



Product Bulletin



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HD-Series

Torque & Automation Control System



RoHS



The Mountz torque and automation control system is a revolutionary change in repeatable screw fastening technology. The patented HD-Series hybrid system is the world's first torque control tool using both air and electric power to set and control torque. The HD's precise pneumatic pressure sensor and patented algorithm allow for precision digital torque selection. It provides real-time monitoring and torque control of the tightening process. It provides repeatability of the torque applied to screws, regardless of joint characteristics and frictional differences in actual applications. Affordable, flexible system that can replace up to 8 conventional screwdrivers.

Key Benefits

Productivity/ Flexibility	Increase productivity with one tool instead of 2 - 8 tools. Perfect for cell based manufacturing environments, change torque via front panel, PLC or direct connection to I/O on controller.
Quality	Visual digital torque & speed control. Built in screw counter, error detection, fastening strategy setting and customized software package provide documented fastening and control.
Cost	Less than half the cost of conventional DC control tools - state of the art technology at a fraction of the price. Replace 2 - 4 tools with 1 Hybrid system.

Brushless Electric Screwdrivers

- Various models that range from 4.4 - 86.8 lbf.in
- Electric Screwdrivers feature a high performance brushless motor design that provides durability and reduces the standard maintenance costs for electric screwdrivers. ESD housing and bit tip control to 1 ohm, (cable not ESD).
- Low inertial force provides smooth reaction-less operation with little G force to assembled parts.
- Low noise, vibration and maintenance.

LED Display

- Preset and Speed.
- Preset and Torque.
- Converted Torque Idle & Target Torque (Running)
- Count setting and remaining screw count.
- Count setting and remaining screw count (Idle)
- + Preset and Torque (Running).
- Count setting and remaining screw count +
- Preset and Torque (Alternating).

Preset Parameter Settings

- Three selectable units of measure: lbf.in, N.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

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.

Output Signal Types

- Count complete
- Torque up and Count complete
- Alarm, screw missing

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.
- Selectable speed up to 1,800 rpm.
- Programming and monitoring with PC software.
- Programmable multi-sequence operation.

Screw Counting Selections

- Auto
- Start (Continuous on)
- Start Pulse with time limit
- Start Pulse and Finish pulse

Motor Run Time Limits

- Motor run time limits, forward and reverse.
- Motor stall time limit.
- Sleep time.
- Motor acceleration for soft start.

Brushless Electric Screwdrivers

BRUSHLESS ELECTRIC SCREWDRIVER

(use with HDC40i Controller)

Model	Driver Type	Item #	Torque Ranges		RPM		Grip Dia.	Length	Drive Size	Wt.
			lbf.in	cN.m	High	Low				
HD150-A	Lever Start	145741	4.4 - 13	49.1 - 147	1800	500	1 1/4"	9 2/3"	1/4 F/Hex	15.5 oz.
HD150P-A	Push-to-Start	145742	4.4 - 13	49.1 - 147	1800	500	1 1/4"	9 2/3"	1/4 F/Hex	15.5 oz.
HD220-A	Lever Start	145743	6.1 - 19.1	68.7 - 215.8	1250	400	1 1/4"	9 2/3"	1/4 F/Hex	15.5 oz.
HD220P-A	Push-to-Start	145744	6.1 - 19.1	68.7 - 215.8	1250	400	1 1/4"	9 2/3"	1/4 F/Hex	15.5 oz.
HD450-A	Lever Start	145745	8.7 - 39	98.1 - 441.4	600	300	1 1/4"	9 2/3"	1/4 F/Hex	15.5 oz.
HD450P-A	Push-to-Start	145746	8.7 - 39	98.1 - 441.4	600	300	1 1/4"	9 2/3"	1/4 F/Hex	15.5 oz.

