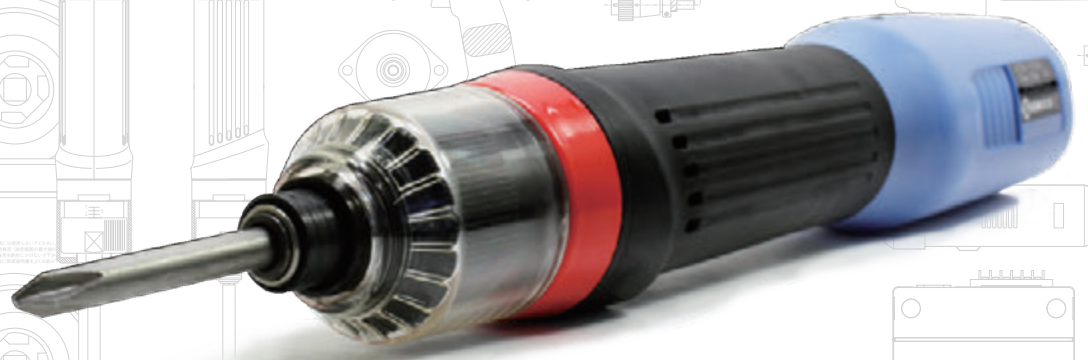

















ELECTRIC SCREWDRIVERS

delvo

**NITTO KOHKI's "delvo"
Electric Screwdrivers contribute to
quality improvement of assembly work.**

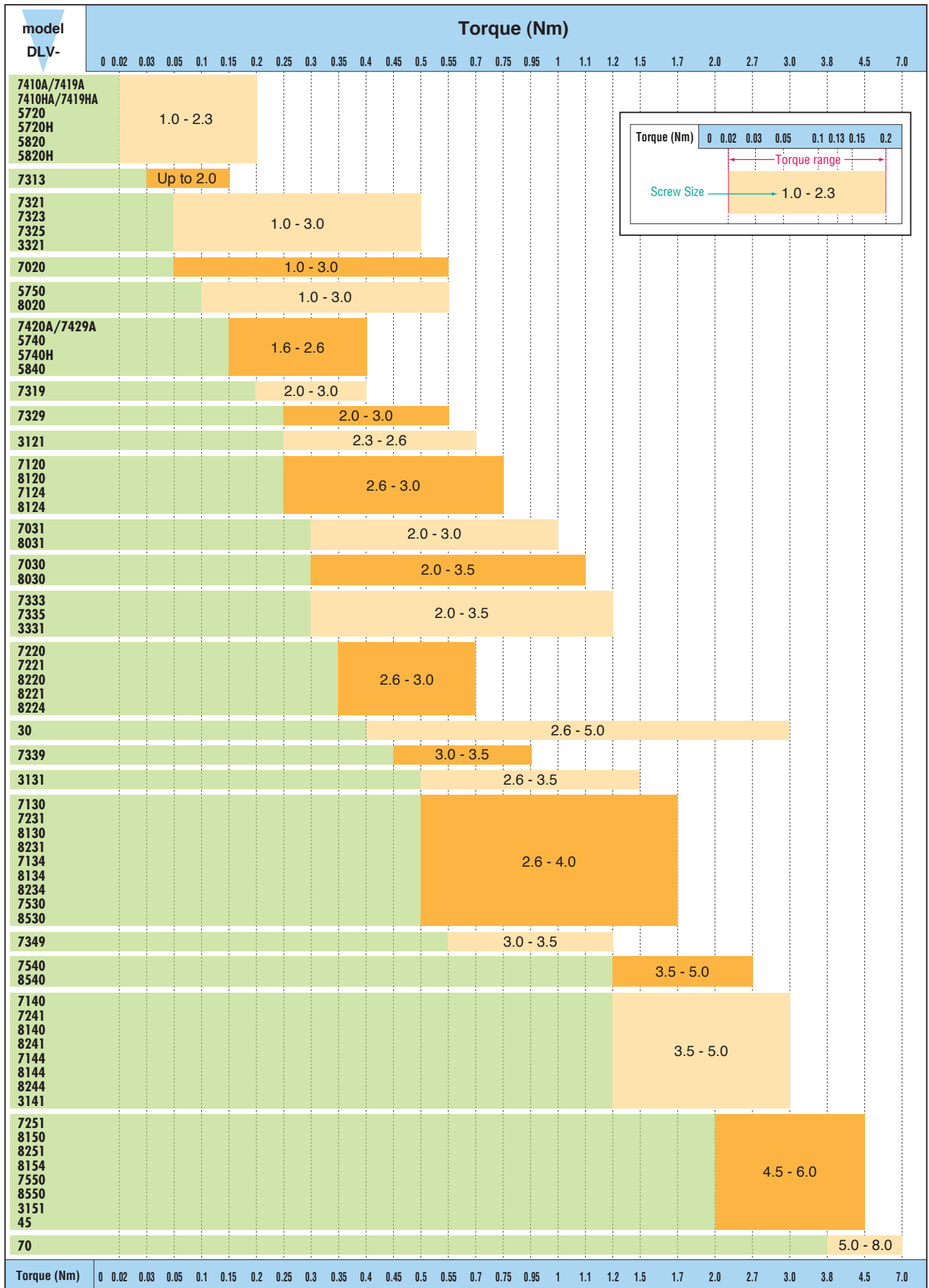


Selection Chart

	Page	Electric Screwdriver				Controller			
		Series	Model	Features	Starting Method	Model	Voltage		
	5-6	7400A	DLV7410A/7410HA/7420A	Bit Grounding Low Shock ESD		DLC1110	100/115/220/ 230/240 V AC		
			DLV7419A/7419HA/7429A	Bit Grounding Low Shock ESD Clean Room					
	7	5700	DLV5720/5720H/5740 DLV5740H/5750	Bit Grounding Low Shock ESD		DLC0350 DLC0950	100/115/230 V AC		
	8	5800	DLV5820/5820H/5840	Bit Grounding ESD	Lever Start	DLC0350 DLC0250E		100 V AC	
	9	7300	DLV7313/7321/7323/7331/7333	Low Voltage		DLC1213A DLC1215 DLC2310 DLC1215 DLE3610	100/115/230/240 V AC 100/220 V AC 24 V AC 100/220 V AC 100 V AC		
			DLV7325/7335	Clean Room					
	10	7300 BME/ BKE	DLV7321-B□E DLV7331-B□E	ESD		DLC1213A-□□B	100/115/ 230/240 V AC		
			DLV7319/7329/7339/7349-BME	Clean Room Low Shock ESD					
	11	7000 8000	DLV7020/7030/7031	Transformerless	Lever Start Push to Start		100/115 V AC		
	12	7104	DLV7124/7134/7144 DLV8124/8134/8144	Transformerless	Lever Start				
		8104	DLV8154	Transformerless High Torque	Push to Start				
		8204	DLV8224/8234/8244	Transformerless High Speed					
	13-14	7500	DLV7530/7540	Torque Reach Light	Lever Start	DLC4511-GGB DLR1510-JE	230 V AC		
			DLV7550	Torque Reach Light High Torque					
			DLV8530/8540 DLV8550	Torque Reach Light High Torque				Push to Start	
	15	7100	DLV7120/7130/7140	Transformerless	Lever Start		115 V AC		
			7200	DLV7221				Transformerless High Speed	
				DLV7231/7241 DLV7251				Transformerless High Torque	
		8100	DLV8120/8130/8140	Transformerless	Push to Start				
			DLV8150	Transformerless High Torque					
			8200	DLV8221				Transformerless High Speed	
		DLV8231/8241		Transformerless High Speed					
		DLV8251		Transformerless High Torque					
			17	30	DLV30HL/30SL/30LL DLV30HP/30SP/30LP			Transformerless Brushless Motor	Lever Start Push to Start
	18	45/70	DLV45SL/45LL DLV45SP/45LP DLV70LL DLV70LP	Lever Start Push to Start Lever Start Push to Start					
			19	30/45/70 IKE	DLV30LL/30SL/30HL-IKE DLV30LP/30SP/30HP-IKE DLV45LL/45SL-IKE DLV45LP/45SP-IKE DLV70LL-IKE DLV70LP-IKE	Brushless Motor	Lever Start Push to Start Lever Start Push to Start Lever Start Push to Start	DLR70S-WGB DLC70S-WGB	100 - 240 V AC
	22	3300 3100			DLV3321/3331 DLV3121/3131/3141/3151	For Automation	External Input Signal	DLC3310	24 V AC 100 V AC
	23-24	30/45/40 Automation			DLV30□A-DJN DLV45□A-DKN DLV70LA□-DKN	Brushless Motor For Automation	External Input Signal		100 V AC

Selection Chart

■ This chart is for reference only.



Professional Tools for Assembling High-Technology Goods

NITTO KOHKI's "Delvo" Electric Screwdrivers are high-quality tools for professional use, with special emphasis on precise torque control and long life. They always apply just the correct amount of torque with accurate and positive control at your fingertips. They are smooth and shockless in operation, too. NITTO KOHKI's customer-oriented service system through our sales agents ensures that you can use Delvo Electric Screwdrivers with a high degree of reliability.

● Shockless

Sophisticated clutches and motor braking mechanism reduce the shock at the end of the screw tightening operation and causes less fatigue.

● Long Life

Motor brushes stand over a million tightening cycles. They can be replaced easily.

● Brushless motors are adopted.

They are eco-friendly, long life, and cover wide torque range.

● High Accuracy

High repeatable torque accuracy provides more consistent screw tightening torque.

● High Speed

High-speed torque motors cut down screw tightening time and enhance productivity.

● Safety Standards

Models with CE Marking (for the European Union) or CCC (for People's Republic of China) are available.

● Quieter

Compare Delvo with a conventional pneumatic screwdriver, and you will hear the difference.



Models for EU

DLV7410A/7419A/7410HA/7419HA/7420A/7429A-BME
DLV7313/7323/7333/7321/7331/7325/7335-CME/CKE
DLV7321/7331-BME/BKE
DLV7319/7329/7339/7349-BME
DLC1213A-GG/GGB/GGU
DLV7530/7540/7550-MKE/BKE
DLV8530/8540/8550-MKE/BKE
DLC4511-GGB/DLR1510-JE
DLC1110-GG/HE
DLV30/45/70 series



Models for the People's Republic of China

DLV7321/7331-CMC
DLC1213-GC
DLV8124/8134/8144/8224/8234/8244/8154-MJC
DLV8124/8134/8144/8224/8234/8244/8154-MKC
DLV7124/7134/7144-MJC
DLV7124/7134/7144-MKC
DLV5820C/5820HC/5840C
DLV5720C/5720HC/5740C/5740C/5740HC/5750C
DLC0350GC/0950GC
DLV30/45/70 series





Green Procurement

NITTO KOHKI has made every effort in environmental improvement schemes on a company-wide basis through the implementation of ISO14001 to execute environmentally conscious business activities. As a part of our ongoing commitment to improve the environment, we are also committed to exclude or reduce restricted chemical substances in our products, as designated by the RoHS directives and Laws and Regulations of Chemical Substances in Japan. For further details, please see the following:

Nitto Kohki group companies' Green Procurement Guidelines have been established by their environmental committee which consists of members from all the Nitto Kohki group of companies. Nitto Kohki group companies give preferential treatment to suppliers that work to an environmental policy framework. Nitto Kohki group companies periodically survey their suppliers to ensure their chemical management systems include the monitoring of environmental issues such as the RoHS directives, and Japanese laws and regulations of Chemical Substances to minimize packaging and waste. We are continuing our goal to ensure that our made-to-order items are also covered by our environmental policy.

Green Procurement Policy

Each of the Nitto Kohki group companies is clarifying the control categories of the environmental management substances included in the parts and auxiliary materials constituting Nitto Kohki products and those of the environmental management substances used in the manufacturing processes. We will promote prohibition and reduction of use of the environmental management substances according to such control categories. Through these activities, we will comply with various laws and regulations related to the environmental management substances and reduce the impact to the global environmental conservation and to the ecological system.

Scope of Application

Our Green Procurement Guideline applies to all materials, parts, products, and auxiliary materials which Nitto Kohki Group companies purchase for production or sales.

Our Green procurement activities

NITTO KOHKI group companies continually aim to comply with RoHS directives, and Japanese laws and regulations of Chemical Substances.

- Standard products have been RoHS compliant. Green procurement activities on made-to-order products are continuing.
- NITTO KOHKI group companies are now working to the REACH Regulation.
- NITTO KOHKI group companies are building a database of the chemical management substances regulated by the RoHS directives, the REACH Regulation and Japanese laws and regulations of Chemical Substances.

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DLV7400A series

■ For Miniature Screws (1.0 - 2.6 mm)

Features

The light and compact body reduces operator fatigue

- Reduces shock applied to workpieces when fastening screws
- Compliant with EN100015-1
- Lightweight (Standard type 230 g, Clean room type 275 g)
- The Clean Room Type complies with Class 3 Clean Room Rating
- The controller can adjust speed
(Screw-fastening speed can be set to suit specific fastening conditions)
- The controller provides a soft start function
- The initial speed at screwdriver startup can therefore be slowed down, effectively preventing screw heads from being scratched
- The built-in coreless motor achieves reduced inertia
- Torque accuracy is within a top-ranked worldwide level (Based on measurements at our laboratory)
- Compliant with CE
- Use of the Screw Fastening Counter prevents human fastening errors and enhances accurate fastening control (No CE marking or CCC applied)
- Screw Fastening Counter Model DLR5640-WE works in conjunction with any dedicated SPC-type electric screwdrivers



DLV7419A/7419HA/
7429A-BME

DLV7410A-BME

DLV7410HA-BME

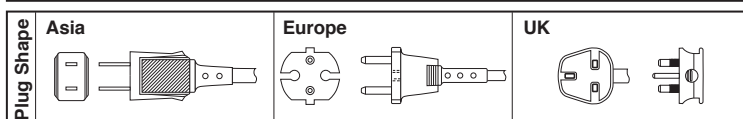
DLV7420A-BME

DLC1110-GG/HE

Specifications

Model	Standard Type	DLV7410A-BME	DLV7410HA-BME	DLV7420A-BME
	Clean Room Type	DLV7419A-BME	DLV7419HA-BME	DLV7429A-BME
Starting Method	Lever Start			
Input Voltage	40 V DC			
Torque Adjustment	Stepless			
Torque (Nm)			0.02 - 0.2	0.15 - 0.4
Free Speed (min ⁻¹)	500 - 750		700 - 1,000	450 - 600
Power Consumption (W)	Approx. 10			
Screw Size (mm)	Machine Screw	1.0 - 2.3		1.6 - 2.6
	Tapping Screw	1.0 - 2.0		1.4 - 2.3
Bit Type (mm)				
Mass (g)	Standard type 230 / Clean room type 275			

Model	DLC1110-EN	DLC1110-FE	DLC1110-GE	DLC1110-GG	DLC1110-HE	DLC1213A-GGB*1	DLC1213A-HEB*1
Features	Standard	Standard	Standard	With CE Mark	With CE Mark	With CE Mark	Standard
Input Voltage	100 V AC, 50/60 Hz	115 V AC, 50/60 Hz	220 V AC, 50/60 Hz	230 V AC, 50/60 Hz	240 V AC, 50/60 Hz	230 V AC, 50/60 Hz	240 V AC, 50/60 Hz
Control Function	Soft Start, Speed Control, ESD Protected						
Plug Shape	Asia	Asia	UK	Europe	UK	Europe	UK
Mass (g)	900					2,300	



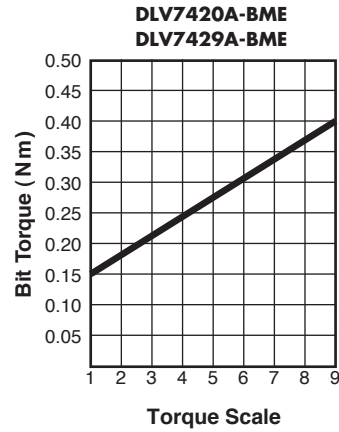
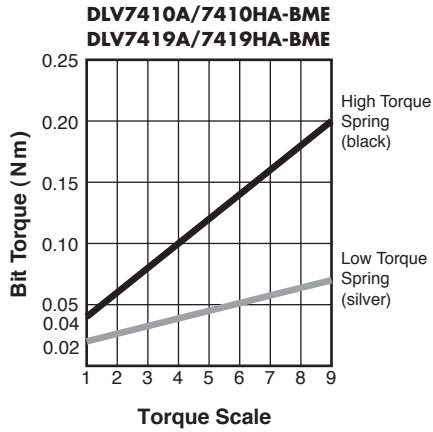
*1 : An optional cord is required to connect with this model. Neither DLC1213A-GG nor DLC1213A-HE can be used with the DLV7400A series.

Model DLC1213A-GGB or DLC1213A-HEB + Cord DLW9072

Standard Accessories

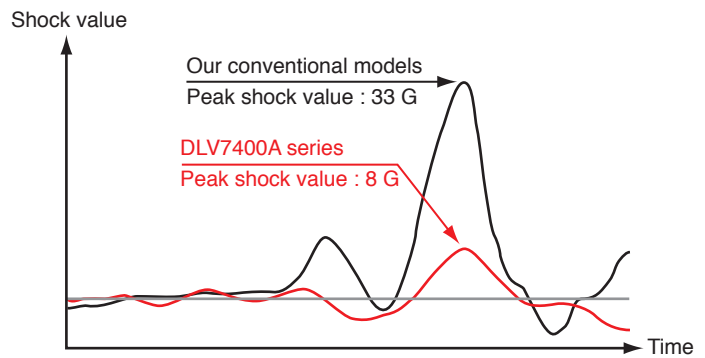
	No.	DLV7410A	DLV7410HA	DLV7420A	DLV7419A	DLV7419HA	DLV7429A
Bit	No.0 × 1.8 × 44	1	1	-	1	1	-
	No.0 × 2.5 × 44	1	1	1	1	1	1
	No.1 × 4 × 44	-	-	1	-	-	1
Connection Cord DLW9070	1	1	1	1	1	1	1
Spring for Low Torque	1	1	-	1	1	1	-
Suspension Bail	1	1	1	1	1	1	1
Sleeve for Vacuum DLS2124	-	-	-	1	1	1	1

Torque Diagrams (for reference)



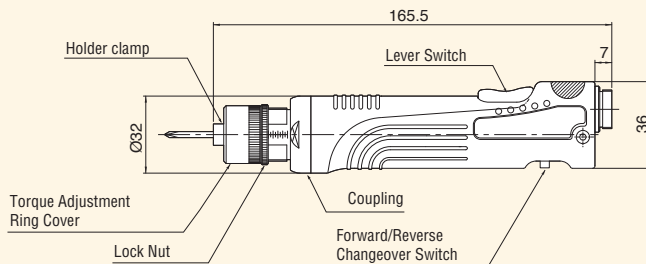
Shock Waveform Comparison between the 7400A series and our conventional models

Value of shock applied to the workpiece as measured using acceleration pickup.

