

C Series (Current control type)

Model DLV04C/DLV10C

Features

- Easy fastening setting by controller
- Current Controlled Torque System suitable for screw fastening work
- Low-voltage brushless motor
- ESD (electrostatic discharge) protection structure
- For both hand-held / automatic machines
- Controller has built in counting function. Prevents human errors

Four screwdrivers can be consolidated into one

*The range varies depending on SOFT fastening or HARD fastening.
 *When the same bit is used.



DCC0101X-AA

Controller can be set to any torque and speed within range.

Torque:
DLV04C 0.05 to 0.4 Nm [0.44 to 3.54 lbf · in]
DLV10C 0.2 to 1.0 Nm [1.77 to 8.85 lbf · in]
Speed: 100 to 1000 min⁻¹

All in one!

- 0.25 Nm 450 min⁻¹ 1st unit
- 0.15 Nm 600 min⁻¹ 2nd unit
- 0.35 Nm 1000 min⁻¹ 3rd unit
- 0.30 Nm 450 min⁻¹ 4th unit

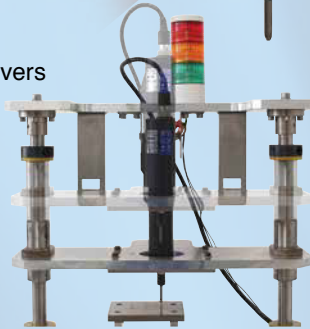
Torque 0.05 to 1.0 Nm range
 [0.4 to 8.9 lbf·in]

Easily adapts for use in automatic machines

The sequencing of the screwdrivers can be controlled by a PLC.



DLP6650



For installation on automatic assembly machines, attach optional flange coupling (DLW9015) or vacuum pickup (DLP6650).

Built-in Screw Fastening Counter Function

Controller has built in counting function. Prevents human errors.



Specifications

Model	Bit	DLV04C10L-AY : K	DLV10C10L-AY : K
Starting Method		Lever start	
Power Source		From dedicated controller	
Torque Adjustment		Adjustment from 1 to 100% in 1% increments	
Torque (Nm [lbf·in])	SOFT fastening setting (1000 min ⁻¹ setting)	0.05 to 0.4 [0.4 to 3.5]	0.2 to 1.0 [1.8 to 8.9]
	SOFT fastening setting (600 min ⁻¹ setting)	0.05 to 0.35 [0.4 to 3.1]	0.2 to 0.45 [1.8 to 4.0]
	HARD fastening setting	0.05 to 0.4 [0.4 to 3.5]	0.2 to 1.0 [1.8 to 8.9]
Free Speed (min ⁻¹)	SOFT fastening setting	600 to 1000	
	HARD fastening setting	100 to 1000	
Power Consumption	(W)	30	
Screw Size (mm)	Machine screw	1.2 to 3.0	1.8 to 4.0
	Tapping screw	1.1 to 2.5	1.6 to 3.5
Bit Type		NK35 (OD6.35 mm [1/4"] Hex. Shank)	
Mass		370 g [0.82 lbs]	
Rated Operation		ON: 0.5 seconds / OFF: 3.5 seconds	
Bit Grounding		Equipped as standard	
Standard Accessories		• Bit NK35(No.0 x 4 x 75): 1 pc. • Bit NK35(No.1 x 4 x 75): 1 pc. • Bit NK35(No.2 x 4 x 75): 1 pc. • Connection Cord 2 m (DLW9075): 1 pc. • Suspension Bail: 1 pc.	• Bit NK35(No.1 x 4 x 75): 1 pc. • Bit NK35(No.2 x 4 x 75): 1 pc. • Connection Cord 2 m (DLW9075): 1 pc. • Suspension Bail: 1 pc.

Please contact us for 4 mm bit type ("M" Bit).

Model	DCC0101X-AZ : P*1
Power Source	100 - 240 V AC, 50/60Hz
Operation Channel Function	Torque and speed setting in 4-channel memory Can switch to any operation channel
Count Function	Tracks screws fastened Workpiece detector can be incorporated
External Start up Control Function	Start up control can be enabled by external input signal
Output Voltage	24 V DC
Input Signal Method	Photocoupler input (24 V DC drive (5 mA/1 input), respond to PNP output)
Output Signal Method	Photocoupler output (30 V DC or less, 30 mA/1 output or less, PNP output method)
Service Power Source	24 V DC (Maximum capacity 200 mA)
Power Consumption	When on standby: 20 W During electric screwdriver rotation (rated): 30 W
Mass	1100 g [2.4 lbs]
ESD (Electrostatic Discharge) Protection	Adopted (IEC61340-5-1 compliant)
Power Cord 2 m (Optional)*2	DLW9220 / DLW9240 / DLW9250

*1) DCC0101X-AZ N with NPN output also available

*2) The power cord is sold separately.

