

# delvo Brushless Type C Series (Current control type)

Model **DLV45C / DLV70C** NEW

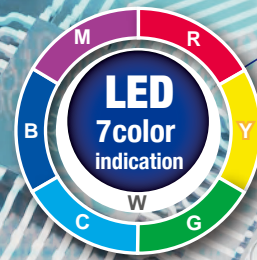
## Thirty different torque settings can be set on a single screwdriver!

- Current controlled torque system
- Low-voltage brushless motor
- ESD (Electrostatic Discharge) protection structure
- For both hand-held / automated machines (External startup)
- Nine speed settings available
- Automatic three step speed control function
- Two types of measuring methods (Time/Motor rotation signal)
- Seven color indication LED (At the tip of the screwdriver)
- Two external I/O signal connection ports (NPN ↔ PNP switchable, RS-232C)
- Various settings can be configured via a PC (Free setting software available on NITTO KOHKI website)
- Built-in screw counting function

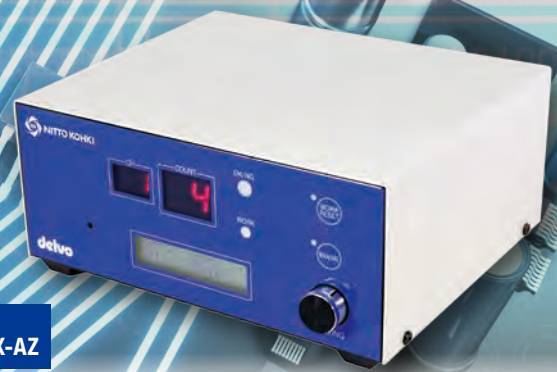


Lever Start Type  
DLV45C12L

Push to Start Type  
DLV70C06P



Controller  
DCC0241X-AZ



Website



Youtube



# All in one!

# Torque and fastening setting of

**1st unit**

1.2 Nm  
1000 min<sup>-1</sup>

**2nd unit**

1.8 Nm  
500 min<sup>-1</sup>

**3rd unit**

3.0 Nm  
800 min<sup>-1</sup>

**4th unit**

1.8 Nm  
500 min<sup>-1</sup>

## delvo Brushless Type C Series (Current control type)

Model **DLV45C / DLV70C**

Brushless Electric Screwdriver for Machine screw (3.0 - 8.0 mm)



Lever Start



Push to Start



Low Voltage



Brushless Motor



Grounded Bit



LED Equipped



ESD Protection



Soft Start

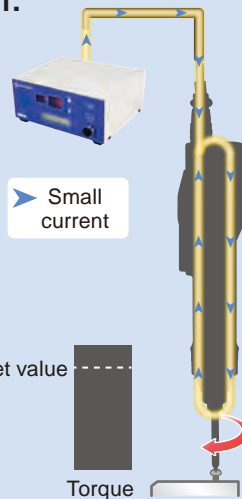


Variable Speed

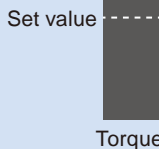


Soft Stop

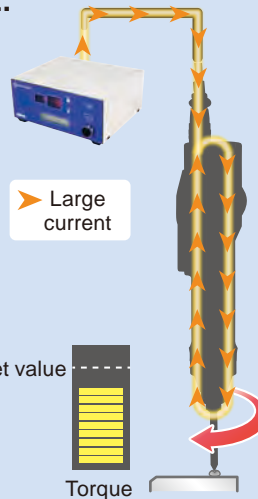
1.



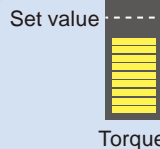
Small current



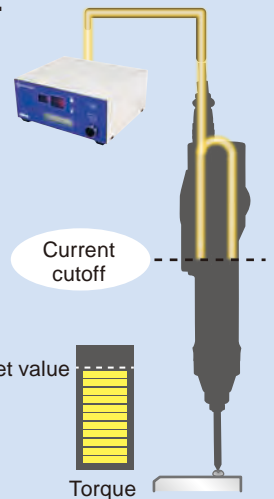
2.



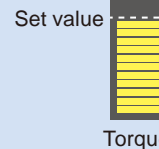
Large current



3.



Current cutoff



### 1. Start of fastening

At start-up, a small amount of current is allowed.

### 2. During fastening

As the load increases during fastening, so does the amount of current allowed.

### 3. End of fastening

When the desired current value (adjusted by corresponding torque value) is reached, current flow is cut off and the screwdriver stops.

Mechanism of Current Controlled Torque System

## Specifications

Model	Bit	Lever Start	DLV45C12L-AY	K	DLV70C06L-AY	K
		Push to Start	DLV45C12P-AY	K	DLV70C06P-AY	K
Power Source		From dedicated controller				
Torque Adjustment		From 1 to 100% in 1% increments				
Torque		(Nm [lbf-in])	0.6 to 4.5 [5.3 to 39.8]		2.0 to 7.0 [17.7 to 62.0]	
Free speed	SOFT fastening setting	Speed Level	400 to 1200		210 to 650	
		Level	Level 1 to 9			
	HARD fastening setting	Speed Level	100 to 700		100 to 430	
		Level	Automatically set by torque setting			
Power Consumption		(W)	44			
Screw Size	(mm)	Machine Screw	3.0 to 6.0		4.5 to 8.0	
		Tapping Screw	2.5 to 5.0		4.0 to 6.0	
Bit Type	(mm)					
Mass		(kg [lbs])	0.63 [1.39]			
Rated Operation		ON: 0.5 seconds / OFF: 3.5 seconds				
Standard Accessories		Bit NK35 (No.2×7×75): 1 pc. Connection Cord 2 m (DLW9078): 1 pc. Suspension Bail: 1 pc.				

Model	DCC0241X-AZ
Input Voltage	100 - 240 V AC, 50/60 Hz
Output Voltage	40 V DC
Input Signal Method	Photocoupler input (24 V DC drive (5 mA/1 input), NPN/PNP switchable)
Output Signal Method	Photocoupler output (30 V DC or less, 80 mA/1 output or less, NPN/PNP switchable)
Service Power Source	24 V DC (Maximum capacity 200 mA)
Serial Signal Method	RS-232C
ESD (Electrostatic Discharge) Protection	Adopted (IEC61340-5-1 compliant)
Mass	(kg [lbs]) 1.8 [3.97]

#### Caution

\*Speed and torque differs depending on the temperature. (Use within the range of +10 to +40°C)

\*Do not retighten screws that are already tightened. The torque will become larger than the set torque.

**About optional accessories** (See page 8 "Optional Accessories")

\*The power cord for the controller (DCC0241X-AZ) is sold separately.

Ask us for the required power cord when ordering.

\*For torque measurements, please use Nitto Kohki's Torque Checker and Soft Joint / Hard Joint (sold separately).

# thirty screwdrivers can be consolidated into one.

**5th unit**  
3.0 Nm  
1000 min<sup>-1</sup>

**30th unit**  
3.0 Nm  
400 min<sup>-1</sup>



**Memorizes thirty patterns!**

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

## SOFT / HARD fastening Settings

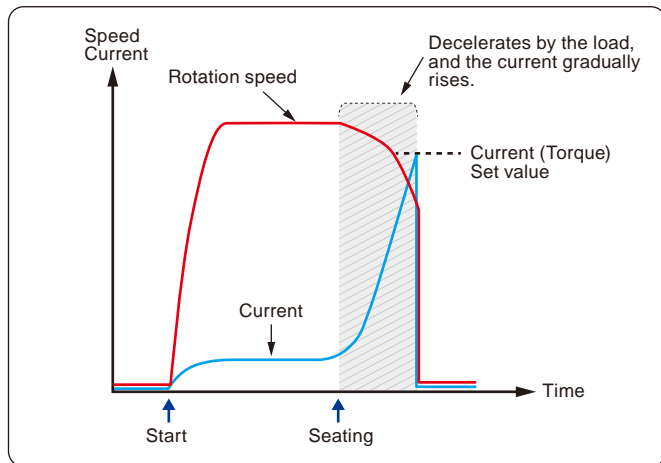
Instruction manual P72, P73

### SOFT fastening setting

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

#### Timing chart

The image of the control action, seating the screw at the set rotation speed.