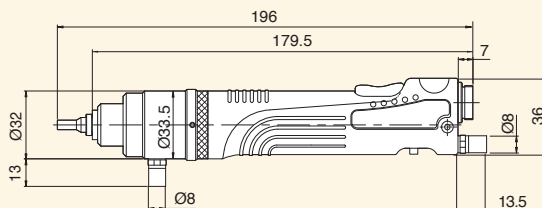


External Dimensions

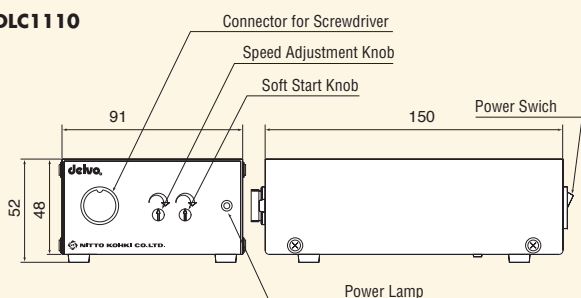
● DLV7410A/7410HA/7420A-BME



● DLV7419A/7419HA/7429A-BME

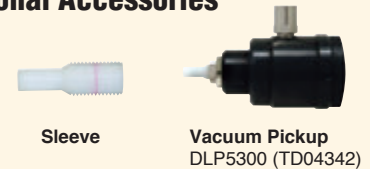


● DLC1110

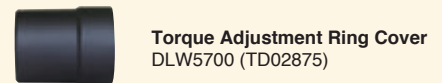


Unit: mm

Optional Accessories



* Please see page 32 for details.



This minimizes tampering or accidental turning of the torque adjustment ring once the torque is set.

DLV5700 series

■ For Miniature Screws (1.0 - 3.0 mm)

Features

For quality improvement and productivity enhancement

- Grounded bit installation mechanism
- Electro-static discharge (ESD) control
- Low-shock for tightening (30 % less of standard models)
- Low swing bit mechanism
- Ergonomic design
- High-performance DC motor
- New clutch mechanism



DLV5720/5720H/5740

DLC0350

DLV5740H/5750

DLC0950

Specifications

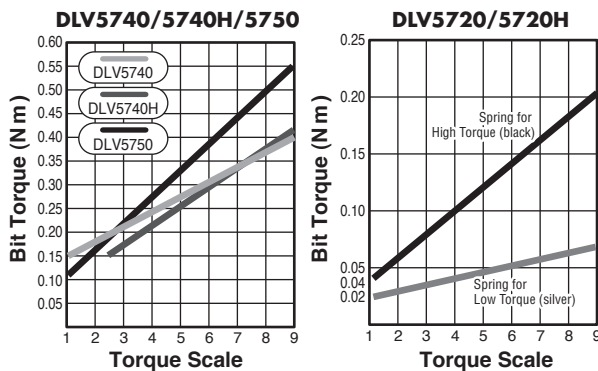
Model	DLV5720	DLV5720H	DLV5740	DLV5740H	DLV5750
Starting Method				Lever Start	
Input Voltage	40 V DC			36 V DC	
Torque Adjustment	Stepless				
Torque (Nm)	0.02 - 0.2		0.15 - 0.4		0.1 - 0.55
Free Speed (min ⁻¹)	500 - 750	700 - 1,000	450 - 600	1,200 - 1,800	670 - 1,000
Power Consumption (W)	Approx. 10				Approx. 35
Screw Size (mm)	Machine Screw	1.0 - 2.3		1.6 - 2.6	1.0 - 3.0
	Tapping Screw	1.0 - 2.0		1.4 - 2.3	1.0 - 2.6
Bit Type (mm)					
Mass (g)	230			300	

Model	DLC0350E	DLC0350F	DLC0350G	DLC0950E	DLC0950G
Input Voltage	100 V AC, 50/60 Hz	115 V AC, 50/60 Hz	230 V AC, 50/60 Hz	100 V AC, 50/60 Hz	230 V AC, 50/60 Hz
Plug Shape	Asia + Grounding wire 	U.S.A. 	UK 	Asia + Grounding wire 	
Mass (g)		900		1,800	

Standard Accessories

No.	DLV5720	DLV5720H	DLV5740	DLV5740H	DLV5750
Bit					
No.0 × 1.8 × 44	1			1	
No.0 × 2.5 × 44	1			1	
No.1 × 4 × 44				1	
Connection Cable (1.5 m) DLW9081	1			1	
Suspension Bail	1			1	
Spring for Low Torque	1				

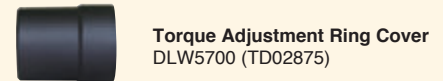
Torque Diagrams (for reference)



Optional Accessories



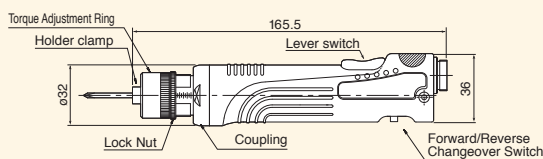
* Please see page 32 for details.



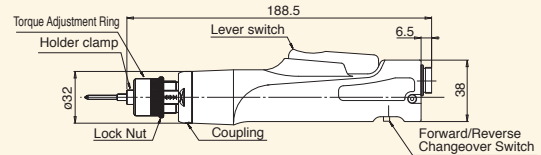
This minimizes tampering or accidental turning of the torque adjustment ring once the torque is set.

External Dimensions

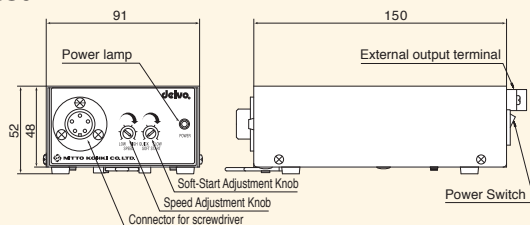
DLV5720/5720H/5740



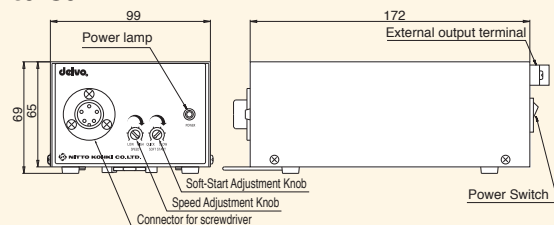
DLV5740H/5750



DLC0350



DLC0950



Unit: mm

DLV5800 series

■ For Miniature Screws (1.0 - 2.6 mm)

Features

In response to the needs of cell production system space-saving DELVO screwdrivers are released.

Controller is designed for emphasis on space-saving size and lightness.

- Clear disengagement of clutch (low-shock mechanism unavailable)
- Grounded bit installation mechanism
- Complied with EN100015-1
- New lever is adopted
- Low swing bit mechanism
- Low voltage transless controller

DLV5820/5820H/5840

DLC0250E

DLC0350

Specifications

Model		DLV5820	DLV5820H	DLV5840	
Electric Screwdriver	Starting Method	Lever Start			
	Input Voltage	40 V DC			
	Torque Adjustment	Stepless			
	Torque (Nm)	0.02 - 0.20		0.15 - 0.40	
	Free Speed (min ⁻¹)	750	1,000	600	
	Power Consumption (W)	Approx. 10			
	Screw Size (mm)	Machine Screw	1.0 - 2.3		1.6 - 2.6
		Tapping Screw	1.0 - 2.0		1.4 - 2.3
	Bit Type (mm)				
	Mass (g)	230			
Cord Length (m)	1.5 (with connector)				
Grounding Bit Feature	Equipped as standard				

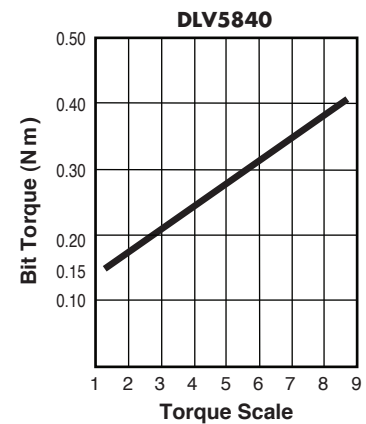
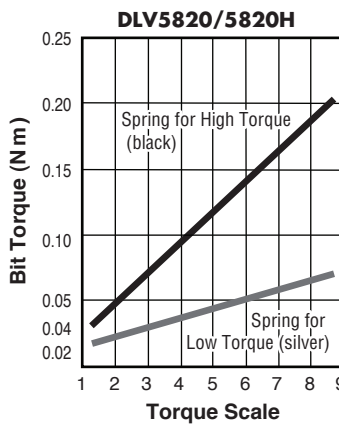
Model		DLC0250E
Input Voltage	100 V AC, 50/60 Hz	
Function	Grounded Bit Installation Mechanism	
Mass (g)	300	
Plug Shape	U.S.A.	
Case Material	Antistatic material	

* Electric screwdrivers DLV5800 series can be also used with DLC0350.

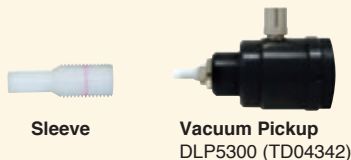
Standard Accessories

Bit	No.	DLV5820	DLV5820H	DLV5840
No.0 × 1.8 × 44		1	-	-
No.0 × 2.5 × 44		1	-	1
No.1 × 4 × 44		-	1	1
Suspension Bail		1	1	1
Connection Cable (1.5 m)		1	1	1
Spring for Low Torque (Silver)		1	-	-

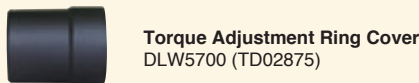
Torque Diagrams (for reference)



Optional Accessories

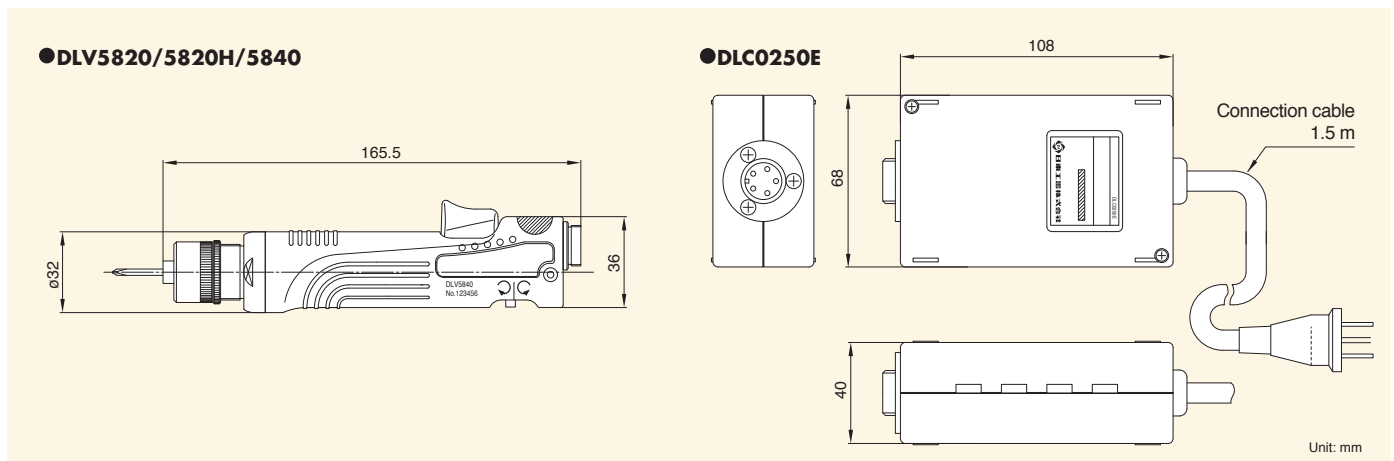


* Please see page 32 for details.



This minimizes tampering or accidental turning of the torque adjustment ring once the torque is set.

External Dimensions



DLV5800 series

DLV7300 series

■ For Miniature Screws (1.0 - 3.5 mm)

Features

- The dedicated controller realizes high-accuracy screw tightening
- High repeatable torque accuracy
- The controller provides a soft start function. The initial speed at screwdriver startup can therefore be slowed down, effectively preventing screw heads from being scratched.
- Variable speed adjustment enables to select optimum screw tightening speed.
- DLV7325, DLV7335 meet Class 5*1 Clean Room standards

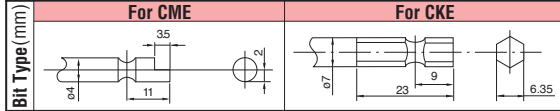
*1: Based on Nitto's standard of measurement



DLV7313/7323/7333 DLV7321/7331 DLV7325/7335 DLC1213A

Specifications

Model	Bit Shank: ø4 mm Bit Shank: Hex.6.35 mm	Standard			Clean Room Use	
		DLV7313-CME	DLV7323-CME DLV7321-CME DLV7323-CKE DLV7321-CKE	DLV7333-CME DLV7331-CME DLV7333-CKE DLV7331-CKE	DLV7325-CME*2 DLV7325-CKE	DLV7335-CME*2 DLV7335-CKE
Starting Method		Lever Start				
Input Voltage		36 V DC				
Torque Adjustment		Stepless				
Torque (Nm)		0.03 - 0.15	0.05 - 0.5	0.3 - 1.2	0.05 - 0.5	0.3 - 1.2
Free Speed (min ⁻¹)		700 - 1,000		500 - 700	700 - 1,000	500 - 700
Power Consumption (W)		Approx. 35				
Screw Size (mm)		Machine Screw Up to 2.0	1.0 - 3.0	2.0 - 3.5	1.0 - 3.0	2.0 - 3.5
		Tapping Screw Up to 1.7	1.2 - 2.6	2.0 - 3.0	1.2 - 2.6	2.0 - 3.0
Mass (g)		350			400	



*2 : Vacuum pump for suction of screw is available as option. See page 27 for details of the vacuum pump.

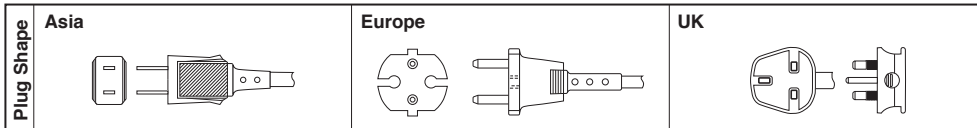
Optional Accessories

Torque Adjustment Ring Cover for DLV7303
DLW5500 (TD00333)

This minimizes tampering or accidental turning of the torque adjustment ring once the torque is set.

Model	Features	Input Voltage	Control Function	Plug Shape	Mass(kg)
DLC1213A-EN	Standard	100 V AC, 50/60 Hz	Soft start, Speed control	Asia	2.3
DLC1213A-FE*3	Standard	115 V AC, 50/60 Hz		UK	
DLC1213A-GE	Standard	220 V AC, 50/60 Hz		Europe	
DLC1213A-GG	With CE Mark	230 V AC, 50/60 Hz		UK	
DLC1213A-GG U	With CE Mark	230 V AC, 50/60 Hz		Without Plug	
DLC1213A-HE	Standard	240 V AC, 50/60 Hz		Without Plug	
DLC1215-EN*4	2 Screwdrivers for 1 Controller	100 V AC, 50/60 Hz	Multiple Controller	Asia	0.36
DLC1215-GE*4	2 Screwdrivers for 1 Controller	220 V AC, 50/60 Hz		Without Plug	
DLC2310-CE*4	Multiple Controller	24 V AC, 50/60 Hz		Without Plug	
DLE3610-EN*4	Power Supply for DLC2310-CE	100 V AC, 50/60 Hz		Without Plug	

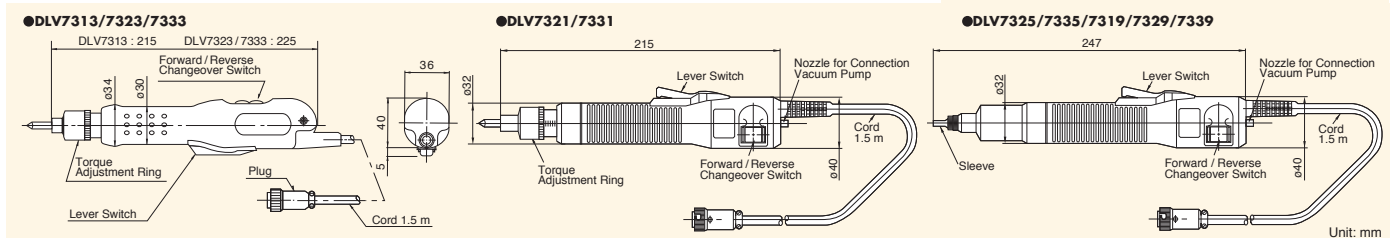
*3 : This model is made to order. *4 : See page 16 for details of the models other than DLC1213A series.



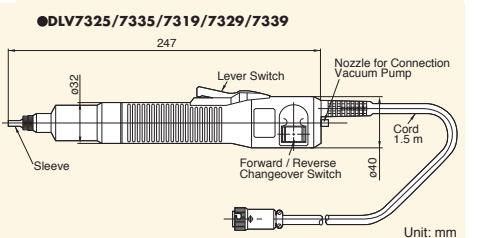
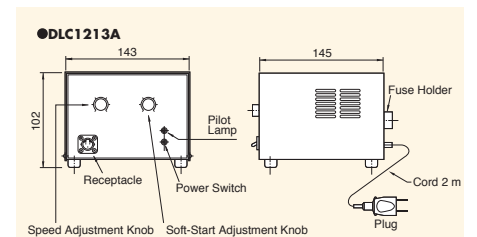
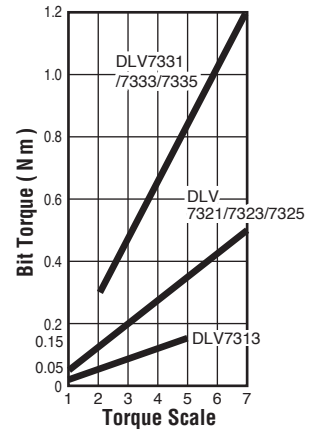
Standard Accessories

No.	DLV7313 -CME	DLV7321 / 23 -CME	DLV7331 / 33 -CME	DLV7321 / 23 / 31 / 33-CKE	DLV7325 -CME	DLV7335 -CME	DLV7325 / 35 -CME
Bit							
No.0 × 1.8 × 44	1	—	—	—	—	—	—
No.0 × 2.5 × 44	1	1	—	—	1	—	—
No.1 × 3 × 44	—	—	1	—	—	1	—
No.1 × 4 × 44	—	1	—	—	1	—	—
No.1 × 7 × 50	—	—	—	1	—	—	—
No.2 × 4 × 44	—	—	1	—	—	1	—
No.2 × 4.5 × 50	—	—	—	—	—	—	1
No.2 × 7 × 50	—	—	—	1	—	—	—
Sleeve							
DLS2124	—	—	—	—	1	1	—
DLS2127	—	—	—	—	—	—	1
DLS2130	—	—	—	—	1	1	—
DLS2134	—	—	—	—	—	1	—
DLS2135	—	—	—	—	—	—	1
Suspension Bail	1						

External Dimensions



Torque Diagram (for reference)



DLV7300-BME/BKE series ■ For Miniature Screws (1.0 - 3.5 mm)

Features

Workpiece-conscious electric screwdrivers

- Statistic electricity buildup is prevented to protect workpieces from electrostatic discharge
- Minimal impact in screw tightening protects workpieces from damaging and enables stable screw tightening
- Meet Class 5*1 or more Clean Room standards

*1: Based on Nitto's standard of measurement

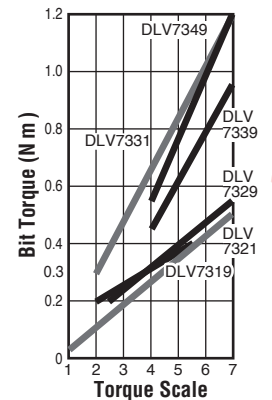


DLC1213A-□□B

Specifications

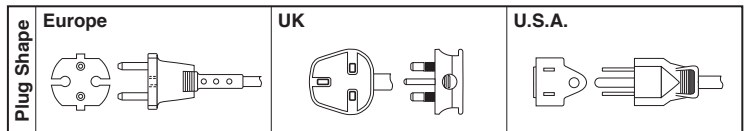
Model	Bit Shank:ø4 mm Bit Shank:Hex. 6.35 mm	ESD		ESD / Low Shock			
		DLV7321-BME*2	DLV7331-BME*2	DLV7319-BME*2	DLV7329-BME*2	DLV7339-BME	DLV7349-BME*2
Starting Method		Lever Start					
Input Voltage		36 V DC					
Torque Adjustment		Stepless					
Torque	(Nm)	0.05 - 0.5	0.3 - 1.2	0.2 - 0.4	0.25 - 0.55	0.45 - 0.95	0.55 - 1.2
Free Speed	(min ⁻¹)	700 - 1,000	500 - 700	700 - 1,000		500 - 700	
Power Consumption		Approx. 35					
Screw Size	Machine Screw	1.0 - 3.0	2.0 - 3.5	2.0 - 3.0		3.0 - 3.5	
	Tapping Screw	1.2 - 2.6	2.0 - 3.0	2.0 - 2.6		2.6 - 3.0	
Bit Type	For BME						
	For BKE						
Mass		350		400			

Torque Diagram (for reference)



*2: These models are made to order.

