

Cat.No. **Dk316**

ELECTRIC SCREWDRIVERS

delvo

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



JQA-EM4057
NITTO KOHKI CO., LTD.



ISO 9001
SHIRAKAWA NITTO KOHKI CO., LTD.

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-term reliability. "delvo" gives you the ability to get it right, every time.

● Repeatable Accuracy

Designed to provide more consistent torque, screw after screw.

● Reduced Recoil

Sophisticated clutches and a motor braking system reduce the hand recoil at the end of the screw tightening operation, reducing user fatigue.

● Long-life

Brushless electric screwdrivers assure you a long operating life.

● Brushless motors

No brushes to replace and a wide torque range allow brushless screwdrivers to be used in various applications for extended periods of time.

● Faster

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

● Quieter

Compare "delvo" to conventional pneumatic screwdrivers and you will hear the difference.



cTUVus



UL Certified



Please ask for CE, CCC certified models.





Green Procurement

Nitto Kohki has made every effort in developing “Environmental Improvement Plans” through the implementation of ISO14001, to execute environmentally conscious business activities on a company-wide basis. As a part of our ongoing commitment to the environment, we are also committed to reduce and/or exclude restricted chemical substances from our products as designated by RoHS directives, laws and regulations of chemical substances in Japan.

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 environment and 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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Selection Chart

	Page	Electric Screwdriver				Controller	
		Series	Model	Features	Starting Method	Model	Voltage
	5	5800	DLV5820U/5820HU	ESD	Lever Start	DLC0350LU	115 V AC
			DLV5840U				
		7300 BKU	DLV7321	ESD		DLC1213-LUB	115 V AC
			DLV7331				
	6	02/12/16 CKE	DLV02	Brushless Motor	DLC16S-WUB	100 - 240 V AC	
			DLV12				
			DLV16				
	7	7104 LKU	DLV7124	Transformerless	Lever Start		115 V AC
			DLV7134				
			DLV7144				
		DLV8124	Transformerless High Torque	Push to Start			
		DLV8134					
		DLV8144					
		8204 LKU	DLV8154	Transformerless High Speed			
			DLV8224				
			DLV8234				
		DLV8244					
	8	30/45 LKU	DLV30LL/30SL/30HL	Transformerless Brushless Motor	Lever Start		
			DLV30LP/30SP/30HP		Push to Start		
			DLV45LL/45SL		Lever Start		
			DLV45LP/45SP		Push to Start		
	9	30/45 IKU	DLV30LL/30SL/30HL	Brushless Motor	Lever Start	DLR70S-WUB DLC70S-WUB	100 - 240 V AC
			DLV30LP/30SP/30HP		Push to Start		
			DLV45LL/45SL		Lever Start		
			DLV45LP/45SP		Push to Start		
	11	30/45 SPC	DLV30LL/30SL/30HL	Signal-Controlled Brushless Motor	Lever Start	DLR5040A-WU DLR5340-WU	
			DLV30LP/30SP/30HP		Push to Start		
			DLV45LL/45SL		Lever Start		
			DLV45LP/45SP		Push to Start		

Selection Chart

■ This chart is for reference only.

model DLV-	Torque																										
	(Lb-in) (Nm)	0	0.18	0.27	0.4	1.3	1.8	2.2	2.7	3.1	3.5	4.4	6.2	6.6	10.6	14.2	15.0	17.7	26.6	39.8							
5820/5820H		#2 or less (1.0 - 2.3 mm)																									
5840					#1 - #3 (1.6 - 2.6 mm)																						
7321				#4 or less (1.0 - 3.0 mm)																							
7331									#2 - #6 (2.0 - 3.5 mm)																		
02SL		#2 or less (1.0 - 2.2 mm)																									
12SL					#4 or less (1.4 - 3.0 mm)																						
16SL					#2 - #8 (2.2 - 4.2 mm)																						
7124								#3 - #4 (2.6 - 3.0 mm)																			
7134												#3 - #8 (2.6 - 4.0 mm)															
7144																#6 - #11 (3.5 - 5.0 mm)											
8124								#3 - #4 (2.6 - 3.0 mm)																			
8134													#3 - #8 (2.6 - 4.0 mm)														
8144																	#6 - #11 (3.5 - 5.0 mm)										
8154																			#9 - #13 (4.5 - 6.0 mm)								
8224										#3 - #4 (2.6 - 3.0 mm)																	
8234														#3 - #8 (2.6 - 4.0 mm)													
8244																	#6 - #11 (3.5 - 5.0 mm)										
30													#3 - #11 (2.6 - 5.0 mm)														
45																			#9 - #13 (4.5 - 6.0 mm)								
30													#3 - #11 (2.6 - 5.0 mm)														
45																			#9 - #13 (4.5 - 6.0 mm)								
30													#3 - #11 (2.6 - 5.0 mm)														
45																			#9 - #13 (4.5 - 6.0 mm)								

Torque (Lb-in)
(Nm)

00.180.270.41.31.8

0.020.030.050.150.2

Torque range

Screw Size (Machine Screw) → #2 or less (1.0 - 2.3 mm)

*The screw size is for reference only.

Compact and lightweight ESD model

DLV5800 series

Features

delvo responds to the needs of cell production systems with space-saving screwdrivers. The controller is designed to be lightweight and space-saving size.

- Clear disengagement of clutch (shock-less mechanism unavailable)
- Grounded bit system standard (within a built-in 1 Mega ohm resistor)
- Improved start lever
- Precision holder reduces bit movement during use.
- Complied with EN1000015-1

■ For Miniature Screws #3 or less (1.0 - 2.6 mm)

