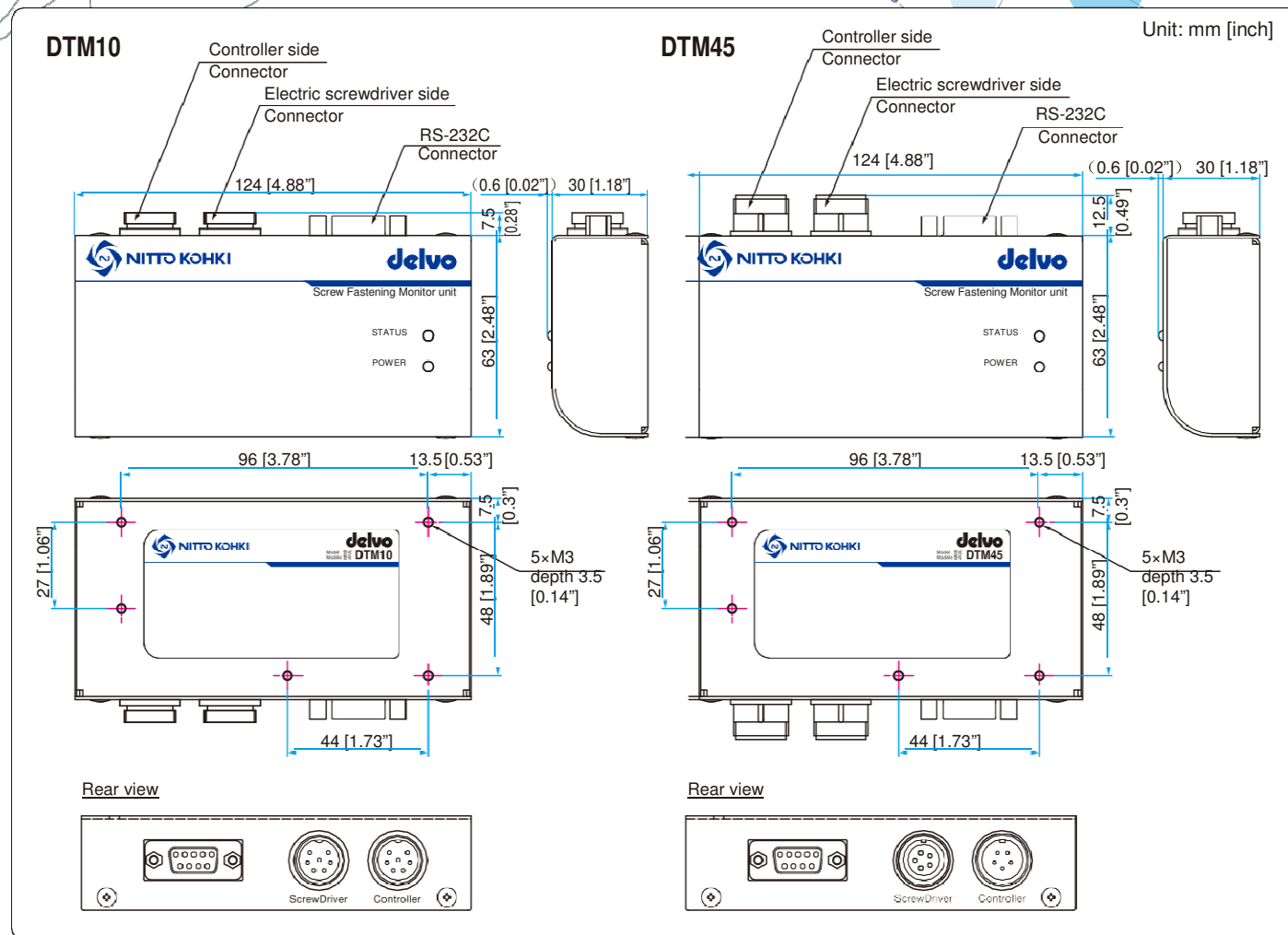


External Dimensions



For delvo Brushless Type C Series

Screw Fastening Monitor Model DTM10/DTM45

For traceability management!
Outputs torque value from a screwdriver
 (converted value)

- Converts motor current to torque value at torque-up
- Sends data to external devices such as computers and PLCs
- OK(Pass)/NG(Fail) can be judged by the output torque (converted value) and screw fastening time