Controller	Model	Input Voltage	Plug Shape	Control	Mass(kg)
DLC1213A-□□B	DLC1213A-ENB	100 V AC, 50/60 Hz	USA	Grounding, Soft Start, Speed Control	2.3
	DLC1213A-FEB*3	115 V AC, 50/60 Hz	USA		
	DLC1213A-GGB	230 V AC, 50/60 Hz	Europe		
	DLC1213A-HEB	240 V AC, 50/60 Hz	UK		



*3: This model is made to order.

Measurement Point	Conventional Product	DLV7300-B□E	
		DLV7319/29-BME	DLV7339/49-BME
Handle	Static Electricity (V)	350	5
	Surface Resistance (Ω)	more than 10 ¹³	10 ⁴
Lever Switch	Static Electricity (V)	350	2
	Surface Resistance (Ω)	more than 10 ¹³	10 ⁴
Forward / Reverse Switch	Static Electricity (V)	25	2
Power Cable	Static Electricity (V)	110	5
	Surface Resistance (Ω)	more than 10 ¹³	10 ¹⁰

Part	Material
Handle Lever Switch	Synthetic resin with carbon fiber
Power Cable	Anti-static material

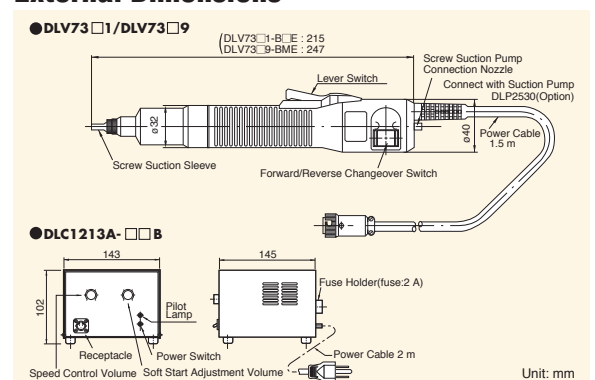
* Measurement conditions (Temperature:22 °C Humidity:66 %)

- (1) Static electricity ●Earth the measurement equipment and measuring person.
 ●Grip the screwdriver five times using Ansel Edmont electronic control glove.
 ●Turn on the switch of the screwdriver. ●Measure each part of the screwdriver using electronic measurement equipment manufactured by Shishido electrostatic Ltd.
 (2) Surface resistance ●Measure using Simco Japan surface resistivity measurement equipment.

Standard Accessories

No.	DLV7319/29-BME	DLV7339/49-BME	DLV7321-BME	DLV7331-BME	DLV7321/31-BKE
No.0 × 2.5 × 44	1	—	1	—	—
No.1 × 3 × 44	—	1	—	1	—
No.1 × 4 × 44	1	—	1	—	—
No.1 × 7 × 50	—	—	—	—	1
No.2 × 4 × 44	—	1	—	1	—
No.2 × 7 × 50	—	—	—	—	1
DLS2124	1	—	—	—	—
DLS2127	1	1	—	—	—
DLS2130	1	1	—	—	—
DLS2134	—	1	—	—	—
Suspension Bail	1				

External Dimensions



DLV7300-BME/BKE series

DLV7000/8000 series

■ For Miniature Screws (1.0 - 3.5 mm)

Features

100 / 115 V AC Direct Transformerless Precision Miniature Screw Type

- A built-in controller model saves space and facilitates layout change
- High repetitive torque accuracy
- Available with lever type (DLV7000 series) for each screw alignment and push to start type (DLV8000 series) for rapid screw tightening
- The high-speed type (DLV7031/8031) available at 1200 min⁻¹ for improving work efficiency (100 V AC only)



Specifications

		Standard				High Speed		
Electric Screwdriver	Model	100 V AC Input 115 V AC Input	DLV7020-EMN DLV7020-FME*1	DLV7030-EMN DLV7030-FME*1	DLV8020-EMN DLV8020-FME*1	DLV8030-EMN DLV8030-FME*1	DLV7031-EMN DLV8031-EMN	
	Starting Method		Lever Start		Push to Start		Lever Start / Push to Start	
	Torque Adjustment		Stepless					
	Torque (Nm)		0.05 - 0.55	0.3 - 1.1	0.1 - 0.55	0.3 - 1.1	0.3 - 1.0	
	Free Speed (min ⁻¹)		900	650	900	650	1,200	
	Power Consumption (W)		Approx. 25					
	Screw Size (mm)	Machine Screw	1.0 - 3.0	2.0 - 3.5	1.0 - 3.0	2.0 - 3.5	2.0 - 3.0	
		Tapping Screw	1.2 - 2.6	2.0 - 3.0	1.2 - 2.6	2.0 - 3.0	2.0 - 3.0	
	Bit Type (mm)							
	Mass (g)		400		410		400	410
Plug Shape (EMN/FME type)								

*1 : These models are made to order.

Standard Accessories

Bit	No.	DLV7020 / 8020	DLV7030 / 8030 / 7031 / 8031
No.0 × 2.5 × 44	1	1	—
No.1 × 3 × 44	—	—	1
No.1 × 4 × 44	1	—	—
No.2 × 4 × 44	—	—	1
Suspension Bail		1	

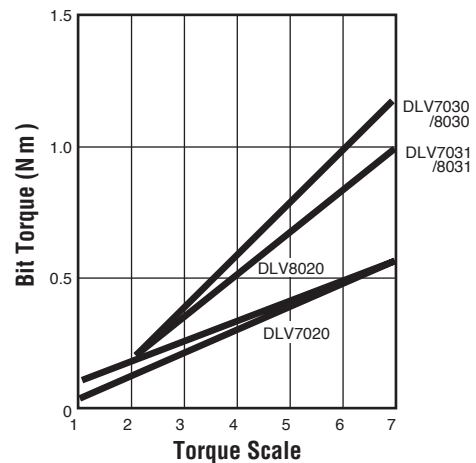
Optional Accessories



Torque Adjustment Ring Cover
DLW5300 (TD00332)

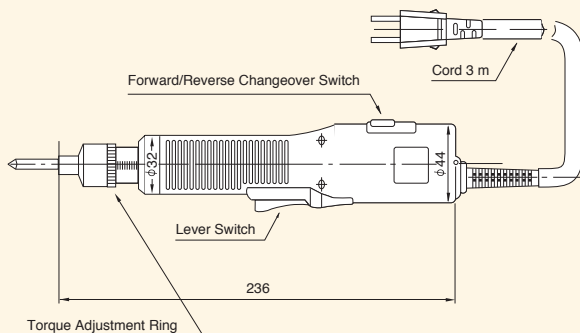
This minimizes tampering or accidental turning of the torque adjustment ring once the torque is set.

Torque Diagram (for reference)

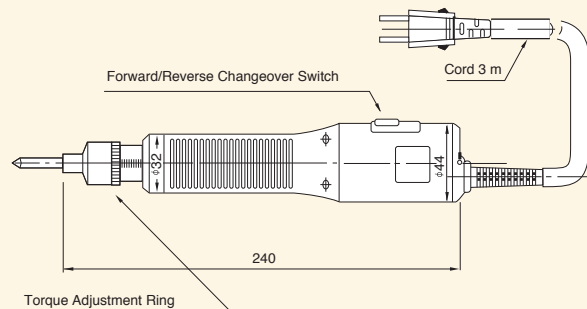


External Dimensions

● DLV7020/7030/7031



● DLV8020/8030/8031



Unit: mm

DLV7104/8104/8204 series ■ For Machine Screws (2.6 - 6.0 mm)

Features

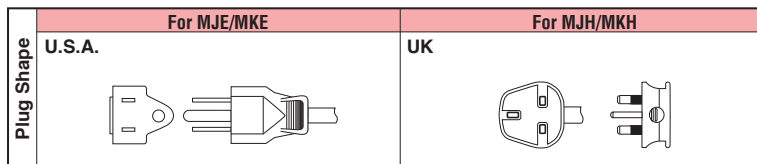
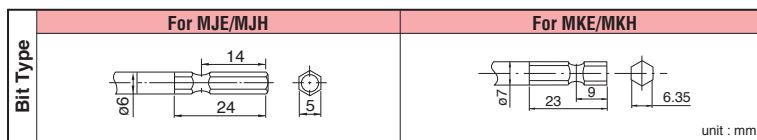
The most popular models have been redesigned

- Equipped with bit grounding mechanism
- Long-life cam is utilized
- The clear plastic torque adjustment ring cover minimizes unintentional tampering of the preset torque
- The changeover switch enables operators to change forward/reverse rotation with a single hand
- The ergonomically designed grip can be held tightly to resist against tightening reaction force, resulting in reduced operator fatigue



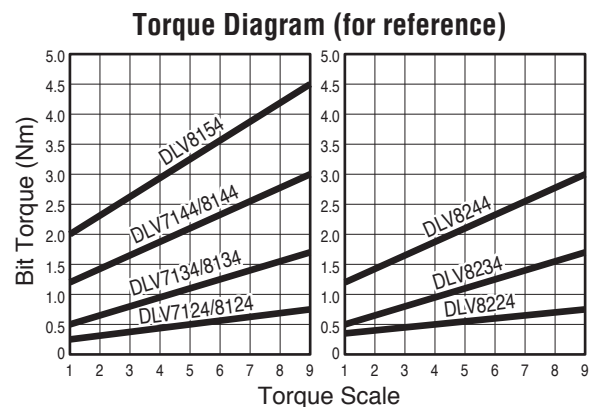
Specifications

Electric Screwdriver	Standard						High Torque	High Speed			
	DLV7124-MJE	DLV7134-MJE	DLV7144-MJE	DLV8124-MJE	DLV8134-MJE	DLV8144-MJE	DLV8154-MJE	DLV8224-MJE	DLV8234-MJE	DLV8244-MJE	
Model	DLV7124-MJH	DLV7134-MJH	DLV7144-MJH	DLV8124-MJH	DLV8134-MJH	DLV8144-MJH	DLV8154-MJH	DLV8224-MJH	DLV8234-MJH	DLV8244-MJH	
	DLV7124-MKE	DLV7134-MKE	DLV7144-MKE	DLV8124-MKE	DLV8134-MKE	DLV8144-MKE	DLV8154-MKE	DLV8224-MKE	DLV8234-MKE	DLV8244-MKE	
	DLV7124-MKH	DLV7134-MKH	DLV7144-MKH	DLV8124-MKH	DLV8134-MKH	DLV8144-MKH	DLV8154-MKH	DLV8224-MKH	DLV8234-MKH	DLV8244-MKH	
Starting Method	Lever Start						Push to Start				
Input Voltage	230 V AC, 50/60 Hz										
Torque Adjustment	Stepless										
Torque (Nm)	0.25 - 0.75	0.5 - 1.7	1.2 - 3.0	0.25 - 0.75	0.5 - 1.7	1.2 - 3.0	2.0 - 4.5	0.35 - 0.7	0.5 - 1.7	1.2 - 3.0	
Free Speed (min ⁻¹)	900		600	900		600	400	2,000	1,800	1,100	
Power Consumption (W)	35						45				
Screw Size (mm)	Machine Screw	2.6 - 3.0	2.6 - 4.0	3.5 - 5.0	2.6 - 3.0	2.6 - 4.0	3.5 - 5.0	4.5 - 6.0	2.6 - 3.0	2.6 - 4.0	3.5 - 5.0
	Tapping Screw	2.3 - 3.0	2.3 - 3.5	3.0 - 4.0	2.3 - 3.0	2.3 - 3.5	3.0 - 4.0	4.5 - 5.0	2.3 - 3.0	2.3 - 3.5	3.0 - 4.0
Mass (g)	720			710			910	710			



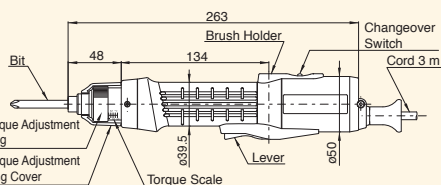
Standard Accessories

For MJE/MJH	<ul style="list-style-type: none"> • Bit No.1 × 6 × 70: 1 pc. • Bit No.2 × 6 × 70: 1 pc. 	<ul style="list-style-type: none"> • Spare Carbon Brush: 2 pcs. • Suspension Bail: 1 pc.
For MKE/MKH	<ul style="list-style-type: none"> • Bit No.1 × 7 × 75: 1 pc. • Bit No.2 × 7 × 75: 1 pc. 	<ul style="list-style-type: none"> • Spare Carbon Brush: 2 pcs. • Suspension Bail: 1 pc.
For 8154-MKE/MKH	<ul style="list-style-type: none"> • Bit No.2 × 7 × 75: 1 pc. • Bit No.3 × 7 × 50: 1 pc. 	<ul style="list-style-type: none"> • Spare Carbon Brush: 2 pcs. • Suspension Bail: 1 pc.

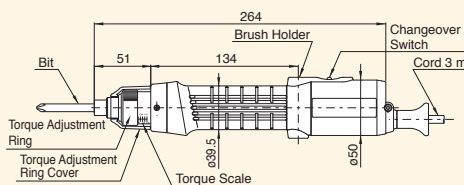


External Dimensions

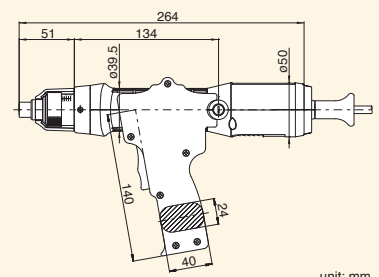
●DLV7124 / 7134 / 7144



●DLV8124 / 8134 / 8144 / 8224 / 8234 / 8244



●DLV8154



DLV7104/8104/8204 series

DLV7500/8500 series

■ For Machine Screws (2.6 - 6.0 mm)

Features

Low vibration, low noise, and easy gripping in a compact design

- The easily visible torque reach light goes on when the set torque is reached
- The combination of an advanced clutch design and the auto-stop circuit assures torque accuracy
- The long life motor with a yoke made of advanced materials further assures a long service life
- Compliant with CE standard
- Antistatic option is available



DLC4511-GGB



DLR1510-JE

Specifications

		Standard		High Torque	Standard		High Torque
Model	Standard	DLV7530-MKE	DLV7540-MKE	DLV7550-MKE	DLV8530-MKE	DLV8540-MKE	DLV8550-MKE
	ESD	DLV7530-BKE	DLV7540-BKE	DLV7550-BKE	DLV8530-BKE	DLV8540-BKE	DLV8550-BKE
Starting Method		Lever Start			Push to Start		
Input Voltage		59 V DC					
Torque Adjustment		Stepless					
Torque (Nm)		0.5 - 1.7	1.2 - 2.7	2.0 - 4.5	0.5 - 1.7	1.2 - 2.7	2.0 - 4.5
Free Speed (min ⁻¹)		1,100	700	500	1,100	700	500
Screw Size (mm)	Machine Screw	2.6 - 4.0	3.5 - 5.0	4.5 - 6.0	2.6 - 4.0	3.5 - 5.0	4.5 - 6.0
	Tapping Screw	2.3 - 3.5	3.0 - 4.0	4.0 - 5.0	2.3 - 3.5	3.0 - 4.0	4.0 - 5.0
Bit Type (mm)							
Mass (g)		650	650	750	650	650	750

Measurement point		Conventional product	DLV7500-BKE
Handle	Static Electricity (V)	350	5
	Surface Resistance (Ω)	more than 10 ¹³	10 ⁴
Lever Switch	Static Electricity (V)	350	2
	Surface Resistance (Ω)	more than 10 ¹³	10 ⁴
Forward / Reverse Switch	Static Electricity (V)	25	2
Power Cable	Static Electricity (V)	110	5
	Surface Resistance (Ω)	more than 10 ¹³	10 ¹⁰

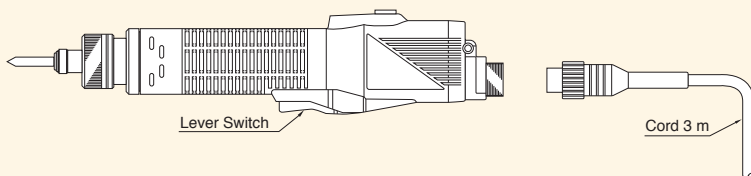
Part	Material
Handle Lever Switch	Synthetic resin with carbon fiber
Power Cable	Anti-static material

* Measurement conditions (Temperature:22 °C Humidity:66 %)

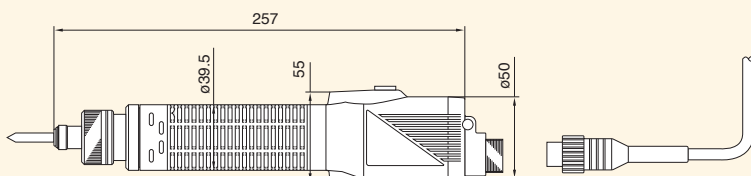
- (1) Static electricity • Earth the measurement equipment and measuring person.
 • Grip the screwdriver five times using Ansel Edmont electronic control glove.
 • Turn on the switch of the screwdriver. • Measure each part of the screwdriver using electronic measurement equipment manufactured by Shishido electrostatic Ltd.
 (2) Surface resistance • Measure using Simco Japan surface resistivity measurement equipment.

