Software

Smart Manager (SD Series)/Hi-Manager (HD Series)

Set and monitor your tool, your tightening environment on free PC Software,



GX Series

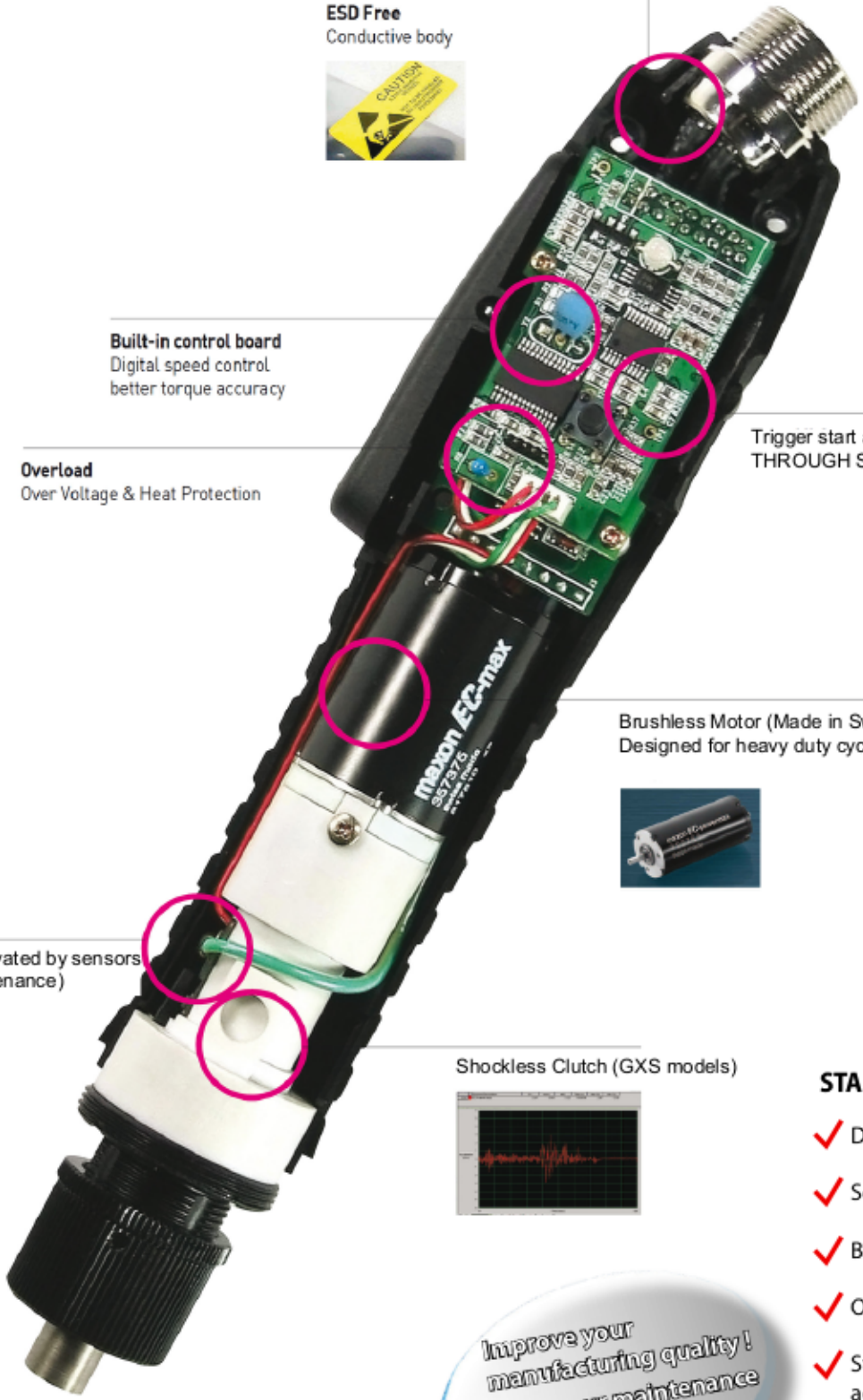
Brushless

ESD Free
Conductive body

Built-in control board
Digital speed control
better torque accuracy

Overload
Over Voltage & Heat Protection

Trigger start and reverse button activated
THROUGH SENSORS (Maintenance free)



