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the torque tool specialists®

Product Bulletin

SD-Series
Torque Control System

RoHS

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The SD-Series is a versatile torque and automation control system engineered for precision accuracy and repeatable torque control. The SD-Series delivers cost savings and quality benefit through useful features such as digital adjustable torque setting, variable torque and speed control, multiple I/O options for integration with PLC and other line control techniques. A Windows based software package that can customize each fastening applications is included with the product. The torque control system features built-in error proofing data and screw counter. Multiple fastening strategies can be implemented for sensitive or of difficult assembly joints.

The SD Series tool increases productivity as one tool can be programmed to do the job of multiple conventional tools, saving time, maintenance cost, space and training.

The SD-Series features a programmable digital torque setting with memory for 8 preset torque settings. The electric screwdrivers feature the Swiss Maxon brushless motor technology and are engineered for high production environments. Built for critical low torque fastening applications, Mountz offers various hand held and robotic models that range from 0.08 - 24.3 inch-pounds. The controller of the SD-Series includes a built-in screw counter, which prevents screw-fastening errors and detects cross threading, omissions, unfinished rundowns and cycle incompletes.

The goal of the screw counting process is to ensure that all fasteners are accounted for during the assembly process. Further a fastening error is identified on the assembly line, the more it costs in rework time and expenses. If a fastening error is committed and detected during the assembly process, the operator can correct it or prevent the faulty product from moving along the manufacturing line or being shipped out to a customer. Making a safer world through accuracy and precision is the core purpose of Mountz, Inc.

Screwdrivers with a brushless motor have an extremely long operating life and provide consistent reliable performance. The screwdriver requires less maintenance with no need for replacement of expendable parts (carbon brushes, rotor, switches and other contact points). Heat generated by the motor is reduced and the screwdriver performance is always at the maximum level. With almost no expendable parts and simple design, the brushless screwdriver life cycle is extended and it maintains a clean working environment.

Brushless Electric Screwdrivers

- Various models that range from 0.08 - 24.3 lbf.in

- Electric Screwdrivers feature a high performance Swiss Maxon brushless motor design that provides durability and reduces the standard maintenance costs for electric screwdrivers.

- Low inertial force provides smooth reaction-less operation with little G force to assembled parts.

- Low noise, vibration and maintenance.

Built-in Screw Counter

- Detection of fastening error and displays error condition.

- Visual assembly fastener count (count up or down), including total count.

- Real time monitoring by PC program.

- Detects - cross threading, omissions, unfinished rundowns and cycle complete.

- Programmable screw counter settings.

- 0 to 99 screws.

Controller

- Programmable digital torque setting with memory for 8 preset torque settings.

- Real-time monitoring and torque control of the tightening process.

- Real time torque data and curve display (Speed vs Torque or Angle vs Torque).

- Real time fastening data output (USB, RS-232C).

- Selectable speed settings.

- Programming and monitoring with Smart-Manager (PC software).

- Programmable multi-sequence operation.

- Displays error information by code.

- Maintenance information and history memory. Firmware upgrade by Com port.

LCD Display

- Sequence setting (Preset #).

- Fastening torque.

- Fastening process status (OK/NG).

- Torque unit setting.

- Preset torque setting.

- Preset speed and actual RPM.

- Count setting and remaining screw count.

- Turns and fastening time.

Preset Parameter Settings

- Four selectable units of torque measurements: ozf.in, lbf.in, cN.m, Kgf.cm.

- Selectable settings for Torque, Speed, Min & Max Angle, and Soft Start time.

- Maximum angle control and verification.

- Minimum angle control and error reporting.

Screw Counting Selections

- Auto

- Start (Continuous on)

- Start Pulse with time limit

- Start Pulse and Finish pulse

I/O Interface & Settings

- 25P I/O interface to a PLC or 8 direct sensor ports.

- Sensor ports for preset selection and screw counting.

- Input via sensor ports for presets.

- Input / Output for PLC.

Motor Run Time Limits

- Motor run time limits, forward and reverse.

- Motor stall time limit.

- Sleep time.

- Motor acceleration for soft start.