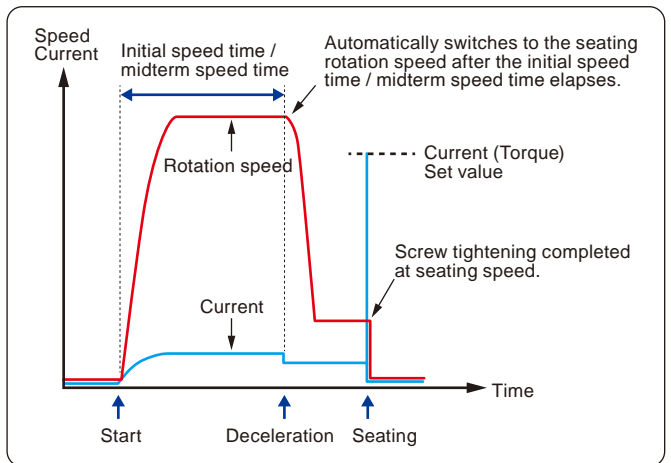


### HARD fastening setting

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

#### Timing chart

A control that seats the screw at the seating rotation speed according to the torque setting value, when the initial speed time / midterm speed time is elapsed.



\*When measuring the torque with Torque Checker, use Soft Joint (DLW4050) for SOFT fastening setting, use Hard Joint (DLW4040) for HARD fastening setting. (See page 8)

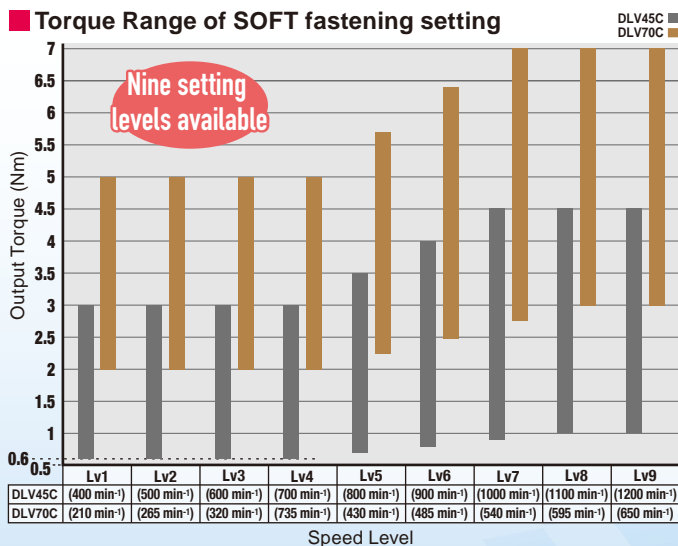
## Torque range: Output Torque and Rotation Speed

Instruction manual P11 to P13

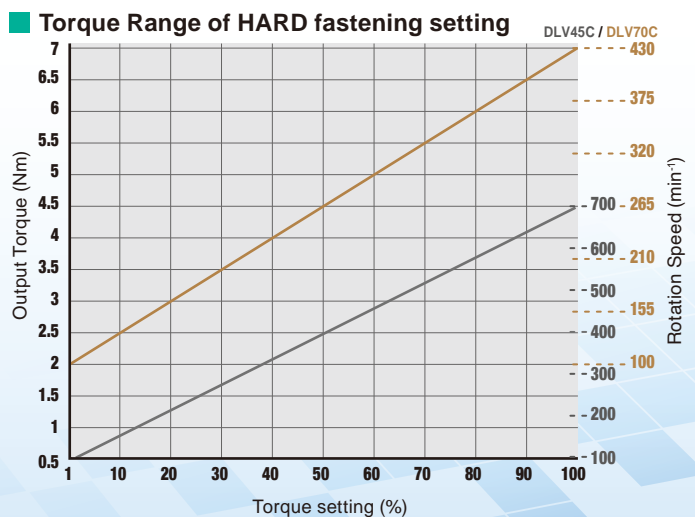
There are nine levels for rotation speed setting. (DLV45C: 400 to 1200 min<sup>-1</sup> / DLV70C: 210 to 650 min<sup>-1</sup>) Corresponds to high torque fastening, even at SOFT fastening setting or slow rotation speed.

(DLV45C: Corresponds to a maximum of 3 Nm at 400 min<sup>-1</sup> / DLV70C: Corresponds to a maximum of 5 Nm at 210 min<sup>-1</sup>)

### Torque Range of SOFT fastening setting



### Torque Range of HARD fastening setting

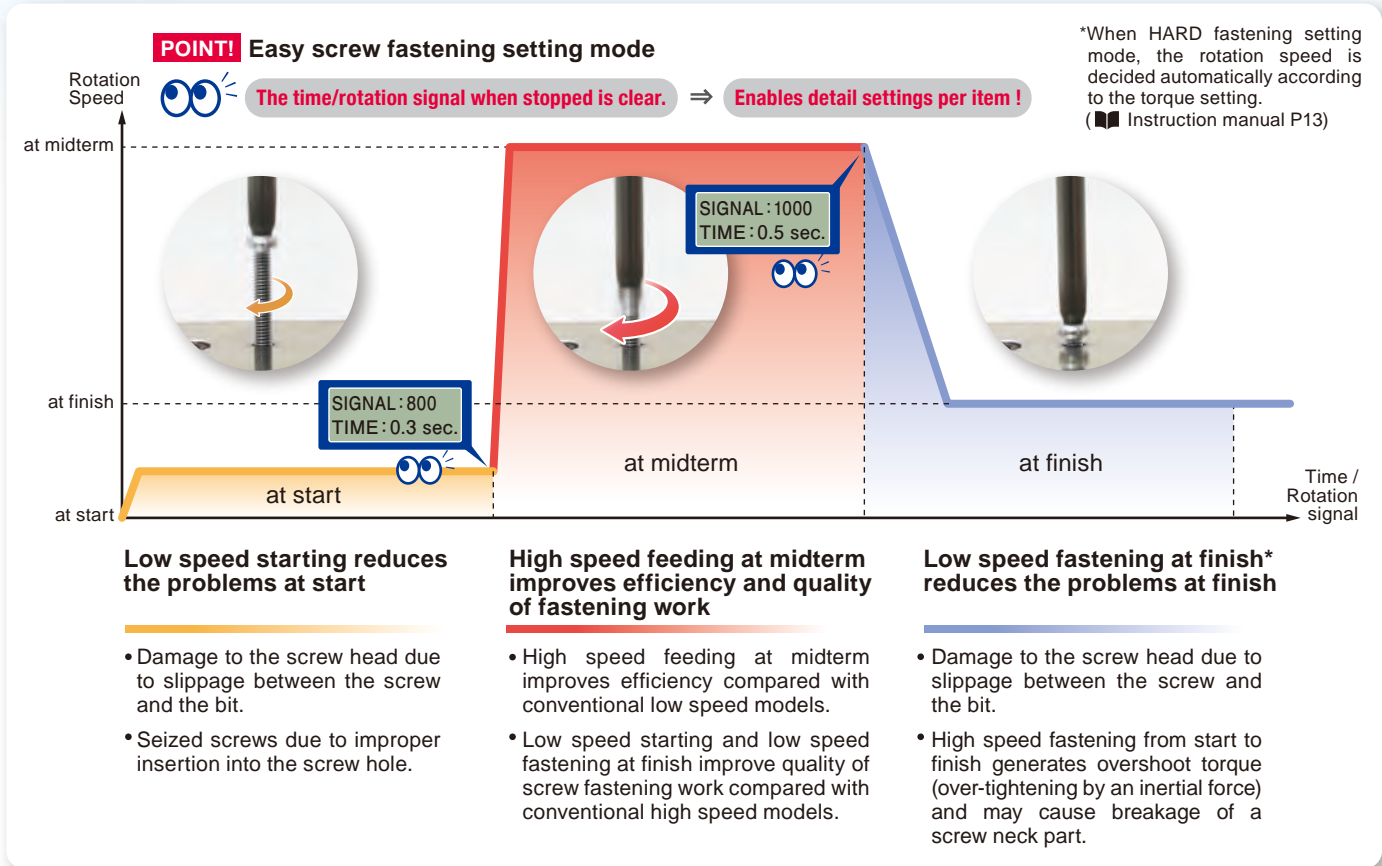


## Rotation speed: Built-in automatic speed control function

Built-in automatic three step variable speed control function. Enables compatibility of "quality of slow speed" and "efficiency of high speed".