Fastening Data Log



Connectable electric screwdrivers

For DTM10

Model	DLV04C10L-AZ ; K	DLV10C10L-AZ ; K
Starting Method	Lever Start	
Power Source	From dedicated controller	
Torque Adjustment	1 to 100% (From 1 to 100% in 1% increments)	
Torque (Nm [lbf-in])	SOFT fastening setting (1000 min ⁻¹ setting)	0.05 to 0.4 [0.4 to 3.5] / 0.2 to 1.0 [1.8 to 8.9]
	SOFT fastening setting (600 min ⁻¹ setting)	0.05 to 0.35 [0.4 to 3.1] / 0.2 to 0.45 [1.8 to 4.0]
	HARD fastening setting	0.05 to 0.4 [0.4 to 3.5] / 0.2 to 1.0 [1.8 to 8.9]
Free Speed (min ⁻¹)	SOFT fastening setting	600 to 1000
	HARD fastening setting	100 to 1000



For DTM45

Model	DLV45C12L-AZ ; K	DLV4512P-AZ ; K
Starting Method	Lever Start	Push to Start
Power Source	From dedicated controller	
Torque Adjustment	1 to 100% (From 1 to 100% in 1% increments)	
Torque (Nm [lbf-in])	0.6 to 4.5 [5.3 to 39.8]	
Free Speed	SOFT fastening setting	Speed Level 400 to 1200
	HARD fastening setting	Speed Level Level 1 to 9
		100 to 700
		Automatically set by torque setting



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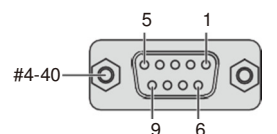
This catalog is printed using environmentally friendly paper and vegetable oil inks.

Specifications

Model	DTM10	DTM45
Connectable models	DLV04C10L-AZ DLV10C10L-AZ	DLV45C12L-AZ DLV45C12P-AZ
	DCC0101X-AZ	DCC0241X-AZ
Transmission data	Operation channel/Converted current value*	
	Screw fastening time	Screw fastening time/Rotation signal
Communication method	RS-232C *When connecting to a PC, please use a conversion adapter available on the market.	
Standard Accessories	• Connection cord DLW9075 (2 m) • Rubber feet	• Connection cord DLW9078 (2 m) • Rubber feet

RS-232C

Specifications: D-SUB 9-pin (female)
 Screw: Inch female screw (#4-40)



Preparation

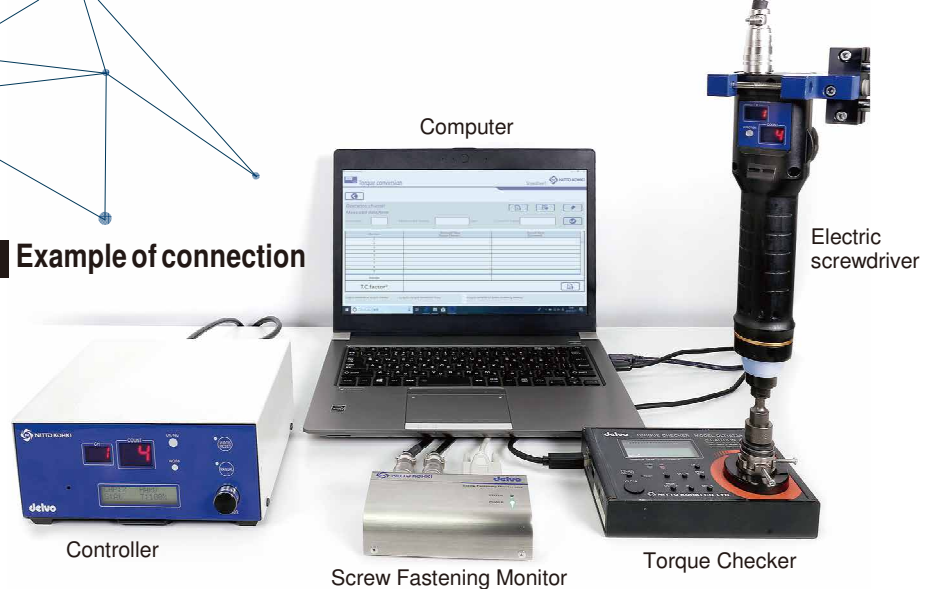
Connect peripheral devices and download the dedicated software.