Brushless Motor (Made in Switzerland)
Designed for heavy duty cycle time

Clutch activated by sensors
(No maintenance)

Shockless Clutch (GXS models)

STANDARD FEATURES

- ✓ Digital speed settings
- ✓ Soft start settings
- ✓ Brushless motor
- ✓ Over current & heat alarms
- ✓ Start, reverse and shut-off activated by sensors

Improve your manufacturing quality !
Lower your maintenance cost !

GX Series

30 Volts • Auto-shut off • CE • XS-40D (FA) Controller

0,02 to 1,2 NM

- Higher productivity : thanks to high Brushless motor efficiency !
- Higher comfort : thanks to improved ergonomy and reduced sound level and heat !
- Increased economy : thanks to brushless motor (triple the life time of the motor).
- Reduced maintenance : the best Mean Time Between Failure (MTBF) ever reached until now (no carbon brush, trigger and reverse contactless switches, over-heat and over-current built in alarms protecting the screwdrivers).
- Increased production quality : thanks to ESD protection, accurate clutch and Softstop clutch Mechanism.
- Noise level : <70 dBA, vibration level : <2,5 m/s²

Micro Torque GX Series *(features SOFT STOP clutch and Digital speed setting)*

Model	Torque Range (Nm)	Speed rotation (rpm)	Starting system	Drive	Weight (Kg)	Code
GX 035 ESD	0,02 - 0,34	300 to 1100	Lever	Half moon/shank drive 4mm	0,24	**6-1040077**
GX 045 ESD	0,04 - 0,45	300 to 700	Lever	Half moon/shank drive 4mm	0,24	**6-1040078**

Suitable controller : XS-40D - To be ordered seperatly - See page 17

STANDARD Series : GX with digital speed and soft start

Model	Torque Range (Nm)	Speed rotation (rpm)	Starting system	Drive	Weight (Kg)	Code
GX 80 ESD V2	0,09 - 0,8	450 to 1000	Lever	Hex 1/4"	0,43	**6-1021025**
GX 120 ESD V2	0,2 - 1,2	300 to 700	Lever	Hex 1/4"	0,43	**6-1021026**
GX 80 P ESD V2	0,09 - 0,8	450 to 1000	Push to start	Hex 1/4"	0,43	**6-1021027**
GX 120 P ESD V2	0,2 - 1,2	300 to 700	Push to start	Hex 1/4"	0,43	**6-1021028**

Suitable controller : XS-40D - To be ordered seperatly - See page 17

SOFT STOP Series : GXS *(built-in special clutch mechanism providing soft shut-off to protect fragile parts)*

Model	Torque Range (Nm)	Speed rotation (rpm)	Starting system	Drive	Weight (Kg)	Code
GXS 80 ESD V2	0,09 - 0,8	450 to 1000	Lever	Hex 1/4"	0,43	**6-1021020**
GXS 120 ESD V2	0,2 - 1,2	300 to 700	Lever	Hex 1/4"	0,43	**6-1021021**

Suitable controller : XS-40D - To be ordered seperatly - See page 17

TIMER & AUTOREVERSE Series : GXT *(fasten at preset angle/time, Automatic Reverse/ forward, stop sequence - ideal for tapping operation, helicoil fastening, pre-assembly...)*

Model	Torque Range (Nm)	Speed rotation (rpm)	Starting system	Drive	Weight (Kg)	Code
GXT 80 ESD V2	0,09 - 0,8	450 to 1000	Lever	Hex 1/4"	0,43	**6-1021036**
GXT 120 ESD V2	0,2 - 1,2	300 to 700	Lever	Hex 1/4"	0,43	**6-1021037**

