

## ELCOM 8 for wireless



### Electric-Column & Hand Gage

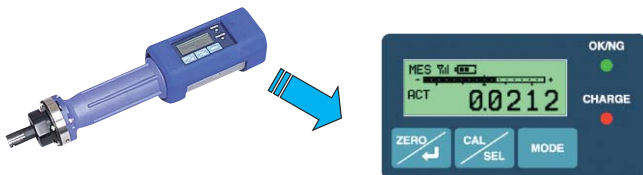


#### Wireless Measurement Anytime Anywhere

- Wireless communication between column gage and hand gage
- Sturdy and lightweight hand gage
- Non-contact charging with built-in Li-ion battery (hand gage)
- Built-in temperature sensor model also available for caliper gage

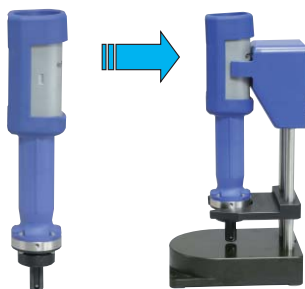
#### Wireless Measuring up to Ten Meters Away

A wireless module has been incorporated in the inner-diameter measuring gage (plug gage) and in the outer-diameter measuring gage (caliper gage). Measuring can be done without cables interfering within a range of about 10 meters. Measurement data is displayed on the column gage's three color bar graph and at the same time on the LCD on the gage. This makes it extremely convenient to check measurement data on the spot even when away from the column gage. Also, the judgment results are shown on the upper right of the three-color LCD as OK/NG.



#### Battery

The plug gage and caliper gage are equipped with a lithium ion battery. Also, by using the optional non-contact charging stand, it is possible to charge the battery by just placing the gage in the stand.



#### Lightweight and Sturdy Hand Gage

Design of the hand gage takes weight and balance into consideration to reduce burden on the operator. It is also equipped with a removable protector to minimize shock due to accidentally dropping the gage.

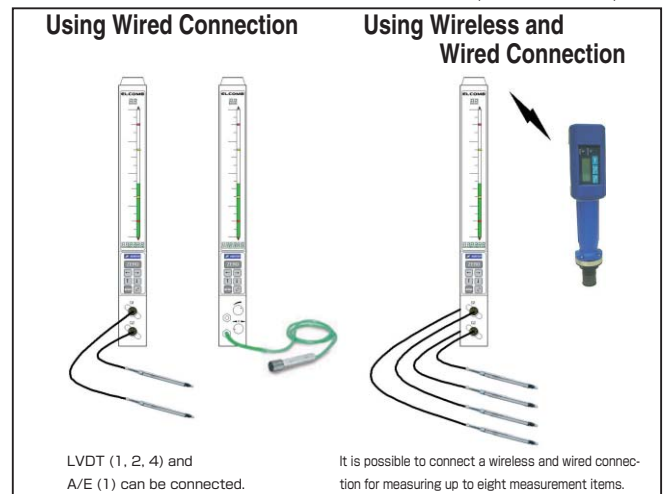
#### Various Applications Supported (Column Gage)

The column gage is able to select internal A/E, LVDT circuits (1, 2, or 4 input) through the wireless module. Also, by combining these input methods, a maximum of eight measuring items can be selected. For output, the RS-232C interface is provided as standard making it possible to send measurement data to a PC. Also, optional judgment output and analog I/O are available for use in various applications such as direct interfacing with a PLC.

#### Caliper Gage

For high-precision components such as crankshafts, when measuring outer diameters it is necessary to check the taper by measuring two or three positions at the same time. The wireless caliper gage can measure three positions at the same time, and the results are displayed on the three column gage. The workpiece temperature can also be measured by the gage's built-in temperature sensor\*, and measurement data can be transmitted. Depending on the program, the column gage can compensate for temperature, to do high-precision measuring.

\* The temperature sensor is optional.