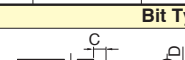


DLV5820U/5820HU/5840U



DLC0350LU

Specifications

Electric Screwdriver																										
Model	Starting Method	Input Voltage	Torque Adjustment	Torque Lb-in(Nm)	Free Speed min ⁻¹	Power Consumption W	Screw Size(for reference)		Weight lbs(g)	Cord Length in(m)	Grounding Bit Feature															
DLV5820U	Lever Start	40 V DC	Stepless	0.18 - 1.8 (0.02 - 0.20)	750	Approx. 10	inch thread	metric coarse thread	0.51 (230)	60" (1.5) with connector	Equipped as standard															
DLV5820HU				1.3 - 3.5 (0.15 - 0.40)	1,000		#2 or less	1.0 - 2.3 mm																		
DLV5840U					600		#1 - #3	1.6 - 2.6 mm																		
Controller						Bit Type																				
Model	Input Voltage		Function		Weight lbs(g)																					
DLC0350LU	115 V AC, 50/60 Hz		Grounding, Soft Start, Speed Control		1.98 (900)	<table><tr><td></td><td>A</td><td>B</td><td>C</td><td>D</td></tr><tr><td>in</td><td>0.16</td><td>0.43</td><td>0.14</td><td>0.08</td></tr><tr><td>mm</td><td>4</td><td>11</td><td>3.5</td><td>2</td></tr></table>							A	B	C	D	in	0.16	0.43	0.14	0.08	mm	4	11	3.5	2
	A	B	C	D																						
in	0.16	0.43	0.14	0.08																						
mm	4	11	3.5	2																						

Standard Accessories

Standard Accessories

DLV5820 DLV5820H	<ul style="list-style-type: none"> • Bit No.0 × 1.8 × 44: 1 pc. • Bit No.0 × 2.5 × 44: 1 pc. • Suspension Bail: 1 pc. 	<ul style="list-style-type: none"> • Connection Cable (60"): 1 pc. • Spring for Low Torque (Silver): 1 pc.
DLV5840	<ul style="list-style-type: none"> • Bit No.0 × 2.5 × 44: 1 pc. • Bit No.1 × 4 × 44: 1 pc. 	<ul style="list-style-type: none"> • Suspension Bail: 1 pc. • Connection Cable (60"): 1 pc.

Optional Accessories

Sleeve	Vacuum Pickup DLP5300 (TD04342)	Torque Adjustment Ring Cover TD02875
<p>* Please see page 16 for details.</p> <p>This minimizes tampering or accidental turning of the torque adjustment ring once the torque is set.</p>		

ESD model

DLV7300-BKU series

Features

Work-piece friendly electric screwdrivers

- Anti-Static, shielded design prevents electrostatic buildup and discharge
- DLC1213 provides adjustable soft-start + speed control

■ For Miniature Screws #6 or less (1.0 - 3.5 mm)



DLV731-BKU



DLC1213-LUB

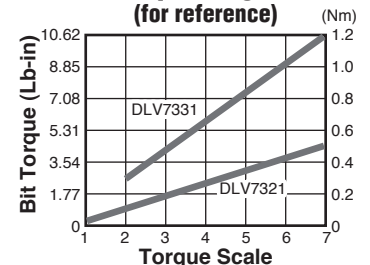
Specifications

Electric Screwdriver										
Model	Starting Method	Input Voltage	Torque Adjustment	Torque Lb-in(Nm)	Free Speed min ⁻¹	Power Consumption W	Screw Size(for reference)		Weight lbs(g)	Bit
DLV7321-BKU	Lever Start	36 V DC	Stepless	0.4 - 4.4 (0.05 - 0.5)	700 - 1,000	Approx. 35	inch thread	metric coarse thread	0.77 (350)	Hex 1/4"
DLV7331-BKU				2.7 - 10.6 (0.3 - 1.2)	500 - 700		#4 or less	1.0 - 3.0 mm		
							#2 - #6	2.0 - 3.5 mm		
Controller										
Model	Input Voltage		Function		Weight lbs(g)					
DLC1213-LUB	115 V AC, 50/60 Hz		Grounding, Soft Start, Speed Control		5.06 (2.3)					

Standard Accessories

DLV7321-BKU DLV7331-BKU	<ul style="list-style-type: none"> • Bit No.1 × 7 × 50: 1 pc. • Bit No.2 × 7 × 50: 1 pc. • Suspension Bail: 1 pc.
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Torque Diagram (for reference)



Compact Brushless Motor

DLV02/12/16 series

■ For Machine Screws #8 or less (1.0 - 4.2 mm)

Features

- Brushless motors are incorporated for maximum tool life
- Ergonomic grip offers greater operator comfort and increased maneuverability
- Clear plastic torque adjustment cover provided as standard accessory
- Equipped with bit grounding mechanism



DLV02SL-CKE

DLV12SL-CKE

DLV16SL-CKE

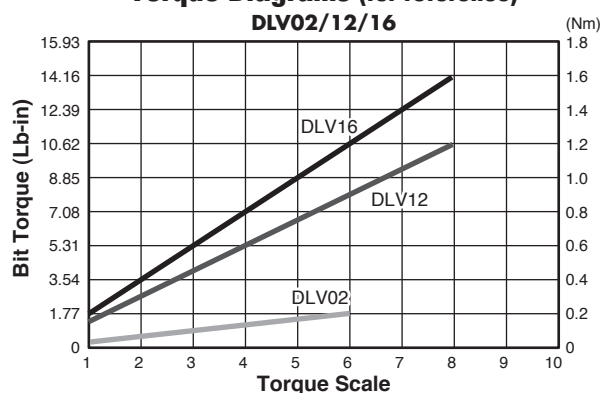
Specifications

Electric Screwdriver										
Model	Starting Method	Input Voltage	Torque Adjustment	Torque Lb-in(Nm)	Free Speed min ⁻¹	Power Consumption W	Screw Size(for reference)		Weight lbs(g)	Bit
DLV02SL-CKE	Lever Start	20 - 30 V DC	Stepless	0.27 - 1.8 (0.03 - 0.2)	700 - 1,000	48	inch thread	metric coarse thread	1.03 (470)	Hex 1/4"
DLV12SL-CKE				1.33 - 10.6 (0.15 - 1.2)			#2 or less	1.0 - 2.2 mm		
DLV16SL-CKE				1.8 - 14.2 (0.2 - 1.6)			#4 or less	1.4 - 3.0 mm		
							#2 - #8	2.2 - 4.2 mm		

Standard Accessories

DLV02	<ul style="list-style-type: none"> • Bit No.0 × 3.8 × 50: 1 pc. • Bit No.1 × 3.8 × 50: 1 pc. • Power Cord: 1 pc.
DLV12 DLV16	<ul style="list-style-type: none"> • Bit No.1 × 3.8 × 50: 1 pc. • Bit No.2 × 4.5 × 50 • Power Cord: 1 pc.