Suitable controller : XS-40D - To be ordered seperatly - See page 17

FIXTURED SPINDLES Series : GXA *(for automation choose XS-40D FA controller - **Code 6-1040080**)*

Model	Torque Range (Nm)	Speed rotation (rpm)	Starting system	Drive	Weight (Kg)	Code
GXA 035 ESD V2	0,03 - 0,35	300 to 1100	Remote	Half moon/shank drive 4mm	0,45	**6-1040079**
GXA 045 ESD V2	0,04 - 0,45	300 to 700	Remote	Half moon/shank drive 4mm	0,45	**6-1040076**
GXA 080 ESD V2	0,1 - 0,8	450 to 1000	Remote	Hex 1/4"	0,45	**6-1040074**
GXA 120 ESD V2	0,2 - 1,2	300 to 700	Remote	Hex 1/4"	0,45	**6-1040075**

* The whole models of this series are delivered with one tool cable (3m) + sample powerbits.

GX-G Series

40 Volts • Auto-shut off • CE • XS-40D Controller

0,3 to 4,4 NM

- Higher productivity : thanks to high Brushless motor efficiency !
- Higher comfort : thanks to improved ergonomy and reduced sound level and heat !
- Increased economy : thanks to brushless motor (triple the life time of the motor).
- Reduced maintenance : the best Mean Time Between Failure (MTBF) ever reached until now (no carbon brush, trigger and reverse contactless switches, over-heat and over-current built in alarms protecting the screwdrivers).
- Increased production quality : thanks to ESD protection, accurate clutch and Softstop clutch Mechanism.
- Noise level : <70 dBA, vibration level : <2,5 m/s²

STANDARD Series : GX with digital speed setting and soft start

Model	Torque Range (Nm)	Speed rotation (rpm)	Starting system	Drive	Weight (Kg)	Code
GX 150 ESD-G	0,3 - 1,47	800 to 1700	Lever	Hex 1/4"	0,54	**6-1027447**
GX 220 ESD-G	0,6 - 2,15	600 to 1200	Lever	Hex 1/4"	0,54	**6-1027448**
GX 450 ESD-G	1 - 4,41	300 to 600	Lever	Hex 1/4"	0,54	**6-1027449**
GX 150 P ESD-G	0,3 - 1,47	800 to 1700	Push to Start	Hex 1/4"	0,54	**6-1027450**
GX 220 P ESD-G	0,6 - 2,15	600 to 1200	Push to Start	Hex 1/4"	0,54	**6-1027446**
GX 450 P ESD-G	1 - 4,41	300 to 600	Push to Start	Hex 1/4"	0,54	**6-1027451**

Suitable controller : XS-40D - To be ordered seperatly - See page 17

SOFT STOP Series : GXS *(built-in special clutch mechanism providing soft shut-off to protect fragile parts)*

Model	Torque Range (Nm)	Speed rotation (rpm)	Starting system	Drive	Weight (Kg)	Code
GXS 150 ESD-G	0,3 - 1,47	800 to 1700	Lever	Hex 1/4"	0,54	**6-1027452**
GXS 220 ESD-G	0,6 - 2,15	600 to 1200	Lever	Hex 1/4"	0,54	**6-1027453**
GXS 150 P ESD-G	0,3 - 1,47	800 to 1700	Push to Start	Hex 1/4"	0,54	**6-1077414**
GXS 220 P ESD-G	0,6 - 2,15	600 to 1200	Push to Start	Hex 1/4"	0,54	**6-1027454**

Suitable controller : XS-40D - To be ordered seperatly - See page 17

TIMER & AUTOREVERSE Series : GXT *(fasten at preset angle/time, Automatic Reverse/ forward stop sequence - ideal for tapping operation, helicoil fastening, pre-assembly...)*

Model	Torque Range (Nm)	Speed rotation (rpm)	Starting system	Drive	Weight (Kg)	Code
GXT 150 ESD-G	0,3 - 1,47	800 to 1700	Lever	Hex 1/4"	0,54	**6-1027460**
GXT 220 ESD-G	0,6 - 2,15	600 to 1200	Lever	Hex 1/4"	0,54	**6-1027461**
GXT 450 ESD-G	1 - 4,41	300 to 600	Lever	Hex 1/4"	0,54	**6-1027462**