# Displays >>>

## Electro-Column Gages



### ELCOM 8 Basic Specifications

Number of inputs	: Any of LVDT 1 ch, LVDT 2 ch, LVDT 4 ch, or A-E 1 ch and those plus combination (maximum 8 ch) with the wireless module as well as just the wireless module
Measuring range	: $\pm 4$ , $\pm 8$ , $\pm 20$ , $\pm 40$ , $\pm 0$ , $\pm 200$ , $\pm 400 \mu\text{m}$ , AUTO (in high-resolution mode: $\pm 0.4$ , $\pm 0.8$ , $\pm 2$ , $\pm 4$ , $\pm 8$ , $\pm 20$ , $\pm 40 \mu\text{m}$ , AUTO)
Bar graph resolution	: 81 DIV
OK/NG judgment	: Bar graph display colors OK = green, $\pm$ OK = orange, NG = red
Zero set method	: One-touch auto-zero
Digital display range	: -19999.9 to 99999.9 $\mu\text{m}$ (in high-resolution mode: -19999.9 to 99999.9)
External I/O	: RS-232C (data output), expanded input (zero, latch, etc.) (optional: judgment output, analog I/O, digimatic output)
Other functions	: Calculation, function calculation, peak value display, smoothing, logging, memory, auto-range setting, auto-selection of measurement items, auto trigger, etc.
Usage temperature range	: 0 to 40°C
Power source	: AC 85 to 250 V, 50/60 Hz, 30 VA
Weight	: 2.7 kg and heavier

### Product Code

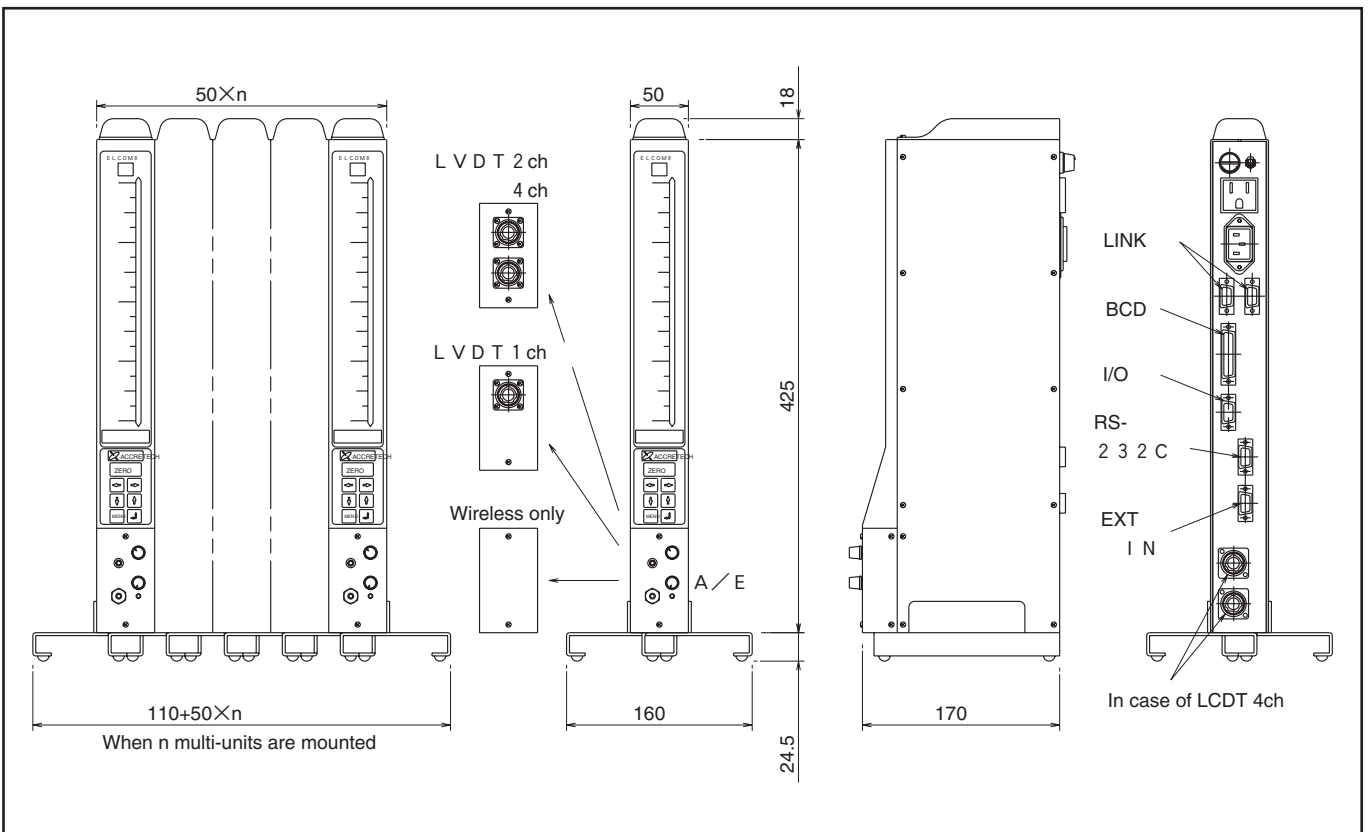
Product Code	999001	999002	999003	999004	999005	999006	999007	999008	999009	999010	999011	999012	999013	999014	999015
<b>Wireless module</b>						○	○	○	○	○					○
<b>LVDT 1ch</b>	○						○								
<b>LVDT 2ch</b>		○						○							
<b>LVDT 4ch</b>			○						○						
<b>Built-in A/E 1ch (for small diameters)</b>				○						○					
<b>Multi-unit only</b>					○										
<b>LVDT 1ch (high resolution)</b>											○				
<b>LVDT 2ch (high resolution)</b>												○			
<b>LVDT 4ch (high resolution)</b>													○		
<b>Built-in A/E 1ch (for large diameters)</b>														○	○

