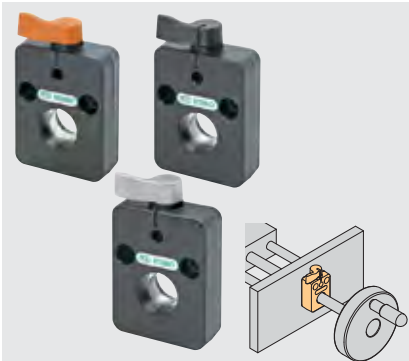


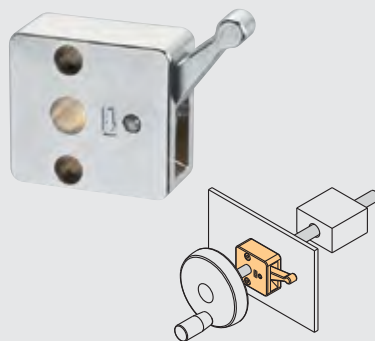
Quick Shaft Clamps





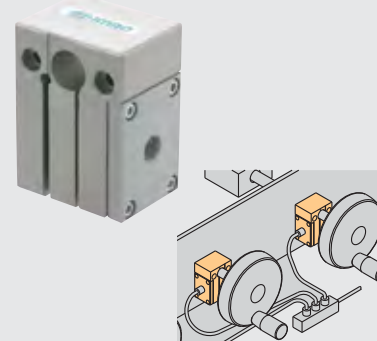
ONE-TOUCH SPINDLE LOCKS

Part No. QCSPL



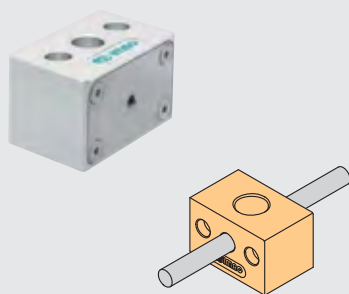
QUICK SHAFT-LOCKING CLAMPS

Part No. QSC



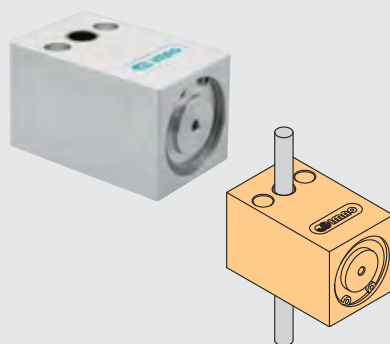
QUICK SHAFT-LOCKING CLAMPS (Pneumatic)

Part No. QSCA



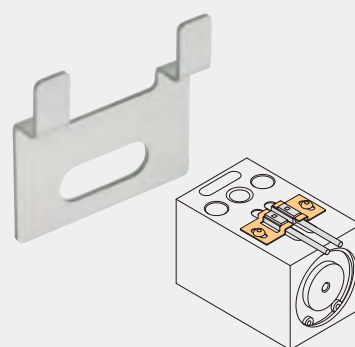
PNEUMATIC SHAFT-LOCKING CLAMPS

Part No. PSLC-L



PNEUMATIC SHAFT-LOCKING CLAMPS

Part No. PSLC-M



SENSOR BRACKETS

Part No. PSLC-M-SB





QCSPL-OG

(Plastic knob, Orange)