Output Signal Types

- Count complete

- Torque up and Count complete

- Alarm, screw missing

Brushless Electric Screwdrivers (use with SDC-24 Controller)

Lever Start Models

Model	Driver Type	Item #	Torque Ranges lbf.in	cN.m	RPM High	Low	Grip Dia.	Length	Drive Size	Wt.
SD70-E	Lever Start	145919	0.08 - 0.6	1 - 6.9	1000	100	1 1/4"	7 1/3"	4mm D-Cut	9.2 oz
SD120-E	Lever Start	145912	0.14 - 1.3	1.7 - 14.7	1000	240	1 1/4"	7 1/3"	4mm D-Cut	9.2 oz
SD200-E	Lever Start	145913	0.4 - 1.7	4.9 - 19.6	1000	420	1 1/4"	7 1/3"	4mm D-Cut	10.4 oz
SD300-E	Lever Start	145914	0.8 - 2.6	9.8 - 29.4	890	360	1 1/4"	7 1/3"	4mm D-Cut	10.4 oz
SD600-A	Lever Start	145915	1.3 - 5.2	14.7 - 58.8	710	190	1 1/4"	7 1/3"	1/4" F/Hex	12 oz
SD1000-A	Lever Start	145918	1.7 - 8.6	19.6 - 98.1	430	130	1 1/4"	7 1/3"	1/4" F/Hex	12 oz
SD1500-A	Lever Start	145916	2.6 - 13	29.4 - 147.1	400	120	1 1/4"	7 1/3"	1/4" F/Hex	12.7 oz

Robotic Models

Model	Driver Type	Item #	Torque Ranges lbf.in	cN.m	RPM High	Low	Grip Dia.	Length	Drive Size
SDA70-E/FV	Remote Start	145920	0.08 - 0.6	1 - 6.9	1000	100	1 1/3"	9 1/2"	4mm D-Cut
SDA120-E/FV	Remote Start	145921	0.14 - 1.3	1.7 - 14.7	1000	240	1 1/3"	9 1/2"	4mm D-Cut
SDA200-E/FV	Remote Start	145922	0.4 - 1.7	4.9 - 19.6	1000	420	1 1/3"	9 1/2"	4mm D-Cut
SDA300-E/FV	Remote Start	145923	0.8 - 2.6	9.8 - 29.4	890	360	1 1/3"	9 1/2"	4mm D-Cut
SDA600-A/FV	Remote Start	145924	1.3 - 5.2	14.7 - 58.8	710	190	1 1/3"	9 1/2"	1/4" F/Hex

Robotic Off-Set Models

Model	Driver Type	Item #	Torque Ranges lbf.in	cN.m	RPM High	Low	Grip Dia.	Length	Drive Size
SD120Z-E/V	Remote Start	145928	0.14 - 1.3	1.7 - 14.7	1000	240	1 1/2"	8 1/3"	4mm D-Cut
SD200Z-E/V	Remote Start	145929	0.4 - 1.7	4.9 - 19.6	1000	420	1 1/2"	8 1/3"	4mm D-Cut
SD300Z-E/V	Remote Start	145930	0.8 - 2.6	9.8 - 29.4	890	360	1 1/2"	8 1/3""	4mm D-Cut

Brushless Electric Screwdrivers (use with SDC-40 Controller)

Lever Start Models

Model	Driver Type	Item #	Torque Ranges lbf.in	cN.m	RPM High	Low	Grip Dia.	Length	Drive Size	Wt.
SD18N-A	Lever Start	145962	3.5 - 15.6	39.2 - 176.5	1000	300	1 1/2"	9 1/3"	1/4" F/Hex	26.5 oz.
SD28N-A	Lever Start	145963	4.3 - 24.3	49.1 - 274.6	1000	190	1 1/2"	9 1/3"	1/4" F/Hex	26.5 oz

Robotic Models

Model	Driver Type	Item #	Torque Ranges lbf.in	cN.m	RPM High	Low	Grip Dia.	Length	Drive Size
SDA18N-A/FV	Remote Start	145964	3.5 - 15.6	39.2 - 176.5	1000	300	1 1/2"	9 1/3"	1/4" F/Hex
SDA28N-A/FV	Remote Start	145965	4.3 - 24.3	49.1 - 274.6	1000	190	1 1/2"	9 1/3"	1/4" F/Hex

Controllers

Model: SDC-24 Controller
Item # 145917
For driver models: SD070 - SD1500

Specifications
Input (Electric): AC120VC, 60Hz

Output (Electric): DC24V, 5A

Dimension (WxLxH): 3 1/3" x 8 1/4" x 5 1/8"