External Dimensions

DLV7500 series

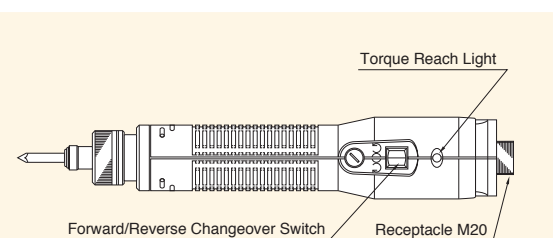


DLV8500 series



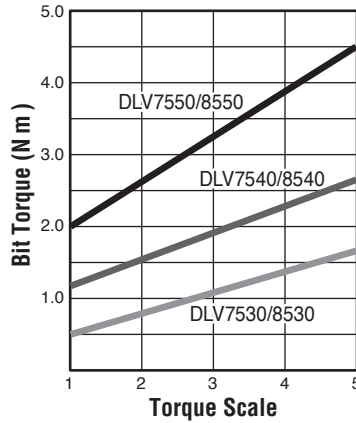
Standard Accessories

Bit	No.	DLV7530 / 7540 / 8530 / 8540	DLV7550 / 8550
Bit	No.1 × 7 × 75	1	-
	No.2 × 7 × 75	1	1
	No.3 × 7 × 50	-	1
Spare Carbon Brush			2
Power Cord			1
Suspension Bail			1



Unit: mm

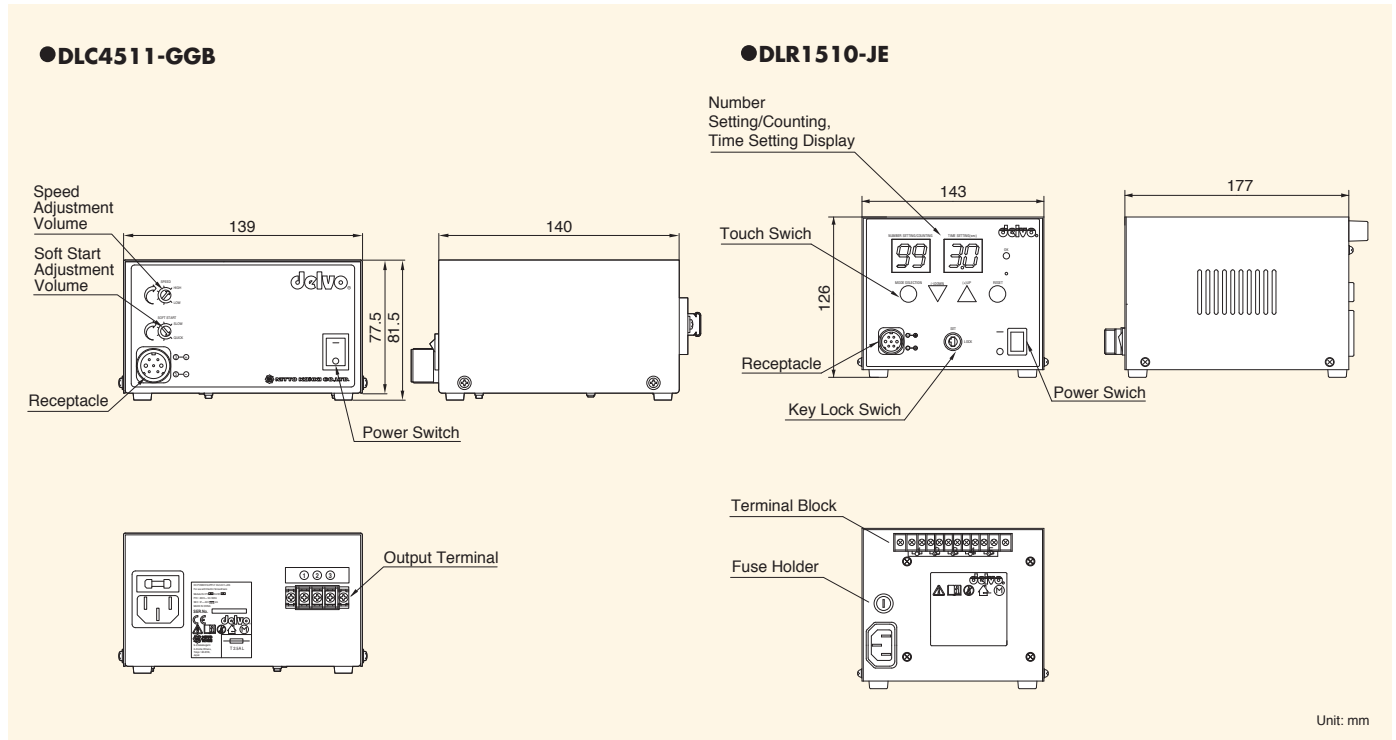
Torque Diagram (for reference)



Specifications

Model	DLC4511-GGB	DLR1510-JE
Function	Stepless speed adjustment 80 - 100 % Soft start: adjustable time setting of slow speed (max. 3 sec.) External output signals: start and torque up Electro-static discharge(ESD) control	Screw counting: OK lamp and buzzer for notification Variable non-operation time Setting protection by key lock switch Setting by touch switch for easy operation External output signals: Start, Torque up, Count up & Cycle OK
Input Voltage	230 V AC, 50/60 Hz	
Mass (kg)	3.5	5.1
Plug Shape	Europe 	

External Dimensions



DLV7100/7200/8100/8200 115V series ■ For Machine Screws (2.6 - 6.0 mm)

DLV7100/7200/8100/8200(115V) series



Features

Long Time Selling, Reliable, and High Performance

- Transformerless space saving model built in automatic stop circuit
- Combination of unique clutch mechanism and automatic stop circuit maintains high repetitive torque accuracy
- The lever start type DLV7100 / 7200 series is suited for temporarily tightening screws and tightening screws set at angles
- The DLV8100 / 8200 series is push to start type for continuous screw tightening
- The high speed type DLV7200 / 8200 series enhances working efficiency
- The high torque type DLV7251 / 8150 / 8251 series is equipped with a grip, which is useful for tightening big screws like 6 mm machine screws

Specifications

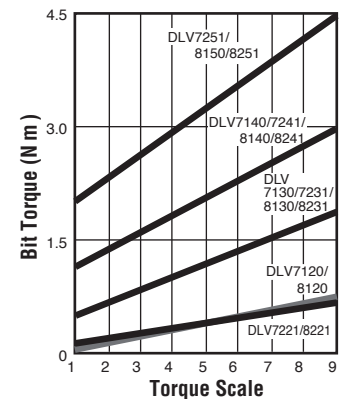
		Standard			High Speed			High Torque	Standard			High Torque	High Speed			High Torque
Model	Bit Shank: Hex. 5 mm	DLV7120-FJE	DLV7130-FJE	DLV7140-FJE	DLV7221-FJE	DLV7231-FJE	DLV7241-FJE	DLV7251-FKE	DLV8120-FJE	DLV8130-FJE	DLV8140-FJE	DLV8150-FJE	DLV8221-FJE	DLV8231-FJE	DLV8241-FJE	DLV8251-FKE
	Bit Shank: Hex. 6.35 mm	DLV7120-FKE	DLV7130-FKE	DLV7140-FKE	DLV7221-FKE	DLV7231-FKE	DLV7241-FKE		DLV8120-FKE	DLV8130-FKE	DLV8140-FKE	DLV8150-FKE	DLV8221-FKE	DLV8231-FKE	DLV8241-FKE	
Starting Method		Lever Start							Push to Start							
Input Voltage		115 V AC, 50/60 Hz														
Torque Adjustment		Stepless														
Torque (Nm)		0.25-0.75	0.5-1.7	1.2-3.0	0.35-0.7	0.5-1.7	1.2-3.0	2.0-4.5	0.25-0.75	0.5-1.7	1.2-3.0	2.0-4.5	0.35-0.7	0.5-1.7	1.2-3.0	2.0-4.5
Free Speed (min ⁻¹)		900	900	600	1,800	1,800	1,100	700	900	900	600	400	1,800	1,800	1,100	700
Power Consumption (W)		Approx. 35			Approx. 45				Approx. 35			Approx. 45				
Screw Size (mm)	Machine Screw	2.6-3.0	2.6-4.0	3.5-5.0	2.6-3.0	2.6-4.0	3.5-5.0	4.5-6.0	2.6-3.0	2.6-4.0	3.5-5.0	4.5-6.0	2.6-3.0	2.6-4.0	3.5-5.0	4.5-6.0
	Tapping Screw	2.6-3.0	2.3-3.5	3.5-4.0	2.6-3.0	2.3-3.5	3.0-4.0	4.5-5.0	2.6-3.0	2.3-3.5	3.5-4.0	4.5-5.0	2.6-3.0	2.3-3.5	3.0-4.0	4.0-5.0
Mass (g)		700			700			890	690			690			890	
Bit Type (mm)	For FJE															
	For FKE															

* All models of FJE / FKE series are made to order.

Standard Accessories

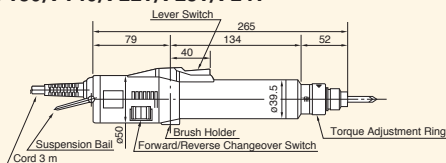
	No.	LJT	LKT except DLV7251 / 8150 / 8251-LKT	DLV7251 / 8150 / 8251-LKT
Bit	No.1 x 6 x 70	1	-	-
	No.1 x 7 x 75	-	1	-
	No.2 x 6 x 70	1	-	-
	No.2 x 7 x 75	-	1	1
	No.3 x 7 x 50	-	-	1
Spare Carbon Brush			2	
Suspension Bail			1	

Torque Diagram (for reference)

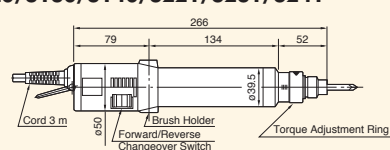


External Dimensions

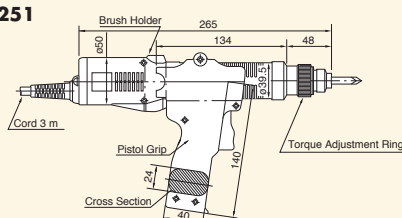
DLV7120/7130/7140/7221/7231/7241



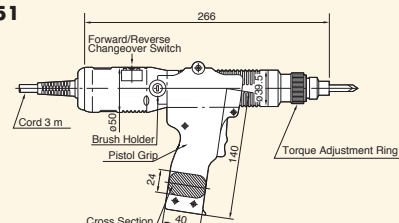
DLV8120/8130/8140/8221/8231/8241



DLV8150/8251



DLV7251



Unit: mm

Multiple Controllers

■ For DLV7300 series

● AC Power Supply DLE3610/Controller DLC2310

Designed specially for use with up to a maximum of 24 "delvo" 7300 Series Electric Screwdrivers connected with attached 15 m extension cords drawn out on both sides (each side handles up to 12 screwdrivers).

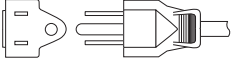
DLE3610 AC Power Supply and DLC2310 Controller can boost productivity and reduce costs of setting up production lines. The dedicated controller DLC2310 is employed for each screwdriver. If more than four units of DLV7300 series are used, installation cost of Model DLE3610 and DLC2310 will be economically beneficial.



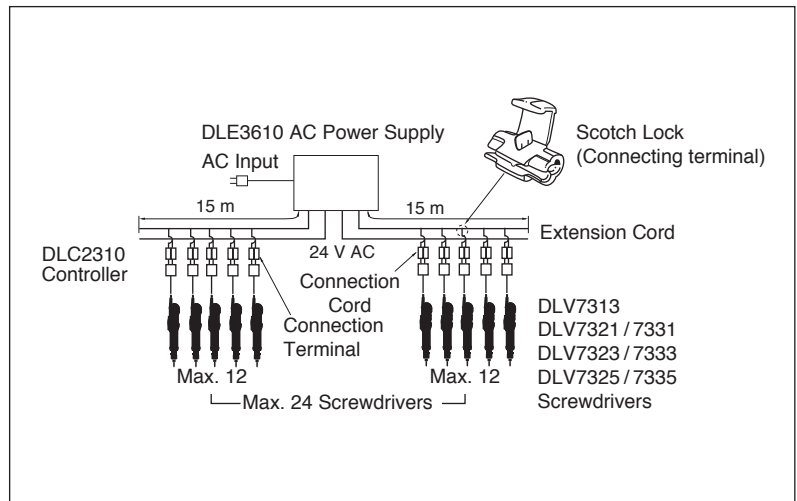
DLE3610



DLC2310

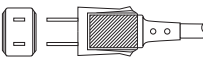
Model	DLE3610A-EN
Input Voltage (Primary Side)	100 V AC, 50/60 Hz
Secondary Output	24 V AC, 50/60 Hz, 15 A
Capacity	360 VA
External Dimensions (mm)	W190 × H134 × D188
Plug Shape	U.S.A. 
Mass (kg)	9
Accessories	Two 15 m extension cords

Model	DLC2310-CE / DLC2310-CN
Input Voltage (Primary Side)	24 V AC, 50/60 Hz
Secondary Output	36 V DC, 2 A
External Dimensions (mm)	W74 × H42 × D118
Mass (kg)	0.36
Accessories	Two 0.5 m connection cords and two scotch locks (Connecting terminal)



● Multiple Controller DLC1215

DLC1215 can control two screwdrivers by one controller.

Model	DLC1215-EN	DLC1215-GE
Input Voltage	100 V AC, 50/60 Hz	220 V AC, 50/60 Hz
Output Voltage	36 V DC × 2	
Plug Shape	Asia 	
External Dimensions (mm)	W143 × D145 × H102	
Mass (kg)	2.4	

NOTE: Each "delvo" screwdriver should be operated independently when tightening screws even though this controller will support up to two "delvo" screwdrivers. Operating two units simultaneously may cause malfunction of the controller.



DLC1215

Multiple Controllers

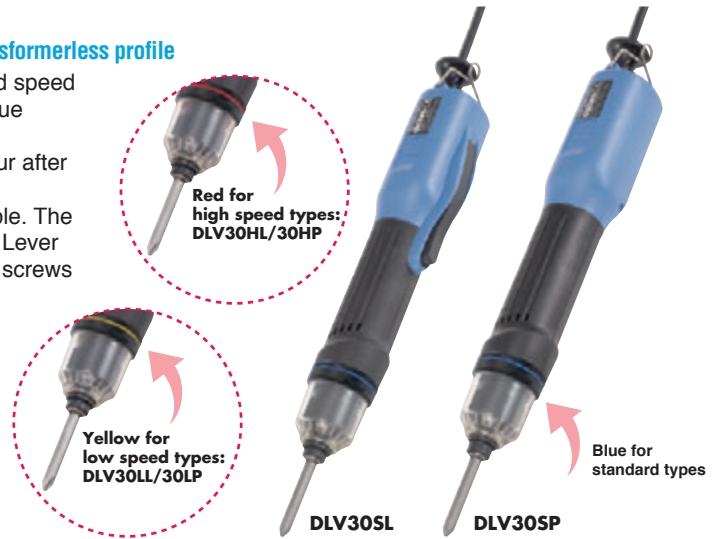
DLV30 series

■ For Machine Screws (2.6 - 5.0 mm)

Features

Eco-friendly electric screwdrivers with built-in brushless motors in a transformerless profile

- The series lineup is consisted of high speed(2,000 min⁻¹), standard speed (1,200 min⁻¹), and low speed(650 min⁻¹) types with respective torque range of 0.4 - 3.0 N m
- Designed to minimize loss of screw fastening torque that may occur after long-term use, and therefore ensures stable performance
- Both the Lever Start and Push to Start types of models are available. The Push to Start type is suitable for continuous screw tightening. The Lever Start type is suited for temporary tightening screws and tightening screws set at angles
- Equipped with a clear plastic torque adjustment ring cover
- Design conforms to the RoHS Directive and thus appeals to the environmentally conscious user
- Models with CE marking (for the European Union) or CCC (for People's Republic of China) are available
- Aluminum couplings with colored rubber rings, namely, red, blue, and yellow ones, help operators choose the correct speed type easily



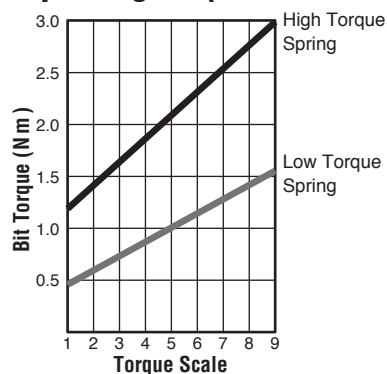
Specifications

		High Speed	Standard	Low Speed	High Speed	Standard	Low Speed
Model	European Plug	DLV30HL-MKG	DLV30SL-MKG	DLV30LL-MKG	DLV30HP-MKG	DLV30SP-MKG	DLV30LP-MKG
		DLV30HL-MJG	DLV30SL-MJG	DLV30LL-MJG	DLV30HP-MJG	DLV30SP-MJG	DLV30LP-MJG
	USA Plug	DLV30HL-MKE	DLV30SL-MKE	DLV30LL-MKE	DLV30HP-MKE	DLV30SP-MKE	DLV30LP-MKE
		DLV30HL-MJE	DLV30SL-MJE	DLV30LL-MJE	DLV30HP-MJE	DLV30SP-MJE	DLV30LP-MJE
Starting Method		Lever Start			Push to start		
Free Speed (min ⁻¹)		2,000	1,200	650	2,000	1,200	650
Input Voltage		230 V AC, 50/60 Hz					
Torque Adjustment (Nm)		Low Torque Spring (Standard Accessory)					
		High Torque Spring (Built-in)					
Power Consumption (W)		Approx. 45					
Screw Size (mm)		Machine Screw					
		Tapping Screw					
Mass (g)		700					
Bit Type (mm)	For MKG/MKE	For MJG/MJE		For MKG/MJG		For MKE/MJE	

Standard Accessories

Bit	No.	MJG / MJE	MKG / MKE
No.2 × 6 × 70	1	—	—
No.2 × 7 × 75	—	1	—
Suspension Bail	—	1	—
Low Torque Spring	—	1	—

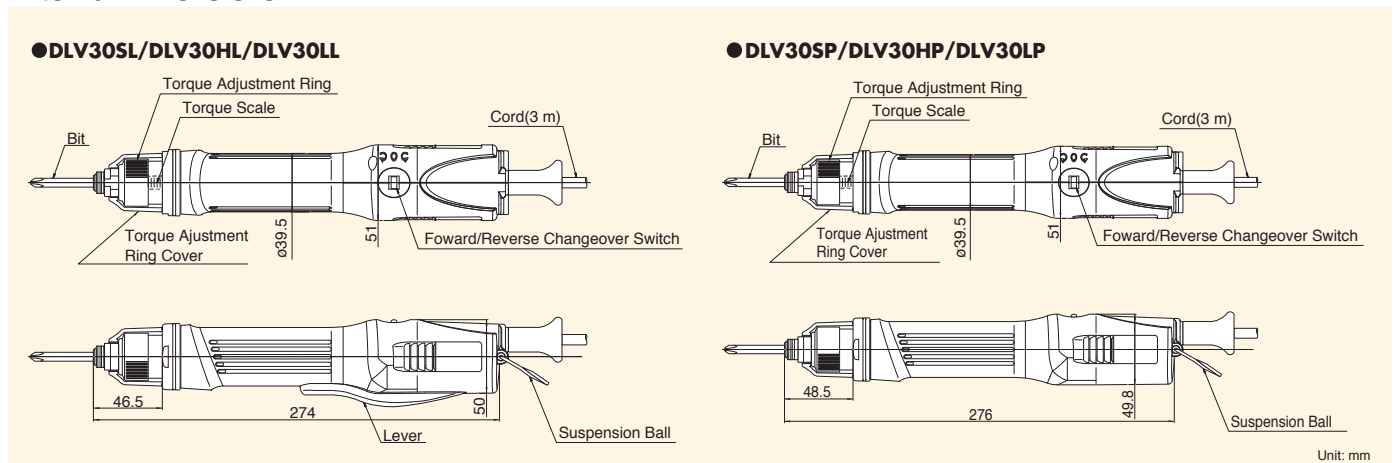
Torque Diagram (for reference)



Optional Accessories



External Dimensions



DLV45/70 series

■ For Machine Screws (4.5 - 8.0 mm)

Features

High-torque electric screwdrivers with built-in brushless motors

- Enables much more precise torque control, far quieter operation, and so much eco-friendly features than air screwdrivers
- Easily detachable Pistol Grip comes with the unit as the standard accessory
- Far superior to air screwdrivers in the following features:
 - Low noise level
 - Accurate torque control
 - No oil mist generation
 - No installation of compressors or piping required



Specifications

Model	European plug	DLV45SL-MKG*1	DLV45SP-MKG*1	DLV45LL-MKG*1	DLV45LP-MKG*1	DLV70LL-MKG*1	DLV70LP-MKG*1
	USA plug	DLV45SL-MKE	DLV45SP-MKE	DLV45LL-MKE	DLV45LP-MKE	DLV70LL-MKE	DLV70LP-MKE
Starting Method		Lever Start	Push to start	Lever Start	Push to start	Lever Start	Push to start
Free Speed (min ⁻¹)		1,200		650		650	
Input Voltage		230 V AC, 50/60 Hz					
Torque (Nm)		2.0 - 4.5				3.8 - 7.0	
Power Consumption (W)		Approx. 45					
Screw Size (mm)	Machine Screw	4.5 - 6.0				6.0 - 8.0	
	Tapping Screw	4.0 - 5.0				4.5 - 6.0	
Bit Type (mm)							
Mass (g)		Approx. 870 (with Pistol Grip / except Power Cord)					

Plug Shape	For MKG	For MKE
	Europe	U.S.A.