QCSPL-BK

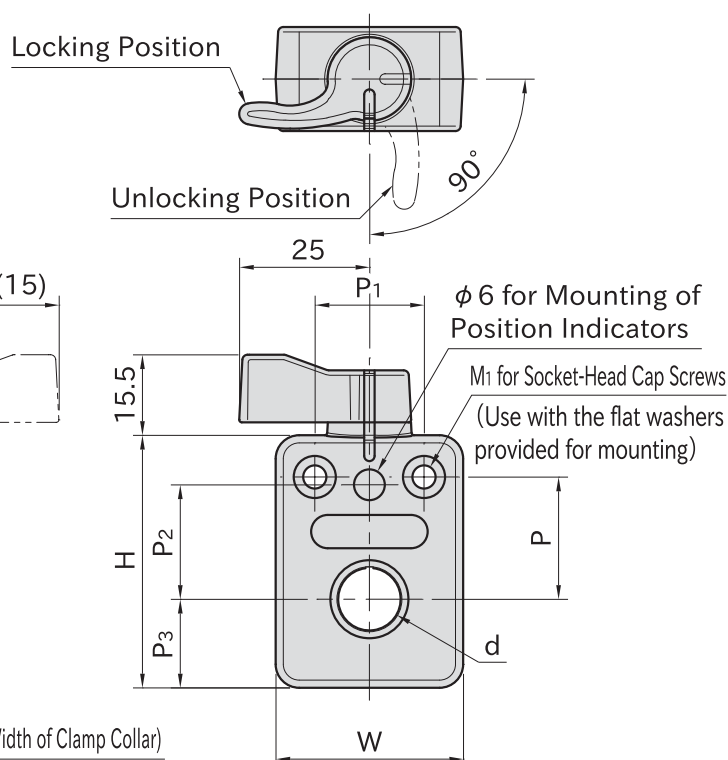
(Plastic knob, Black)



QCSPL-S

(Metal knob)

Type	Housing	Knob	Clamp Collar
QCSPL-OG	Polyamide (glass-fiber reinforced) Black	Polyamide (glass-fiber reinforced)	SUS630 stainless steel
QCSPL-BK		SCS13 stainless steel (Equivalent to SUS304)	
QCSPL-S			



★Key Point

Secure locking of spindles with one-touch action!

Plastic Knob			Metal Knob		d	W	H	M ₁	L ₁	P	P ₁	P ₂	P ₃	Suitable shaft dia.(h7) *)
Part Number		Weight (g)	Part Number	Weight (g)										
Orange	Black													
QCSPL0408-OG	QCSPL0408-BK	50	QCSPL0408-S	70	8	36	48.5	M4	14	23.5	21	22	17	φ 8
QCSPL0410-OG	QCSPL0410-BK		QCSPL0410-S		10									φ 10
QCSPL0412-OG	QCSPL0412-BK		QCSPL0412-S		12									φ 12
QCSPL0414-OG	QCSPL0414-BK		QCSPL0414-S		14									φ 14
QCSPL0912-OG	QCSPL0912-BK	100	QCSPL0912-S	120	12	51	69	M5	12.5	17	34	30	26	φ 12
QCSPL0915-OG	QCSPL0915-BK		QCSPL0915-S		15									φ 15
QCSPL0916-OG	QCSPL0916-BK		QCSPL0916-S		16									φ 16
QCSPL0920-OG	QCSPL0920-BK		QCSPL0920-S		20									φ 20

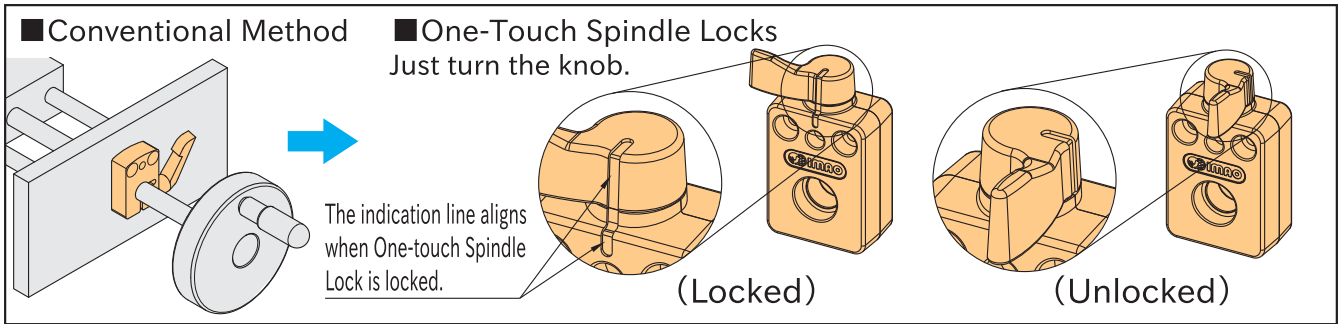
*) Using shafts with tolerances other than h7 may decrease the allowable holding torque or allowable sliding load

