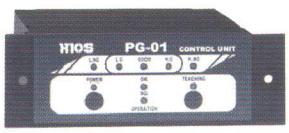
Real-Time OK/Error Detecting Screwdriver

PG Brushless

All fastening operations are monitored and checked with the criteria which value is saved in the PG system. The problems in fastening operations such us insufficient torque, wrong thread joint and screw going askew are monitored and prevented from going through the production line. PG Brushless drivers which has data collecting function are a part of the "New Fastening System" that meets the demand of modern era where the zero defects control is required.

- Instantly determines if a screw passes or fails (OK/NG).
- All items can be checked at the same time as the operation is completed.
- Torque can be monitored for each tightening procedure.
- Can be connected to a PC for data recording.
- Job data can be checked at a glance.



Setting the Pass/Fail values

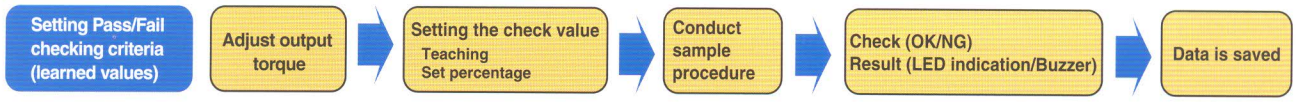
Screw tightening quality can be controlled by setting the checking criteria.

[Teaching]

The checking criteria (learned values) are set by conducting an actual screw tightening procedure, the torque value, minimum work time (Min), maximum work time (Max) are then remembered.

[Percentage Setting] Range selection ± (2%, 5%, 10%, 20%)

The acceptable range of passing values for torque, work time minimum and work time maximum can be set individually.



All data is saved as Job is done

By managing data, it is possible to verify past work details.

[Data display]

Measurement data can be displayed in Excel's numerical display. Graphs are also generated automatically. We can also develop customized programs to meet the current needs and the current work environment of the customer. Additional extension features are possible id used with a PLC.

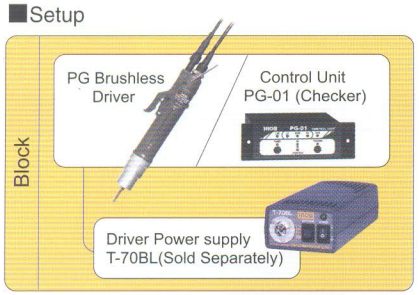
Indications during every tightening procedure

OK/NG results are confirmed with an LED and buzzer while work is being done.

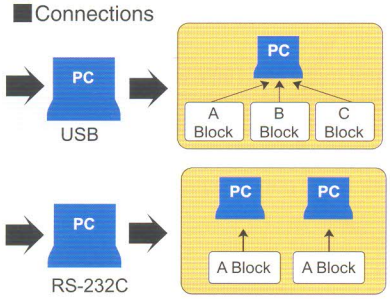
OK/NG is displayed on the PC and measurement values are displayed in the datasheet.

Pass-guard System Setup and Connections

■Setup



■Connections



Driver Power Supply T-70BL (Sold separately)

■Specifications

Primary side	Input power	AC 100V-240V (47-63Hz)
	Power capacity	70W
Secondary side output		2(30V), 1(20V) 2 stage switchable
External dimensions (mm)		88 x 210 x 52 (H) mm
Weight (g)		830g
Power cord length(m)		1.8m (inlet type)
Accessories		2 mounting points, 4 mounting screws

PG Brushless Drivers

Lever start type
PG-3000

Weight: 345g

RoHS

Lever start type
PG-5000

Weight: 509g

RoHS

Lever start type
PG-7000

Weight: 807g

RoHS

■Specifications

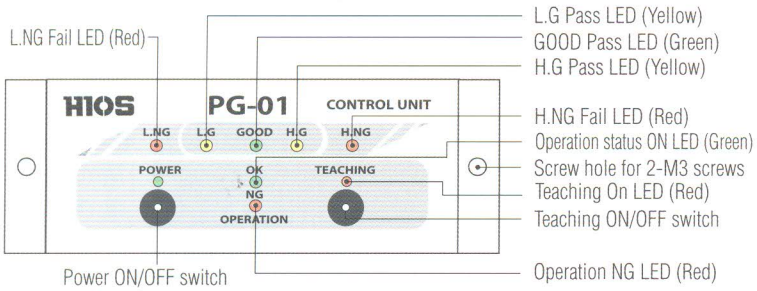
*PG Drivers are available only lever-start type

Model		PG-3000	PG-5000	PG-7000
Output Torque Range	N·m	0.2-0.55	0.4-1.2	0.7-2.8
	lbf·in	1.7-4.8	3.5-10	6.1-24
	(kgf·cm)	(2- 5.5)	(4-12)	(7-28)
Torque Switching		Stepless Adjustment		
Unloaded Rotation Speed (r.p.m) ±10%	High	980	900	960
	Low	680	590	630
Screw Size (mm)	Small Size Screw	1.7-2.3	2.3-3.0	2.6-5.0
	Tapping Screw	2.0-2.3	2.0-2.3	2.6-4.0
Bit Type		Hios H4	Hios H4	Hios H5 or 1/4HEX
Driver cord length / Sensor cord length(m)		2m(6P) / 2m	2m(6P) / 2m	2m(6P) / 2m
Included accessories		HIOS bit, Sampling Demo software (Windows XP Excel), RS-232C cable, USB cable, AC adapter (AC100-240V compatible)		

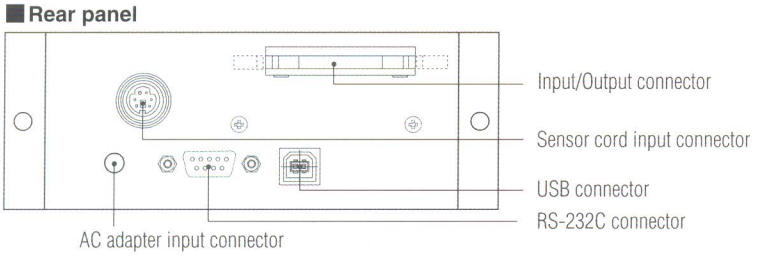
N,B: Windows XP and Excel is Trade mark of Microsoft.

Control Unit PG-01 (Checker)

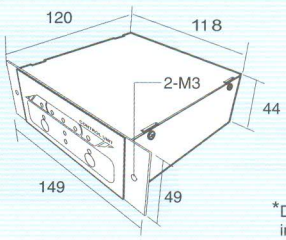
■Front Panel (Name and Functions)



■Rear panel



■Specifications

Model	PG-01				
RS-232C Communication	Communication speed	Start Bit	Stop Bit	Data	Data format
	4800BPS	1 Bit	1 Bit	8 Bit	ASCII
External Dimensions (mm)	 *Dimensions do not include protrusions				
Weight(g)	520g				
AC Adaptor	Input:AC100V-240V (50 / 60 Hz), Output:DC12V				

■I/O input / output connector

Pin No.	Output Signal	Description
13	L.NG (Fail)	Torque is below the LOW GOOD value (L.G)
14	L.G (Pass)	Torque is within the allowed percentage range of the LOW GOOD value
15	GOOD (Pass)	Within the HI and LOW values
16	H.G (Pass)	Torque is within the allowed percentage range of the HI GOOD value
17	H.NG (Fail)	Torque is above the HI GOOD value (H.G)
18	COM GND	–