Suitable controller : XS-40D - To be ordered seperatly - See page 17

FIXTURED SPINDLE FOR AUTOMATION *(for automation choose XS-40D FA controller - **Code 6-1040080**)*

Model	Torque Range (Nm)	Speed rotation (rpm)	Starting system	Drive	Weight (Kg)	Code
GXA 150 ESD V2-G	0,3 - 1,47	800 to 1700	Remote	Hex 1/4"	-	**6-1027465**
GXA 220 ESD V2-G	0,6 - 2,15	600 to 1200	Remote	Hex 1/4"	-	**6-1027466**
GXA 450 ESD V2-G	1 - 4,41	300 to 600	Remote	Hex 1/4"	-	**6-1027467**

* The whole models of this series are delivered with one tool cable (3m) + sample powerbits.

GY Series

35 Volts • CE • XT-35D Controller

0,7 to 9,8 NM

- Excellent ratio Weight / Ergonomy / Power
- BLDC motor (maintenance free)
- High speed from 300 to 1500 rpm (3 models)
- Designed for high production rate
- Motor efficiency 85%
- Low Noise, Low Heat, less Energy consumption
- Over Heat, Over Load, Over Voltage protection circuit with LED display
- ESD free with conductive plastic body (less than 10000 hms)
- Noise level : <70 dBA, vibration level : <2,5 m/s²

PGY 100 pistol

GY 100 ESD-G

GY 50P ESD-G

Model	Torque Range (Nm)	Speed Rotation (rpm)	Starting system	Drive	Weight (Kg)	Code
GY35 ESD-G	0,7 - 3,4	500 to 1500	Lever	Hex 1/4''	0,8	**6-1064100**
GY50 ESD-G	1 - 4,9	400 to 1100	Lever	Hex 1/4''	0,8	**6-1064102**
GY100 ESD-G	3,9 - 9,8	250 to 500	Lever	Hex 1/4''	0,85	**6-1064104**
GY35P ESD-G	0,7 - 3,4	500 to 1500	Push to start	Hex 1/4''	0,8	**6-1064101**
GY50P ESD-G	1 - 4,9	400 to 1100	Push to start	Hex 1/4''	0,8	**6-1064103**
GYA35 ESD-G V2	0,7 - 3,4	500 to 1500	Remote	Hex 1/4''	0,95	**6-1064105**
GYA50 ESD-G V2	1 - 4,9	400 to 1100	Remote	Hex 1/4''	0,95	**6-1064106**
GYA100 ESD-G V2	1 - 9,8	250 to 500	Remote	Hex 1/4''	0,95	**6-1064107**
PGY35 pistol ESD-G	0,7 - 3,4	500 to 1500	Trigger	Hex 1/4''	0,9	**6-1078015**
PGY50 pistol ESD-G	1 - 4,9	400 to 1100	Trigger	Hex 1/4''	0,9	**6-1078016**
PGY100 pistol ESD-G	1 - 9,8	250 to 500	Trigger	Hex 1/4''	0,95	**6-1078017**
PGY35 T pistol Top Exit ESD-G	0,7 - 3,4	500 to 1500	Trigger	Hex 1/4''	0,9	**6-1078018**
PGY50 T pistol Top Exit ESD-G	1 - 4,9	400 to 1100	Trigger	Hex 1/4''	0,9	**6-1078019**
PGY100 T pistol Top Exit ESD-G	1 - 9,8	250 to 500	Trigger	Hex 1/4''	0,95	**6-1078020**

* The whole models of this series are delivered with one tool cable (3m) + sample powerbits.