Supplied With

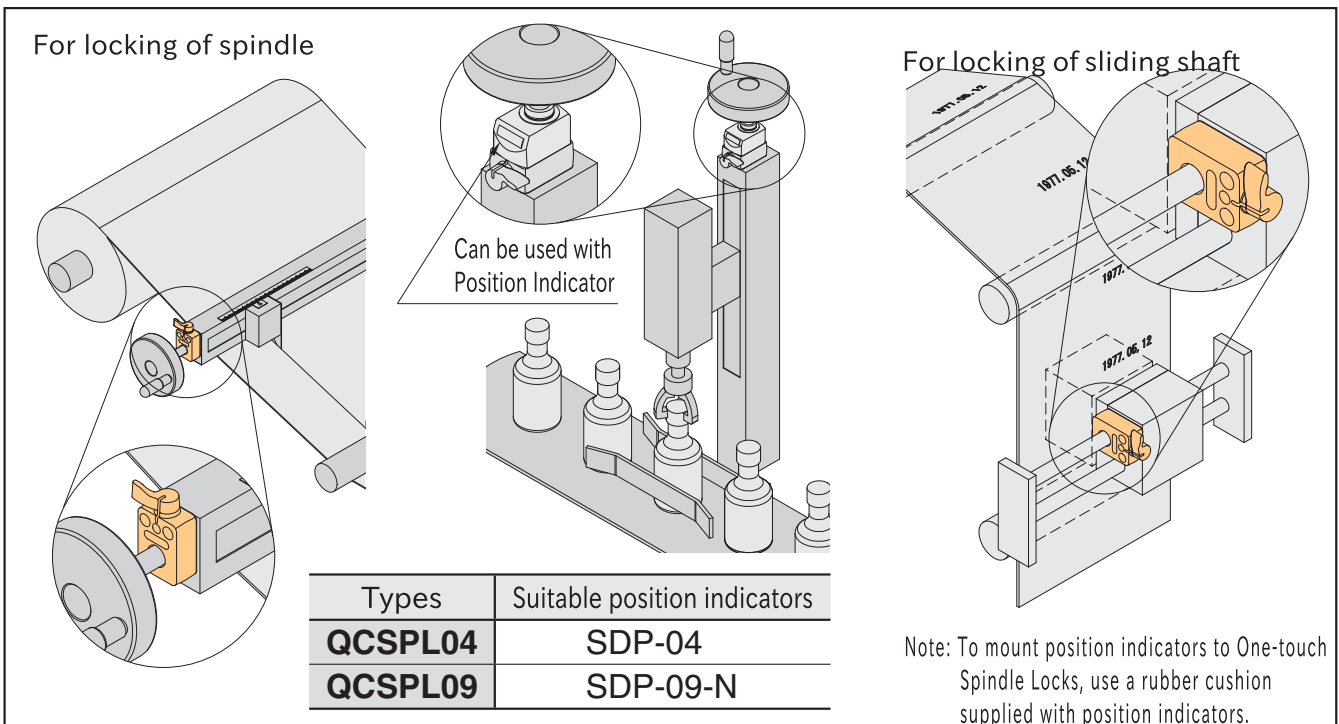
2 of Flat round washer(Stainless Steel)

Feature

- One-touch Spindle Locks enable quick and secure locking of shafts with one click of the knob.
- When One-touch Spindle Lock is operated, the knob clicks and the shaft is locked with a steady force. This provides reliable locking of shafts.
- The knob position and the indication line clearly indicate lock/unlock position.



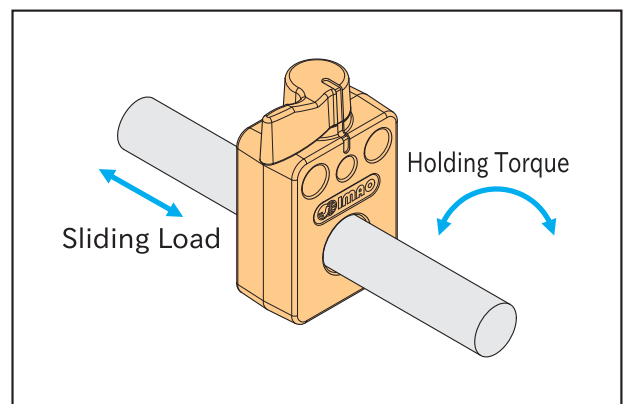
How To Use



Technical Information

One-touch Spindle Locks can fix both revolving and sliding of shafts.