Torque Diagrams (for reference)



Controller for DLV02/12/16 series

DLC16S-WUB

Features

Universal input voltage from 100 V AC to 240 V AC to easy installation

- Variable speed adjustment enables you to select optimum screw tightening speed

Specifications

Controller			
Model	Input Voltage	Function	Weight lbs(g)
DLC16S-WUB	100 - 240 V AC, 50/60 Hz	Speed Control	0.84 (380)



DLC16S-WUB

Transformerless

DLV7104/8104/8204 series ■ For Machine Screws #3 - #13(2.6 - 6.0 mm)

Features

New designs on our most popular screwdrivers

- Grounded bit system standard
- The clear plastic cover is mounted over the torque adjustment ring to prevent unintentional changes of the preset torque amount
- Heavy-duty cam installed for maximum cycle life
- The changeover switch enables operators to switch forward/reverse operation with one hand
- Ergonomically designed grip allows for easier handling while reducing operator fatigue before, during and after the tightening sequence
- Detachable pistol grip comes as standard accessory (DLV8154)



DLV7104 series

DLV8104/8204 series

DLV8154

Specifications

Electric Screwdriver										
Model	Starting Method	Input Voltage	Torque Adjustment	Torque Lb-in(Nm)	Free Speed min ⁻¹	Power Consumption W	Screw Size(for reference)		Weight lbs(g)	Bit
DLV7124-LKU	Lever Start	115 V AC, 50/60 Hz	Stepless	2.2 - 6.6 (0.25 - 0.75)	900	35	#3 - #4	2.6 - 3.0 mm	1.58 (720)	Hex 1/4"
DLV7134-LKU				4.4 - 15.0 (0.5 - 1.7)			#3 - #8	2.6 - 4.0 mm		
DLV7144-LKU				10.6 - 26.6 (1.2 - 3.0)	600		#6 - #11	3.5 - 5.0 mm		
DLV8124-LKU	Push to Start			2.2 - 6.6 (0.25 - 0.75)	900	45	#3 - #4	2.6 - 3.0 mm	1.56 (710)	
DLV8134-LKU				4.4 - 15.0 (0.5 - 1.7)	600		#3 - #8	2.6 - 4.0 mm		
DLV8144-LKU				10.6 - 26.6 (1.2 - 3.0)	600		#6 - #11	3.5 - 5.0 mm		
DLV8154-LKU				17.7 - 39.8 (2.0 - 4.5)	400		#9 - #13	4.5 - 6.0 mm	2.00 (910)	
DLV8224-LKU				3.1 - 6.2 (0.35 - 0.7)	2,000		#3 - #4	2.6 - 3.0 mm	1.56 (710)	
DLV8234-LKU				4.4 - 15.0 (0.5 - 1.7)	1,800		#3 - #8	2.6 - 4.0 mm		
DLV8244-LKU				10.6 - 26.6 (1.2 - 3.0)	1,100		#6 - #11	3.5 - 5.0 mm		

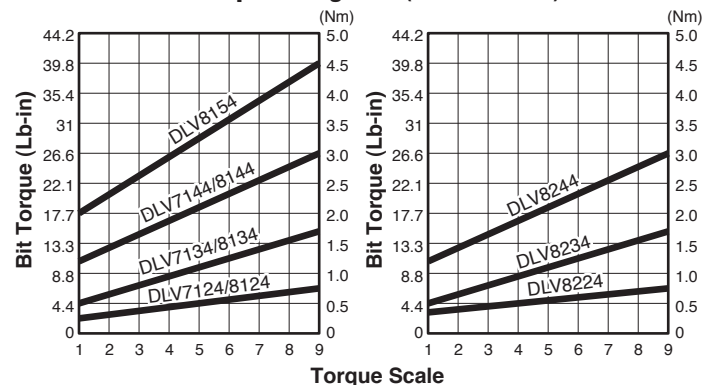
Standard Accessories

For LKU	<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-LKU	<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.

Optional Accessories

<p>Easy-to-attach grip for horizontal operation.</p> <p>Pistol Grip DLV2300 (TD00335)</p>	<p>Torque Reaction Arm (TD06180)</p>
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Torque Diagram (for reference)



Transformerless Brushless Motor

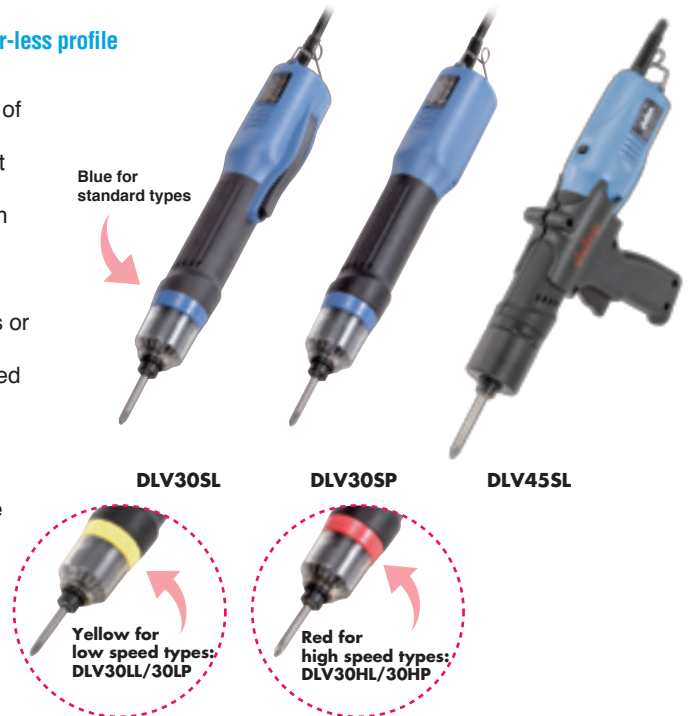
DLV30/45 series

■ For Machine Screws #3 - #13 (2.6 - 6.0 mm)

Features

Eco-friendly brushless motor powered screwdrivers in a compact transformer-less profile
High-Torque brushless motor powered electric screwdrivers