GX FS... Series

30 VDC High Speed • CE • XS-40D Controller

0,1 to 1,8 NM

- Excellent Ergonomy (smart and small sized)
- BLDC motor (maintenance free)
- High speed from 680 - 1550 rpm (4 models)
- Motor efficiency 85%
- Low Noise, Low Heat level
- Over Heat, Over Load, Over Voltage protection circuit with LED display
- ESD free with conductive plastic body (less than 10000 hms)
- Noise level : <70 dBA, vibration level : <2,5 m/s²

Model	Torque Range (Nm)	Speed Rotation (rpm)	Starting system	Drive	Weight (Kg)	Code
GX60 FS ESD	0,1 - 0,60	1550	Lever	Hex 1/4"	0,44	**6-1055960**
GX80 FS ESD	0,2 - 0,80	1250	Lever	Hex 1/4"	0,44	**6-1055962**
GX120 FS ESD	0,3 - 1,20	1000	Lever	Hex 1/4"	0,44	**6-1055964**
GX180 FS ESD	0,4 - 1,80	700	Lever	Hex 1/4"	0,44	**6-1055966**
GX60FSP ESD	0,1 - 0,60	1550	Push to start	Hex 1/4"	0,44	**6-1055961**
GX80FSP ESD	0,2 - 0,80	1250	Push to start	Hex 1/4"	0,44	**6-1055963**
GX120FSP ESD	0,3 - 1,20	1000	Push to start	Hex 1/4"	0,44	**6-1055965**
GX180FSP ESD	0,4 - 1,80	700	Push to start	Hex 1/4"	0,44	**6-1055967**

* The whole models of this series are delivered with one tool cable (3m) + sample powerbits.
Suitable controller : XS-40D - To be ordered seperatly - See page 17

GX...BT Series

35 Volts • High Torque/Speed with Built-in speed and soft start selector • CE • XS-35D Controller

1 to 9,8 NM

- Built Electronics with Embeded Speed and soft start settings
- BLDC motor (maintenance free)
- Low Noise, Low Heat, less Energy consumption
- Overt Heat, Over Load, Over Voltage protection circuit with LED display
- ESD free through bit socket grounded
- Noise level : <70 dBA, vibration level : <2,5 m/s²

Model	Torque Range (Nm)	Speed Rotation (rpm)	Starting system	Drive	Weight (Kg)	Code
GX35 BT ESD-G	1 - 3,4	700 to 1500	Lever	Hex 1/4"	0,92	**6-1078005**
GX50 BT ESD-G	2 - 4,9	600 to 1050	Lever	Hex 1/4"	0,92	**6-1078006**
GX100 BT ESD-G	4 - 9,8	150 to 550	Lever	Hex 1/4"	0,92	**6-1078007**

* The whole models of this series are delivered with one tool cable (3m) + sample powerbits.
Suitable controller : XS-35D - See page 18

Accessories

For GX/GX-G Series

Screw vacuum pick up

For GX/GXA	For SD/SDA	Vacuum system
GX30 Volts **6-1052500** GX40 Volts **6-1000230** GX30 Volts with torque ring cover **6-1000270** GX150/220 ESD-G40 Volts **6-1084100** GX450 ESD-G40 Volts **6-1084101** GXA ESD-G40 Volts **6-1084102** GXA ESD-G30 Volts **6-1000039** GX Micro **6-1052501** Vacuum pick up are delivered without the sleeve gun (on request).	SD18N/28N + SDA600/1000/18N/28N **6-1052502** SDA120/200/300 **6-1052503** SD05N/09N + SDA05N/09N **6-1052504** SD600/1500 **6-1052505** SD1000 **6-1052506** SD120/200/300 **6-1052507**	Vacuum pump DLP2570 **4-3004101** Venturi **4-3020305**