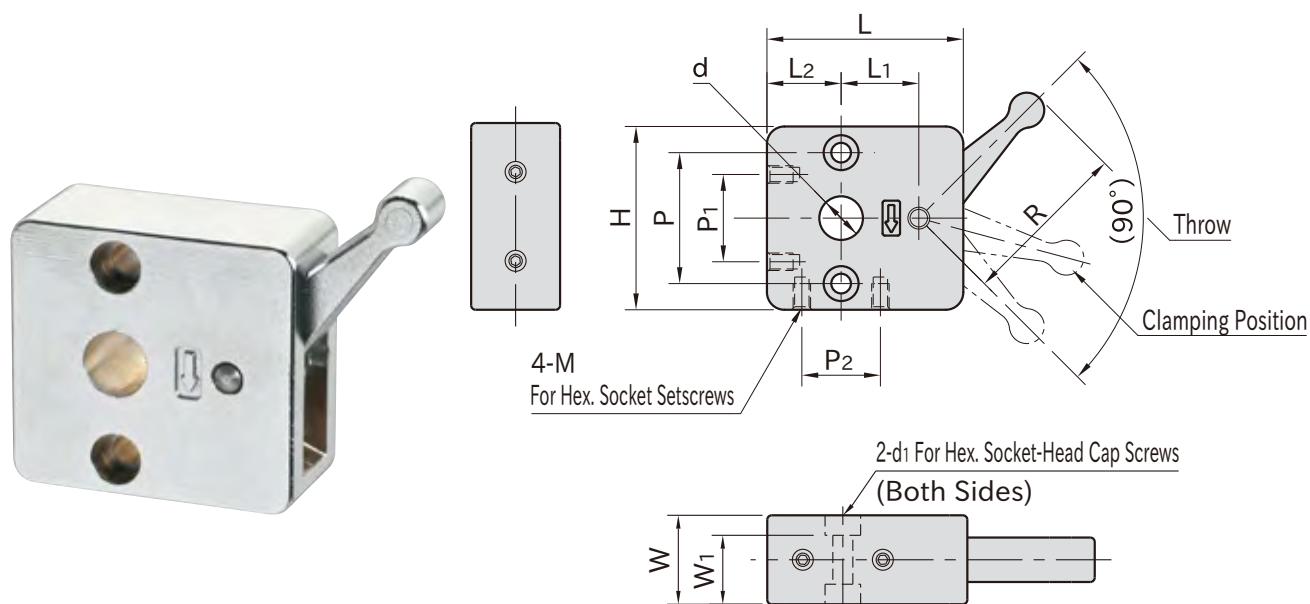
Size		Allowable Holding Torque (N·m)	Allowable Sliding Load (N)
QCSPL-OG QCSPL-BK QCSPL-S	0408	3	400
	0410		
	0412		
	0414	4	400
	0912		
	0915	5	500
	0916		
	0920		



Note: The above information is for cold finished S45C steel bars with tolerance h7. Use this only as a guide.

Note

- Allowable tightening torque for mounting screws
QCSPL 04 Size: 1.5 N·m, **QCSPL** 09 Size: 3.0 N·m
 Note: Tightening with torque greater than the allowable tightening torque may cause failure by deformation of the body.
- This product cannot be used as bearings or guides for shafts.
- Shafts may slip in environments where shocks or vibrations are present.



Body / Handle	Locking Block	Flat Spring
Die cast zinc Chrome plated finish	CAC402 cast bronze	SUS304 stainless steel

Part Number	d	L ₂	L	W	H	R	L ₁	d ₁	W ₁	P	M	P ₁	P ₂
QSC10S	10	17	45	20	42	39	17.6	M4	15.5	30	M4×0.7 Depth 6	20	18
QSC12S	12						18.8						
QSC14S	14						19.9						
QSC15L	15	20	55	26	50	50	24.1	M5	20.5	35	M5×0.8 Depth 8	20	20
QSC16L	16						24.7						
QSC20L	20						27						