Weight: 3.5 lbs

Model: SDC-40 Controller
Item # 145956
For driver models: SD18N - SD28N

Specifications
Input (Electric): AC120VC, 60Hz

Output (Electric): DC40V, 3A

Dimension (WxLxH): 3 1/3" x 9" x 5 1/2"

Weight: 5.1 lbs

General Specifications (for both models)

Preset selection capability: Front panel or 25P I/O
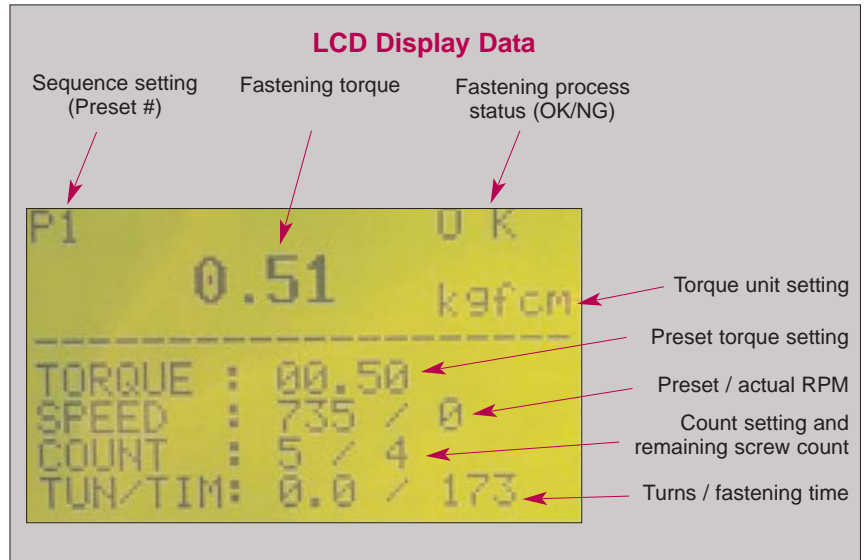
Angle Control: 0.1 - 10 turns

Preset Parameters: Torque, Speed, Soft Start & Angle in 8 preset numbers

Auto detection of the connected driver: Auto detection of the offset value from the EEProm on the driver

Error display: Error display by code no. in system, communication & pattern error group

Fastening Quality Control: OK/NG monitoring of screw fastening by preset pattern of angle and/or time.

PC based program for parameter settings, monitoring and real time output.
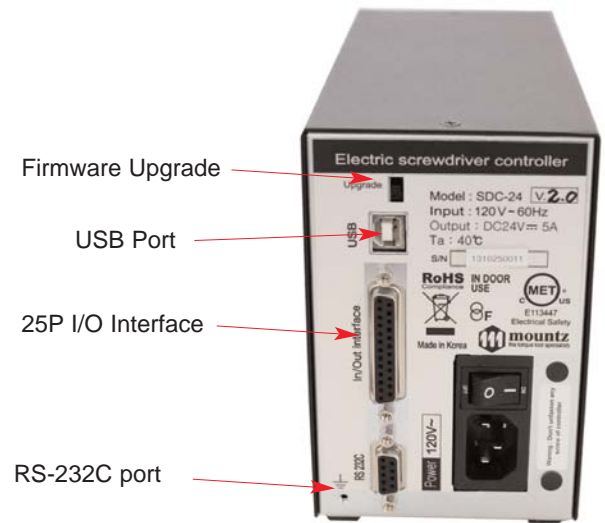
LCD Display Data

Sequence setting (Preset #) · Fastening torque · Fastening process status (OK/NG) · Torque unit setting · Preset torque setting · Preset / actual RPM · Count setting and remaining screw count · Turns / fastening time

Controllers

- Display Window
- Control Buttons
- Connection to Driver

- Firmware Upgrade
- USB Port
- 25P I/O Interface
- RS-232C port

Accessories

Model: U-2 Interface Box
Item: # 145758

8 Sensor ports for preset # selecting.
2 Sensor ports for count.
(Input power: 24VDC 1A))

Model: AC Adapter for U-2 Interface Box
Item: # 14-GCM6913

Cable 6 ft.
(RS232 to USB Type A)
Item: # 145780

Cable 25 Pin I/O
(Male-Male)
Item: # 145760

USB cable for connecting
Controller to PC.
Item: # 770319