BRUSHLESS ELECTRIC SCREWDRIVER

(use with HDC35i Controller)

Model	Driver Type	Item #	Torque Ranges		RPM		Grip Dia.	Length	Drive Size	Wt.
			lbf.in	cN.m	High	Low				
PHD35N-A	Pistol Grip	145931	10.4 - 30.3	117.5 - 342.4	1500	500	1 7/8"	8 7/8"	1/4 F/Hex	1.8 lbs
PHD50N-A	Pistol Grip	145932	13 - 43.4	146.9 - 490.4	1200	300	1 7/8"	8 7/8"	1/4 F/Hex	1.8 lbs
PHD100N-A	Pistol Grip	145933	26 - 86.8	293.8 - 980.8	700	300	1 7/8"	8 7/8"	1/4 F/Hex	1.9 lbs
HD100N-A	Lever Start	145821	26 - 86.8	293.8 - 980.8	700	300	1 1/2"	11 1/3"	1/4 F/Hex	1.7 lbs

Controllers

General Specifications

Input (Air Pressure): Min 5 Bar (72.5 PSI) / Max 6.5 Bar (92.2 PSI)

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

Preset selection capability: Front panel or 25P I/O

HDC40i SPECIFICATIONS

Model: HDC40i Hybrid Controller
Item # 145740

Input (Electric): AC120VC ~ 220V, 50–60Hz

Output (Electric): DC40V, 3A

Fuse: AC250V 10A

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

Weight: 4.6 lbs

For driver models: HD150, HD220 & HD450

HDC35i SPECIFICATIONS

Model: HDC35i Hybrid Controller
Item # 145820

Input (Electric): AC120VC ~ 220V, 50–60Hz

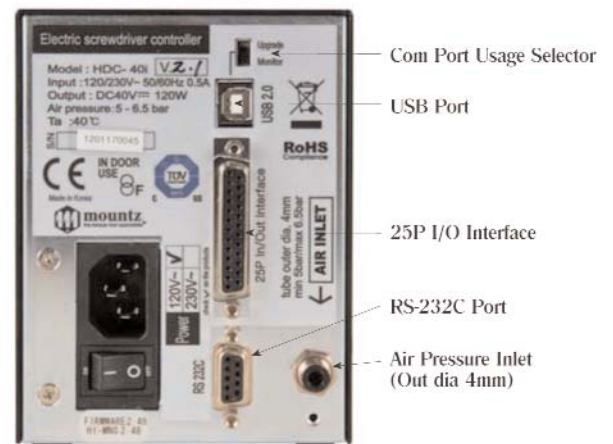
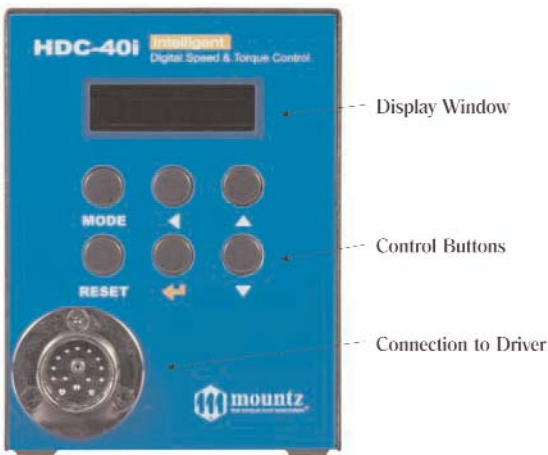
Output (Electric): DC35V, 4A

Fuse: AC250V 15A

Dimension (WxLxH): 4 1/8" x 9" x 5 2/3"

Weight: 5.7 lbs

For driver models: PHD35N, PHD50N, PHD100N & HD100N



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



Mini Air Compressor
Oil free mini air compressor with auto pressure switch with one-touch male connector (for tube OD 8mm), unit can support 1 - 4 Hybrid Controller Systems.

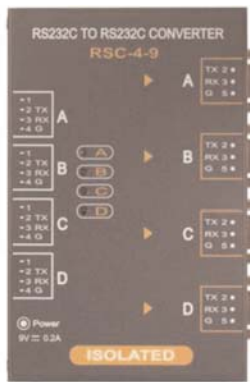
1/8HP, Start at 70PSI, Stop at 90PSI
Flow: 20LPM
Weight: 9.5 lbs.
120V

Model: MAC-20
Item # 145737

Accessories

Model: Pistol Grip
Item # 145738

Converts inline drivers to pistol grip.
Fits driver models:
HD150, HD220 & HD450
(driver not included)



Model: RSC-4-9 Converter
Item # 145784

Model: AC Adapter for RSC-4-9
Converter
Item # 14-GCM6913



Model: SB-32W
Item # 145759



Cable

The driver cable connects the driver to the HDC controller. This cable provides both air and current to the driver, as well as signals back to the controller.

Replacement Cable

Item # 14-3000238

For Drivers: HD150, HD220 & HD450
PHD35N, PHD50N, PHD100N & HD100N