Ask us for the required power cord when ordering. (see page 17 "Optional Accessories")



Comparison of Adjustment Method with Conventional Model

<p>Torque adjustment</p>	<p>Torque is adjusted by turning the adjustment ring at the end of the screwdriver.</p>		<p>Can be set with the external controller. No need to adjust the screwdriver body.</p>
<p>Conventional → C Series</p>			
<p>Speed setting</p>	<p>The speed of transformerless type screwdrivers is fixed for each series.</p>		<p>Can be set with the external controller. Adjustable between 100 to 1000 min⁻¹.</p>



SOFT / HARD Fastening Settings

Two types of fastening mode available subject to the workpiece. Coordinate the actual workpieces, screws and operating conditions and determine the fastening mode.

SOFT fastening setting

Suitable for workpieces with high fastening load such as tapping screws or fastening soft objects such as rubber.

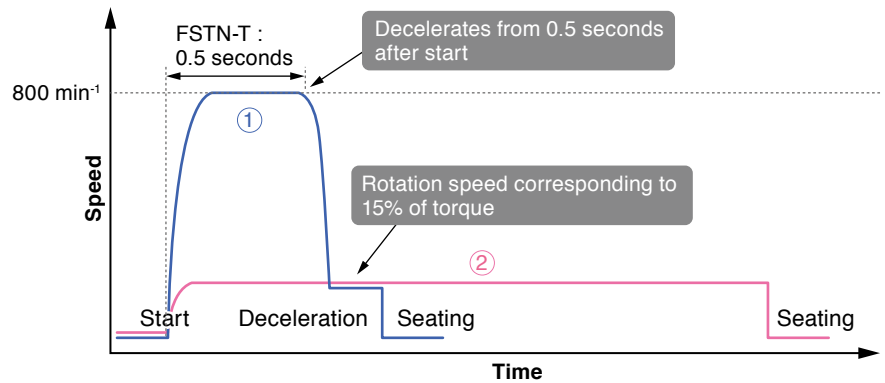
HARD fastening setting

Suitable for workpieces with small fastening load such as threaded holes or rigid bodies such as metal.

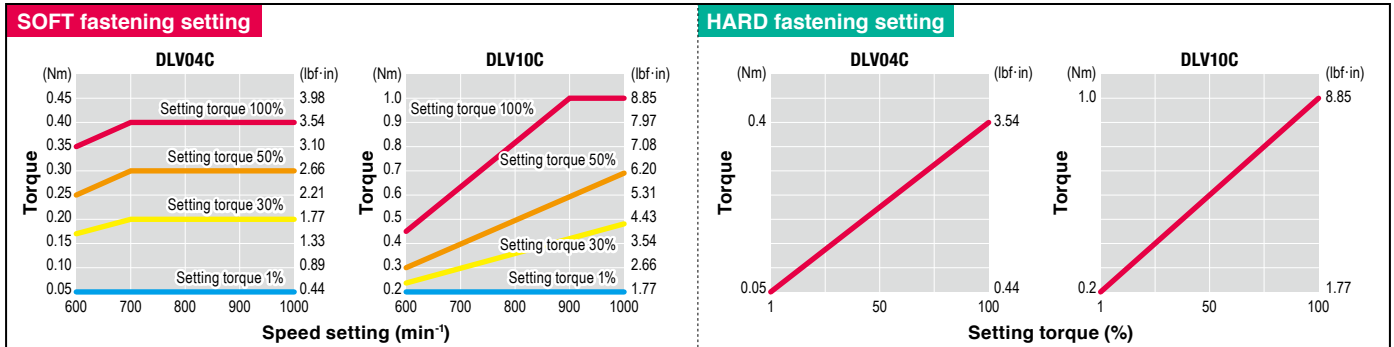
FSTN-T (Fastening Timer)

Can be set when "HARD" fastening setting is selected. By increasing the rotation speed during no-load fastening time prior to seating, the overall fastening time is reduced.