- Brushless motor provide a more consistent torque output over the life of the tool
- Brushless motor and newly designed clutch provide a more consistent torque output over the life of the tool
- More accurate torque control and considerably quieter operation when compared to pneumatic screwdrivers
- Lever-Start and Push-to-Start models are available. The Lever-Start models are suited for hard to start screws or screws set at angles. Push-to-Start models are suited for continuous tightening applications or pre-threaded screws.
- Series lineup consists of high speed (Red, 2,000 min⁻¹), standard speed (Blue, 1,200 min⁻¹) and low speed (Yellow, 650 min⁻¹) with respective torque ranges of 3.5 - 26.6 Lb-in (DLV30)
- The clear plastic cover is mounted over the torque adjustment ring to prevent unintentional changes of the preset torque amount (DLV30)
- Torque ring cover prevents unintentional changes in the preset torque amount (DLV45)
- Detachable Pistol Grip comes as standard accessory (DLV45)



Specifications

Electric Screwdriver									
Model	Starting Method	Input Voltage	Torque Adjustment Lb-in(Nm)		Power Consumption W	Screw Size(for reference)		Weight lbs(g)	Bit
			Low Torque Spring(Standard Accessory)	High Torque Spring (Built-in)		inch thread	metric coarse thread		
DLV30LL-LKU	Lever Start	115 V AC, 50/60 Hz	3.5 - 14.2 (0.4 - 1.6)	10.6 - 26.6 (1.2 - 3.0)	Approx. 45	#3 - #11	2.6 - 5.0 mm	1.54 (700)	Hex 1/4"
DLV30SL-LKU									
DLV30HL-LKU									
DLV30LP-LKU	Push to Start		17.7 - 39.8 (2.0 - 4.5)	#9 - #13		4.5 - 6.0 mm	1.91 (Approx. 870) with Pistol Grip/ except Power Cord		
DLV30SP-LKU									
DLV30HP-LKU									
DLV45LL-LKU	Lever Start								
DLV45LP-LKU	Push to Start								
DLV45SL-LKU	Lever Start								
DLV45SP-LKU	Push to Start								

Standard Accessories

For DLV30	<ul style="list-style-type: none"> • Bit No.2 × 7 × 75: 1 pc. • Suspension Bail: 1 pc. • Low Torque Spring: 1 pc.
For DLV45	<ul style="list-style-type: none"> • Bit No.2 × 7 × 75: 1 pc. • Suspension Bail: 1 pc.

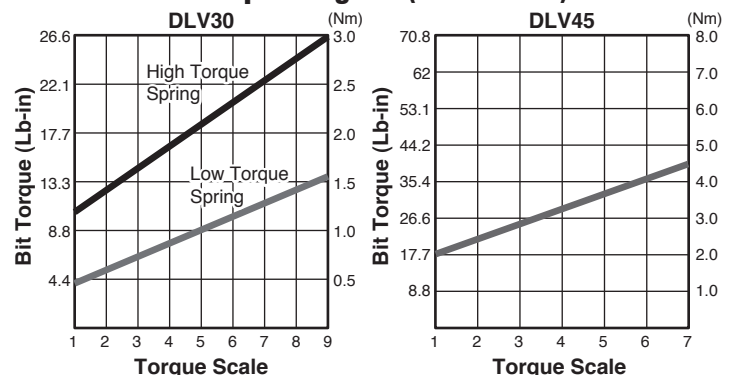
Optional Accessories

<p>Easy-to-attach grip for horizontal operation.</p> <p>Pistol Grip DLW2300 (TD00335)</p>	<p>Torque Reaction Arm (TD06180)</p>
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For enhanced productivity and prevention of operator's repetitive motion injury, a torque reaction arm should be used all together.

Torque Diagram (for reference)



DLV30/45 series

Low Voltage Brushless Motor for Controller with Screw Fastening Counter

DLV30/45-IKU series

■ For Machine Screws #3 - #13 (2.6 - 6.0 mm)

for DLR70S-WUB and DLC70S-WUB

Features

Brushless motor powered electric screwdrivers with external, adjustable controller

- Brushless motor and newly designed clutch provide a more consistent torque output over the life of the tool
- Any of the three models can be operated by a standard controller, allowing a wide range of torque from 3.5 - 39.8 Lb-in and max speeds of 650, 1,200, and 2,000 min⁻¹
- Torque ring cover prevents unintentional changes in the preset torque amount (clear cover on DLV30 series)
- Torque ring cover prevents unintentional changes in the preset torque amount (DLV45)
- Detachable Pistol Grip comes as standard accessory (DLV45)



Specifications

Electric Screwdriver												
Model	Starting Method	Input Voltage	Torque Adjustment Lb-in(Nm)		*1Adjustable Speed Range	*1Adjustable Soft Start Time	*1Free Speed at Soft Start	Screw Size(for reference)		Weight lbs(g)	Bit	
			Low Torque Spring (Standard Accessory)	High Torque Spring (Built-in)				inch thread	metric coarse thread			
DLV30LL-IKU	Lever Start	40 V DC	3.5 - 14.2 (0.4 - 1.6)	10.6 - 26.6 (1.2 - 3.0)	390 - 650	0 - 2	260	#3 - #11	2.6 - 5.0 mm	1.58 (720)	Hex 1/4"	
DLV30LP-IKU	Push to Start				720 - 1,200		480					
DLV30SL-IKU	Lever Start						800					
DLV30SP-IKU	Push to Start				1,200 - 2,000							
DLV30HL-IKU	Lever Start		17.7 - 39.8 (2.0 - 4.5)		390 - 650		260	#9 - #13	4.5 - 6.0 mm	1.91 (870)		
DLV30HP-IKU	Push to Start				720 - 1,200		480					
DLV45LL-IKU	Lever Start											
DLV45LP-IKU	Push to Start											
DLV45SL-IKU	Lever Start											
DLV45SP-IKU	Push to Start											
Controller DLR70S-WUB,DLC70S-WUB (see page 10)												

*1 : Values are obtainable in combination with control unit DLR70S-WUB or DLC70S-WUB.