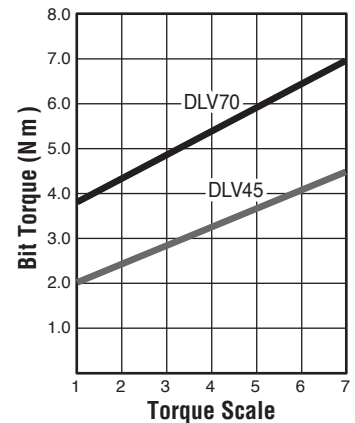
*1 : MKG type has CE marking.

Optional Accessories

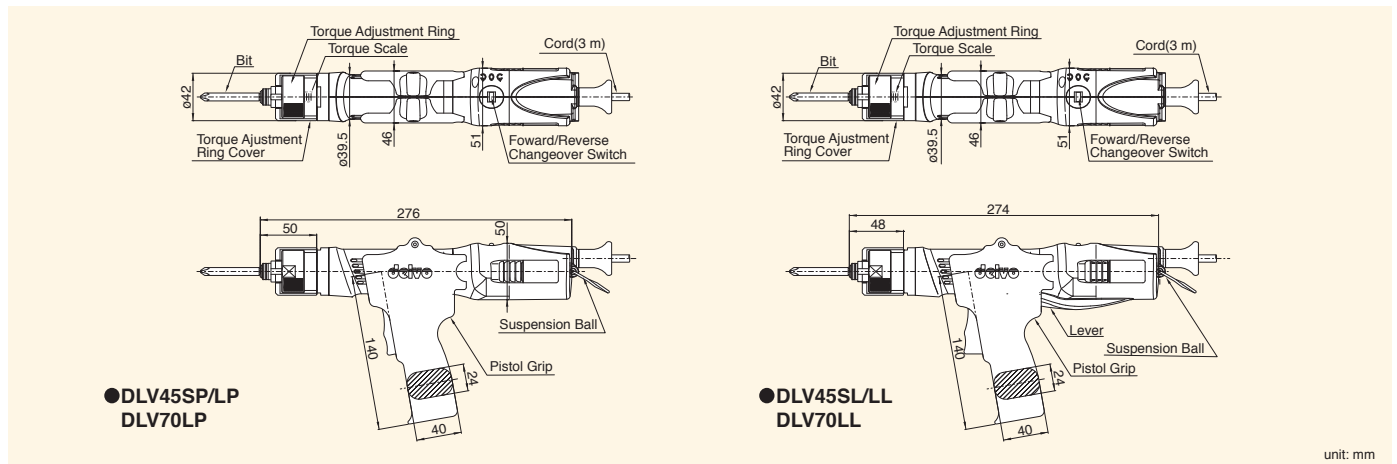


For enhanced productivity and prevention of operator's repetitive motion injury, a torque reaction arm should be used all together.

Torque Diagram (for reference)



External Dimensions



DLV45/70 series

DLV30/45/70-IKE series ■ For Machine Screws (2.6 - 8.0 mm)

Features

Incorporates long-life brushless motors

- The newly designed clutch mechanism offers precise torque repeatability over sustained periods of use
- Three series of screwdrivers: DLV30/45/70-IKE can be operated by one standard control unit giving you wide screw tightening torque coverage from 0.4 to 7.0 Nm and maximum free speeds of 650, 1,200 or 2,000 min⁻¹
- Compliant with CE



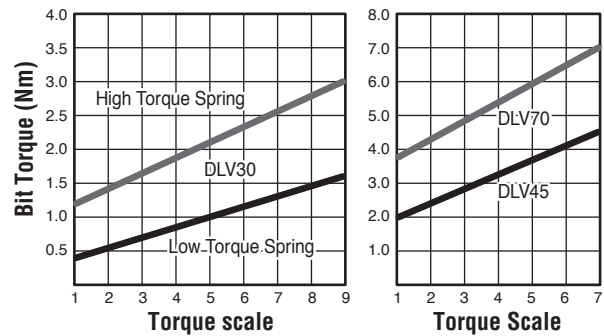
Specifications

Model	Series	DLV30 Series			DLV45 Series		DLV70 Series
	Lever Start	DLV30LL-IKE	DLV30SL-IKE	DLV30HL-IKE	DLV45LL-IKE	DLV45SL-IKE	DLV70LL-IKE
	Push to Start	DLV30LP-IKE	DLV30SP-IKE	DLV30HP-IKE	DLV45LP-IKE	DLV45SP-IKE	DLV70LP-IKE
Input Voltage		40 V DC					
Torque Adjustment (Nm)	Low Torque Spring (Standard Accessory)	0.4 - 1.6			2.0 - 4.5		3.8 - 7.0
	High Torque Spring (Built-in)	1.2 - 3.0					
*1 Adjustable Speed Range (min ⁻¹)		390 - 650	720 - 1,200	1,200 - 2,000	390 - 650	720 - 1,200	390 - 650
*1 Adjustable Soft Start Time (sec)		0 - 2					
*1 Free Speed at Soft Start (min ⁻¹)		260	480	800	260	480	260
Screw Size (mm)	Machine Screw	2.6 - 5.0			4.5 - 6.0		5.0 - 8.0
	Tapping Screw	2.5 - 4.0			4.0 - 5.0		4.5 - 6.0
Mass (g)		720			870		
Bit Type (mm)							
Standard Accessories		Bit No.2 x 7 x 75 : 1 pc. Suspension Bail : 1 pc.					
		Low Torque Spring : 1 pc.					
Controller					DLR70S-WGB (See Page 20) DLC70S-WGB (See Page 21)		

*1 : Values are obtainable in combination with control unit DLR70S-WGB or DLC70S-WGB.
* IJE types for 5 mm hex. bit are available on request.

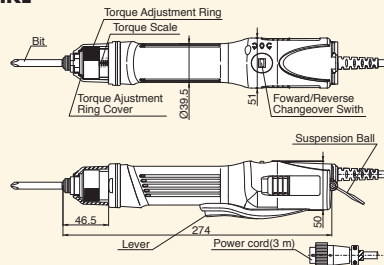


Torque Diagram (for reference)

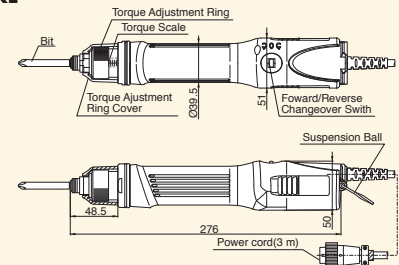


External Dimensions

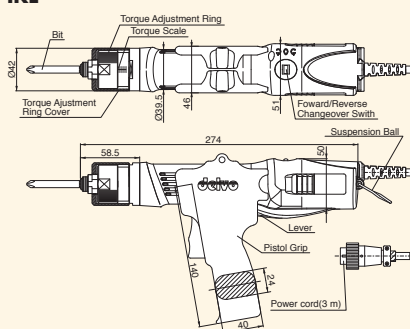
●DLV30SL/30HL/30LL-IKE



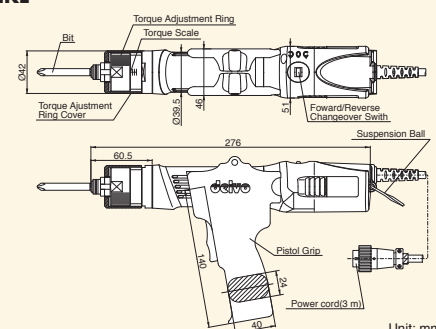
●DLV30SP/30HP/30LP-IKE



●DLV45SL/45LL/70LL-IKE



●DLV45SP/45LP/70LP-IKE



Unit: mm

DLR70S-WGB

■ Screw Fastening Counter for DLV30/45/70-IKE series

Features

Enhanced versatility by combining controller and counter

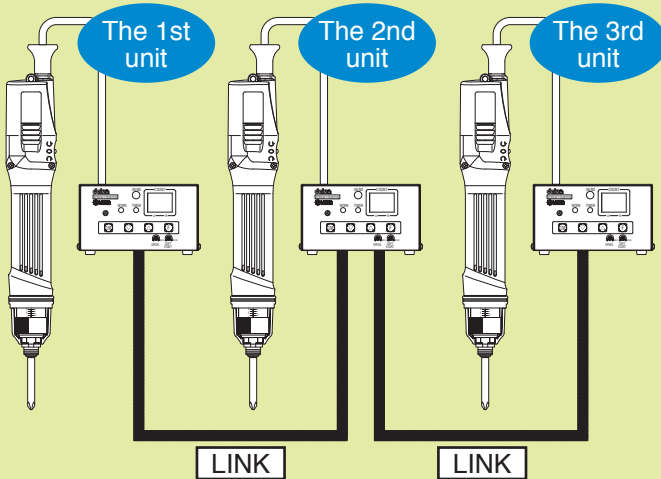
- This model has a "Count Correction" function that does not count alien screws with different length, refastened screws that were initially fastened sufficiently, or incompletely fastened screws that were fastened in a slanting direction or stopped fastening in midcourse
- "Count Back" function reverses the counting when a screw is unfastened
- Up to four different screw fastening programs can be stored in the internal memory for a wide variety of assembly work
- Sequential screw tightening system (Link Function) can be built up with up to 10 screwdriver/controller sets connected in series
- Equipped with "Stepless Speed Adjustment" function and "Soft Start" function
- Universal input voltage from 100 to 240 V for convenient installation



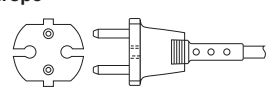
LINK Function

When counters are connected and activated in the screw fastening sequence as shown below, all screwdrivers are on standby except the first one in the sequence. Only when the first screw fastening is finished, can the next screwdriver change from standby to ready. When the last fastening in the sequence is finished, the first screwdriver is once again ready and the sequence can be repeated again.

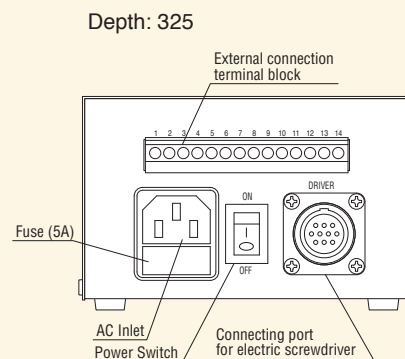
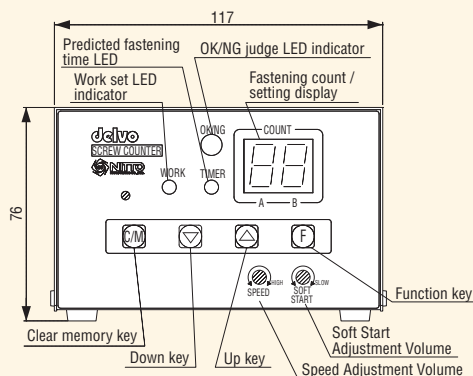
N.B. Up to 10 screwdriver/counter sets can be connected to the LINK.



Specifications

Model	DLR70S-WGB
Input Voltage	100 - 240 V AC, 50/60Hz
Output Voltage	40 V DC
Speed Control Function	60 - 100 %
Soft Start Function	0 - 2 sec.
Count	0 - 99
Allowable Number of Screw Fastening Programs	4
Counting Method	Count-up / Count-down
Count Correction Function	Count normal fastening only
Self Adjustable Timer Setting	0.01 to 0.99 sec.
OK Output Timer Setting	0 to 9.5 sec.
Count Back Function	ON / OFF
OK / NG Buzzer	ON / OFF
Input Signal	WORK / RESET / LINK-IN / CH1 / CH2 / TORQUE CHECK
Output Signal	OK / NG / LINK-OUT / TORQUE UP
Mass (kg)	2.1
Size W × L × H (mm)	117 × 325 × 76
Bit Grounding	Ready (With a 1MΩ resistor)
Plug shape	Europe 
Standard Accessories	Power cord (2 m): 1 Fuse (5 A): 1

External Dimensions



unit: mm

delvo

DLR70S-WGB

DLC70S-WGB

■ Controller For DLV30/45/70-IKE series

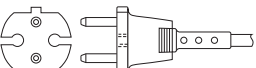
Features

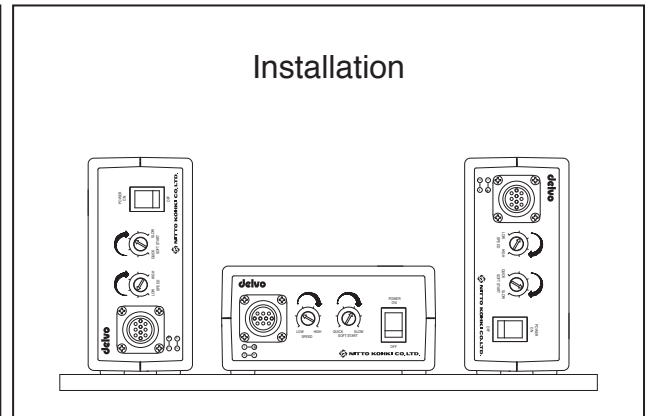
Universal input voltage from 100 to 240 V AC for convenient installation

- The controller provides soft start function. The slow startup prevents screw heads from possible damage caused by the disengaged bit.
- Stepless speed adjustment function widens the speed range from 390 to 2,000⁻¹ for various applications
- The controller outputs: Start, torque-up and reverse is via a dry contact method. These signals can be used for counting up tightened screws and preventing screw tightening errors.
- Applying 24 V DC to the designated terminals on the controller brings the screwdriver to an immediate stop in emergency cases
- Can be installed either horizontally or vertically

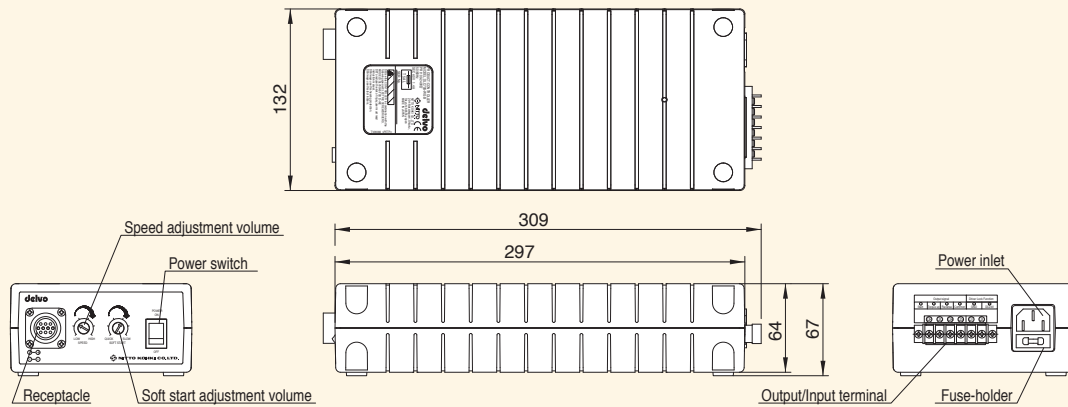


Specifications

Model	DLC70S-WGB
Features	With speed control and soft start function
Input Voltage	100 - 240 V AC, 50/60 Hz
Output Voltage	40 V DC
Signal Output(contact point type)	Start, Torque up, Reverse(Dry contact)
Signal Input	Drive Stop Function (With DC 24 V Input Voltage needed)
Mass (kg)	1.8
Size W × L × H (mm)	132 × 297 × 67
Bit Grounding	Ready(With a 1M Ω resistor)
Plug shape	Europe 
Standard Accessories	Power cord(2 m): 1 Rubber feet: 4 Fuse(5 A): 1



External Dimensions



Unit: mm

DLV3100/3300 series ■ For Miniature Screws & Machine Screws (1.0 - 6.0 mm)

Features

A Labor-Saving "delvo" for Automatic Assembly Robot

- Vibration-proof and shock-proof for long continuous screw tightening
- Torque-up signal output
- High repetitive torque accuracy

*1: Models DLV3121 / 3131 / 3141 / 3151 have no bit-holding function. Please order the following models with bit holding function if required, but they require 100 V AC power source and are made to order products.

- DLV3128-EJN • DLV3138-EJN
- DLV3148-EJN • DLV3158-EJN

NOTE: The bit mounting is made in a specific way.