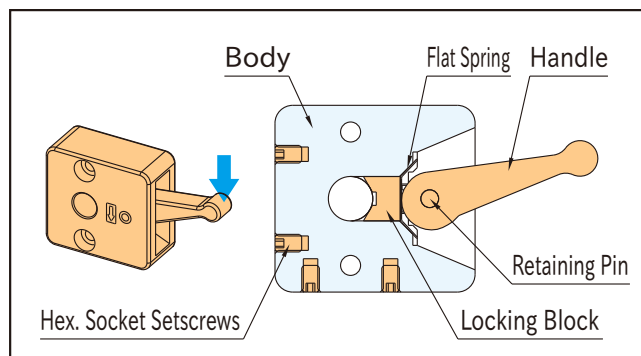
Part Number	Weight (g)	Shaft Dia. (h9)
QSC10S	228	φ 10
QSC12S	224	φ 12
QSC14S	220	φ 14
QSC15L	428	φ 15
QSC16L	418	φ 16
QSC20L	359	φ 20

Supplied With

Four hex. socket setscrews

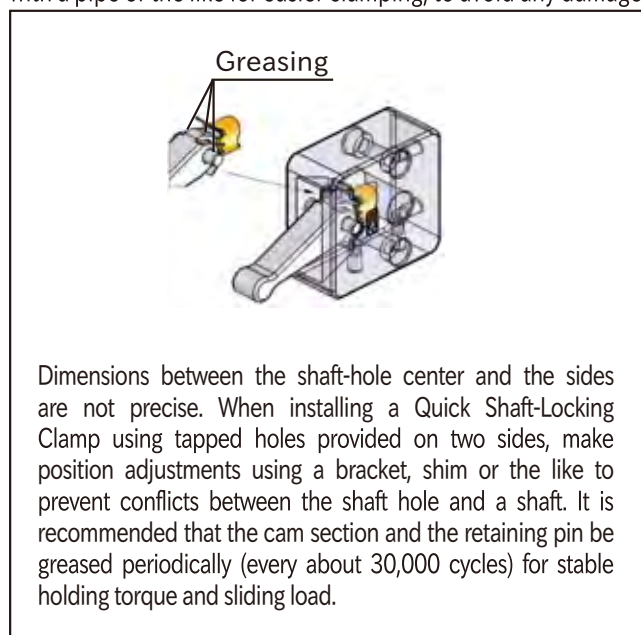
How To Use

- As the handle is turned down, it pushes the locking block toward the shaft for clamping. When the handle is released, the flat spring allows the locking block to be returned to the original position.
- Both faces can be used for installation. Two sides with two tapped holes can also be used for installation (remove the setscrews).



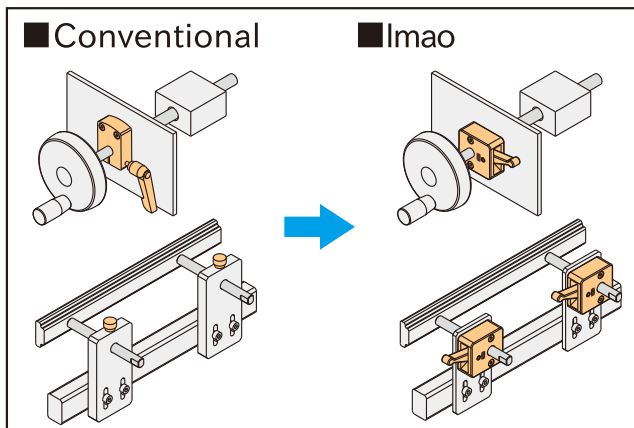
Note

Do not give hammer taps to the handle or extend the handle with a pipe or the like for easier clamping, to avoid any damage.



Feature

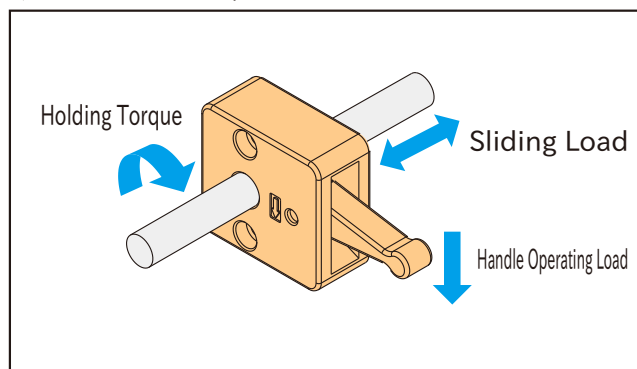
- Designed to positively lock a lead screw or slide shaft with ease.
- Ideal especially in applications where position adjustments are often made, due to better workability than conventional holding methods using adjustable handles or knobs.
- Can also be used in limited space due to no need of space for handle's large swing.