- ① Example with Fastening Timer**
 Speed: 800 min⁻¹
 Torque: 15%
 Fastening Timer: **0.5 sec**
- ② Example without Fastening Timer**
 Torque: 15%
 Fastening Timer: **0 sec**

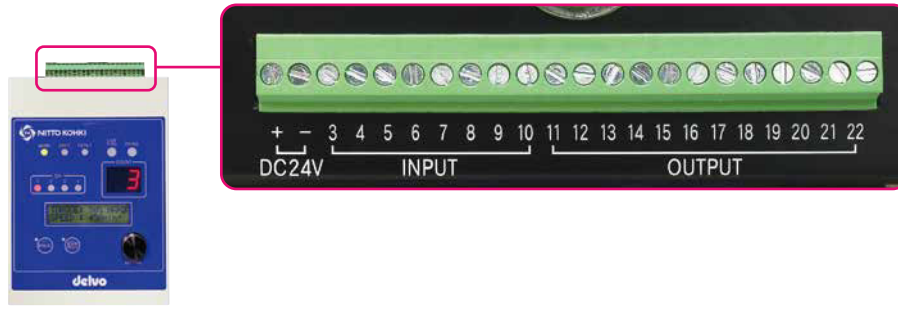


Output Torque and Rotation Speed



*The graph is for guidance only. The output torque range is not guaranteed.

External Signals



You can input or output external signals via a signal terminal block.

Terminal No.	Function	Details	I/O
1 (+)	+24 V DC	Built-in service power source (Capacity: Maximum 200 mA) • Use in power source for input/output signal common wire, or for the workpiece detection sensor, etc.	Service power source
2 (-)	0 V DC		
3	Channel A	In the 2-bit input signal, specify the operation channel (CH1 to CH4) • Valid only when "operation channel switching method" (No.1 CH-CHG) is set to "INPUT"	Input
4	Channel B		
5	Forward rotation startup	Startup with external input signal	
6	Reverse rotation startup		
7	WORK	Input the workpiece signal (workpiece detection sensor output) • With "count function" (No.11 COUNT-FNC) and "workpiece signal" (No.12 WORK-SNSR) set to ON, the workpiece signal input is valid	
8	WORK RESET	Reset operation (same as controller [WORK RESET] button)	
9	Keylock	Lock the controller button operation • Disable the controller button operation, and prevent setting changes by the operator	
10	Input signal negative common wire	Connect 0 V DC* • Service power source (terminal No.2) or external 0 V DC power source can be connected	Output
11	Forward rotation signal	Set output signal during forward rotation to ON	
12	Reverse rotation signal	Set output signal during reverse rotation to ON	
13	Count-up (C-UP)	Performance of normal screw tightening (torque-up) sets output signal to 0.3 seconds ON	
14	Screw fastening NG (F-NG)	If screw fastening NG, sets output signal to 0.3 seconds ON	
15	Operation channel 1 (CH1)	Set the channel output signal to ON during operation or settings	
16	Operation channel 2 (CH2)		
17	Operation channel 3 (CH3)		
18	Operation channel 4 (CH4)		
19	Operation OK	If the set count screw tightening is judged to be completed and operation OK, the output signal is set to ON	
20	Operation NG	When the WORK input signal is OFF during an operation, and the operation is judged to be NG, the output signal is ON	
21	Space	Connection impossible	
22	Output signal positive common wire	Connect +24 V DC* • Service power source (terminal No.1) or external +24 V DC can be connected	

*When PNP output

Optional Accessories

Grounded 3-Prong Power Cord 2 m	Screw Fastening Monitor DTM10	Vacuum Sleeve DLS4000 series	Vacuum pickup DLP6640	Vacuum pickup (for automatic machine) DLP6650
DLW9220 North America DLW9240 Europe DLW9250 UK	 See page 50 For traceability management! Outputs torque value from a screwdriver (converted value)	 See page 49 Select according to the screw shape	 See page 49	 See page 49
Torque Checker DLT1173A See page 46	Screw joint (with white rubber) DLW4540 See page 46 For DLV04C SOFT fastening torque measurement	Screw joint (with black rubber) DLW4550 See page 46 For DLV10C SOFT fastening torque measurement	Screw joint (with metal washer) DLW4560 See page 46 For HARD fastening torque measurement of both DLV04/10C	Screw Vacuum Pump DLP2530 (100 V AC) DLP2570 (230 V AC) See page 51 Connect the tube to the vacuum pickup port. The vacuum will pick up the screw.
Flange coupling (for automatic machine) DLW9015 See page 53 For mounting on automated screw fastening machines	Connection Cord 2 m DLW9075 Standard accessory of screwdrivers Connects controller and screwdriver	Extension Cord 3 m DLW9300 Extends cord length between controller and screwdriver		