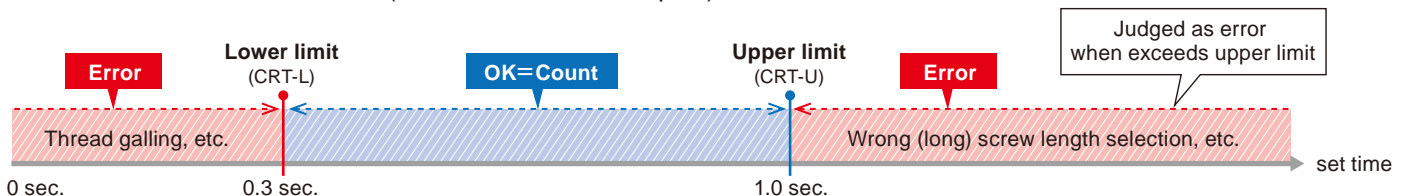
◇ Timing chart (Below rotation speeds and times are examples)



## Screw fastening time measuring (Upper / Lower limit)

Instruction manual P33, P34

The upper / lower limit of screw fastening time (correct timer) can be set. It will be judged as "correct fastening" only when the measured time is between the upper limit and lower limit. Either limit can be switched off. (Below times are examples)



## Two types of measuring methods

Instruction manual P42

There are two methods to measure the setting time of start and midterm.

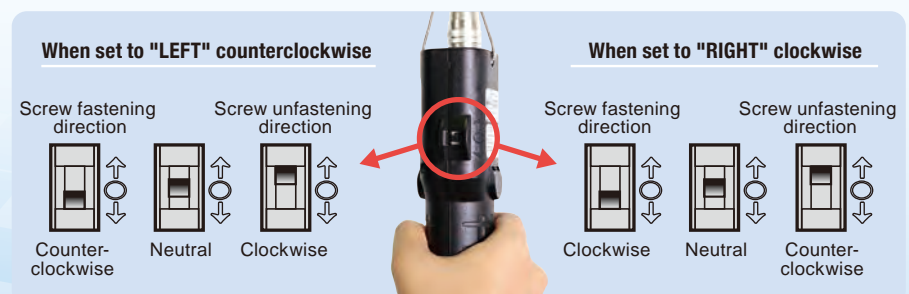
**TIME**  
Measure by time. You can decide the setting value intuitively.

**MOTOR SIGNAL**  
Measure by the motor rotation signal. Even if you change the rotation speed, you do not need to set the measurement time or rotation time.

## Rotation direction setting

Instruction manual P38

Set the direction for forward rotation. "RIGHT" for right-handed screws (clockwise), "LEFT" for left-handed screws (counterclockwise).



## Channel setting

Instruction manual P4, P29, P74, P75

Register up to 30 channels //

The unit of fastening work performed continuously under the same conditions is called a "channel". Up to thirty channels can be registered in the memory.



### Example of motion setting

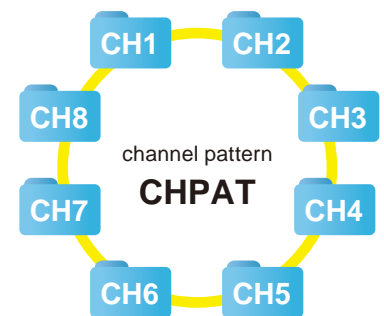
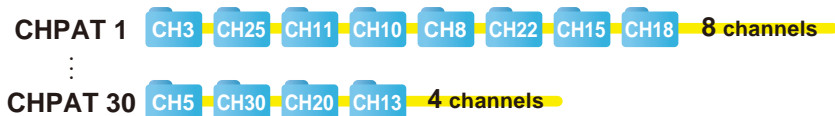
Channel	CH1	CH2	CH3	CH4	.....	CH30
1: Screw fastening mode	SOFT	SOFT	HARD	SOFT	.....	HARD
2: Number of screw fastening	2 pcs.	13 pcs.	5 pcs.	3 pcs.	.....	20 pcs.
3: Speed level at finish	Lv5	Lv9	AUTO	Lv1	.....	AUTO
4: Torque	10%	80%	30%	45%	.....	20%
5: Speed level at start	Lv1	OFF	Lv9	Lv3	.....	Lv1
6: Rotation time at start	0.1 sec.	—	0.3 sec.	0.8 sec.	.....	1.0 sec.
7: Speed level at midterm	Lv9	OFF	OFF	Lv8	.....	Lv7
8: Rotation time at midterm	0.5 sec.	—	—	1.2 sec.	.....	0.5 sec.
9: Speed level at reverse rotation	Lv9	Lv9	Lv7	Lv5	.....	Lv5
⋮	⋮	⋮	⋮	⋮	.....	⋮
26: Rotation direction	RIGHT	RIGHT	RIGHT	LEFT	.....	RIGHT

## Channel pattern setting

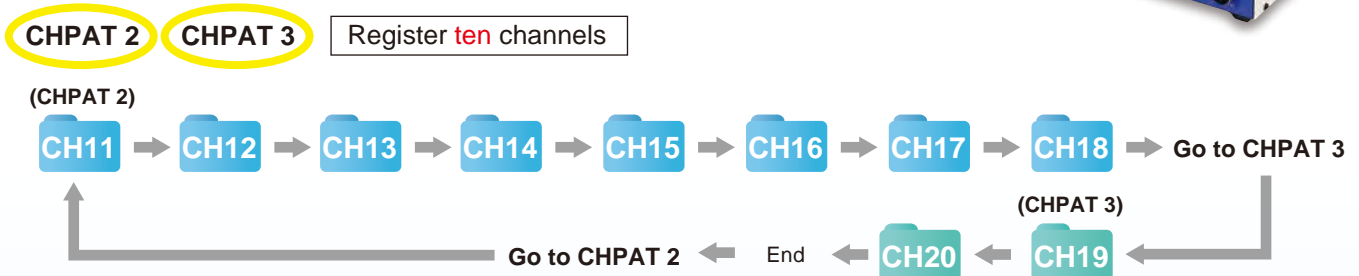
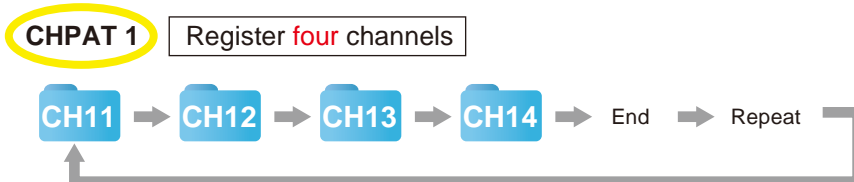
Instruction manual P4, P39, P74

A series of operations combining each channel is called a "channel pattern". Up to eight channels can be registered per channel pattern. Up to thirty channel patterns can be set. When combining nine or more channels, use multiple channel patterns.

Combination up to eight channels //



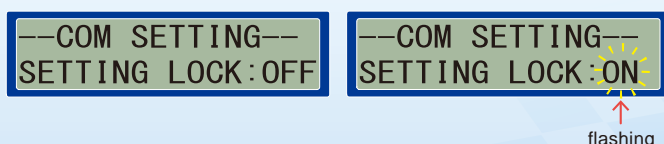
### Example of channel pattern



## Setting lock function

Instruction manual P43

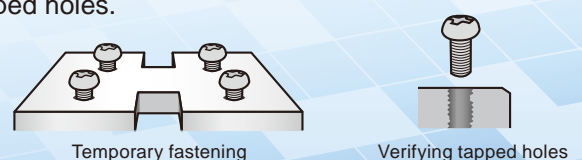
Entry of password to enter channel setting mode can be enabled/disabled. Prevents unintended setting change.



## Auto reverse function

Instruction manual P36

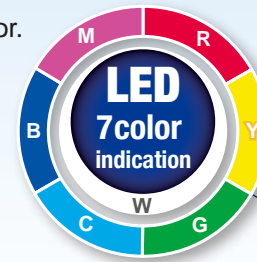
The screwdriver automatically reverses after torque-up or reaching the preset time. Auto reverse mode can be used for temporarily fastening screws or verifying tapped holes.



## Built-in LED function

Instruction manual P20, P38

The LED at the tip of the electric screwdriver is always lit in the specified color. Color coding for each channel is possible. Also, it lights in the specified color when OK(PASS) / NG(FAIL) / count up.



Status in three colors



Controller

- OK(PASS)
- NG(FAIL)
- Count up

## Two safety functions

### 1. Caution mode

Instruction manual P45

A torque value that alerts the operator can be set. After the channel is switched, if the torque exceeds the preset value, a warning is displayed on the counter and the electric screwdriver will not start.

\*\*\*CAUTION\*\*\*  
\*\*HIGH TORQUE\*\*



Flashes in yellow

### 2. Refastening prohibited time setting

Instruction manual P37, P38

To prevent additional fastening (second tightening, confirmation tightening, etc.), it can be set so that it does not restart after torque-up (for 0.0 to 9.9 seconds).

Adjust the set value according to the skill level of the operator and the interval between screw fastening operations.