Accessories

Designation	Torque ring cover*	Spiral cable 3,5 m **6-1010413** Standard cable 3,0 m **6-1041225** Standard cable 5,0 m **6-1044703** Reinforced cable 3,0 m **6-1000026**	**Square 1/4''**
Code	**6-1041213** GX 30 Volts **6-1041205** GX 40 Volts **6-1078800** GX-G 40 Volts **6-1000232** GX035-045 **6-1000233** GX...BT, GY, PGY, GX...BT-G, GY-G, PGY-G **6-1077500** for GX...FS		Angle head kit for GX30 Volts **6-1000226** (except Micro GX) Angle head kit for GX150/220 ESG-G 40 Volts **6-1000302** Angle head kit for GX450 ESD-G 40 Volts **6-1000229** Angle head kit for GX 40 Volts **6-1000227**
			E 6,3 Hex. female 1/4" drive (quick release)
			Angle head kit for GX...BT/GX...BT-G/GY/GY-G **6-1033300**

Designation	Programming Lock key**	Programming Lock key firmware upgrade**	**C 6,3 Hex. female 1/4" drive**
Code	**6-1044850**	**6-1000222**	Angle head kit for GX30 Volts **6-1000247** (except Micro GX) Angle head kit for GX40 Volts **6-1000249** Angle head kit for GX150/220 ESD-G 40 Volts **6-1000254** Angle head kit for GX450 ESD-G 40 Volts **6-1000255** Mounting of Angle head **6-1000257**

*Not suitable with vacuum pickup.
** Available only for standard series GX 30 & 40 Volts - To be ordered together.

Holster **4-1588700**	Cable 5m (GY-PGY) **6-1078888**	Pistol grip for 40 Volts
	Cable 3m (GY-PGY) **6-1077200**	**6-1000231** for GX 30 Volts (except for Micro GX and GX-FS) **6-1010420** for GX/GX-G 40 Volts

Model	Designation	Code
	For mounting on reaction arm from the top	**6-1045804** for GX 30 Volts* **6-1045801** for GX/GX-G 40 Volts **6-1045803** for GX...BT **6-1045800** for GY/HD 35 Volts **6-1045802** for HD 40 Volts **6-1045805** for GX...FS
	For mounting on reaction arm from below	**6-1041501** for GX 30 Volts*

* Except GX Micro

PLC Interface

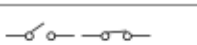
PLC interface U-3B

Code **6-1041520**

- Model U-3B
- Weight : 75g
- Size : 75(W) x 61(D) x 20(H)mm
- Type of signals :

- open collector by optocoupler (reversed)
- relay contact N.C
- Relay contact N.O

Converted signals by U-3B converter from XS-40D

N°	Wire Color	Signal	XS-40D	Interface converter
1	ORANGE	Spare		
2	ORANGE STRIPE	Torque Up		
3	BLUE	Motor Run		
4	BLUE STRIPE	Common for 2&3 wire		
5	GREEN	Driver Lock		
6	GREEN STRIPE			
7	BROWN	No use		
8	BROWN STRIPE	Spare		

DO Series

Torque range • Auto-shut off • CE • XS-38D Controller

0,2 to 4,41 NM

- designed for operator comfort : light weight and small sized, full ergonomic design
- designed for productivity : Robust and durable - Suitable with high production rate, Accurate shut-off clutch (+/- 3%), speed control, maintenance free (shut-off operated by magnetic sensor - no wearing)
- designed for quality : ESD free, External torque adjustment scale
- Noise level : <70 dBA, vibration level : <2,5 m/s²

DO Series

Model	Torque range (Nm)	Rotation speed (rpm)	Starting system	Drive	Weight (Kg)	Code
DO 250 ESD	0,2 - 2,45	630 or 1050	Lever	Hex 1/4"	0,72	**6-1040036**
DO 350 ESD	0,2 - 3,43	460 or 750	Lever	Hex 1/4"	0,72	**6-1040037**
DO 450 ESD	0,3 - 4,41	330 or 550	Lever	Hex 1/4"	0,72	**6-1040038**
DO 250 P ESD	0,2 - 2,45	630 or 1050	Push to Start	Hex 1/4"	0,72	**6-1040040**
DO 350 P ESD	0,2 - 3,43	460 or 750	Push to Start	Hex 1/4"	0,72	**6-1040041**
DO 450 P ESD	0,3 - 4,41	330 or 550	Push to Start	Hex 1/4"	0,72	**6-1040042**