Type	Specifications
<b>Wireless module</b>	For connecting wireless hand gage (plug gage, caliper gage)
<b>LVDT 1ch</b>	For connecting measuring heads (wired) made by Tokyo Seimitsu (1 SNS connector can be connected.)
<b>LVDT 2ch</b>	For connecting measuring heads (wired) made by Tokyo Seimitsu (2 SNS connectors can be connected.)
<b>LVDT 4ch</b>	For connecting measuring heads (wired) made by Tokyo Seimitsu (4 SNS connectors can be connected.)
<b>Built-in A/E 1ch (for small diameters)</b>	Applicable to air jet nozzle $\phi 0.3$ to 1.0 (within measuring range 30 $\mu\text{m}$ )
<b>Multi-unit only</b>	Measuring heads cannot be connected. Data from other ELCOM 8s can be calculated, displayed and judged. Optional boards are already mounted.
<b>LVDT 1ch (high resolution)</b>	For connection with a high-precision air jet, etc. (1 SNS connector can be connected. Resolution: 0.01 $\mu\text{m}$ )
<b>LVDT 2ch (high resolution)</b>	For connection with a high-precision air jet, etc. (2 SNS connector can be connected. Resolution: 0.01 $\mu\text{m}$ )
<b>LVDT 4ch (high resolution)</b>	For connection with a high-precision air jet, etc. (4 SNS connector can be connected. Resolution: 0.01 $\mu\text{m}$ )
<b>Built-in A/E 1ch (for large diameters)</b>	Applicable to air jet nozzle $\phi 1.0$ (within measuring range 40 $\mu\text{m}$ ) to $\phi 2.0$

## Handy functions (standard functions)

<h3>Automatic display switching function</h3> <p>Measurement alone causes the result display to be automatically switched. (When G2 is inserted while the results of G1 are displayed, the display automatically switches to that for G2.)</p>	<h3>Peak value display function (simple roundness display)</h3> <p>After the measurement value has stabilized within the range, the minimum/maximum positions (P-P) are displayed blinking.</p>	<h3>Auto-trigger Function</h3> <p>The latch and data are output when the measurement value has stabilized within the range.</p>
--	---	---