Controller



Flashes in red

## External I/O signal

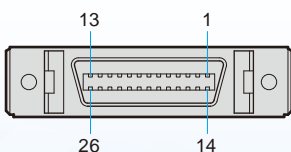
When connecting to an external device, it can be connected in two ways.

### 1. External I/O Cable

Instruction manual P50 to P56

Use External I/O Cable DLW9091. Compatible with both NPN/PNP.

It can be wired according to the externally connected equipment.



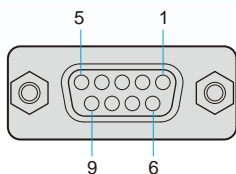
Connector: IEEE1284 half pitch connector (26-pin)

Terminal No.	Function	Details	I/O
1	+24 V DC	Built-in service power supply (Capacity: Maximum 200 mA)	Service power supply
2	0 V DC		
3	Input signal common terminal	Input signal common terminal (See page 53 of instruction manual)	Input
4	Output signal common terminal	Output signal common terminal (See page 54 of instruction manual)	
5	Switching signal A	Specify channel or channel pattern using a 5-bit input signal.	Input
6	Switching signal B		
7	Switching signal C		
8	Switching signal D		
9	Switching signal E		
10	Forward rotation start	Startup with external input signal.	Input
11	Reverse rotation start	The electric screwdriver operates while the input signal is ON.	
12	Workpiece	Input workpiece signal (workpiece detection signal output). Workpiece signal is ON while input signal is ON.	Input
13	External reset	Input external reset signal	
14	Forced stop	Input the forced stop signal	Output
15	Channel A	The channel being operated or being set is ON	
16	Channel B		
17	Channel C		
18	Channel D		
19	Channel E		
20	Forward rotation signal	Output signal is ON during forward rotation	Output
21	Reverse rotation signal	Output signal is ON during reverse rotation	
22	Operation OK	Output signal is ON when the screw fastening of the set count is complete and judged as operation OK (PASS).	Output
23	Count up	Output signal ON for 0.3 seconds when screw fastening is normal (at torque-up).	
24	Operation NG	Output signal ON when workpiece signal is OFF during operation and judged as operation NG (FAIL).	Output
25	Screw fastening NG	Output signal ON for 0.3 seconds when screw fastening is NG (FAIL).	
26	N/A	No connection	—

## 2. RS-232C

### Instruction manual P59 to P61

Use Communication Cable (Straight-through) DLW9092 to connect with PCs or sequencers (PLC).



Connector pin layout  
(D-SUB 9-pin (female))

### Specifications (RS-232C)

Transmission method	Asynchronous (asynchronous communication)
Communication line	Full duplex
Transmission speed	38400 bps
Number of data	8
Parity	None
Stop bit	1
Handshake	None
Delimiter (communication separator)	Receive: CR+LF (\r\n) Send: CR+LF (\r\n)

Pin No.	Signal name	I/O
2	TxD	OUT (This tool⇒PC)
3	RxD	IN (PC⇒This tool)
5	GND	GND

\*Other pins are not used

### Send / receive commands

Operation	Send command	Response from controller
Forward rotation drive	FWD\r\n	FWD\r\n
Reverse rotation drive	RVS\r\n	RVS\r\n
Drive stop	STP\r\n	STP\r\n
Switching channel / channel pattern *1	MOV:p\r\n (p=1 to 30)	At channel switching CH :p\r\n At channel pattern switching CHP:p\r\n
Screw count reset	CRT\r\n	CRT\r\n
Workpiece reset	WRT\r\n	WRT\r\n
Workpiece signal ON	WIN\r\n	WIN\r\n
Workpiece signal OFF	WOT\r\n	WOT\r\n
Resend request *2	RSD:p\r\n (p=1 to 10)	Command sent nth time before, specified by the parameter value
Forced stop	FSP\r\n	FSP\r\n
Canceling a forced stop	FSC\r\n	FSC\r\n

\*1 The switching target differs depending on the setting of the common setting "Channel change type" (CH CHANGE).

When the channel pattern is switched, the channel is also switched, so the responses are sent continuously.

\*2 Up to the latest ten commands sent from the controller to the PC or sequencer are stored.

When signals could not be received correctly due to noise or some other reason, the command of nth time before, specified by the parameter will be sent from the PC or sequencer.

[Example] Send command "RSD:3\r\n" → Returns the command sent by the controller three times before.

Since control is performed even when communication between the controller and PC or sequencer fails, use this function when you wish to maintain the reliability of transmission and reception. This command transmission is not included in the ten commands that are stored.

### Notification command

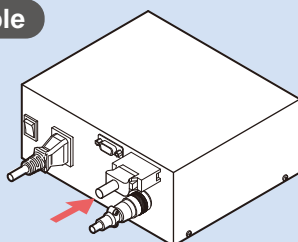
Operation	Notification from controller
At forward rotation drive start	FWD\r\n
At reverse rotation drive start	RVS\r\n
At drive stop completion	STP\r\n
Operation OK (PASS) notification	OK \r\n
Workpiece signal ON	WIN\r\n
Workpiece signal OFF	WOT\r\n
Count up (screw fastening completes normally) notification p = Measured fastening time or signal is output	CUP:p\r\n (p=1 to 60000)
Operation NG (workpiece out while fastening count remaining) notification	WNG\r\n
Screw fastening NG (FAIL) notification p1=Screw fastening NG (FAIL) No. p2=Measured fastening time or signal is output	FNG:p1:p2\r\n
At channel switching	CH :p\r\n (p=1 to 30)
At channel pattern switching	CHP:p\r\n (p=1 to 30)
When a non-supported command or parameter is input	CER\r\n

In addition to RS-232C signals, commands are sent from the controller to the PC or sequencer(PLC) when processing is performed manually or by contact signals.

#### 1. External I/O Cable



DLW9091

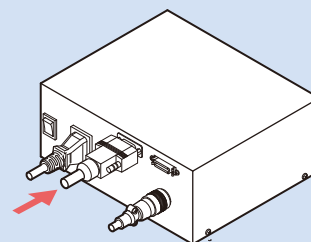


Insert the separately sold External I/O Cable DLW9091 to the external signal connector to connect between the terminal and wiring.

#### 2. RS-232C



DLW9092



Insert the separately sold Communication Cable (Straight-through) DLW9092 to the RS-232C connector to connect to a PC or sequencer (PLC).

## Easy setting with dedicated software

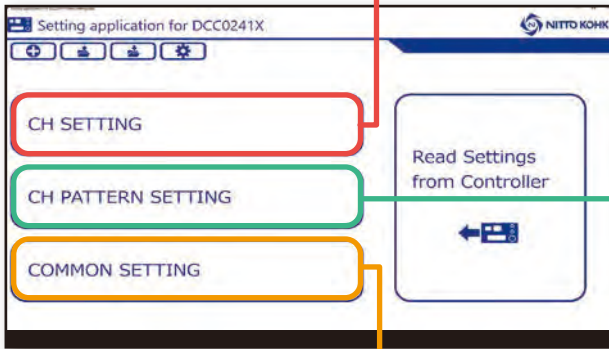
Channels and Channel patterns can be easily set with dedicated software. Download free from our website.



Website

<https://www.nitto-kohki.co.jp/e/prd/delvo/>

### ◇ Setting software top page

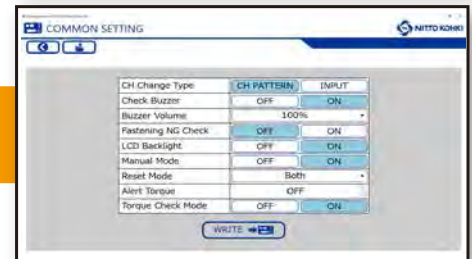
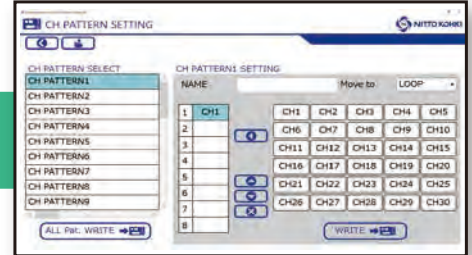
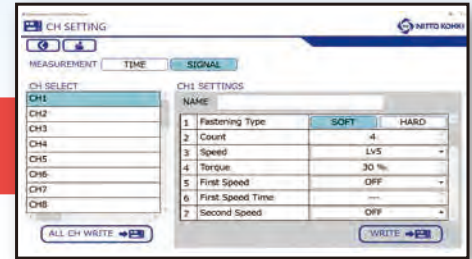


Channel setting

Channel pattern setting

Common setting

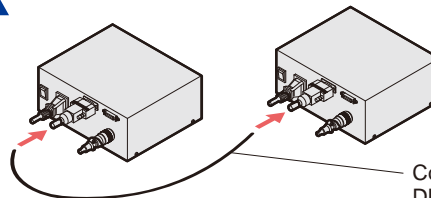
Communication Cable (Straight-through) DLW9092



## Setting data transmission function between controllers

### Instruction manual P48

The channel and channel pattern settings can be transmitted to another controller. This is very convenient when the same work is divided into multiple processes.

