# **QCWEA**

## **RETRACTABLE KNOB-LOCKING PINS**

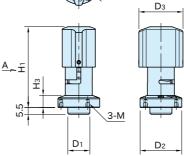
R#S Stainless Steel

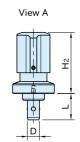






(OFF position) (ON position)





**IMAO** 

(OFF position)

(ON position)

Key Point ———	Body, Shaft	Wedge	Knob	Ball	Spring
Retractable shank type with sensor		SUS420J2	SCS13	SUS440C	
detection of clamping condition.	SUS303	stainless steel	stainless steel	stainless steel	SUS304WPB
(assessed of stamping contained)	stainless steel	Quenched and	(Equivalent to	Quenched and	stainless steel
		tempered	SUS304)	tempered	

Part Number	Plate Thickness	D (-0.05)	D <sub>1</sub> (h9)	D <sub>2</sub>	Dз	L	H <sub>1</sub>	H <sub>2</sub>	Нз	М	Dp	Clamping Force(N)	Holding Force (N) **)	Weight (g)
QCWEA0625-10-SUS	3~10 *)	6	14	25	28	19.5	58	43.5	6.5	M2×0.4 Depth3	21	30	90	114
QCWEA1034-14-SUS	3~14 *)	10	18	34	36	21.5	66	50	10	M3×0.5 Depth4	28	50	150	232

<sup>\*)</sup> Spacer QCASP is required for plate thinner than 6mm.

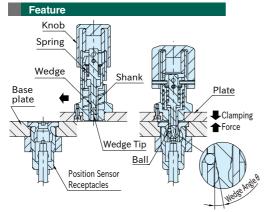
<sup>\*\*)</sup> Exceeding the holding force creates a gap of greater than 0.1mm between plates.

Part Number	Sensor Receptacles	Receptacles	Floating Receptacles		
QCWEA0625-10-SUS	QCWE0625-M16-S, QCWE0625-M16-SL	QCBU0608-M12SUS	QCBU0608-FL-SUS		
QCWEA1034-14-SUS	QCWE1034-M20-S, QCWE1034-M20-SL	QCBU1012-M16SUS	QCBU1012-FL-SUS		

#### **Supplied With**

- ·QCWEA0625-10-SUS:
- 3 of socket-head cap screws(stainless steel), M2×0.4-5L
- ·QCWEA1034-14-SUS:
- 3 of socket-head cap screws(stainless steel), M3×0.5-6L

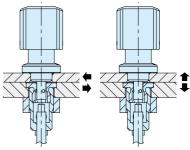




The shank retracts at the unclamping position to enable operations without interference with the base plate.

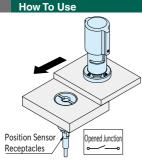
The wedge of the locking pin pushes out the balls against the tapered surface of the receptacle to clamp the two plates.

#### Mechanical Strength

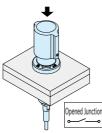


Shear Strength	Tensile Strength					
Part Number	Heatresistant Temperature(°C)	Shear Strength (N)	Tensile Strength (N)			
QCWEA0625-10-SUS	180	3000	500			
QCWEA1034-14-SUS	100	9000	1500			

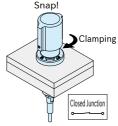
Shear and tensile strength is allowable load and the fastener could break when it receives bigger load.



 Ensure that the knob is positioned at the "OFF" mark and the shank is retracted.

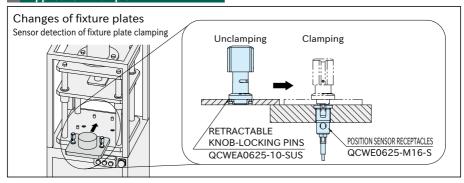


Insert Retractable Knob-locking Pin pressing the knob.

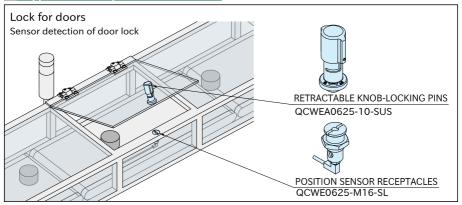


3. Turn the knob to the "ON" mark for clamping. The knob turns lightly by spring force. The tip of the wedge protrudes when clamped, providing reliable contact sensing. Note: Turning the knob to the "OFF" position automatically returns the shaft to the unclamped position by spring force.

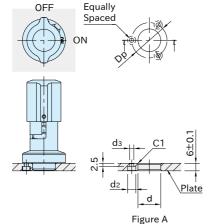
#### **Application Example**



### **Application Example**



#### How To Install



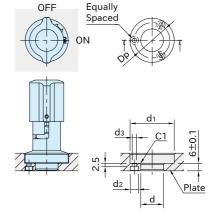
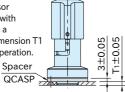


Figure B

Part Number	Plate Thickness	Figure	d (+0.10) (+0.05)	d <sub>1</sub>	d <sub>2</sub>	d₃	Dp		
	3 or more, under 6	Spacer QCASP is required. *)							
QCWEA0625-10-SUS	6	Α	4.4	_	4.4	2.4	21		
	Over 6, 10 or less	В	14	26					
QCWEA1034-14-SUS	3 or more, under 6	Spacer QCASP is required. *)							
	6	Α	40	_	6.5	3.4	28		
	Over 6, 14 or less	В	18	35					

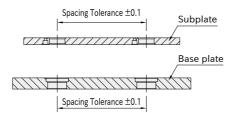
\*) Combining Position Sensor Receptacles QCWE-M-S with Spacers QCASP requires a tolerance of ±0.05 for dimension T1 to ensure stable sensor operation. Spacer





#### Accuracy

#### ■ Machining Accuracy



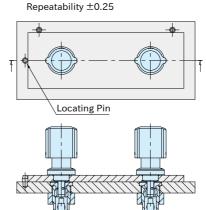
Spacing tolerance on both the subplate and the base plate should be  $\pm 0.1$ .

Note: To expand the tolerance range of mounting hole spacing, use QCBU-FL floating receptacles. See QCBU-FL Floating Receptacles product pages for details.

#### Reference

- ·"How To Install" of QCWE-M-S Position Sensor Receptacles and QCBU-M Ball-Lock Receptacles QCBU-FL Floating Receptacles
- •Spacer QCASP is required for 3mm or more, under 6mm plate thickness.

# ■ Repeatability



For higher accurate locating, use locating components.