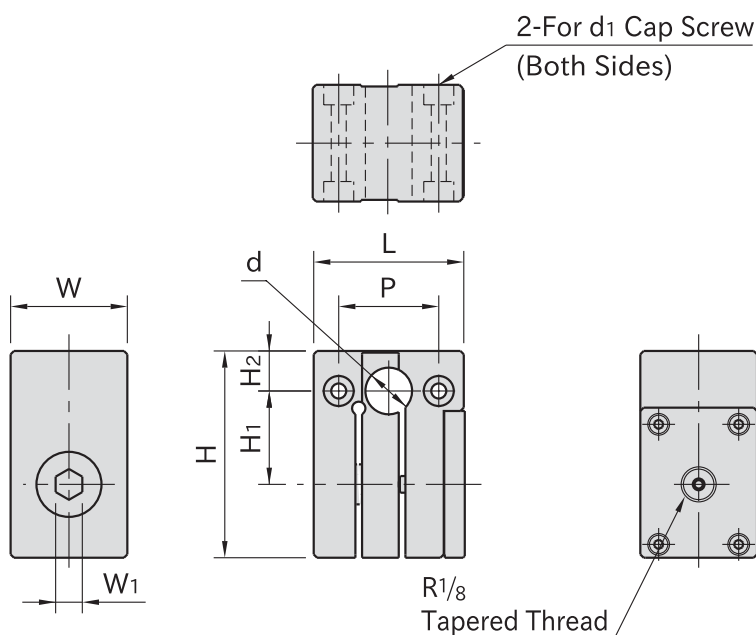


Technical Information

Part Number	Handle Operating Load (N) *	Holding Torque (N·m)	Sliding Load (N)
QSC10S	80	2	220
QSC12S		3	
QSC14S		3.5	
QSC15L		4.5	
QSC16L		5.5	
QSC20L		6.5	

*) Allowable load to operate the handle.





★ One Point

Clamping by spring pressure / Unclamping by air pressure

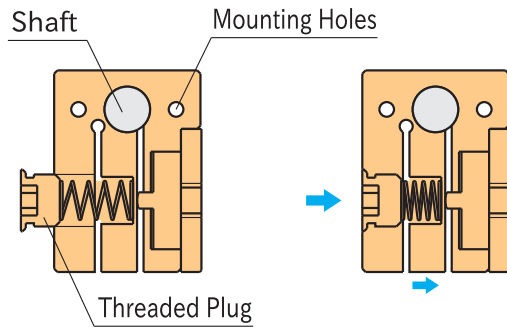
Body / Cover Plate	O-Ring
A5052 aluminum alloy Sand blasting finish Anodized Natural	Nitrile rubber

Part Number	d	H ₂	L	W	H	d ₁	P	W ₁	H ₁
QSCA10-N	10	12	45	35	62	M4 Counterbore depth 4.5	30	8	28
QSCA12-N	12								
QSCA14-N	14								
QSCA15-N	15	19	58	40	80	M5 Counterbore depth 5.5	35	10	35
QSCA16-N	16								
QSCA20-N	20								

Part Number	Holding Torque (N·m)	Sliding Load (N)	Weight (g)	Shaft Dia. (h6-h9)
QSCA10-N	1	150	230	φ 10
QSCA12-N	1.2			φ 12
QSCA14-N	1.4			φ 14
QSCA15-N	2.2	200	450	φ 15
QSCA16-N	2.4			φ 16
QSCA20-N	2.6			φ 20

How To Use

How to Install

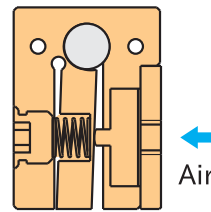


Slide the clamp over the shaft at the unclamped mode, and then fix the body using the 2 mounting holes.

Screwing the plug completely into the hole allows locking the shaft.