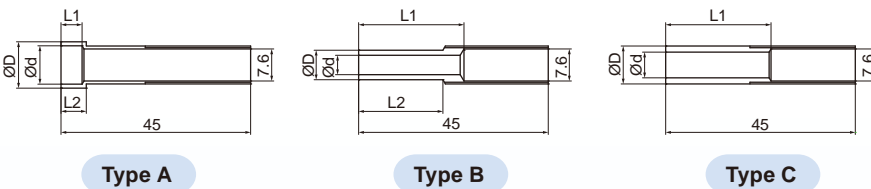


Communication Cable (Crossover) DLW9093

## Vacuum Sleeves and applicable Bits

Unit: mm

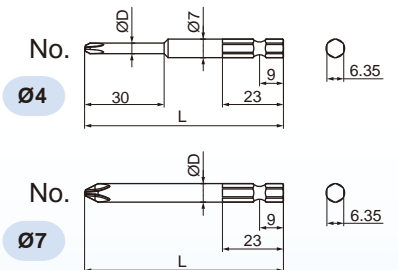
### ◇ Vacuum Sleeve DLS4000 series



Model	Ød	ØD	L1	L2	Length	Applicable Bit *2	Shape (Type)	Part No.
DLS4220	9.1	11	5	6	45	No.2x7x75	A	TD08001
DLS4221	10.6	12.5	5.5	7		No.2x7x75	A	TD08002
DLS4222 *1	8	11	5.3	22		—	A	TD07850
DLS4223 *1	8.2	10	5	6		No.2x7x75	A	TD07851
DLS4224 *1	6.8	9	25	—		—	C	TD07852
DLS4225	4.6	7	25	20		No.1x4x75	B	TD09344
DLS4226	5.1	7	25	20		No.1x4x75	B	TD09617
DLS4227	5.6	7	25	20		No.2x4x75	B	TD09345
DLS4228	6.1	9	25	—		No.2x4x75	C	TD09618
DLS4229	6.4	9	25	—		No.2x4x75	C	TD09619
DLS4230	7.1	9	25	—		No.2x4x75	C	TD09620

\*1) Made-to-order product \*2) Select the correct size number that fits your screw head

### ◇ Applicable Bit NK35



No.	ØD	L	Part No.
1	4	75	TD20306
	7	50	TD20308
	7	75	TD20309
2	4	50	TD20316
	4	75	TD20317
	7	50	TD20319
3	7	75	TD20320
	7	50	TD20327
	7	75	TD20328

\* See delvo general catalog for other bit types.



## Optional Accessories

Grounded 3-Prong Power Cord 2 m

DLW9220  
North America



DLW9240  
Europe



DLW9250  
UK



Diamond Shape  
Flange Coupling  
DLW9017



Flange Coupling  
DLW9019



For mounting on automated  
screw fastening machines

Screw Vacuum Pump  
DLP2540 (115 V AC), DLP2570 (230 V AC)



Connect the tube to the vacuum pickup port.  
The vacuum will pick up the screw.

Vacuum Pickup  
DLP7401-K



For screw vacuum pickup

Vacuum Sleeve  
DLS4000 series



Select according to the screw shape

Torque Checker  
DLT1673A



For torque control of screwdrivers

Soft Joint  
DLW4050 [for DLV45C]

Bit is included



Soft Joint  
DLW4080 [for DLV70C]

Bit is included



The bit for measuring is included.  
(NK35BN 13x19x10x75)



For SOFT fastening  
torque measurement

Hard Joint  
DLW4040

Bit is optional



The bit for measuring is not included.  
(NK35BN 13x19x10x75)

For HARD fastening  
torque measurement

External I/O Cable 3 m  
DLW9091



Connect when using external signals

Communication Cable 3 m  
(Straight-through)  
DLW9092



Connect to PCs and PLCs (sequencers)  
when using external signals

Communication Cable 3 m  
(Crossover)  
DLW9093



Connect controllers to transmit settings

Extension Cord 3 m  
DLW9310



Extends cord length between  
controller and screwdriver

Connection Cord 2 m  
DLW9078

Standard  
accessory of  
screwdrivers



Connects controller and screwdriver

Rubber Grip  
DRG1000 (Non-ESD)



For anti-slip when fastening

Pistol Grip  
DLW2300ESD

ESD Protection



For operator fatigue reduction,  
suitable for horizontal fastening

Accessories for "delvo" Brushless Type C Series

# Screw Fastening Monitor

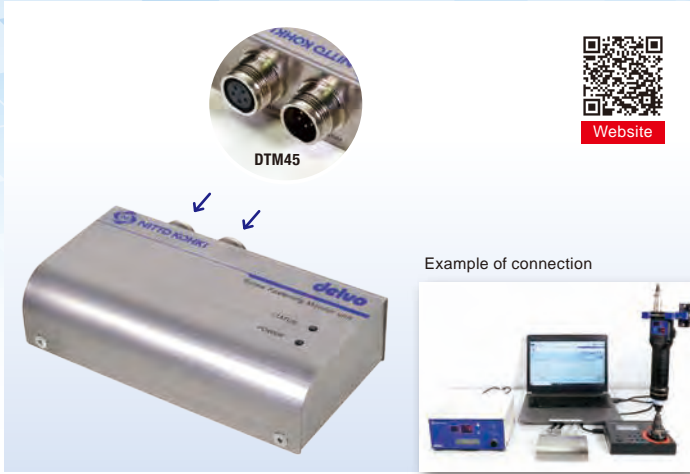
Model **DTM45**

## Features

**For traceability management!**

**Outputs torque value from a screwdriver (converted value)**

- Converts motor current to torque value at torque-up
- Sends data to external devices such as computers and PLCs
- The free dedicated software is available on Nitto Kohki website
- OK(Pass)/NG(Fail) can be judged by the output torque (converted value) and screw fastening time



## Specifications

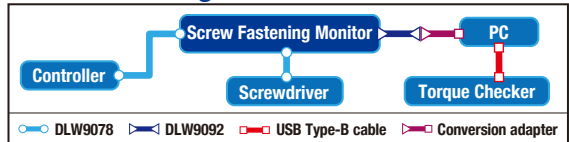
Model		DTM45	
Connectable models	Electric screwdriver	DLV45C12L-A□ / DLV45C12P-A□ DLV70C06L-A□ / DLV70C06P-A□	□: Y,Z
	Controller	DCC0241X-AZ	
Transmission data		Operation channel/Converted current value* Screw fastening time/Rotation signal	
Communication method		RS-232C (When connecting to a PC, please use a conversion adapter available on the market.)	
Standard Accessories		<ul style="list-style-type: none"> <li>•Connection cord DLW9078 (2 m)</li> <li>•Rubber feet</li> </ul>	

\*Converted current value: Motor current value at torque-up converted to a value between 0 to 4095

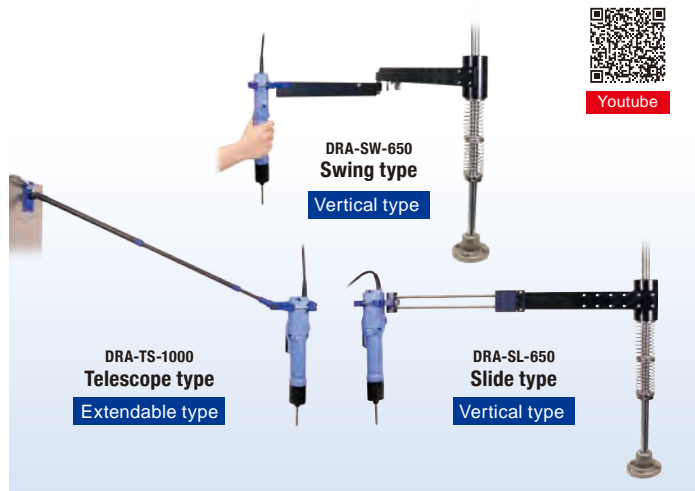
## Optional Accessory

RS-232C	RS-232C
Specifications: D-SUB 9-pin (female) Screw: Inch female screw (#4-40)	Communication Cable 3 m DLW9092

## Connection diagram



\*Use a conversion adapter and cable (USB Type-B) available on the market to connect to a PC.