Website

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

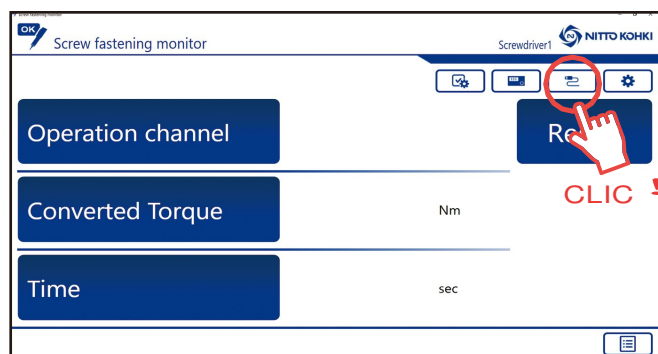
Example of connection



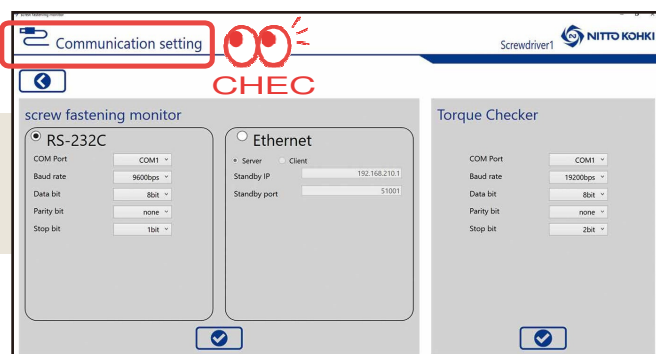
How to measure output torque (converted value)

(Measurement method: TIME)

1. Perform the communication setting for Screw Fastening Monitor and Torque Checker.



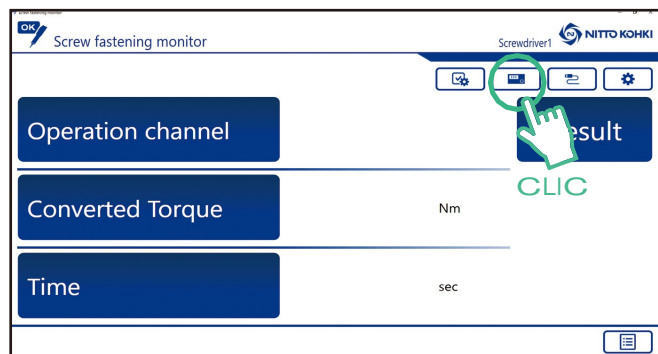
Main screen



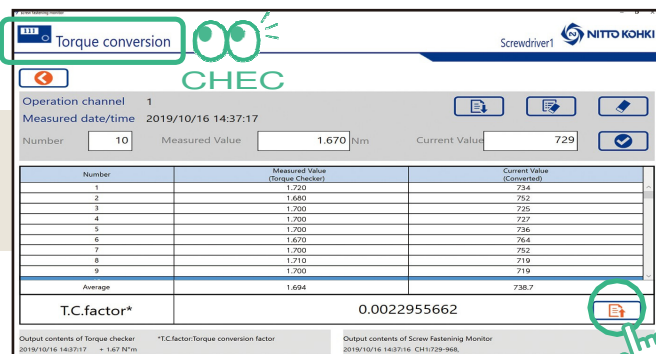
Communication setting

*Please download a driver for RS-232C from a website of each company.

2. Measure the torque conversion factor for each channel.



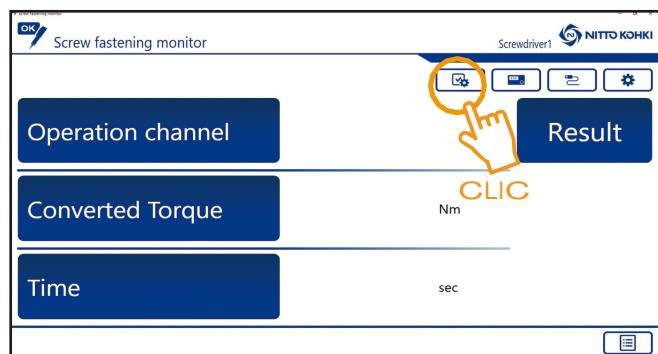
Main screen



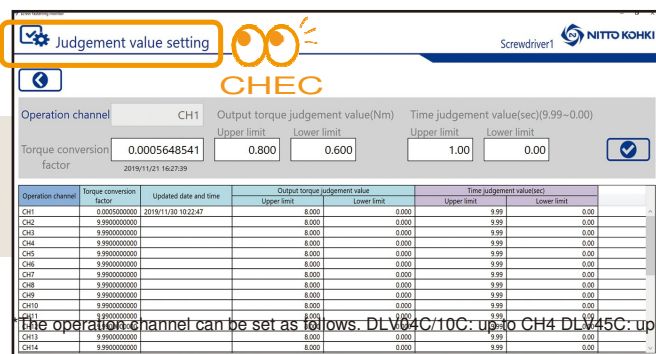
Torque conversion

*Use Torque Checker or screw joint for the subject models. (Refer to the compatibility chart on the right page.)