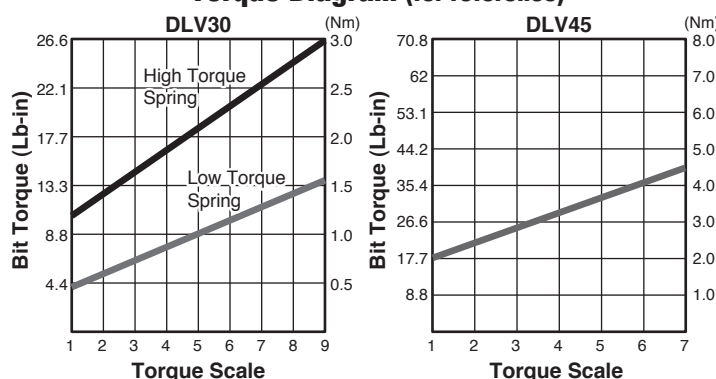
Standard Accessories

For DLV30	<ul style="list-style-type: none"> • Bit No.2 × 7 × 75: 1 pc. • Suspension Bail: 1 pc. • Low Torque Spring: 1 pc.
For DLV45	<ul style="list-style-type: none"> • Bit No.2 × 7 × 75: 1 pc. • Suspension Bail: 1 pc.

Optional Accessories

<p>Easy-to-attach grip for horizontal operation.</p> <p>Pistol Grip DLW2300 (TD00335)</p>	<p>Torque Reaction Arm (TD06180)</p>
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Torque Diagram (for reference)



Screw Fastening Counter for DLV30/45-IKU series

DLR70S-WUB

Features

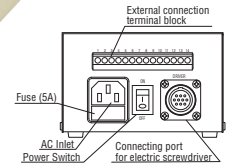
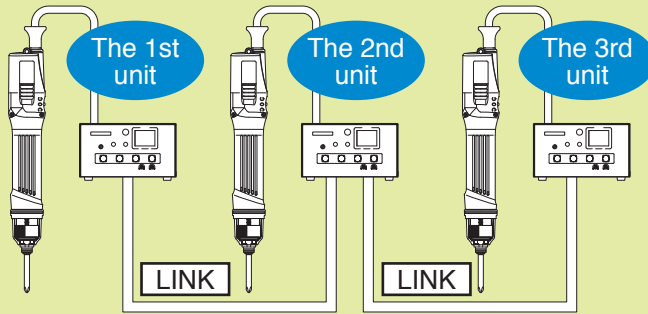
Enhanced versatility by combining a controller and counter in one unit

- “Count Correction” function that does not count improper length screws, improperly torqued screws that require re-torquing, cross-threaded screws or screws that were not completely threaded
- “Count Back” function reverses the counting when a screw is unfastened
- Up to 4 different screw fastening programs can be stored in internal memory for a wide variety of assembly work
- Sequential screw fastening system (LINK Function) can be used with up to 10 screwdriver/controller sets connected in series
- “Step-less Speed Adjustment” function and “Soft-Start” function allow maximum control of the connected screwdrivers
- Universal input voltage from 100 V AC to 240 V AC to easy 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.

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



Specifications

Model	DLR70S-WUB
Input Voltage	100 - 240 V AC, 50/60Hz
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
Weight lbs(kg)	5.07 (2.3)
Size W x L x H in(mm)	5.24" x 12.8" x 3.15" (133 x 325 x 80)
Bit Grounding	Ready(With a 1 MΩ resistor)
Standard Accessories in	Power cord (80"): 1 Fuse (5 A): 1

Controller for DLV30/45-IKU series

DLC70S-WUB

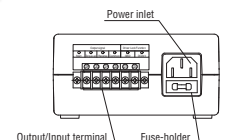
Features

Universal input voltage from 100 V AC to 240 V AC to easy installation

- Controller provides Soft-Start function that helps prevent screw head and thread damage by allowing a slower starting speed
- Step-less speed adjustment allows an operating range from 390 - 2,000 RPM for various applications
- The controller has output terminals on the rear allowing signals of Start, Torqued-up and Reverse to be used with a counting device to help prevent screw tightening errors
- Applying 24 V DC to the rear inputs on the controller will cause the screwdriver to come to an immediate stop in the event of an emergency
- Controller can be mounted either horizontally or vertically

Specifications

Model	DLC70S-WUB
Input Voltage	100 - 240 V AC, 50/60 Hz
Function	Grounding, Soft Start, Speed Control
Signal Output(contact point type)	Start, Torque up, Reverse(Dry contact)
Signal Input	Drive Stop Function (DC 24 V Input Voltage needed)
Weight lbs(kg)	3.96 (1.8)
Size W x L x H in(mm)	5.28" x 11.88" x 2.68"(132 x 297 x 67)
Bit Grounding	Ready(With a 1 MΩ resistor)
Standard Accessories in	Power cord(80"): 1 Rubber feet: 4 Fuse(5 A): 1



DLR70S-WUB / DLC70S-WUB

Transformerless Brushless Motor for Screw Fastening Counter

DLV30/45-SPC series

for DLR5040A-WU and DLR5340-WU

Features

Brushless motor powered electric screwdrivers with screw fastening counter

- Brushless motor and newly designed clutch provide a more consistent torque output over the life of the tool
- Any of the three models can be operated by a standard controller, allowing a wide range of torque from 3.5 - 39.8 Lb-in and max speeds of 650, 1,200, and 2,000 min⁻¹
- Torque ring cover prevents unintentional changes in the preset torque amount (clear cover on DLV30 series)
- Torque ring cover prevents unintentional changes in the preset torque amount (DLV45)
- Detachable Pistol Grip comes as standard accessory (DLV45)



Specifications

Electric Screwdriver													
Model	Starting Method	Input Voltage	Torque Adjustment	Torque Lb-in(Nm)	Free Speed min ⁻¹	Power Consumption W	Screw Size(for reference)		Weight lbs(g)	Cord Length in(m)	Grounding Bit Feature	Bit	
DLV30LL-SPC(LKU)	Lever Start	115 V AC, 50/60 Hz	Stepless	3.5 - 14.2/10.6 - 26.6 (0.4 - 1.6/1.2 - 3.0)	650	Approx. 45	#3 - #11	2.6 - 5.0 mm	1.58 (700)	120" (3) with connector	Equipped as standard	Hex 1/4"	
DLV30LP-SPC(LKU)	Push to Start				1,200								
DLV30SL-SPC(LKU)	Lever Start				2,000								
DLV30SP-SPC(LKU)	Push to Start												
DLV30HL-SPC(LKU)	Lever Start			17.7 - 39.8 (2.0 - 4.5)	650		#9 - #13	4.5 - 6.0 mm	1.91 (870) with pistol grip				
DLV30HP-SPC(LKU)	Push to Start				1,200								
DLV45LL-SPC(LKU)	Lever Start												
DLV45LP-SPC(LKU)	Push to Start												
DLV45SL-SPC(LKU)	Lever Start												
DLV45SP-SPC(LKU)	Push to Start												
ControllerDLR5040A-WU,DLR5340-WU (see page 12)													