## Accessories

See page 13 for External Dimensions

# Torque Reaction Arm

Model **DRA-SW-650/DRA-SL-650**  
**DRA-TS-1000**

## Features

**For reducing reaction force to an operator and improving quality of screw fastening work!**

- Improves operation by reducing reaction force
- Vertical tightening to the workpiece improves quality of the work\*
- Low profile type for convenient installation\*

\*except DRA-TS-1000

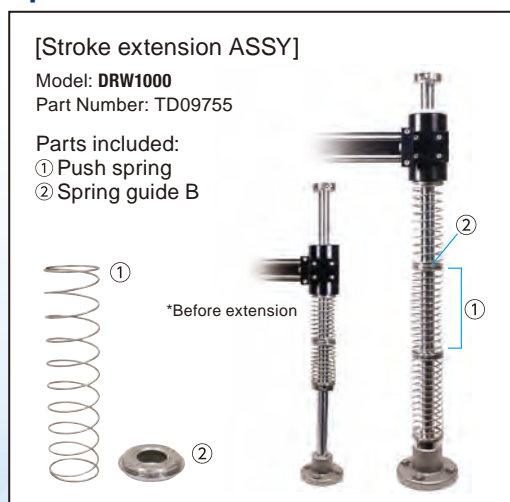
## Specifications

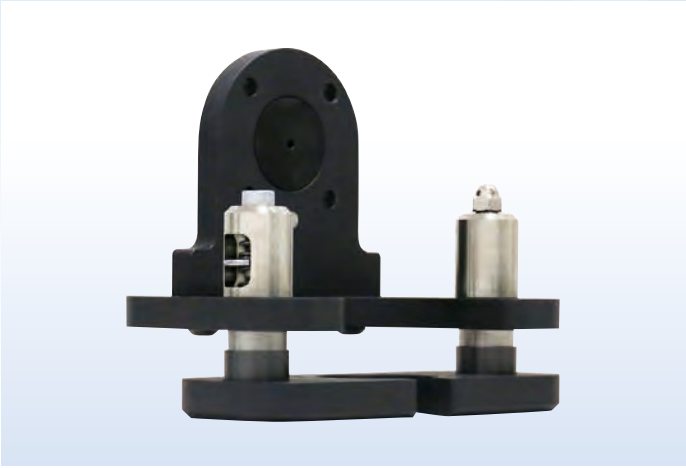
Model		DRA-SW-650 (Swing type)	DRA-SL-650 (Slide type)
Total height	mm[in]	550 [21.65"]	
Mass	kg[lbs]	4.2 [9.26]	
Maximum operating radius*1	mm[in]	R650 [R25.59"] (When arm angle is 30°)	R400 to R650 [R15.75" to R25.59"]
Vertical stroke*2	mm[in]	100 [3.94"] (150 [5.91"])*3	
Amount of slide	mm[in]	—	250 [9.84"]
Applicable outer diameter of screwdriver	mm[in]	30 to 52 dia. [1.18" to 2.05"]	
Maximum screwdriver weight	kg[lbs]	1.0 [2.2]	
Applicable models		All models of "delvo"	

Model		DRA-TS-1000 (Telescope type)*4
Operation range (Arm length)	mm[in]	503 to 1000 [19.8" to 39.4"] (503 to 1123 [19.8" to 44.2"])
Mass	kg[lbs]	0.47 [1.04]
Applicable outer diameter of screwdriver	mm[in]	30 to 52 dia. [1.18" to 2.05"]
Applicable models		All models of "delvo"

\*1 When an electric screwdriver of 52 mm dia. is attached \*2 When DLV70A is attached  
\*3 When the stroke extension ASSY is used \*4 Use a tool balancer to hang the screwdriver.

## Optional Accessories





# Floating Unit Model DLW9510

## Features

Absorbs misalignment in the fastening direction by floating mechanism

## Specifications

Model	DLW9510	
Pressing Force [N]	7 to 13 (when 6 mm stroke, excluding self-weight)	
Stroke [mm]	6*	
Mass [kg(lbs)]	0.69 [1.52]	
Mounting standard	Compliant with ISO9409-1-50-4-M6	
Standard Accessories	Φ6 mm pin for positioning on robot side	

\*For safety reasons, adjust the stroke amount within 6 mm.



# L Type Flange Attachment Model DLW9520

## Model DLW9520

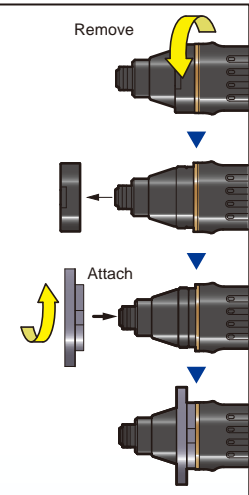
## Features

A simplified attachment for robot mounting

## Specifications

Model	DLW9520	
Mass [kg(lbs)]	0.35 [0.77]	
Mounting standard	Compliant with ISO9409-1-50-4-M6	
Standard Accessories	Φ6 mm pin for positioning on robot side	

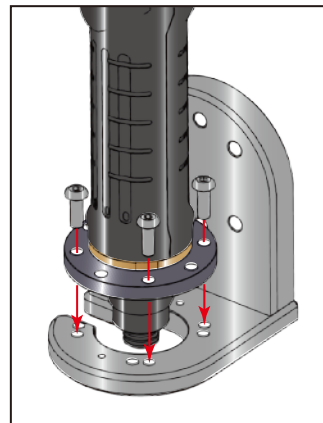
## How to mount electric screwdriver on DLW9510 / DLW9520



Remove the coupling of the electric screwdriver, and attach the optional Flange Coupling.

\*The coupling is a left-hand screw.

### Optional Accessory



Mount the electric screwdriver with the Flange Coupling and four hex. socket bolts available on the market.  
(Recommended: M5 x 15 mm, tensile strength class 10.9)

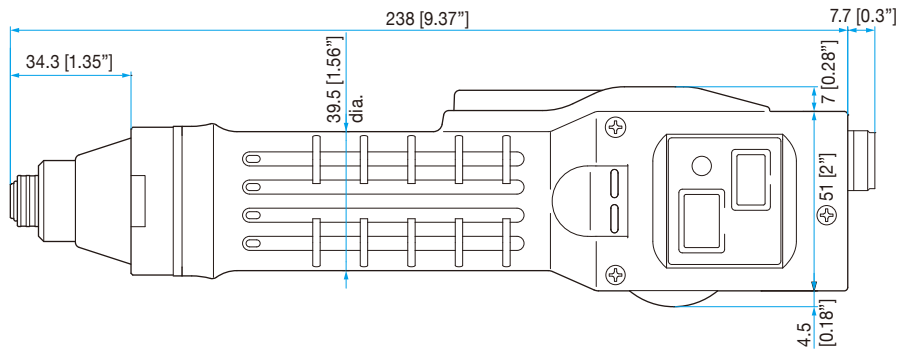
## Example of installation on automated machines

Can be mounted on desktop robots, Cartesian robots, 6-axis robots, etc.