3. Set the output torque judgement value and time judgement value for each channel as required.



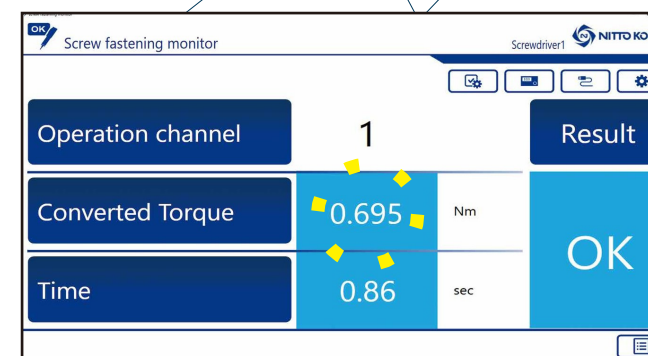
Main screen



Judgement value setting

The operation channel can be set as follows. DLV04C/10C: up to CH4 DLV45C: up to CH30

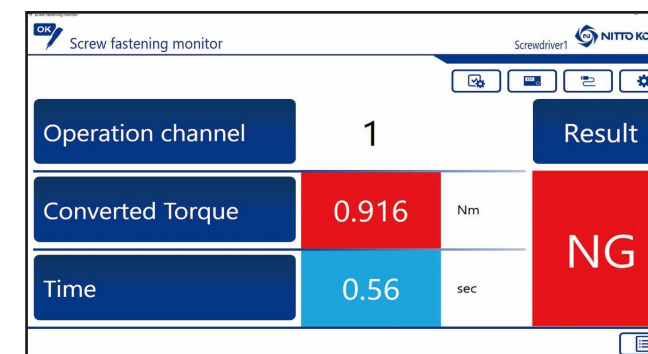
4. Measure the torque with Torque Checker. Check the difference of the value between the software and Torque Checker.



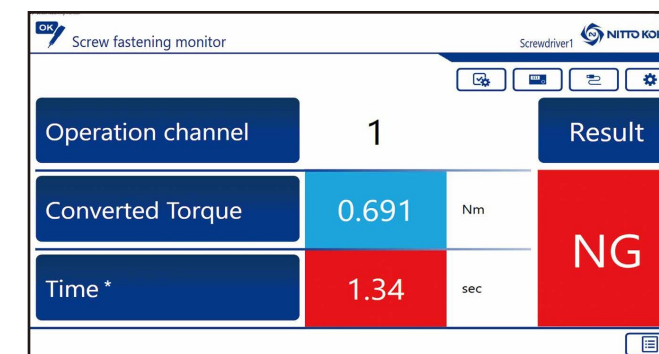
The result is OK(Pass).



5. OK(Pass)/NG(Fail) can be judged by the output torque (converted value) and screw fastening time.



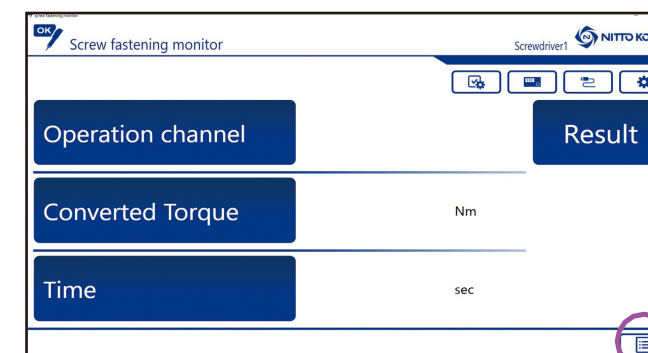
The result of the output torque is NG(Fail).



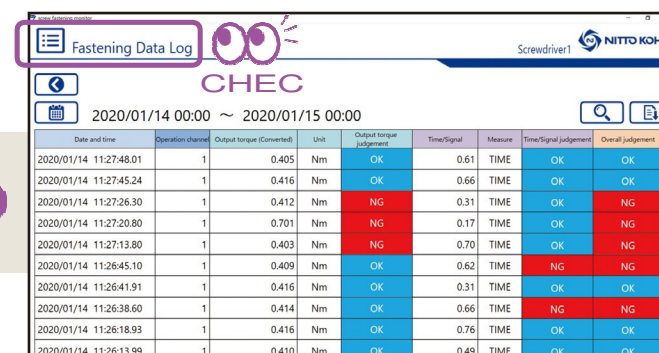
The result of the screw fastening time is NG(Fail).

*Only DTM45 can switch time (sec) and rotation signal (signal).

6. The fastening data log can be checked.



Main screen



Fastening Data Log

*The measured data is a reference value obtained by converting the load current of the electric screwdriver to torque, which is not a guaranteed value.

Screw Fastening Monitor	Electric screwdriver	Torque Checker	Screw joint	
			SOFT	HARD
DTM10	DLV04C	DLT1173A	DLW4540	DLW4560
	DLV10C		DLW4550	
DTM45	DLV45C	DLT1673A	DLW4050	DLW4040

The shape of the connector differs for each model.