## External Dimensions



# Measuring Heads >>>

## Wireless Plug Gages



### Wireless Plug Gage Basic Specifications

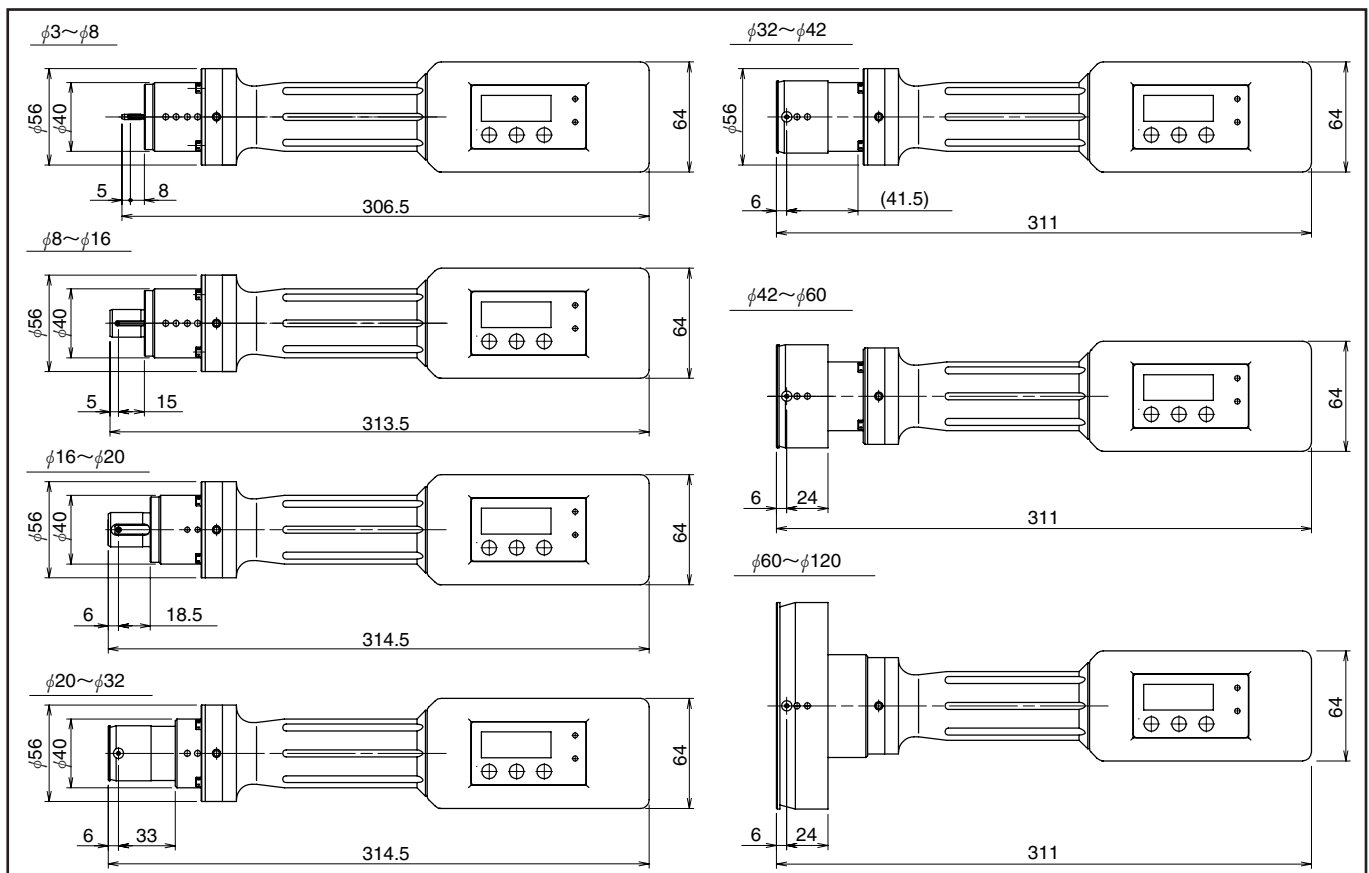
Measuring range	: $\phi 3$ to $\phi 120$
Measuring force	: 0.6 to 1.0N
Repeatability	: 1 $\mu$ m (zero master, uniform positioning)
Display	: Judgment result LED OK = Green, $\pm$ OK = Orange, NG = Red Charge indicator LED
LCD display	: Switching of display of measurement item values (with bar graph) specified on ELCOM and gage value (LCD 8-digit display) Battery power and signal strength indicator
Operating time	: 4 hours, continuous
Charging time	: 3.6 hours for quick charge (power supplied by wire); 7.5 hours for non-contact charge
Other	: Zero set, calibration, data-hold Auto Power Off, independent use, operation with power supplied by wire supported when battery is dead, Comes with shock-absorbing protector
Weight	: 850g and heavier