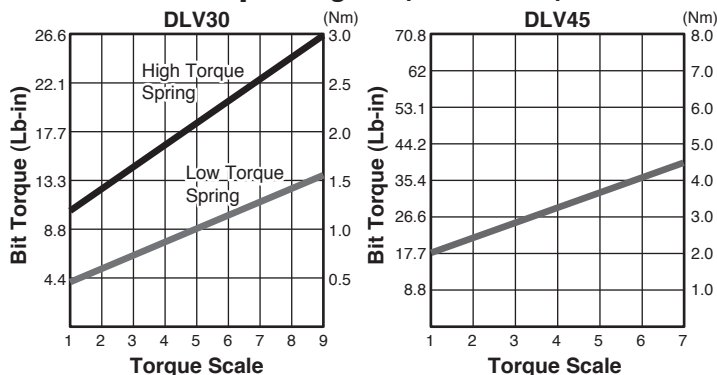
Standard Accessories

For DLV30	<ul style="list-style-type: none"> • Bit No.2 × 7 × 75: 1 pc. • Suspension Bail: 1 pc. • Low Torque Spring: 1 pc.
For DLV45	<ul style="list-style-type: none"> • Bit No.2 × 7 × 75: 1 pc. • Suspension Bail: 1 pc.

Optional Accessories

Easy-to-attach grip for horizontal operation.		Dedicated screwdrivers can be directly plugged in commercial power source.
Pistol Grip DLW2300 (TD00335)	Torque Reaction Arm (TD06180)	SPC cord for commercial power source (TD04061)

Torque Diagram (for reference)



Screw Fastening Counter

DLR5040A-WU

Features

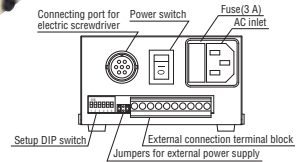
Improves screw fastening accuracy by monitoring counts and torqued status

- Ideally suited for assembly lines of vehicles and high volume equipment requiring accurate screw fastening
- The controller receives status signals from the electric screwdrivers to provide details on screw status
- Count return Function: When loosening a screw, a reverse signal is sent to the controller to reduce the count by one
- Count Correction Function: Ignores counts on screws that are outside the preset parameters or double fastened
- Driver Lock Function: Prevents unexpected startup of screwdrivers
- Input voltage range of 100 V AC - 240 V AC for hassle-free installation
- Link Connection: You can build up a simple sequential screw tightening system by connecting the DLR5040A screw tightening counters in series without using any external controller such as a programmable controller
- 30 % smaller and 38 % lighter than our conventional models
- Designed for SPC transformer-less screwdrivers

Specifications

Model	DLR5040A-WU
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	in(mm) W3.98" × D5.12" × H2.36" (W101 × D130 × H60)
Weight	lbs(kg) 1.21 (0.55)

Accessory : 80"(2 m) cord with UL three-prong plug.



Example of use together with a sensor available in the market

LINK Function

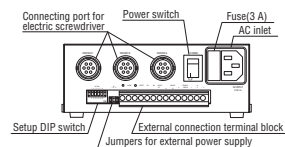
When counters are connected and activated in the screw fastening sequence as shown page 11, all screwdrivers are on standby except the first one in the sequence. Only when the first screw fastening is finished, can the next screwdriver change from standby to ready. When the last fastening in the sequence is finished, the first screwdriver is once again ready and the sequence can be repeated again. Up to 10 screwdriver/counter sets can be connected to the LINK.

DLR5340-WU

Features

Up to three sets of screwdrivers can be connected to one counter

- Internal memory can store up to eight kinds of screw fastening conditions for a wide range of assembly work
- Count-Up signal outputs for external monitoring
- Count Correction Function: Ignores counts on screws that are outside the preset parameters or double fastened
- Count return Function: When loosening a screw, a reverse signal is sent to the controller to reduce the count by one
- Space saving design



Specifications

Model	DLR5340-WU
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	in(mm) W5.94" × D5.51" × H2.36" (W151 × D140 × H60)
Weight	lbs(kg) 1.76 (0.8)

Accessory : 80"(2 m) cord with UL three-prong plug.

*1 : The voltage of the dedicated screwdrivers for DLR5040A-WU and DLR5340-WU is 115 V. When you need different voltage screwdrivers, please contact us.

DLR5040A-WU / DLR5340-WU

Torque Checker

DLT1173A/1673A series

Features

Helps keep your screwdrivers torque properly tuned

- Measured data is stored even after the power is turned off to prevent any data loss
- Energy saving type with AUTO POWER OFF function after being unused for 10 minutes
- Verified torque accuracy of +/- 0.5 %
- A program to upload stored data from the Torque Checkers to a computer is available to download free from Nitto Kohki website:
www.nitto-kohki.co.jp/e/prd/e-dl/delvo.html

Click




DLT1173A



DLT1673A

Specifications

Torque Checker									
Model	Measurement Range Lb-in(Nm)	Calibration Precision Lb-in(Nm)	Display	Measuring Unit	Data Memory	Measuring Direction	Measuring Mode	Auto Power Off	
DLT1173A	0.13 - 13.3 (0.015 - 1.500)	Within ± 0.5% (Full Scale) For 2.0 (0.2) or less ± 1 digit	4-digit digital display (Single-line) Data sampling : 1,000 times/sec. Display rate : 12 times/sec.	kgf • cm, Nm, lbf • in (selectable)	800 pieces of data	CW and CCW	3 modes : PD-TR-PP	Power off if left untouched for 10 minutes	
DLT1673A	1.3 - 88.5 (0.15 - 10.00)	Within ± 0.5% (Full Scale) For 20 (2) or less ± 1 digit							
Model	External Output	Analog Output		Continuous Operation Time	External Dimensions in(mm)	Weight lbs(kg)	Charger Type	Input Voltage for Charger	Charging Time
DLT1173A	As per USB output Mitsutoyo Digimatic	Approx. 1.0 V max.	No zero offset; identical waveforms produced in PP, PD, and TR modes	20 hours	W6.4" × D4.4" × H1.9" (W160 × D110 × H47)	2.42 (1.1)	DLE1833A	100 - 240 V AC, 50/60 Hz	4 hours
DLT1673A									
Plug Shape									
									

Standard Accessories

DLT1173A	• Screw Joint (DLW4430): 1 pc.
DLT1673A	• Bit Joint (DLW4360): 1 pc. • Spring for Joint (DLW4660): 1 pc.