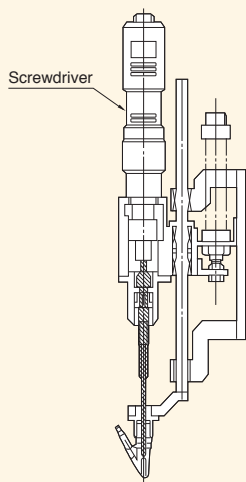


Specifications

		For Miniature Screws		For Machine Screws			
Electric Screwdriver	Model	DLV3321-CMN	DLV3331-CMN	DLV3121-EJN*1	DLV3131-EJN*1	DLV3141-EJN*1	DLV3151-EJN*1
	Input Voltage	36 V DC (supplied from controller)		100 V AC, 50/60 Hz			
	Torque Adjustment	Stepless					
	Torque (Nm)	0.05 - 0.5	0.3 - 1.2	0.25 - 0.7	0.5 - 1.5	1.2 - 3.0	2.0 - 4.5
	Free Speed (min ⁻¹)	900	600	900	600	450	
	Power Consumption (W)	Approx. 35		Approx. 35			
	Screw Size (mm)	Machine Screw	1.0 - 3.0	2.0 - 3.5	2.3 - 2.6	2.6 - 3.5	3.5 - 5.0
	Tapping Screw	1.2 - 2.6	2.0 - 3.0	2.3 - 3.0	2.5 - 3.5	3.0 - 4.0	4.0 - 5.0
Bit Type (mm)	Special bit			5 mm hex standard bit			
Mass (g)		400		900			

Controller		DLC3310
Model		DLC3310
Input Voltage		24 V AC, 50/60 Hz
Output Voltage		36 V DC
Mass (g)		360

Installation Example



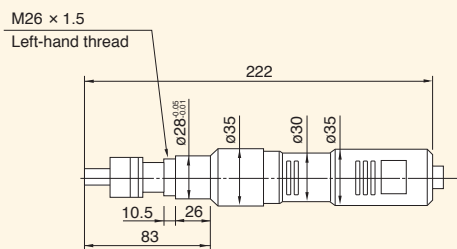
Standard Accessories

Model	DLV3121 / 3131 / 3141 / 3151
Cable (2 m)	1
Spare Carbon Brush	2

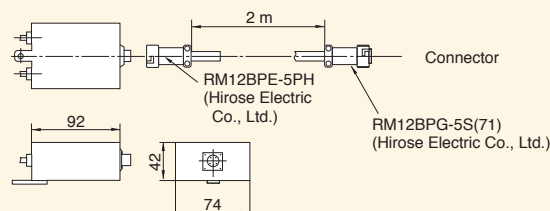
* The 2 m cord exclusively for DLV3321/3331 comes with DLC3310 as a standard accessory.

External Dimensions

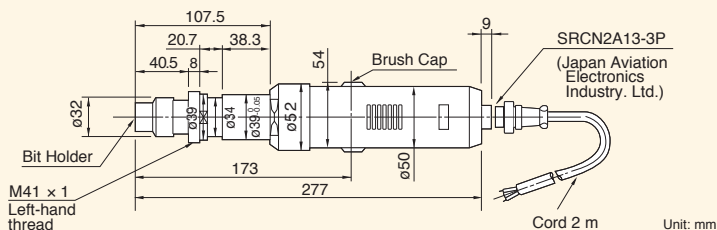
● DLV3321/3331



● DLC3310 (Optional)



● DLV3121/3131/3141/3151



DLV3100/3300 series

DLV30/45/70 automation series ■ For Machine Screws (2.6 - 8.0 mm)

Features

For automatic assembly robot

- Three series of screwdrivers can be mounted on the XY robot
- Automatic screw tightening achieves a labor-saving or unattended process
- Long-life brushless motors are incorporated in the electric screwdrivers
- Standard coupling, flange coupling, and left-hand thread coupling are available for installation
- The electric screwdriver generates the torque-up signal
- The screwdrivers can be connected to a sequencer to control starting, forward rotation, and reverse rotation
- An electrical noise preventive measure is employed to avoid malfunction. Each input/output signal is insulated from a screwdriver's internal circuit by a photocoupler.



DLV45LAF-DKN

Specifications

		30 series			45 series (High Torque)		70 series (High Torque)
		Low Speed	Standard Speed	High Speed	Low Speed	High Speed	Low Speed
Model	Standard coupling	DLV30LAN-DJN	DLV30SAN-DJN	DLV30HAN-DJN	DLV45LAN-DKN	DLV45SAN-DKN	DLV70LAN-DKN
	Coupling with flange	DLV30LAF-DJN	DLV30SAF-DJN	DLV30HAF-DJN	DLV45LAF-DKN	DLV45SAF-DKN	DLV70LAF-DKN
	Coupling with M41 screw	DLV30LAM-DJN	DLV30SAM-DJN	DLV30HAM-DJN	DLV45LAM-DKN	DLV45SAM-DKN	DLV70LAM-DKN
Torque (Nm)		Low torque spring (Accessory) 0.4 - 1.6			2.0 - 4.5		3.8 - 7.0
		High torque spring (Installed) 1.2 - 3.0					
Free Speed (min ⁻¹)		650	1,200	2,000	650	1,200	650
Screw Size (mm)	Machine Screw	2.6 - 5.0			4.5 - 6.0		5.0 - 8.0
	Tapping Screw	2.5 - 4.0			4.0 - 5.0		4.5 - 6.0
Mass (g)	Standard coupling	700			780		
	Coupling with flange	760			840		
	Coupling with M41 screw	740			820		
Power Consumption (W)		45					
Input Voltage		100 V AC, 50/60 Hz					
Starting Method		External input signal					
Input signal		Start signal / Forward signal / Reverse signal (5 - 24 V DC)					
Output signal		Torque-up signal (Voltage under 30 V DC and current 20 mA)					
Bit Type (mm)							
Standard Accessories		Bit NK31 × 2 × 6 × 70: 1 pc. Low torque spring: 1 pc.			Bit NK35 × 2 × 7 × 75: 1 pc.		

Optional Accessories

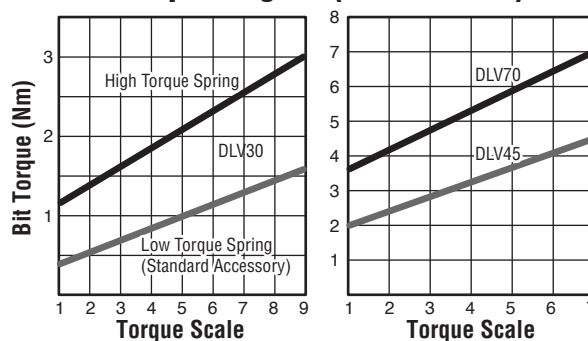


Vacuum Pickups
DLP7400 (M3/M4 screws)
DLP7400 for high torque (M5/M6 screws)

Part No.
TD07285
TD07286

Vacuum Pump
Model DLP2530 100 V AC

Torque Diagram (for reference)



Screwdriver Cable Breakdown List

Power/Input Signal Cable

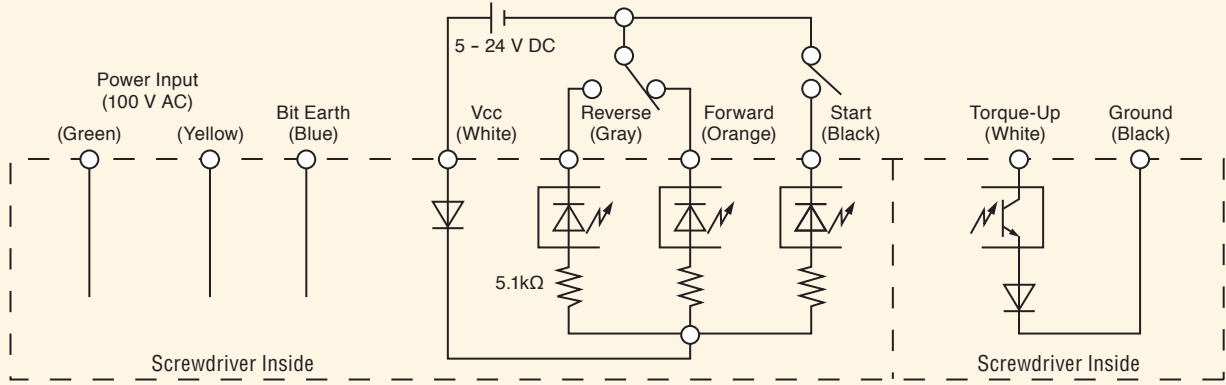
Color	Details
Green	Power input
Yellow	Power input
Blue	Bit earth
White	Input signal common (Vcc)
Black	Start signal input
Orange	Forward signal input
Gray	Reverse signal input

Power input voltage: 100 V AC

Output Signal Cable

Color	Details
White	Torque-up signal output
Black	Ground

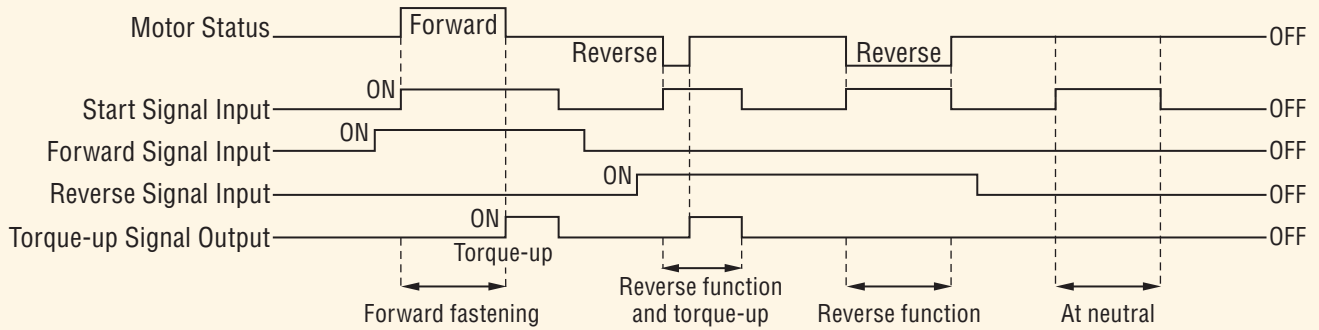
Power Input / Output Signal Schematic Diagram



⚠ Caution

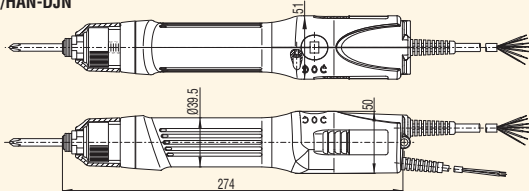
- Each input/output signal is insulated from a screwdriver's internal circuit.
- Input signal rated range: Use in the range of voltage between 5 – 24 V DC (current 0.5 – 5 mA DC)
- Torque-up signal output maximum rating: Use in the range of voltage under 30 V DC and current 20 mA DC.

Operation Timing Chart

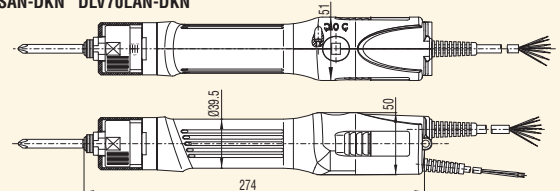


External Dimensions

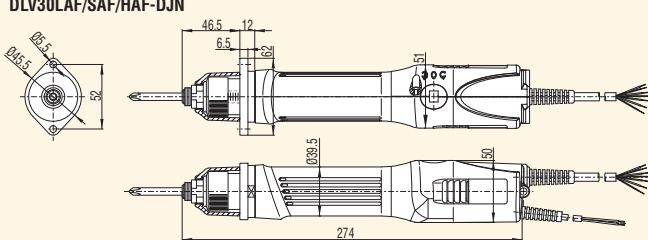
DLV30LAN/SAN/HAN-DJN



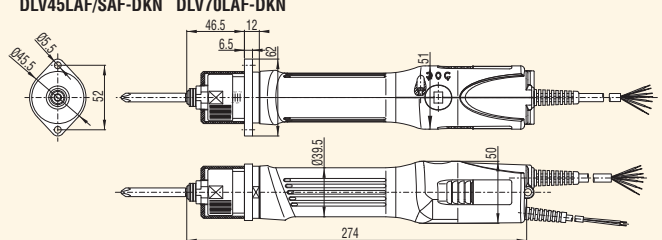
DLV45LAN/SAN-DKN DLV70LAN-DKN



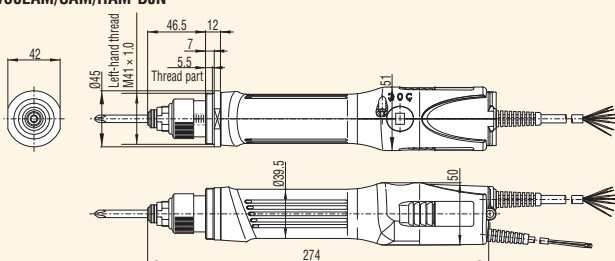
DLV30LAF/SAF/HAF-DJN



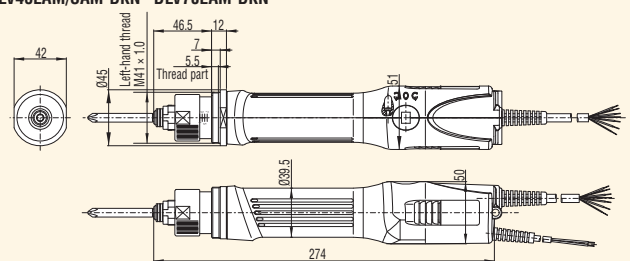
DLV45LAF/SAF-DKN DLV70LAF-DKN



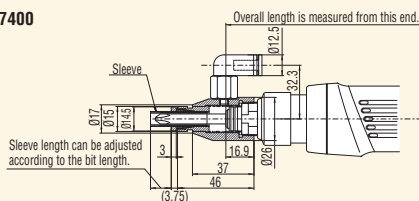
DLV30LAM/SAM/HAM-DJN



DLV45LAM/SAM-DKN DLV70LAM-DKN



DLP7400



Unit: mm

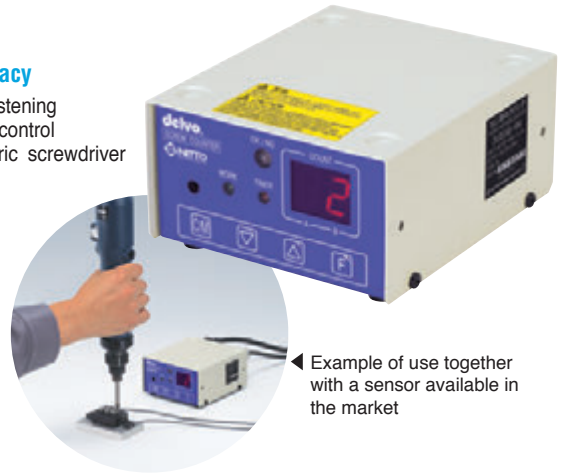
DLR5040A-WE

■ Screw Fastening Counter

Features

For prevention of human fastening errors and enhanced fastening management accuracy

- Ideally suited for the assembly lines of vehicles and electrical equipment requiring reliable screw fastening
- The controller receives signals from electric screwdrivers to provide highly reliable screw fastening control
- Count Return Function: When a screw is loosened, a reverse signal output from the electric screwdriver reverses the count by one
- The Count Correction Function does not count elevated screws or double fastening
- Input voltage range from 100 to 240 V AC is acceptable in any part of the world (The screwdrivers to be used in combination with the counter require input power supplies that are written on the respective nameplate)
- Link Connection Function: You can build up a simple sequential screw tightening system by connecting the DLR5640 screw tightening counters in series without using any external controller such as a programmable controller
- Driver Lock Function prevents unexpected start of screwdrivers
- Compact and Lightweight (Compared with our conventional models decreased by 30 % in volume and by 38 % in mass)
- SPC type screwdrivers for DLR5040A-WE are designed on the basis of established transformerless screwdrivers



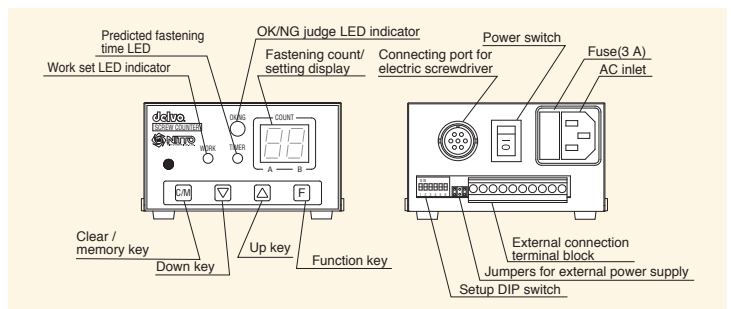
◀ Example of use together with a sensor available in the market

Specifications

Model	DLR5040A-WE
Count	1 - 99
Counting Method	Count-up / Count-down
Count Correction Function	Count normal fastening only
Self Adjustable Timer Setting	0.01 to 0.99 sec.
Work Detection Function	Yes (1 terminal) / No
External Count Input	2 terminals (PARTS A / PARTS B)
Work Installation Timer Setting	0 to 9.5 sec.
OK Output Timer Setting	0 to 9.5 sec.
NG Alarm	ON(1) / ON(2) / OFF
OK Buzzer	ON(1) / ON(2) / ON(3) / OFF
Count Return Function	ON / OFF
NG Judge Timing	WORK SET / DRIVER ON
Automatic / Manual OK Judge	AUTO / MANUAL
Screwdriver Lock Function	ON / OFF
Multiple Link	Up to 10 counters can be connected.
External Inputs on Terminal Block	SENSOR / RESET / LINK-IN / PARTS A / PARTS B
External Outputs on Terminal Block	OK / NG / LINK-OUT
Parameter Memory	Parameters stored in internal nonvolatile memory
Input Voltage	100 - 240 V AC, 50/60 Hz See the bottom asterisk.*1
External Dimensions (mm)	W100 × D120 × H60
Mass (kg)	0.47

Accessory : 2 m cord with UL three-prong plug. This product is for use outside Japan.

Front and Rear Panels



LINK Function

When counters are connected and activated in the screw fastening sequence as shown below, all screwdrivers are on standby except the first one in the sequence. Only when the first screw fastening is finished, can the next screwdriver change from standby to ready. When the last fastening in the sequence is finished, the first screwdriver is once again ready and the sequence can be repeated again.
N.B. Up to 10 screwdriver/counter sets can be connected to the LINK.

DLR5340A-WE

■ Screw Fastening Counter

Features

Up to three sets screwdrivers can be connected to one counter

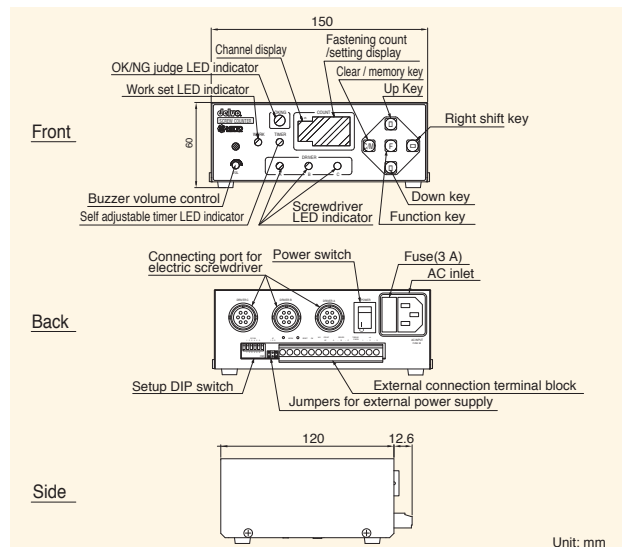
- Up to eight kinds of screw fastening conditions can be stored in internal memory for a wide variety of assembly work
- Count-up signal outputs
- Space saving
- The Count Correction Function does not count elevated screws or double fastening as fastening errors
- Count Return Function: When a screw is loosened, a reverse signal output from the electric screwdriver reverses the count by one

Specifications

Model	DLR5340-WE
Count	0 - 99
Counting Method	Count-up / Count-down
Count Correction Function	Count normal fastening only
Self Adjustable Timer Setting	0.01 to 2.50 sec.
Work Detection Function	Yes (1 terminal) / No
Work Installation Timer Setting	0 to 9.5 sec.
OK Output Timer Setting	0 to 9.5 sec.
NG Alarm	ON(1) / ON(2) / OFF
OK Buzzer	ON(1) / ON(2) / ON(3) / ON(4) / ON(5) / OFF
Count Return Function	ON / OFF
Screwdriver Lock Function	ON / OFF
Screwdriver Cord Connection	Single cord connection (Signal and power lines)
External Inputs on Terminal Block	SENSOR / RESET / TORQUE CHECK ch1/2/3
External Outputs on Terminal Block	OK, NG, COUNT-UP, DRIVER A/B/C
Input Voltage	100 - 240 V AC, 50/60 Hz See the bottom asterisk.*1
External Dimensions (mm)	W150 × D120 × H60
Mass (kg)	0.62

Accessory : 2 m cord with UL three-prong plug. This product is for use outside Japan.