### Product Code

	Measuring range	3-6	6-10	10-16	16-20	20-32	32-42	42-60	60-92	92-120
Standard	Carbide contact	999201	999204	999207	999208	999209	999210	999211	999212	999214
	CPX diamond contact	999221	999224	999227	999228	999229	999230	999231	999232	999234
For shallow blind holes	Carbide contact	999241	999244	999247	999248	999249	999250	999251	999252	999254
	CPX diamond contact	999261	999264	999267	999268	999269	999270	999271	999272	999274

How to order : Code No. -  Measurement diameter mm

### External Dimensions



# Measuring Heads >>>

## Wireless Caliper Gages



### Wireless Caliper Gage Basic Specifications

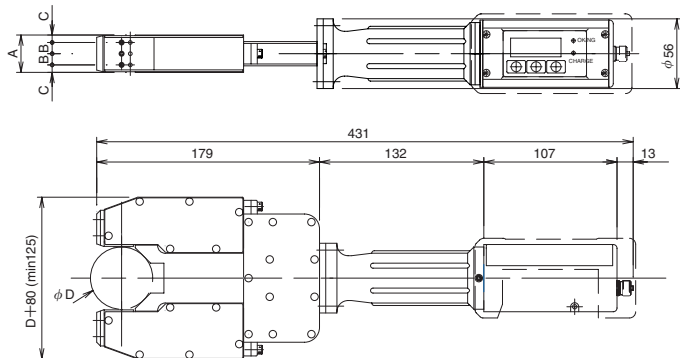
Measuring range	: $\phi$ 10 to $\phi$ 100
Measurement points	: 1 to 3 diameters, 1 workpiece temperature
Measuring force	: 0.6 to 1.0N
Repeatability	: 1 $\mu$ m (zero master, uniform positioning)
Temperature sensor	: Supported measuring diameters of $\phi$ 20 and greater, thermocouple, response time within one second Temperature compensation supported using ELCOM8 built-in formula
Display	: Judgment result LED OK = Green, $\pm$ OK = Orange, NG = Red Charge indicator LED
LCD display	: Switching of display of measurement item values (with bar graph) specified on ELCOM, gage value (1 to 3 diameters) and workpiece temperature (LCD 8-digit display) Battery power and signal strength indicator
Operating time	: 3 hours, continuous
Charging time	: 3.6 hours for quick charge (power supplied by wire); 7.5 hours for non-contact charge
Other	: Zero set, calibration, data-hold, Auto Power Off, independent use, operation with power supplied by wire supported when battery is dead Comes with shock absorbing protector
Weight	: 1,000 g and heavier

### Product Code

		Measuring range	$\phi$ 10 ~ $\phi$ 20	$\phi$ 20 ~ $\phi$ 40	$\phi$ 40 ~ $\phi$ 60	$\phi$ 60 ~ $\phi$ 80	$\phi$ 80 ~ $\phi$ 100
No temperature sensor	1-diameter measurement	Carbide measurement contact	999401	999402	999403	999404	999405
		CPX diamond contact	999411	999412	999413	999414	999415
	2-diameter measurement	Carbide contact	999421	999422	999423	999424	999425
		CPX diamond contact	999431	999432	999433	999434	999435
	3-diameter measurement	Carbide contact	999441	999442	999443	999444	999445
		CPX diamond contact	999451	999452	999453	999454	999455

How to order: Code No. - [Measurement diameter] mm - [Number of measurement points] - [Measurement pitch] mm - [Guide width] mm

### External Dimensions



- Measuring range: Max.  $\pm 100 \mu$ m
- Number of measurement points: 1 to 3, selectable
- Dimension A [gage width]: 20 to 50mm supported
  - \* When measuring by 3 diameters, 26 to 50mm
- Dimension B [measurement pitch]: 7.5mm or more (0.5mm units)
  - \* Up to 5.5mm min. supported
- Dimension C [side pitch]: 5.5mm or more (0.1mm units)
  - \* When measuring by 3 diameters and dimension A is 20 to 21mm, 4.5mm
- $\phi$ D dimensions [measurement diameter]:  $\phi$ 10 to 100mm supported
  - \* Optional temperature sensor supported for  $\phi$  20 or more