Optional Accessories

Model		Part No.	Shape	Torque Range	DLT1173A	DLT1673A
Bit Joint	DLW4330	TD03305	OD 0.16" type	0.13 - 2.2 Lb-in (0.015 to 0.25 Nm)	○	—
	DLW4340	TD03306	OD 0.16" type	1.3 - 13.3 Lb-in (0.15 to 1.5 Nm)	○	○
	DLW4350	TD03307	Hex 0.2" and Hex 1/4" types	1.3 - 13.3 Lb-in (0.15 to 1.5 Nm)	○	○
	DLW4360	TD03308	Hex 0.2" and Hex 1/4" types	1.3 - 57.5 Lb-in (0.15 to 6.5 Nm)	—	◎
Screw Joint	DLW4430	TD03309	screw type(Bit size No.1)	1.3 - 13.3 Lb-in (0.15 to 1.5 Nm)	◎	○
	DLW4530 ^{*1}	TD03310	screw type(Bit size No.2)	1.3 - 44.3 Lb-in (0.15 to 5 Nm)	—	○
Soft Joint	DLW4000	TD04123	Hex 0.51" type(Hex. head bolt)	35.4 - 106.2 Lb-in (4.0 to 12.0 Nm)	—	○

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

*1 DLW4530 must be used at 44.3 Lb-in (5 Nm) or less.

Bit Joint



Screw Joint



Soft Joint



Spring



Selection of Torque Checker

DLT1173A (for miniature screw)	<ul style="list-style-type: none"> • DLV5800 series • DLV7300 series • DLV02 / 12 series
DLT1673A	<ul style="list-style-type: none"> • DLV16 series • DLV7104 / 8104 / 8204 series • DLV30 / 45 series

delvo

Accessories

Tool Balancer



Easy to adjust tension by using handle.

Model	Capacity lbs(kg)	Stroke in	Weight lbs(kg)
TW-06R	0.44 - 1.32(0.2 - 0.6)	59"	0.66 (0.3)
TW-1R	1.1 - 3.31(0.5 - 1.5)	59"	0.66 (0.3)
TW-3	2.2 - 6.61(1.0 - 3.0)	51.2"	3.09 (1.4)

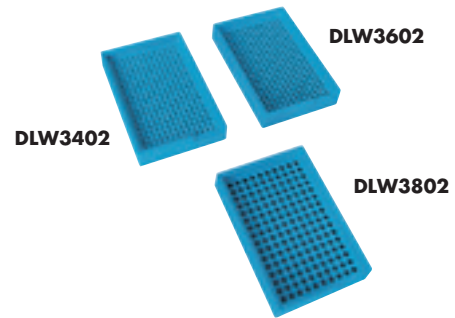
Vacuum Pump DLP2540 series



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	DLP2540
Input Voltage	115 V AC, 50/60 Hz
No-load Current	1/0.75
Power Consumption	30/26
Achievable Vacuum	mmHg(kPa)
Flow Rate at Outlet	L/min
Weight	lbs(g)
External Dimensions (W x H x D)	in(mm)
Standard Accessories	Power Cord Assembly : 1

Shaker Box Made of Anti-electrostatic Resin



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	Part No.	Hole Pitch	Hole Depth	No. of Holes	Screw Size(for reference)	
					inch thread	metric coarse thread
DLW3402	TD04110	0.24"	0.53"	273	#2 or less	1.7 - 2 mm
DLW3602	TD04111	0.24"	0.53"	273	#2 - #3	2 - 2.6 mm
DLW3802	TD04112	0.31"	0.49"	160	#4 - #8	3 - 4 mm

Torque Adjustment Ring Cover



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

Part No.	Applicable Screwdriver
TV05143*1	7104/8104/8204 and 30 (brushless) series
TV05705	DLV45 series
TD01883	7300 series (for 1/4" bit)
TD02875	5800 series

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

Pistol Grip DLW2300

(for DLV7104/8104/8204 and 30/45 series Electric Screwdrivers)



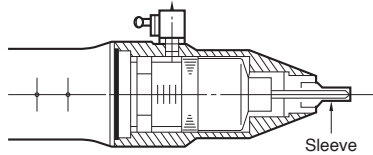
Easy-to-attach grip suitable for horizontal operation.

Sleeves and Vacuum Pickups

■ For DLV5800 series

Vacuum Pickup

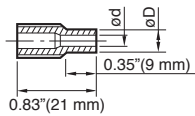
DLP5300 (for DLV5800 Electric Screwdrivers)



Standard Set

Vacuum Pickup (Part No.)	DLP5300 (TD04342)
Accessories	DLS2120 × 1 pc. DLS2124 × 1 pc.

Sleeve DLS2000 series (Plastic)



Unit: mm

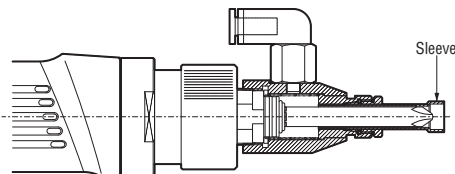
Sleeve					Bit	
Model	Part No.	ød		øD		
		in	mm	in	mm	
DLS2120	TD00348	0.08	2	0.14	3.5	No.0 × 1.8 × 44
DLS2121	TD00349	0.09	2.2			
DLS2122	TD00350	0.1	2.5			
DLS2123	TD00351	0.11	2.7			
DLS2124	TD00352	0.12	3.1	0.18	4.5	No.0 × 2.5 × 44
DLS2125	TD00353	0.13	3.3			
DLS2126	TD00354	0.14	3.5			
DLS2127	TD00355	0.15	3.7			
DLS2128	TD00356	0.16	4	0.22	5.5	No.1 × 3 × 44
DLS2129	TD00357	0.17	4.2			
DLS2130	TD00358	0.18	4.5			
DLS2131	TD00359	0.19	4.7			
DLS2132	TD00360	0.2	5.1	0.26	6.5	No.2 × 4 × 44
DLS2133	TD00361	0.21	5.3			
DLS2134	TD00362	0.22	5.6			
DLS2135	TD00363	0.24	6.1	0.28	7	