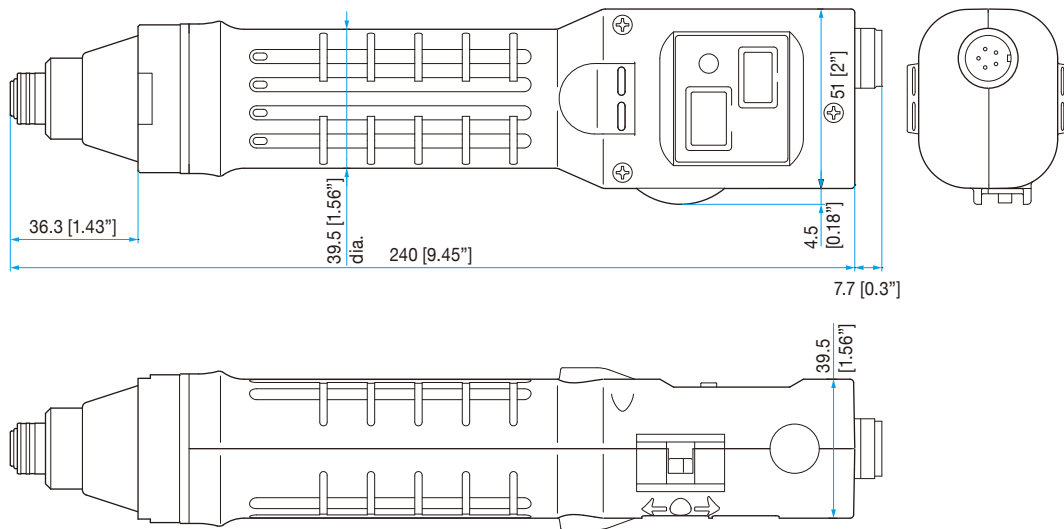


## External Dimensions unit: mm [inch]

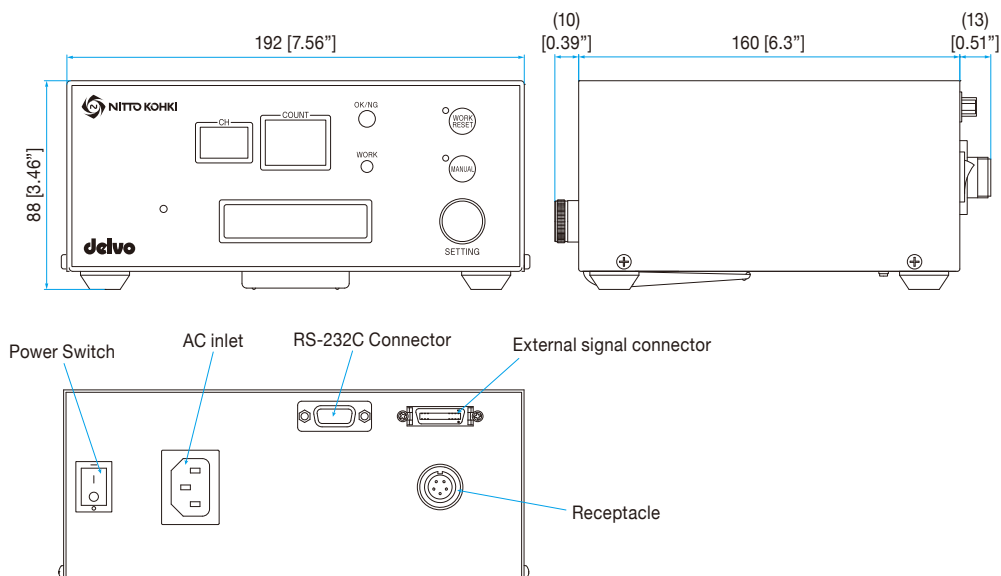
### •DLV45C12L-AY / DLV70C06L-AY



### •DLV45C12P-AY / DLV70C06P-AY

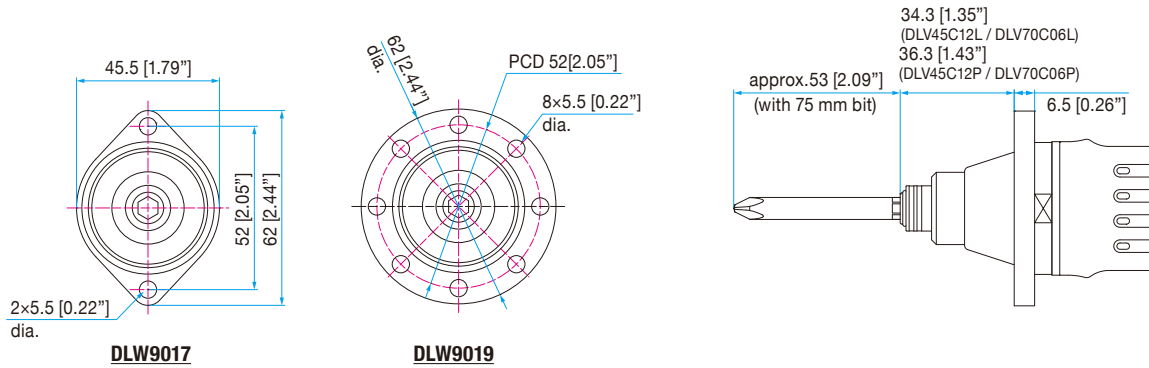


### •Controller DCC0241X-AZ

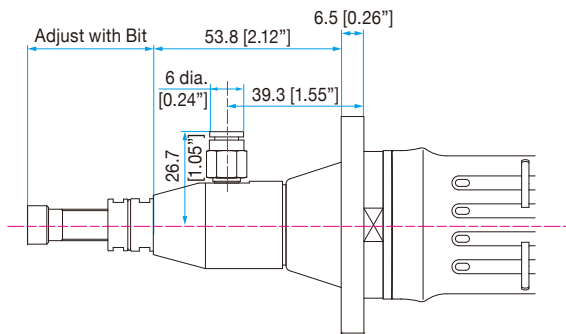


## External Dimensions unit: mm [inch]

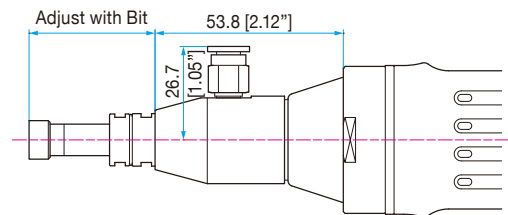
### •When Flange Coupling DLW9017/DLW9019 is mounted



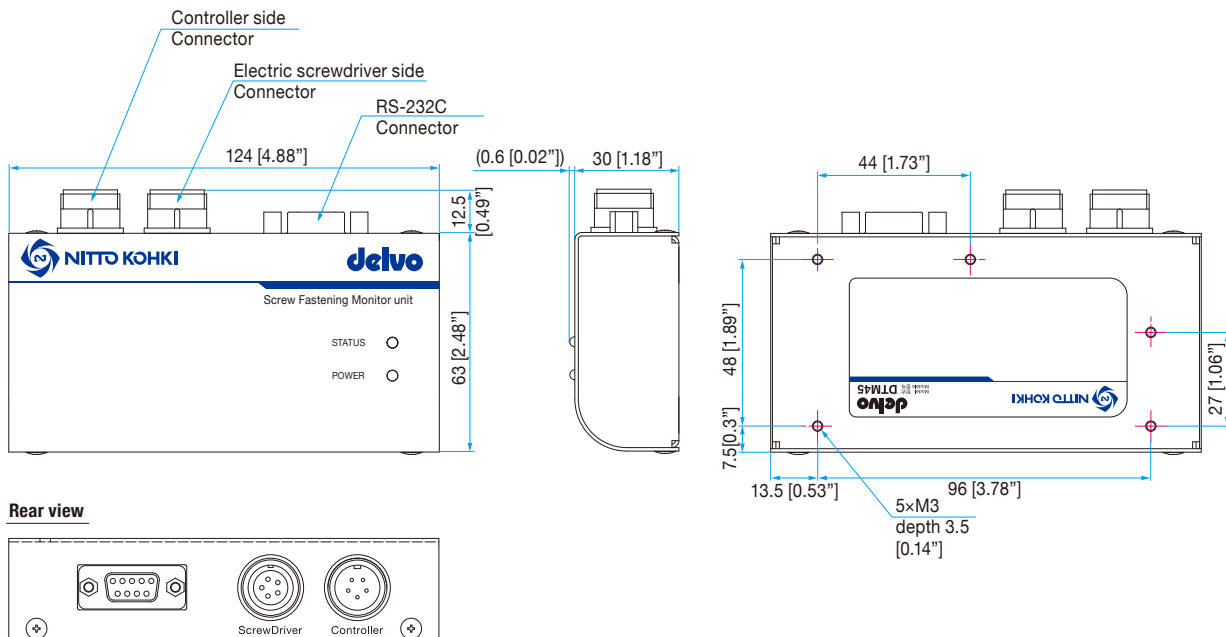
### •When Flange Coupling and Vacuum Pickup DLP7401-K is mounted