# Measuring Heads >>>

## Wired Plug Gages

### Wired Plug Gage Basic Specifications

Measuring range :  $\phi 3$  to  $\phi 120$   
 Measuring force : 0.6 to 1.0N  
 Repeatability :  $1\ \mu\text{m}$  (zero master, uniform positioning)  
 Cable : Length 1.8 m, SNS connector  
 Weight : 770 g and heavier

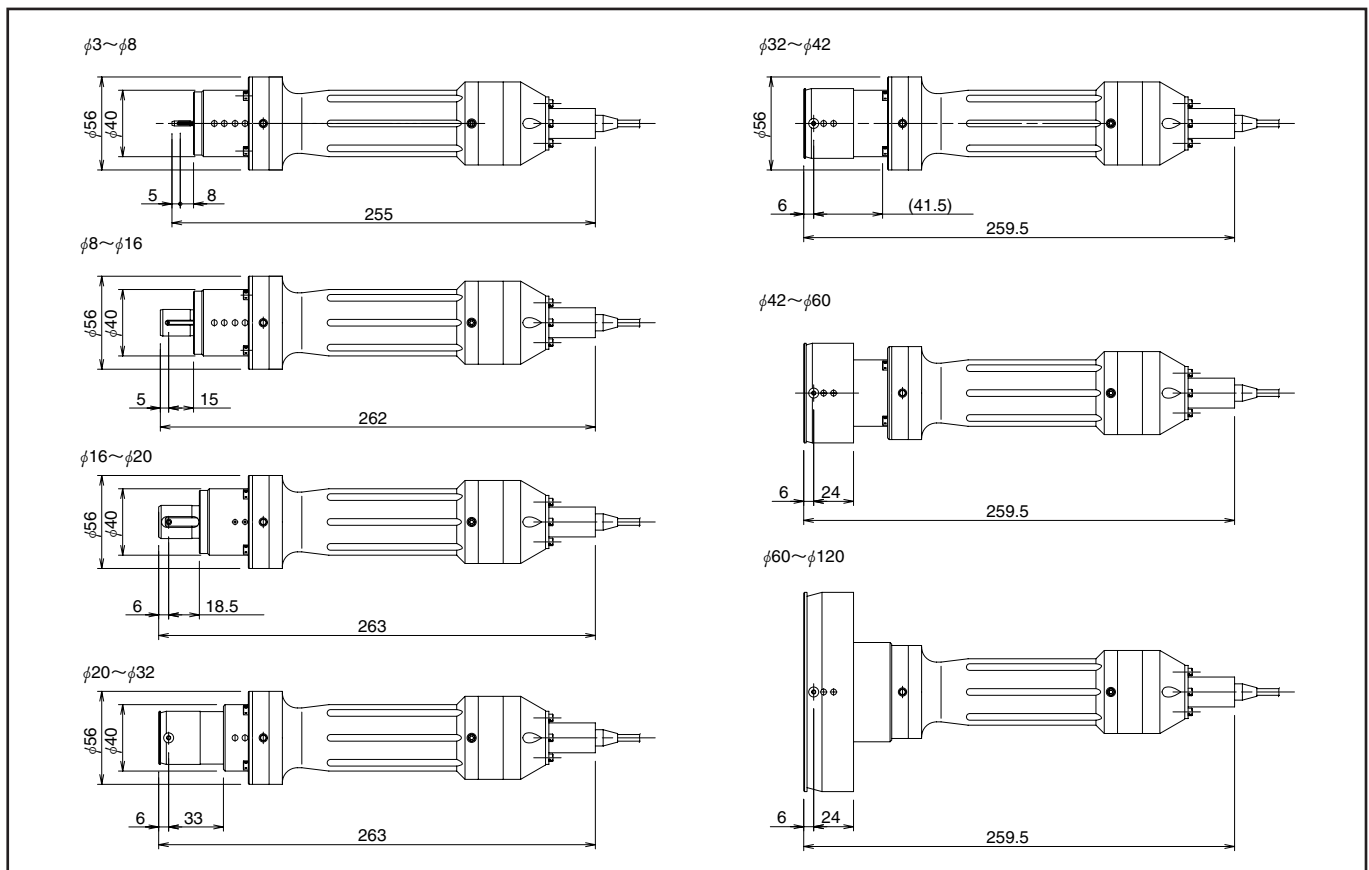
- Used on bench gages, etc.
- Removable cable  
(Cable can be easily replaced when wires break.)