Phillips Head
(No. × d × L)

■ For DLV7104/8104/8204-LKU series DLV30/45 series

Vacuum Pickup

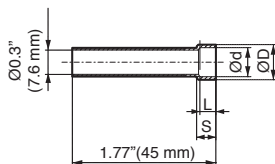
DLP7400 for high torque



Standard Set

Vacuum Pickup (Part No.)	DLP7400 for high torque (TD07286-0)
Accessories	DLS4220 DLS4221

Sleeve DLS4000 series (Metal)



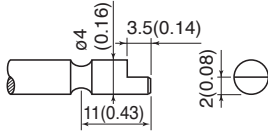
Unit: mm

Sleeve								Bit	
Model	Part No.	ød		øD		L		S	
		in	mm	in	mm	in	mm	in	mm
DLS4220	TV06220-0	0.36	9.1	0.43	11	0.2	5	0.24	6
DLS4221	TV06621-0	0.42	10.6	0.49	12.5	0.22	5.5	0.28	7

Phillips Head
(No. × d × L)

NK BIT

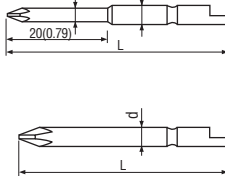
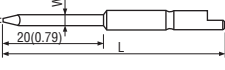
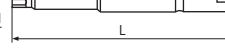
OD 4 mm(0.16") Shank


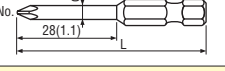

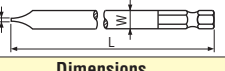
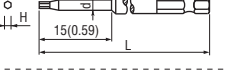
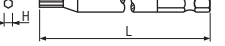


OD 6.35 mm(1/4") Hex. Shank



Unit: mm(in)

Model		Part No.	Size			Dimensions			
		No.	x	d	x		L		
Phillips	NK4D	TD20009	00	2 (0.08)	44 (1.73)				
		TD20010					44 (1.73)		
		TD20021							
		TD20022	0	1.8 (0.07)	64 (2.52)				
		TD20029					44 (1.73)		
		TD20030						2.5 (0.1)	64 (2.52)
		TD20037	1	3 (0.12)	44 (1.73)				
		TD20038					64 (2.52)		
		TD20039						44 (1.73)	
		TD20040	2	4 (0.16)	64 (2.52)				
		TD20047					64 (2.52)		
TD20048	64 (2.52)								
TD20050		3	6 (0.24)	44 (1.73)					
Model		Part No.	W	x	T	x	L	Dimensions	
Plain Slot	NK4DM	TD20051	2 (0.08)	44 (1.73)	0.3 (0.012)				
		TD20052	2.5 (0.1)		0.4 (0.016)				
		TD20053	3 (0.12)						
		TD20054	4 (0.16)						0.5 (0.02)
		TD20055	5 (0.2)						
Model		Part No.	H			x	L	Dimensions	
Hexagon Head	NK4DX	TD20056		44 (1.73)	1.5 (0.06)				
		TD20057			2 (0.08)				
		TD20058			2.5 (0.1)				
		TD20059			3 (0.12)				
		TD20060			4 (0.16)				

Model		Part No.	Size			Dimensions									
		No.	x	d	x		L								
Phillips	NK35	TD20306	1	4 (0.16)	75 (2.95)										
		TD20307					100 (3.94)								
		TD20308						50 (1.97)							
		TD20309							75 (2.95)						
		TD20310								100 (3.94)					
		TD20311									120 (4.72)				
		TD20312										150 (5.91)			
		TD20313											200 (7.87)		
		TD20319												50 (1.97)	
		TD20320													75 (2.95)
		TD20321	100 (3.94)												
		TD20322		120 (4.72)											
		TD20323			150 (5.91)										
		TD20324					200 (7.87)								
		TD20327						50 (1.97)							
		TD20328							75 (2.95)						
		TD20329								100 (3.94)					
		TD20330									120 (4.72)				
		TD20331										150 (5.91)			
		TD20332	200 (7.87)												
Model <th>Part No.</th> <th>No.</th> <th>x</th> <th>d</th> <th>x</th> <th>L</th> <th>Dimensions</th>		Part No.		No.		x							d	x	L
Phillips	NK36	TD20335		0	3.8 (0.15)	50 (1.97)									
		TD20336		1											
		TD20337		2			4.5 (0.18)								
		TD20338													
Model		Part No.		Size			Dimensions								
				No.	x	L									
Phillips	NK15	TD20354		1	50 (1.97)										
		TD20355	75 (2.95)												
		TD20356					100 (3.94)								
		TD20357						120 (4.72)							
		TD20358							150 (5.91)						
		TD20359								200 (7.87)					
		TD20362	50 (1.97)												
		TD20363		75 (2.95)											
		TD20364			100 (3.94)										
		TD20366					150 (5.91)								
		TD20367						200 (7.87)							
		TD20371	75 (2.95)												
		TD20372		100 (3.94)											
		TD20374			150 (5.91)										
		TD20375					200 (7.87)								
Model		Part No.				W		x	T	x	L	Dimensions			
Plain Slot	NK35M	TD20378	7 (0.28)			0.9 (0.035)		50 (1.97)							
		TD20379		75 (2.95)											
		TD20380			100 (3.94)										
Model		Part No.	H	x	d	x	L	Dimensions							
Hexagon Head	NK35X	TD20382	1.27 (0.05)	3 (0.12)	70 (2.76)										
		TD20385	1.5 (0.06)												
		TD20388	2 (0.08)												
		Part No.		H			x	L							
		TD20391		70 (2.76)											
		TD20394													
		TD20397													
		TD20400													
		TD20404	6 (0.24)	50 (1.97)											

If Bits other than the above are required, please contact us.

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.
- Unplug 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.

delvo

*World-class innovation with precision torque control.
More than 35 years experience world highest quality
"delvo" electric screwdrivers by Nitto Kohki.*



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