Standard equipment (supplied with the tool)

- Power supply cable 3 m
- 2 carbon brushes
- 2 bits Philips n° 0, n° 1
- Clutch adjustment springs
- Suspension ring
- User manual

Accessories & Wear spare parts

Designation	Carbon brush	Brush cap	Torque ring cover	Ring for arm mounting	Extra long cable 5 m	Spiral cable 3,5 m	Pistol Grip Kit
Code	**6-1041220**	**6-1041203**	**6-1041211**	**6-1041502**	**6-1044703**	**6-1010413**	**6-1010412**

GA Series

Torque range • Auto-shut off • CE • XS-38D Controller

0,08 to 1,18 NM

- designed for operator comfort : light weight and small sized, full ergonomic design
- designed for productivity : Accurate shut-off clutch (+/- 3%), speed control, maintenance free (shut-off operated by magnetic sensor - no wearing)
- designed for quality : ESD free, External torque adjustment scale, soft start, double hit mode.
- Noise level : <70 dBA, vibration level : <2,5 m/s²

GA Series

Model	Torque range (Nm)	Rotation speed (rpm)	Drive	Starting system	Weight (Kg)	Code
GA 150 ESD	0,08 - 0,78	700 or 1000	Hex 1/4''	Lever	0,31	**6-1040011**
GA 180 ESD	0,1 - 1,18	450 or 700	Hex 1/4''	Lever	0,31	**6-1040012**
GA 150 P ESD	0,08 - 0,78	700 or 1000	Hex 1/4''	Push to start	0,31	**6-1040013**
GA 180 P ESD	0,1 - 1,18	450 or 700	Hex 1/4''	Push to start	0,31	**6-1040014**

Standard equipment (supplied with the tool)

- Power supply cable 3 m
- 2 carbon brushes
- 2 bits Philips n° 0, n° 1
- Clutch adjustment springs
- Suspension ring
- User manual

Accessories & Wear spare parts

							Vacuum pick up assembly is provided without the sleeve (on request). The recommended bit length is 44 mm long. Fasting size : diameter 4mm.
Designation	Carbon brush	Brush cap	Torque ring cover	Ring for arm mounting	Extra long cable 5 m	Spiral cable 3,5 m	Screw vacuum Pick-up
Code	**6-1041219**	**6-1041203**	**6-1041212**	**6-1041500**	**6-1044703**	**6-1010413**	**6-1052500**

Controllers

- High productivity : Thanks to the unique SMPS technology (switching modulation), the connected screwdriver always delivers constant rotation speed and fastening force even for demanding fastening process (self-tapping tightening, soft joint....).
- Comfort : Light and compact.
- Durability : Built-in Over heat and Over Current protection prevent the screwdriver from damage or bad use.
- Economy : Maintenance free.
- Quality : Easy monitoring of your fastenings thanks to torque reached signal output, start and stop signal outputs, selectable softstart,

Screwdriver lock signal input for PLC (prevents screwdrivers activation until PLC input signal).

Model	Power (AC) (V)	Output voltage low (V)	Output voltage high (V)	Rated output (A)	Weight (Kg)	Size (mm)	For screwdrivers 30 and 40 Volts	Code
XS-40D	220	30	40	3	0,86	90x150x55	GX, GX-G, GX...FS Series	**6-1040065**
XS-40D FA	220	30	40	3	0,86	90x150x55	GXA, GXA-G Series	**6-1040080**

- High productivity : Thanks to the unique **SMPS technology** (switching modulation), the connected screwdriver always delivers constant rotation speed and fastening force even for demanding fastening process (self-tapping tightening, soft joint....)
- Comfort : Light weight and compact
- Durability : Built-in Over heat and Over Current protection prevent the screwdriver from damage or bad use
- Economy : Maintenance free
- Quality : Easy monitoring of your fastenings thanks to torque reached signal output, start and stop signal outputs, selectable softstart, Double-hit mode for soft joint, Screwdriver lock signal input for PLC (prevents screwdrivers activation until PLC input signal.