### Product code

	Measuring range	3-6	6-10	10-16	16-20	20-32	32-42	42-60	60-92	92-120
Standard	Carbide contact	999601	999604	999607	999608	999609	999610	999611	999612	999614
	CPX diamond contact	999621	999624	999627	999628	999629	999630	999631	999632	999634
For shallow blind holes	Carbide contact	999641	999644	999647	999648	999649	999650	999651	999652	999654
	CPX diamond contact	999661	999664	999667	999668	999669	999670	999671	999672	999674

How to order : Code No. -  mm

### External Dimensions



## Options (ELCOM 8)

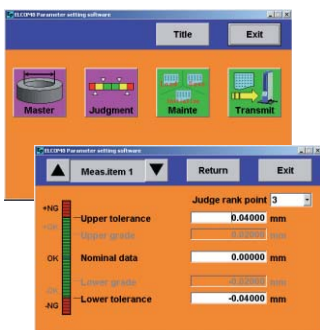
### Parameter Setup Software for Windows

Easy setup of ELCOM 8 parameters

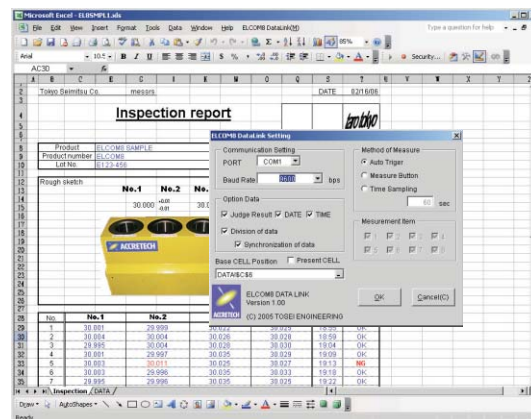
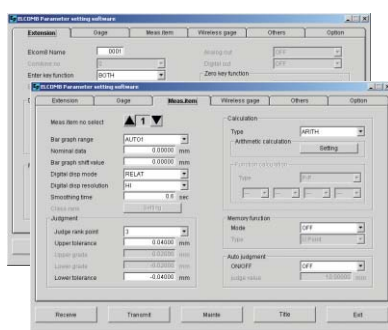
- Two modes, Quick Menu mode and Detailed Menu mode, can be selected for setup.
- Japanese and English can be selected by switching the display language.
- Settings can be saved to PC and easily restored.



Quick setting



Detailed setting



### Data Link Software for Windows (Excel add-in)

Measurement Results, Date and Time Directly Captured to Excel Spreadsheets

- Excel functions can be used on the user side to create a simple inspection lists, etc. based on captured measurement results.
- Capture mode selectable from ELCOM 8 operation, Excel button operation and fixed interval.