Front and Rear Panels



*1 : The voltage of the dedicated screwdrivers for DLR5040A-WE and DLR5340-WE is 100 V. When you need different voltage screwdrivers, please contact our distributor or us.

Dedicated Screwdrivers for DLR5040A-WE and DLR5340-WE



DLV7000-SPC series



DLV8000-SPC series

Dedicated Screwdrivers

		Miniature Screw(1.0 - 3.5 mm)						
Electric Screwdriver	Model	Lever Start	DLV7020-SPC	DLV7030-SPC	DLV7031-SPC	-----	-----	
		Push to Start	-----	-----	-----	DLV8020-SPC	DLV8030-SPC	
			-----	-----	-----	DLV8031-SPC	-----	
		Input Voltage	100 V AC, 50/60 Hz					
		Torque Adjustment	Stepless					
		Torque (Nm)	0.05 - 0.55	0.30 - 1.10	0.30 - 1.00	0.10 - 0.55	0.30 - 1.10	0.30 - 1.00
		Free Speed (min ⁻¹)	900	650	1,200	900	650	1,200
		Power Consumption (W)	Approx. 25		Approx. 30		Approx. 25	
		Screw Size (mm)	Machine Screw	1.0 - 3.0	2.0 - 3.5	2.0 - 3.0	1.0 - 3.0	2.0 - 3.5
			Tapping Screw	1.2 - 2.6	2.0 - 3.0	2.0 - 3.0	1.2 - 2.6	2.0 - 3.0
	Bit Type (mm)							
	Mass (g)	380			390			
	Cord Length (m)	3 (with connector)						
	Bit Grounding	Equipped as standard						

Optional Accessories



Torque Adjustment Cover
(DLW5200:DLV7100/7200/8100/8200-SPC
DLW5300:DLV7000/8000-SPC)

- Tampering or accidental turning of the torque adjustment cover by an operator can be prevented
- Flanged coupling DLW9011 can not be mounted on SPC type



Pistol Grip
(DLW2300:DLV7100/7200/8100/8200/30/45/70-SPC)

- Suitable for horizontal operation

TD04061 SPC cord for commercial power source (optional)



Dedicated screwdrivers can be directly plugged in commercial power source.



DLV7100/7200-SPC series



DLV8100/8200-SPC series



DLV7251-SPC



DLV8150/8251-SPC



DLV30LP-SPC



DLV30SP-SPC



DLV30HP-SPC



DLV45SL-SPC



DLV70LP-SPC

Dedicated Screwdrivers

		Machine Screw(2.6 - 8.0 mm)							Built-in brushless motor							
Electric Screwdriver	Model	Lever Start	DLV7120-SPC	DLV7130-SPC	DLV7140-SPC	-----	DLV7251-SPC	DLV7241-SPC	DLV7231-SPC	DLV30LL-SPC	DLV30SL-SPC	DLV30HL-SPC	DLV45LL-SPC	DLV45SL-SPC	DLV70LL-SPC	
		Push to Start	DLV8120-SPC	DLV8130-SPC	DLV8140-SPC	DLV8150-SPC	DLV8251-SPC	DLV8241-SPC	DLV8231-SPC	DLV30LP-SPC	DLV30SP-SPC	DLV30HP-SPC	DLV45LP-SPC	DLV45SP-SPC	DLV70LP-SPC	
		Input Voltage	100 V AC, 50/60 Hz													
		Torque Adjustment	Stepless													
		Torque (Nm)	0.25 - 0.75	0.50 - 1.70	1.20 - 3.00	2.00 - 4.50	2.00 - 4.50	1.20 - 3.00	0.50 - 1.70	0.40 - 1.60/1.20 - 3.00			2.00 - 4.50		3.80 - 7.00	
		Free Speed (min ⁻¹)	1,000		700	450	700	1,200	2,000	650	1,200	2,000	650	1,200	650	
		Power Consumption (W)	35													
		Screw Size (mm)	Machine Screw	2.6 - 3.0	2.6 - 4.0	3.5 - 5.0	4.5 - 6.0	4.5 - 6.0	3.5 - 5.0	2.6 - 4.0	2.6 - 5.0			4.5 - 6.0		5.0 - 8.0
			Tapping Screw	2.3 - 3.0	2.5 - 3.5	3.0 - 4.0	4.0 - 5.0	4.0 - 5.0	3.0 - 4.0	2.5 - 3.5	2.5 - 4.0			4.0 - 5.0		4.5 - 6.0
		Bit Type (mm)					6.35 mm (1/4") hex shank							6.35 mm (1/4") hex shank		
	Mass (g)	710(7100series)/670(8100series)				810			710(7200series)/670(8200series)			700		870 with pistol grip		
	Cord Length (m)	3 (with connector)														
	Bit Grounding	Equipped as standard														



Dedicated Screwdrivers for DLR5040A-WE and DLR5340-WE

DLR5640-WN

■ Screw Fastening Counter

Features

The self-adjustable timer function automatically assesses the time required to complete fastening each screw and reflects it on the judging time setting

- Ideally suited for the assembly lines of vehicles and electrical equipment requiring reliable screw fastening
- The controller receives signals from electric screwdrivers to provide highly reliable screw fastening control
- Functions of the controller and counter are integrated into a single unit
- Count Return Function: When a screw is loosened, a reverse signal output from the electric screwdriver reverses the count by one
- The self-adjustable timer function automatically assesses the time required to complete tightening each screw and reflects it on the judging time setting
- The Count Correction Function does not count elevated screws or double fastening as fastening errors
- External Count Function: To be available to various assembling jobs, the DLR5640 enables counting of two kinds of parts (up to 9 counts each) in addition to the screw tightening counting. These kinds of counting can be used together.
- Link Connection Function: You can build up a simple sequential screw tightening system by connecting the DLR5640 screw tightening counters in series without using any external controller such as a programmable controller
- Driver Lock Function prevents unexpected start of screwdrivers
- Desktop or wall-hung installation is available
- Input voltage range from 100 V AC to 240 V AC is acceptable in any part of the world



Specifications

Model	DLR5640-WN	
Count	1 - 99	
Counting Method	Count-up / Count-down	
Count Correction Function	Count normal fastening only	
Self Adjustable Timer Setting	0.01 to 0.99 sec.	
Work Detection Function	Yes (1 terminal) / No	
External Count Input	2 terminals (PARTS A / PARTS B)	
Work Installation Timer Setting	0 to 9.5 sec.	
OK Output Timer Setting	0 to 9.5 sec.	
NG Alarm	ON(1) / ON(2) / OFF	
OK Buzzer	ON(1) / ON(2) / ON(3) / OFF	
Count Return Function	ON / OFF	
NG Judge Timing	WORK SET / DRIVER ON	
Automatic / Manual OK Judge	AUTO / MANUAL	
Screwdriver Lock Function	ON / OFF	
Multiple Link	Up to 10 counters can be connected.	
External Inputs on Terminal Block	SENSOR / RESET / LINK-IN / PARTS A / PARTS B	
External Outputs on Terminal Block	OK / NG / LINK-OUT	
Parameter Memory	Parameters stored in internal nonvolatile memory	
Screwdriver Control	SPEED / LINEAR START	
Input Voltage	100 - 240 V AC, 50/60 Hz	
Screwdriver Power Supply	33 V DC, 1.5 A	
External Dimensions (mm)	W101 × D140 × H57	
Mass (kg)	0.8	
Plug Shape	U.S.A.	
Accessories	2 m Power cord with U.S.A plug Suspension bail (2 pcs.)	

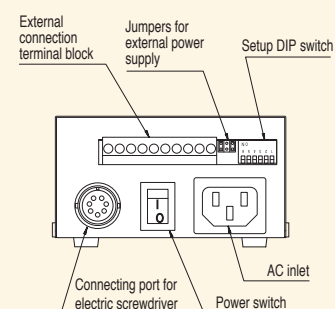
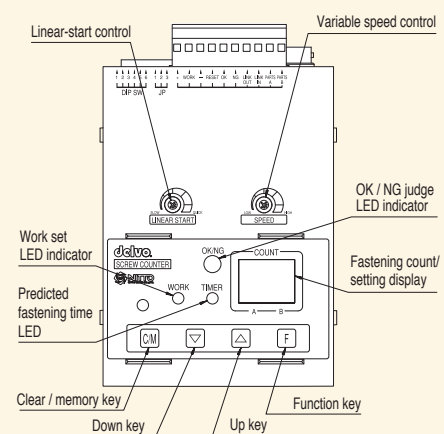


▲ Example of use together with a sensor available in the market



▲ The example of installation

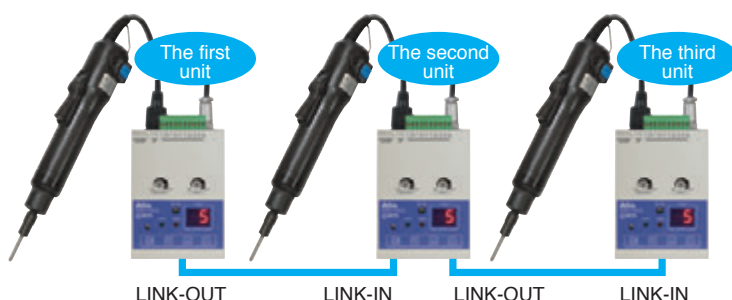
Front and Rear Panels



LINK Function (Common to DLR5040A & DLR5640)

When counters are connected and activated in the screw fastening sequence as shown below, all screwdrivers are on standby except the first one in the sequence. Only when the first screw fastening is finished, can the next screwdriver change from standby to ready. When the last fastening in the sequence is finished, the first screwdriver is once again ready and the sequence can be repeated again.

N.B. Up to 10 screwdriver/counter sets can be connected to the LINK.



Screwdrivers designed for DLR5640-WN

■ Screw Fastening Counter



DLR5640-WE



DLV7410A/7410HA/7420A-SPC



DLV7321/7331-SPC

Specifications

Model		DLV7410A-SPC	DLV7410HA-SPC	DLV7420A-SPC	DLV7321-SPC	DLV7331-SPC
Starting Method		Lever Start				
Torque Adjustment		Stepless				
Torque (Nm)		0.02 - 0.20		0.15 - 0.40	0.10 - 0.50	0.30 - 1.20
Free Speed (min ⁻¹)		500 - 750	700 - 1,000	450 - 600	300 - 1,000	200 - 700
Power Consumption (W)		Approx. 10			Approx. 35	
Screw Size (mm)	Machine Screw	1.0 - 2.3		1.6 - 2.6	1.0 - 3.0	2.0 - 3.5
	Tapping Screw	1.0 - 2.0		1.4 - 2.3	1.2 - 2.6	2.0 - 3.0
Bit Type (mm)						
Electrostatic Countermeasure		Complied with EN100015-1				
Mass (g)		230			350	
Cord Length (m)		1.5 (with connector)				
Output Signals		Start, Torque up, Reverse				
Grounding Bit Feature		Equipped as standard				

Combinations with Electric Screwdrivers

Screwdriver Model	Connection	Remarks
DLV7410A / 7410HA / 7420A-SPC	The cord comes with screwdriver	Screwdriver for the screw fastening counter only
DLV7321 / 7331-SPC	Direct connection to power source	
DLV7410A / 7410HA / 7420A / 7419 / 7419HA / 7429-BMN	Optional conversion cord (TD02925 DLW9072)	General-purpose screwdriver*1

*1: The Count Return Function is not available.

Optional Accessories



DLW9072(TD02925)



Conversion cord from 5-prong to 6-prong(TD02826)



Torque Adjustment Cover
(DLW5200:DLV7100/7200/
8100/8200-SPC
DLW5300:DLV7000/8000-SPC)

• Tampering or accidental turning of the torque adjustment cover by an operator can be prevented.

DLR5640-WN

DLT1133/1173/1673A/1973A series

■ Torque Checker

Features

Maintaining high assembly quality with ease

- Measured data is stored even after the power is turned off, preventing any data loss
- Energy saving type with AUTO POWER OFF function (Power is automatically turned off when left unused for 10 minutes)
- A program designed for uploading the data stored in the "delvo" torque checkers to a computer is available to download free from the NITTO KOHKI website: www.nitto-kohki.co.jp/e/prd/e-dl/delvo.html



DLT1673A



DLT1973A

Click



Specifications

Model	DLT1133	DLT1173	DLT1673A	DLT1973A
Measurement Range	0.015 - 1.500		0.15 - 10.00	4.00 - 12.00
Calibration Precision (Nm)	Within $\pm 0.5\%$ (Full Scale) For 0.2 Nm or less ± 1 digit		Within $\pm 0.5\%$ (Full Scale) For 2 Nm or less ± 1 digit	Within $\pm 0.5\%$ (Full Scale)
Display	4-digit digital display (Single-line)		Data sampling : 1,000 times/sec.	Display rate : 12 times/sec.
Measuring Unit	Nm		kgf · cm, Nm, lbf · in (selectable)	
Data Memory	100 pieces of data		800 pieces of data	
Measuring Direction	CW and CCW			
Measuring Mode	3 modes : PD-TR-PP			
Auto Power Off	Power off if left untouched for 10 minutes			
External Output	As per RS232C output (single-direction, no procedure, 100 data items) Mitsutoyo Digimatic (sequential output)		As per USB output	Mitsutoyo Digimatic
Analog Output	Approx. 1.5 V max.		Approx. 1.0 V max.	Approx. 1.1 V max.
Continuous Operation Time	15 hours		20 hours	
External Dimensions (mm)	W160 × D110 × H47			W200 × D112 × H48.5
Mass (kg)	1.1		1.1	1.4
Rechargeable Battery	Nickel-cadmium battery		Nickel metal hydride battery	
Charger Type	DLE1833	DLE1873	DLE1833A	
Input Voltage for Charger	100 V AC, 50/60 Hz		230 V AC, 50/60 Hz	
Charging Time	8 hours		4 hours	
Plug Shape (Asia & Europe)	Asia 	Europe 	Asia 	Europe

Standard Accessories

	DLT1133	DLT1173	DLT1673A		DLT1973A
Joint/Bit	Bit Joint	Screw Joint	Bit Joint	Spring for Joint	Soft Joint
Model	DLW4340	DLW4430	DLW4360	DLW4660	DLW4000
Measuring (Nm)	0.15 - 1.5	0.15 - 1.5	0.15 - 6.5	0.15 - 1.5	4.0 - 12.0

delvo

Optional Accessories

Model	Part No.	Model	Shape	Torque Range	DLT1133	DLT1173	DLT1673A	DLT1973A
Bit Joint	TD03305	DLW4330	OD 4 mm type	0.015 to 0.25 N m	○	○	—	—
	TD03306	DLW4340	OD 4 mm type	0.15 to 1.5 N m	◎	○	○	—
	TD03307	DLW4350	Hex 5 and Hex 6.35 types	0.15 to 1.5 N m	○	○	○	—
	TD03308	DLW4360	Hex 5 and Hex 6.35 types	0.15 to 6.5 N m	—	—	◎	—
Screw Joint	TD03309	DLW4430	screw type(Bit size No.1)	0.15 to 1.5 N m	—	◎	○	—
	TD03310	DLW4530*1	screw type(Bit size No.2)	0.15 to 5 N m	—	—	○	—
Soft Joint	TD04123	DLW4000	Hex 13 type	4.0 to 12.0 N m	—	—	○	◎
Hard Joint	TD04124	DLW4040	(Hex. head bolt)		—	—	—	○

◎ : Standard accessories ○ : Available as option — : Unsupported

*1 DLW4530 must be used at 5 N m or less.

Bit Joint

Screw Joint

Soft Joint

Hard Joint

Spring



Selection of Torque Checker

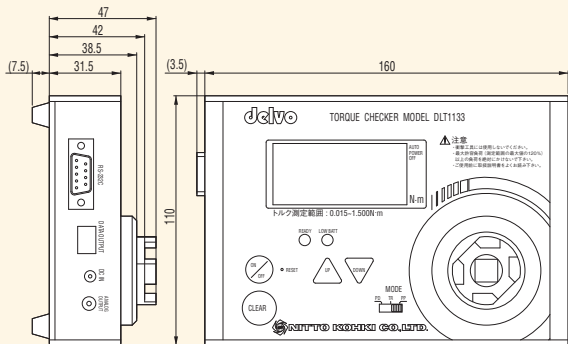
DLT1133 / DLT1173 (for miniature screw)	DLT1673A	DLT1973A
DLV3300 series*2 / DLV5700 series / DLV5800 series / DLV7300 series / DLV7800 series / DLV7000 series / DLV8000 series / DLV7400A series	DLV7100 series / DLV8100 series / DLV7200 series / DLV8200 series / DLV7500 series / DLV8500 series / DLV3100 series*3 / DLV30, DLV45, DLV70 series	DLV45 series / DLV70 series

*2 A reversible screwdriver is required to loosen the measuring joint.

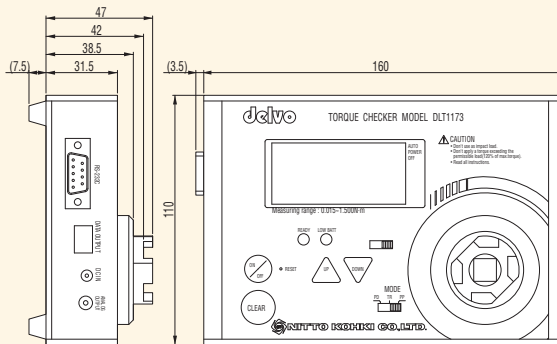
*3 A reversible screwdriver is required to loosen the measuring joint. Screw joint is required.