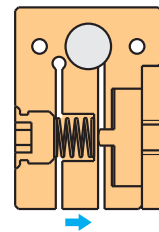
How to Operate

〈Unclamped〉



Supplying air allows compressing the spring to get the shaft unlocked.

〈Clamped〉

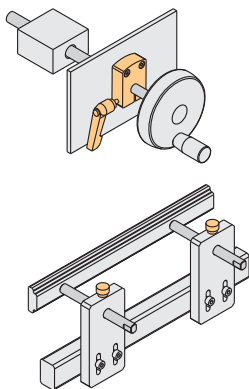


Releasing the air allows getting the spring to work to lock the shaft.

Feature

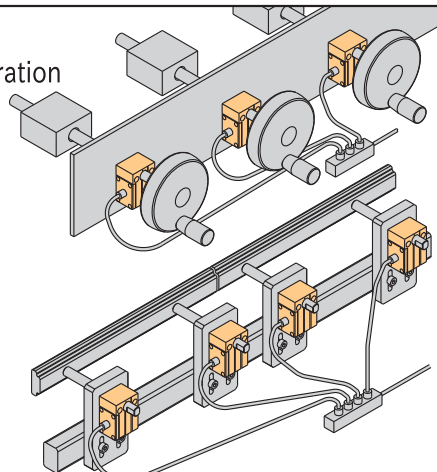
- Air pressure to be applied : 0.5 - 0.7MPa
Recommended to use with a three-way valve.
- The mechanism of spring-pressure clamping and air-pressure unclamping prevents shaft-locking force from getting lowered.
- Connecting air plumbing to multiple Quick Shaft-Locking Clamps installed allows doing clamping/unclamping in one operation.

Conventional



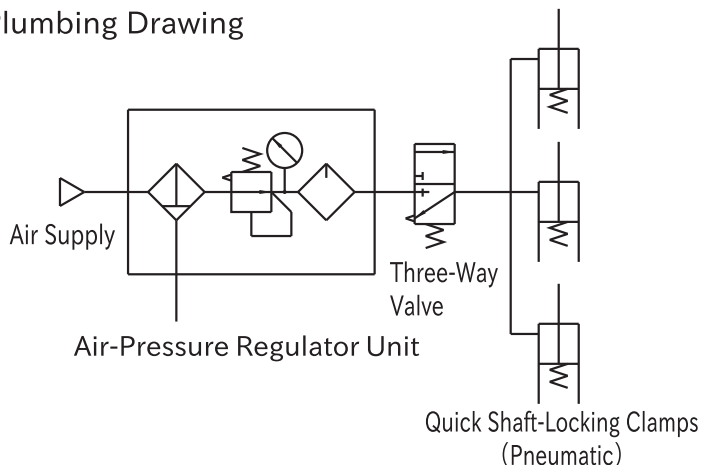
Imao

Pneumatic operation



Simultaneous control of multiple clamps is possible.