## Product code

Product code	Product name	Remarks
999057	Option board	Multi unit function (Data from multiple ELCOM 8s can be calculated, required for each ELCOM 8, 5 units max.) Judgment output function (3/5 ranks, 26 ranks, open drain) Analog I/O function (input: $\pm 2.4V$ , $\pm 10V$ , output: $\pm 10V$ ) Digimatic output *Analog I/O and digimatic output cannot be combined.
999092	Temperature compensation function (software)	Required when caliper gage with built-in temperature sensor is connected
999093	Parameter setup software	For Windows. Easy setup of ELCOM 8 conditions on a PC (Separate RS-232C cable is required.)
999099	Data link software	For Windows. Direct storage of measurement results to Excel spreadsheets (Separate Excel RS-232C cable is required.)
999072	Stand	Standard stand for body. 1 set provided as standard for body
999073	Connection plate	For connection to body and multi-unit connection. When product is shipped for body connection and multi-unit mounting, the necessary number of plates is provided as standard instead of the standard stand.
999074	Multi-unit power cables	For connection to body and multi-unit mounting. When product is shipped for body connection and multi-unit mounting, the necessary number of cables is provided as standard instead of the standard power cable.
999075	Judgment output cable (3m)	One side, loose wires
999076	Judgment output cable (6m)	One side, loose wires
999077	Analog/digimatic cable (3m)	For analog I/O, digimatic (one side, loose wires)
999078	Analog/digimatic cable (6m)	For analog I/O, digimatic (one side, loose wires)
999079	Regulator unit	Slim-line regulator. Installed on rear panel when built-in A/E type is used.
999088	ELCOM 8 LINK cable	Required for multi-unit mounting (0.15 m). * Number of multi units -1 is required (e.g. 2 required in case of 3 multi units)
999094	RS-232C cable (for PC, 3m)	For PC connection
999095	RS-232C cable (for PC, 5m)	For PC connection
999096	Cable for external switch (3m)	One side, loose wires (SW must be prepared by the user when using cable for latch, zero reset, etc.)
999097	Cable for external switch (6m)	One side, loose wires (SW must be prepared by the user when using cable for latch, zero reset, etc.)
999098	Termination connection	Required for multi-unit mounting (2 sets, used for connectors not connected by LINK cable)

## Options (Wireless Hand Gages)



Cradle for wireless plug gage



Cradle for wireless caliper gage

Product code	Product name	Remarks
999281	Charging adapter (3.3m, for domestic use)	1 pc provided as standard, including AC cord for domestic use
999282	Cradle (up to $\phi 40$ )	For plug gage. Non-contact charger stand. with collar
999283	Cradle ( $\phi 40$ or more)	For plug gage. Non-contact charger stand
999284	Power cable for connecting cradles (1m)	Supplies power to 2nd cradle onwards (max. 4 cradles)
999521	Cradle ( $\phi 10$ to 20)	For caliper gage. Non-contact charger stand
999522	Cradle ( $\phi 20$ to 40)	For caliper gage. Non-contact charger stand
999523	Cradle ( $\phi 40$ to 60)	For caliper gage. Non-contact charger stand
999524	Cradle ( $\phi 60$ to 80)	For caliper gage. Non-contact charger stand
999525	Cradle ( $\phi 80$ to 100)	For caliper gage. Non-contact charger stand
999526	Temperature sensor	Caliper gages of $\phi 20$ or more supported Temperature compensation function software required on controller side
999092	Temperature compensation function (software)	Temperature compensation function software for ELCOM 8 (Required when calliper gage with built-in temperature sensor is connected to ELCOM 8.)

## Overseas options (ELCOM 8)

Product code	Product name	Remarks
999120	Power cable (3m, for North American use)	Can replace standard power cable (compatible with North American UL, CSA standards)
999121	Power cable (3m, for domestic use)	Provided as standard with ELCOM 8 body (compatible with domestic PSE standard)
999122	Power cable (3m, for EU use)	1 cable provided as standard instead of standard power cable (compatible with EU CE standard)
999123	Power cable (5m, for North American use)	1 cable provided as standard instead of standard power cable (compatible with North American UL, CSA standards)
999124	Power cable (5m, for domestic use)	1 cable provided as standard instead of standard power cable (compatible with domestic PSE standard)
999126	Power cable (2m, for Korean use)	1 cable provided as standard instead of standard power cable (compatible with Korean standards)
999127	Power cable (3m, for EU use)	1 cable provided as standard instead of standard power cable (compatible with EU CE standards, one side left unprocessed)
999128	Power cable (2m, for Chinese use)	1 cable provided as standard instead of standard power cable (compatible with Chinese CCC standard)

## Overseas options (hand gage)

Product code	Product name	Remarks
999291	Adapter AC cord (2m, for domestic use)	Provided as standard with hand gage (compatible with domestic PSE standard)
999292	Adapter AC cord (2m, for North American use)	(compatible with North American UL, CSA standards)
999293	Adapter AC cord (2m, for EU use)	(compatible with EU CE standard)
999294	Adapter AC cord (2m, for Korean use)	(compatible with Korean standards)
999295	Adapter AC cord (2m, for Chinese use)	(compatible with Chinese CCC standard)