External Dimensions

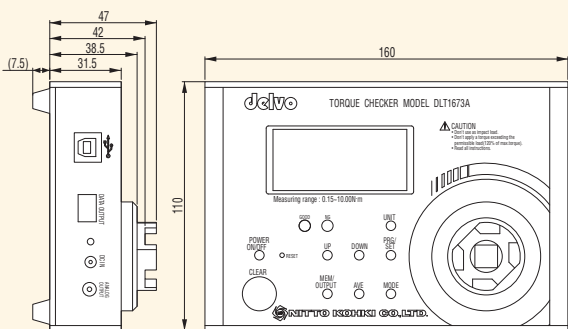
• DLT1133



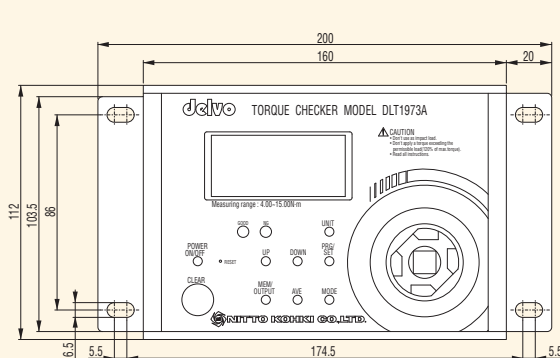
• DLT1173



• DLT1673A



• DLT1973A



unit: mm

TORQUE CHECKER series

Accessories

Tool Balancer



Easy to adjust tension by using handle.

Model	TW-1R	RW-3	RW-5
Capacity (kg)	0.5 - 1.5	1.0 - 3.0	2.5 - 5.0
Stroke (m)	1.5	2	
Mass (kg)	0.3	0.7	0.9

Vacuum Pump DLP2500 series



Electric Screwdrivers can be used with Vacuum Pump and Vacuum Pickup. The sleeve of Vacuum Pickup sucks the screw and holds it on the bit, enabling the operator to pick it up with the tool itself, thus improving operational efficiency and operator's productivity.

Model	DLP2530	DLP2570
Voltage	100 V AC, 50/60 Hz	230 V AC, 50/60 Hz
Power Consumption (W)	30(50 Hz), 26(60 Hz)	
Achievable Vacuum (kPa)	-33.3	
Flow Rate (at Outlet) (L/min)	24	
Screw Size (mm)	4 or less	
Mass (kg)	3.8	

Pistol Grip DLW2300/2300ESD

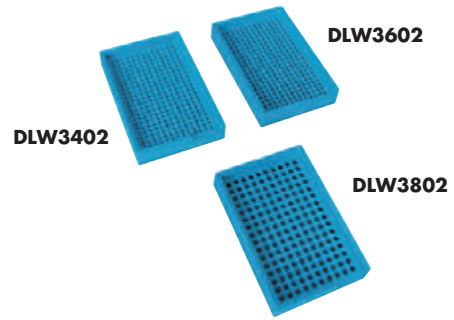
(for DLV7100, 7200, 8100, 8200, 7500, 7600, 8500, 8600, and 30 series Electric Screwdrivers)



Easy-to-attach grip suitable for horizontal operation.

Shaker Box Made of Anti-electrostatic Resin

(for 2,3 and 4 mm Screws)



The screws will fall into the heads-up position for easier vacuum or magnetic pickup. The anti-electrostatic resin greatly reduces static build-up and dust attached to the shaker box.

Model	DLW3402	DLW3602	DLW3802
Part No.	TD04110	TD04111	TD04112
Hole Pitch (mm)	6	6	8
Hole Depth (mm)	13.5	13.5	12.5
No. of Holes	273	273	160
Screw Size (mm)	1.7 - 2	2 - 2.6	3 - 4

Torque Adjustment Ring Cover



Fits over torque adjustment cover to minimize tampering or accidental turning once the torque is set.

Part No.	Model	Applicable Screwdriver
TD00331	DLW5200	7100, 7200, 8100 and 8200 series
TV05143	DLW5201*1	7100, 7200, 8100, 8200, and 30 (brushless) series
TD00332	DLW5300	7301, 7000, 8000 series (for 4 mm bit)
TD01883	DLW5400	7300 series (for 6.35 mm bit)
TD00333	DLW5500	7303 series (for 4 mm & 6.35 mm bit)
TD00334	DLW5600	7500, 8500 series
TD02875	DLW5700	5700, 5800, 7400A, series

*1 : As this is a clear plastic cover, torque scale can be seen even after mounted on the screwdriver.

Flanged Coupling DLW9011

(for DLV7100, 7200, 8100, and 8200 series Electric Screwdrivers)



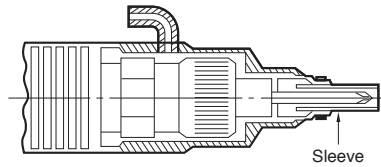
Provides a flange which enables the operator to apply axial pressure through the heel of the hand.

Sleeves and Vacuum Pickups

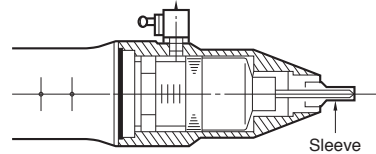
■ For DLV7400A/7800/7300/7000/8000 series

Vacuum Pickup

DLP6500 (for DLV7000 and 8000 Series Electric Screwdrivers)



- DLP5100 (for DLV7800 Electric Screwdrivers)
- DLP5300 (for DLV7400A/5800 Electric Screwdrivers)
- DLP7100 (for DLV7313 Electric Screwdriver)
- DLP7200 (designed for OD 4 mm Shank Bit for DLV7323/7333 Electric Screwdrivers)
- DLP7300 (designed for OD 6.35 mm Hex. Shank Bit for DLV7323/7333 Electric Screwdrivers)

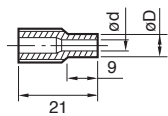


Standard Set

Vacuum Pickup (Part No.)	DLP5100 (TD00342)	DLP5300 (TD04342)	DLP6500 (TD00343)	DLP7100 (TD00345)	DLP7200 (TD00346)	DLP7300 (TD00347)
Accessories	DLS2124 × 1 pc. DLS2127 × 1 pc.	DLS2120 × 1 pc. DLS2124 × 1 pc.	DLS2124 × 1 pc. DLS2127 × 1 pc. DLS2130 × 1 pc.	DLS2124 × 1 pc. DLS2127 × 1 pc.	DLS2123 × 1 pc. DLS2124 × 1 pc. DLS2127 × 1 pc.	DLS2135 × 1 pc.

Sleeve DLS2000 series (Plastic)

(for DLP5100/5300/6500/7100/7200 Vacuum Pickups and DLV7325/7335 Electric Screwdrivers)



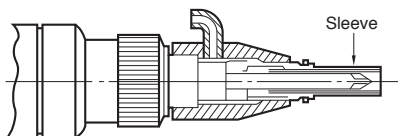
Unit: mm

Sleeve				Bit	
Part No.	Model	ød	øD		
TD00348	DLS2120	2	3.5	No.0 × 1.8 × 44	Phillips Head (No. × d × L)
TD00349	DLS2121	2.2			
TD00350	DLS2122	2.5			
TD00351	DLS2123	2.7			
TD00352	DLS2124	3.1	4.5	No.0 × 2.5 × 44	
TD00353	DLS2125	3.3			
TD00354	DLS2126	3.5			
TD00355	DLS2127	3.7			
TD00356	DLS2128	4	5.5	No.1 × 3 × 44	
TD00357	DLS2129	4.2			
TD00358	DLS2130	4.5		No.1 × 4 × 44	
TD00359	DLS2131	4.7			
TD00360	DLS2132	5.1	6.5	No.2 × 4 × 44	
TD00361	DLS2133	5.3			
TD00362	DLS2134	5.6			
TD00363	DLS2135	6.1			7

■ For DLV7100/7200/8100/8200-□J□ series

Vacuum Pickup

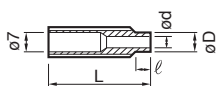
DLP7000 (for DLV7100/7200/8100/8200 Series Electric Screwdrivers)



Standard Set

Vacuum Pickup (Part No.)	DLP7000 (TD00344)
Accessories	DLS3223 × 1 pc. DLS3225 × 1 pc.

Sleeve DLS3000 series (Metal)

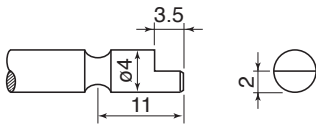


Unit: mm

Sleeve						Bit	
Part No.	Model	ød	øD	ℓ	L		
TD00364	DLS3222	5.6	7	5	34	No.1 × 5 × 70	Phillips Head (No. × d × L)
TD05024	DLS3223	6.1	9	—			
TD00365	DLS3224	6.4	9	—			
TD00366	DLS3225	7.1	9	18	65	No.1 × 4 × 100	
TD00367	DLS3226	4.6	7				
TD00368	DLS3227	5.1	7				
TD00369	DLS3228	5.6	7				
TD00370	DLS3229	6.1	9	—	65	No.1 × 5 × 100 No.2 × 5 × 100	
TD00371	DLS3230	6.4	9				
TD00372	DLS3231	7.1	9				
						No.2 × 6 × 100	

NK BIT

■ For DLV7400/7800/7300/
7000/8000/3300 series

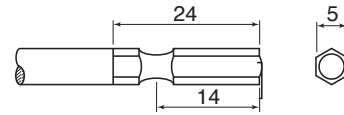


OD 4 mm Shank

Unit: mm

Model	Size			Part No.	Dimensions	
	No. x d x L					
Cross Point NK4D	0	2	44	TD20009		
			64	TD20010		
		1.8	44	TD20021		
			64	TD20022		
		2.5	44	TD20029		
			64	TD20030		
	1	3	44	TD20037		
			64	TD20038		
		4	44	TD20039		
			64	TD20040		
		2	4	44		TD20047
				64		TD20048
3	6	44	TD20050			
Model	W x T x L			Part No.	Dimensions	
Plain Slot NK4DM	44	2	0.3	TD20051		
		2.5	0.3	TD20052		
		3	0.4	TD20053		
		4	0.5	TD20054		
		5	0.65	TD20055		
Model	H x L			Part No.	Dimensions	
Hexagon Head NK4DX	44	1.5		TD20056		
		2		TD20057		
		2.5		TD20058		
		3		TD20059		
		4		TD20060		
Model	H x d x L			Part No.	Dimensions	
Hex Socket NK4DB	44	4	6	TD20064		
		4.5	7	TD20065		
		5	7	TD20066		
		5.5	8	TD20067		

■ For DLV7100/7200/8100/8200/3100 series

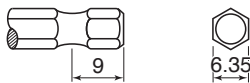


OD 5 mm Hex. Shank

Unit: mm

Model	Size			Part No.	Dimensions			
	No. x d x L							
Cross Point NK31	1	4	70	TD20193				
			100	TD20194				
		5	70	TD20196				
			100	TD20197				
		6	70	TD20200				
			100	TD20201				
	2	5	70	TD20210				
			100	TD20211				
		6	70	TD20214				
			100	TD20215				
		Model	No. x L			Part No.	Dimensions	
		Cross Point NK16	No.	1		70	TD20224	
100	TD20225							
2	70			TD20232				
	100			TD20233				
150	TD20235							
Model	H x d x L			Part No.	Dimensions			
Hexagon Head NK31X	No.	2	4	70				
						70	TD20254	
		2.5	70			TD20256		
						TD20258		
						TD20260		
						TD20262		
		3	70					
4	70							
5	70							
Model	H x D x d x L			Part No.	Dimensions			
Hex Socket NK31B	No.	5.5	9	4	70			
							70	TD20272
		6	10	4.5	70		70	TD20274
							70	TD20276
		7	11	5.5	100		70	TD20277
							70	TD20278
		8	13	6	100		70	TD20279
							70	TD20282
		10	16	8	100		70	TD20283
							70	TD20283

■ For DLV7200/8100/8200 series

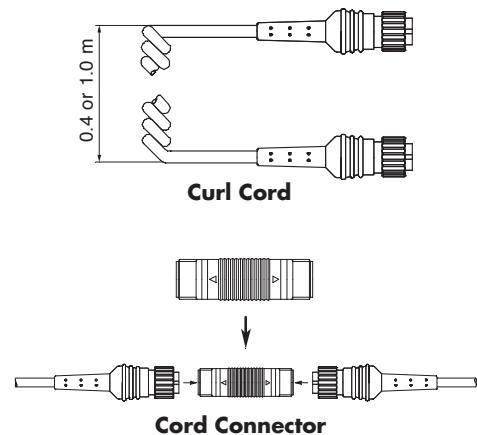


OD 6.35 mm Hex. Shank

Unit: mm

Model	Size			Part No.	Dimensions	
	No. x d x L					
Cross Point NK35	1	7	50	TD20308		
			75	TD20309		
			50	TD20319		
	2	7	75	TD20320		
			50	TD20327		
			75	TD20328		
Model	No. x L			Part No.	Dimensions	
Cross Point NK15	2	75	75	TD20363		
			100	TD20364		
			150	TD20366		
	3	100	75	TD20371		
			100	TD20372		
			150	TD20374		
Model	H x L			Part No.	Dimensions	
Hexagon Head NK35X	50	5		TD20400		
		6		TD20404		
Model	H x D x d x L			Part No.	Dimensions	
Hex Socket NK35BN	10	16	8	75	TD20442	
				100	TD20443	
	13	19	10	75	TD20457	
				100	TD20458	

Optional Cord




Please inquire of the distributor for the price and minimum quantity on each optional cord.


Part No.	Optional Cord	Applied Models	Length(m)
TD02826	5P to 6P Exchange Cord *1	DLV7300	0.1
TD02416	Extension Cord For 5P		2.0
TD02486	Extension Cord For 6P		2.0
TD01882	Curl Cord	DLV7500/8500	0.4
TD02820	Curl Cord		1.0
TD02438	Cord Connector DLW9100		

*1: "5P to 6P Exchange Cord" can connect "5-prong Screwdriver" to "6-prong Controller".

SAFETY GUIDE

Be sure to read and understand the following safety notations and all safety precautions.

 **WARNING:** Indicates a potentially hazardous situation which, if not avoided by following the instructions given, could result in death or serious injury.

 **CAUTION:** Indicates a potentially hazardous situation which, if not avoided by following the instructions given, could result in injury or material damage.

Safety Precautions

- Be sure to follow the safety precautions to keep accidents such as fires, electroshock, and injuries from occurring.
- Before using your tool, please read this manual carefully so that you may use it properly to get the most out of it.
- Keep the manual handy – so you can use it whenever necessary.

WARNING

- Keep work area clean. Cluttered work areas and benches invite accidents and injuries.
- Consider proper working environments for each tool carefully. Do not expose electric tools to extreme amounts of moisture or direct contact with water or rain. Keep area well lit at all times to prevent hidden dangers and never operate the equipment near flammable liquids or in gaseous or explosive atmospheres.
- Prevent operators from electric shock. When using electric tools, prevent body contact with grounded surfaces (e.g. pipes and outer frames of radiators, microwave ovens, and refrigerators, etc.).
- Keep all electric tools and power cords away from children and all unauthorized personnel. Also all visitors should be kept away from work area.
- Properly store tools and accessories while not in use. They should be kept in a dry, locked-up location out of reach of children or unauthorized personnel.
- Do not force tool. It will do the job better and more safely at the rate for which it was intended.
- Use the right electric power tool that can complete the job within its specifications. Do not attempt to adapt improper attachments or accessories to complete a job. Do not use the tool for other than what they were designed for.
- Dress properly. Do not wear loose clothing and/or accessories. (gloves, necklace etc.) They can be caught in moving parts. Non-skid footwear is recommended in outdoor operation. Wear protecting hair covering to contain long hair.
- Always wear safety glasses during operation. Wear respiratory protection when working in an environment where dust particles are generated during operation.
- Do not abuse cord. Never carry tool by cord or yank it to disconnect from receptacle. Keep cord from heat, oil, and sharp edges.
- Use clamps or a vise to secure the work piece tightly and eliminate vibration. Never hold the work piece with your hands, keep both hands on the electric tool for increased productivity.
- Do not overreach. Keep proper footing and balance at all times.
- Maintain tools with care. For safe and efficient work, use the proper bit and check it regularly. Do not use the bit with a worn out or deformed tip. When oiling and replacing parts, follow the instructions given by the instruction manual. Inspect tool cords periodically and if damaged, have them replaced by an authorized service facility. Keep handles dry, clean, and free from oil and grease.
- Disconnect a tool or a controller when not in use, when repairing, or when changing accessories and bits, etc.
- Remove adjusting keys and wrenches. Form habit of checking to see that keys and adjusting wrenches are removed from tools before turning it on.
- Always avoid an unexpected start by having all power switches in the off position prior to attaching to a power supply. Never carry tools with your finger on the on/off switch when the power is attached. Never plug the cord into a receptacle while your finger is on the on/off switch.
- When the tool is used outdoors, use an electric extension cord or cable suitable for outdoor use.
- Stay alert. Watch what you are doing. When using electric tools, take good care of tool handling, working manner, and surrounding conditions. Use common sense. Do not operate tool when you are tired.
- Check damaged parts. Before further use of the tool, an accessory or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended functions. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. When repairing or replacing parts, follow the directions of the instruction manual. The part that is damaged should be properly repaired or replaced by an authorized service facility unless otherwise indicated elsewhere in this operation manual. Have defective switches replaced by an authorized service facility. Do not use the tool if the switch cannot be turned on and off.
- Use only recommended accessories and attachments as per tool operator manual and “delvo” general catalog. Use of improper accessories and attachments may result in an accident or serious injury.
- Any repairs on the tool should be performed only by an authorized service facility. Do not modify the tool that is complying with the safety standard. If the repairman who has poor knowledge and skill repairs the tool, the tool may not give a good performance and result in an increased risk of injury to the user.
- The power source must be limited to the individual tools specifications as stated on the nameplate or instruction manual. If used at a higher or lower voltage than indicated, it may cause failure and result in an increased risk of injury to the user.
- Before work operation carefully check if there are underground installations such as conduit, water pipe, and gas pipe, etc. If a tool should touch them, it might cause electric shock, electric leak, or gas leak.
- Hold the tool body firmly so as not to be swung by it when using. If not, this may cause injury.
- Do not bring hand or face close to moving parts such as bit etc. when using. This may cause injury.
- When you have dropped the tool by mistake, carefully check the tool if there is breakage, cracks or deformation. This may cause injury.

CAUTION

- Install bits or accessories securely in accordance with the operation manual. Insufficient installation may cause injury.
- Whenever setting the torque, unplug the cable of the tools. Adjusting the torque setting during rotation may cause injury.
- When operating a tool at high places, check that there is no person under the places. Do not stumble over the cord nor drop the material or tool body. This may cause injury.
- Never leave a tool running unattended on the working bench or floor. Always turn the power switch or lever to the off position and disconnect from the power source when not in use.
- Do not overload to the extent that the motor locks or the clutch malfunctions. This may cause smoke, fire, failure or injury.
- If the tool is overheating or functioning abnormally, stop using the screwdriver immediately and inspect it to see whether any repairs are necessary. Otherwise this may cause failure or injury.
- The electric screwdriver may overheat depending on the type of screw, type of screw-tightened material, or frequency of use. To avoid overheating, stop operating the screwdriver for a time or use several drivers in alternation. Overheating may reduce the life of the product or cause failure or injury.
- The fastening torque may vary depending on how the product is operated or held, the type of screw, and the fastening conditions. Use a torque wrench or similar tool to check that the fastening torque is appropriate.

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★ Specifications and designs are subject to change at any time without notice.



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