### •When Vacuum Pickup DLP7401-K is mounted



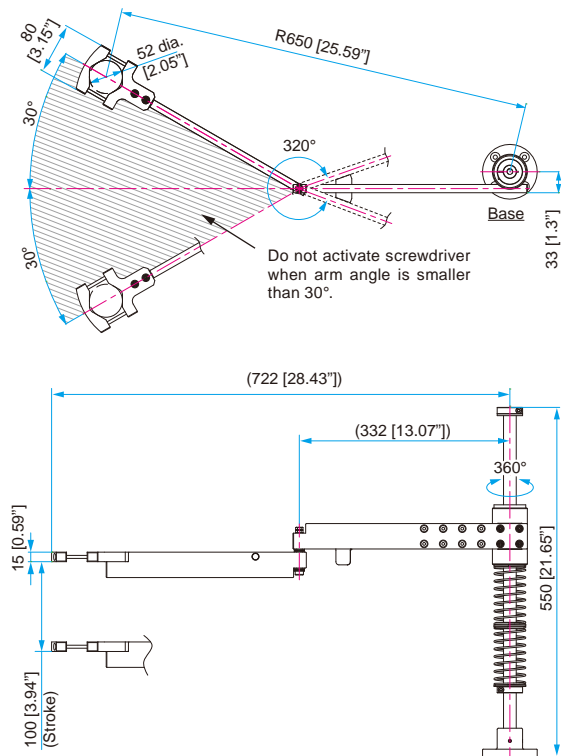
### •DTM45



# External Dimensions unit: mm [inch]

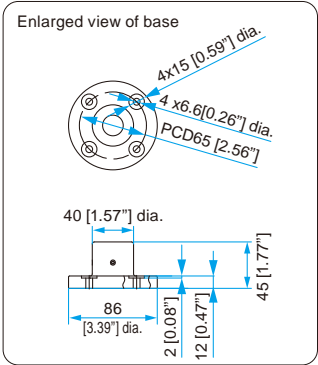
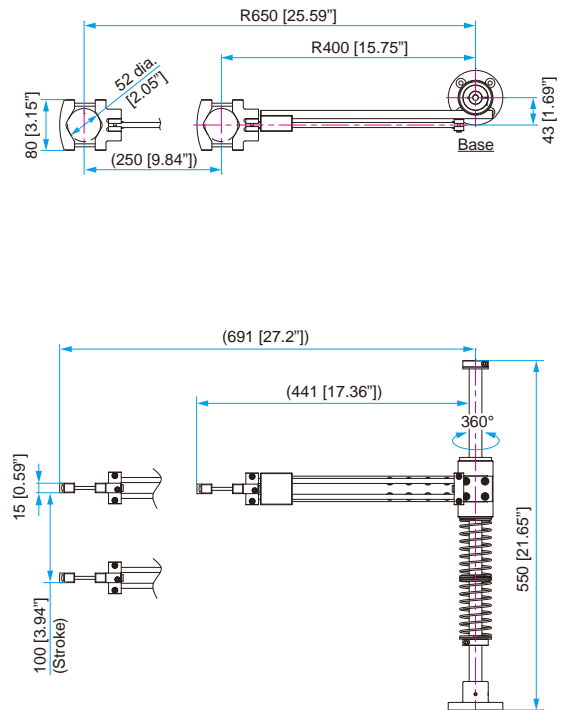
## Vertical type

### ●DRA-SW-650 (Swing type)



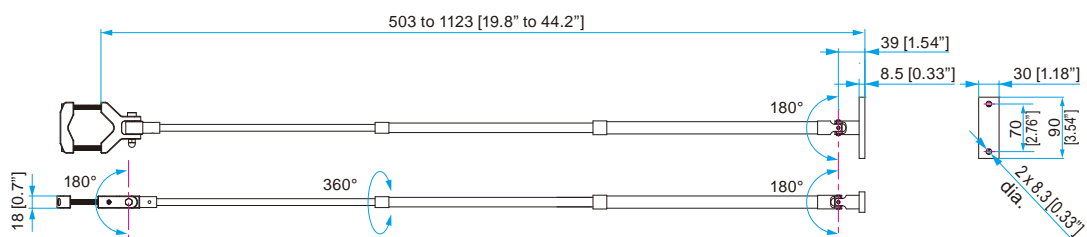
## Vertical type

### ●DRA-SL-650 (Slide type)



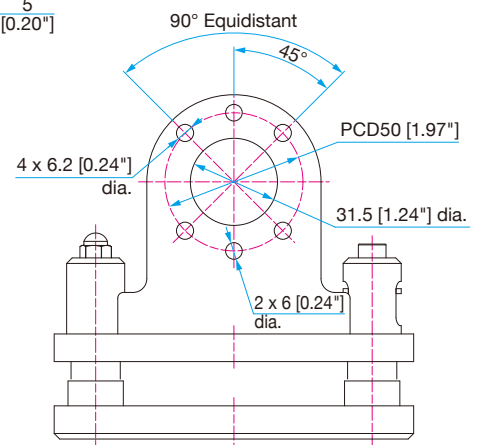
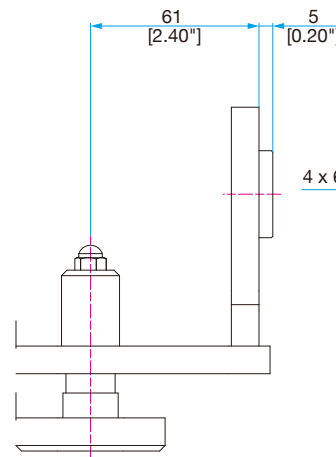
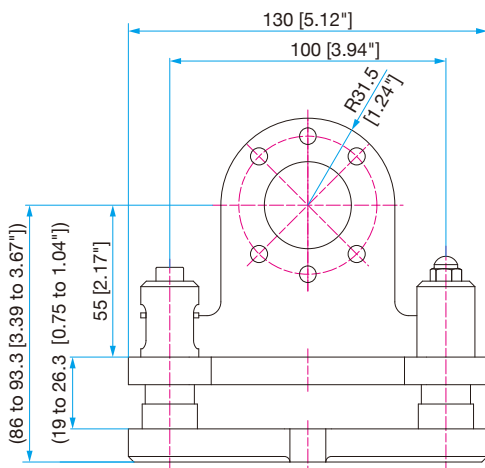
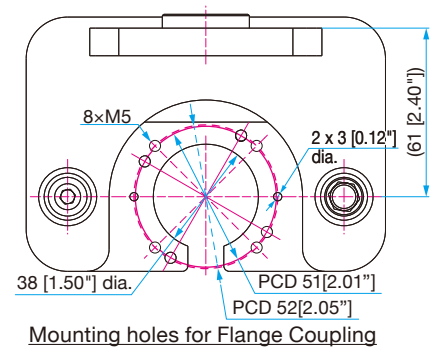
## Extendable type

### ●DRA-TS-1000 (Telescope type)



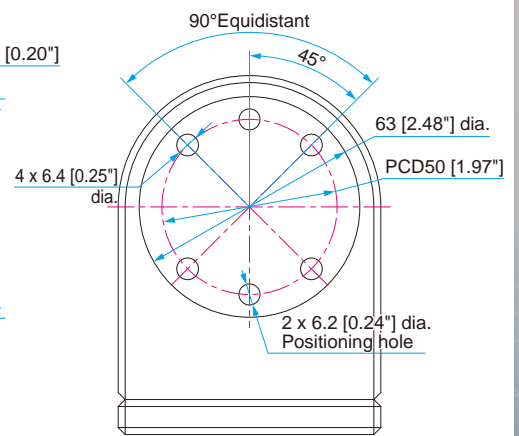
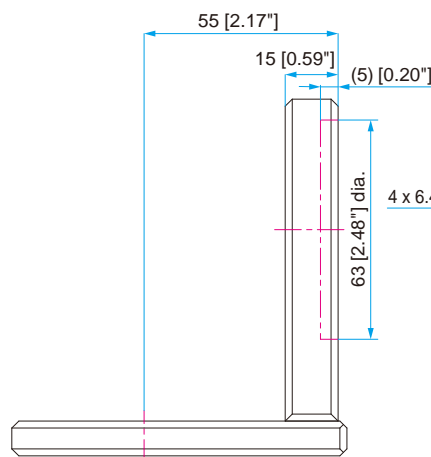
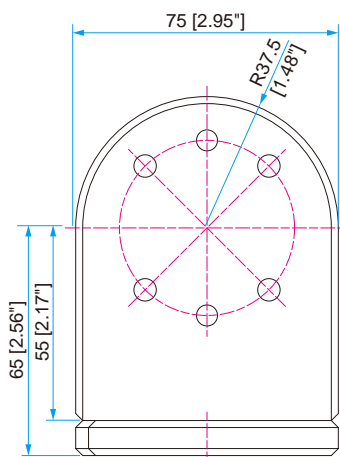
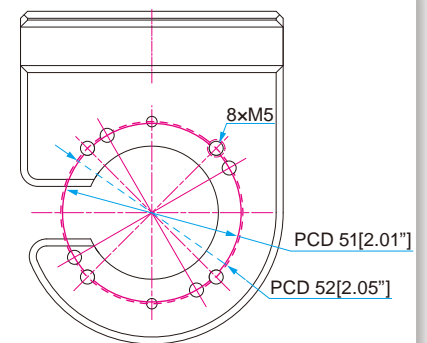
## External Dimensions unit: mm [inch]

### ● Floating Unit DLW9510



**Robot side**  
(Compliant with ISO9409-1-50-4-M6)

### ● L Type Flange Attachment DLW9520



**Robot side**  
(Compliant with ISO9409-1-50-4-M6)

# delvo

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