Model	Power (AC) (V)	Output voltage low (V)	Output voltage high (V)	Rated output (A)	Max. output (A)	Weight (Kg)	Size (mm)	For screwdrivers	Code
XT-30D-V2	220	20	30	1,2	2	0,33	70x130x40	GA Series	**6-1099550**
XS-38D V4.3*	220	30 20	38 30	2,5	5	0,7	90x150x55	DO Series GA Series	**6-1040063**

Controllers

• High productivity : Thanks to the unique SMPS technology (switching modulation), the connected screwdriver always delivers constant rotation speed and fastening force even for demanding fastening process (self-tapping tightening, soft joint....).
• Comfort : Light and compact.
• Durability : Built-in Over heat and Over Current protection prevent the screwdriver from damage or bad use.
• Economy : Maintenance free.
• Quality : Easy monitoring of your fastenings thanks to torque reached signal output, start and stop signal outputs, selectable softstart,
Screwdriver lock signal input for PLC (prevents screwdrivers activation until PLC input signal).

Model	Power (AC) V	Output voltage	Rated output	Weight (Kg)	Size (mm)	For Screwdrivers	Code
XS-35D	220	35	4	1,2	130x188x65	GX... BT, GX... BT-G series	**6-1077420**

XT-35D Advanced controller features

• Password protection
• Forward and Reverse Speed selectable
• Soft start for Forward and Reverse mode (from 30 to 200 Ms)
• Programmable angle
• Multi hit function for soft joint (from 1 to 10 shut off clutch)
• Multi sequence programm (as GXT model)
• Various Display Settings
• I/O interface
• RJ input for Scout II poka yoke Controller, Posi Control

Model	Power (AC) V	Output voltage	Rated output	Weight (Kg)	Size (mm)	For Screwdrivers	Code
XT-35D	230	35	4	2,4	95x221x143	GY..., GY-G series PGY..., PGY-G series	**6-1077421**

SCOUT Poka Yoke

SCOUT Poka yoke controller (Suitable with XS-38D, XS-38D FA, XS-40D, XS-35D, XT-35D)

Prevents screw fastening errors!
Supervised process!

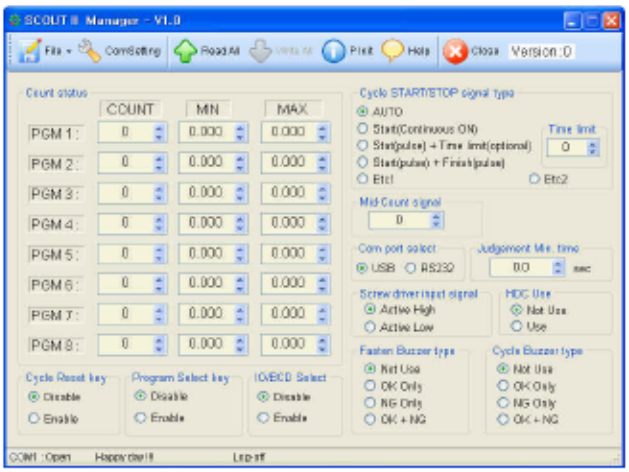
Set up to 8 tightening programs

Tightening monitoring :
- Detects cross threading, omissions, double tightening, unfinished rundown.
- Screws counting, OK-NG fastening, OK-NG cycle.
- Buzzer Alert, displays error conditions.

Sequence management :
- Parts detection, parts OK-NG sorting through PLC.
- Storage of several tightening settings with the parameter mode.

Model	Key features	Inputs features	Outputs features	Code
SCOUT II	> Password protection > Display of total fastened screw number > Display of remaining screw number > Built-in fastening time measurement function > Alarms: leds + several buzzers > Easy programming by scroll menu and self learning mode > Wall mountable	> Cycle start > Driver lock/unlock	> OK > NG > Buzzer alarm > Cycle end	**6-1074000**

Delivered with :
- Connection cable on controller
- I/O connection cable



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