Plumbing Drawing



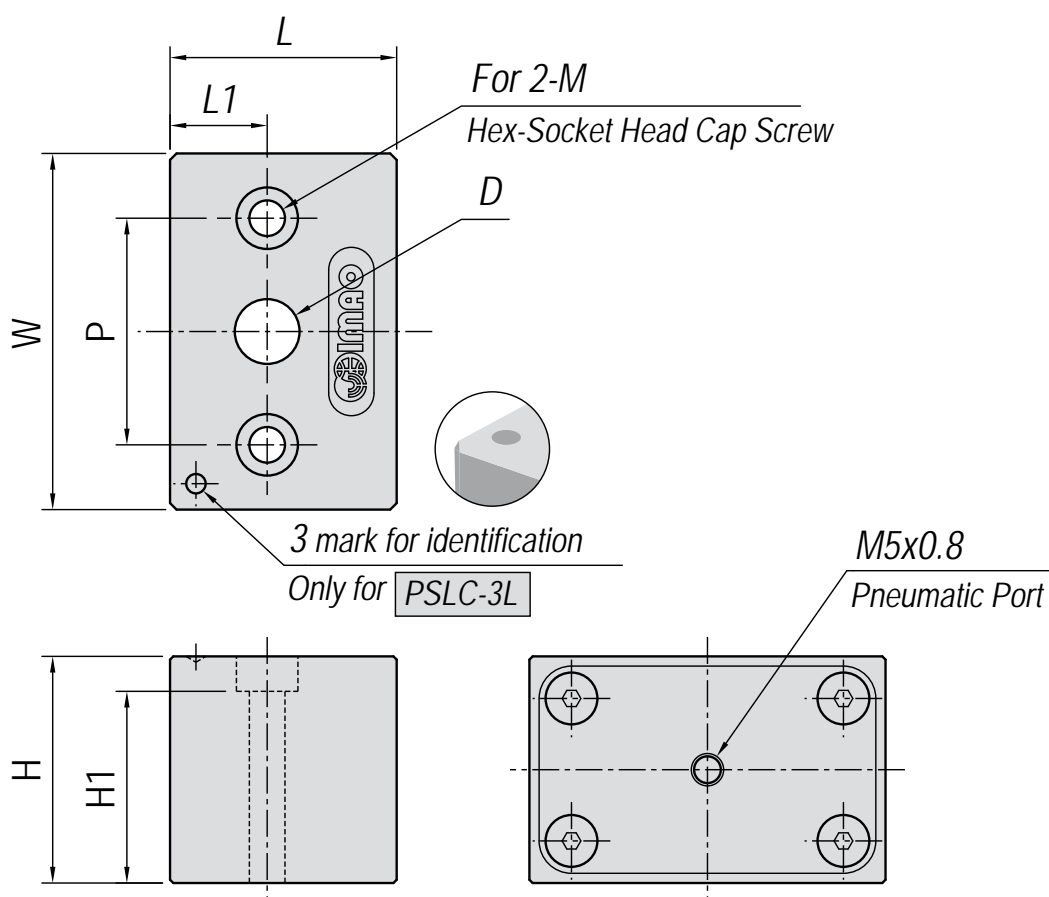


(Single Acting)

★Key Point

For automation of shaft locking.
Low pressure type also available.

Body, Clamp Shaft	Cover
A5052 aluminum Anodized	SUS304 stainless steel



Part Number		d	L ₁	L	W	H	M	H ₁	P	Weight (g)	Suitable shaft dia. (h11)
Low Pressure Type	Standard Type										
PSLC08-3L	PSLC08-5L	8	14	35	55	35	M5	29.5	35	220	φ 8
PSLC10-3L	PSLC10-5L	10									φ 10
PSLC12-3L	PSLC12-5L	12									φ 12
PSLC16-3L	PSLC16-5L	16	15	40	63	40	M6	33.5	45	300	φ 16
PSLC20-3L	PSLC20-5L	20								290	φ 20

Feature

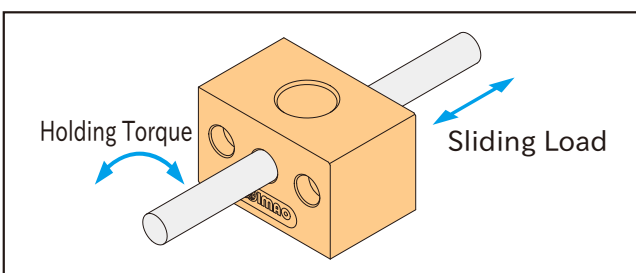
- Spring clamping and pneumatic unclamping mechanism prevents the decrease of clamping force by air leakage.
- Available for remote and multiple operations.
- Perfect for use in limited space.
- **PSLC-3L** type can be used with 0.3 MPa air pressure.

Note

- Clamping/unclamping operations must be performed with the shaft not in motion. Cannot be used as a brake of a moving shaft.
- Do not force the clamped shaft to move.
- Do not operate frequently without the shaft.
- Manual unclamping is not possible.
- The $\phi 3$ identification mark is used to distinguish **PSLC-3L** from **PSLC-5L**.

Technical Information

Part Number	Operating Air Pressure (MPa)	Holding Torque (N·m)	Sliding Load (N)
PSLC08-3L	0.3~0.7	0.2	50
PSLC10-3L		0.3	60
PSLC12-3L		0.4	
PSLC16-3L		0.7	80
PSLC20-3L		0.9	
PSLC08-5L	0.5~0.7	0.4	90
PSLC10-5L		0.5	100
PSLC12-5L		0.6	
PSLC16-5L		1.2	140
PSLC20-5L		1.5	

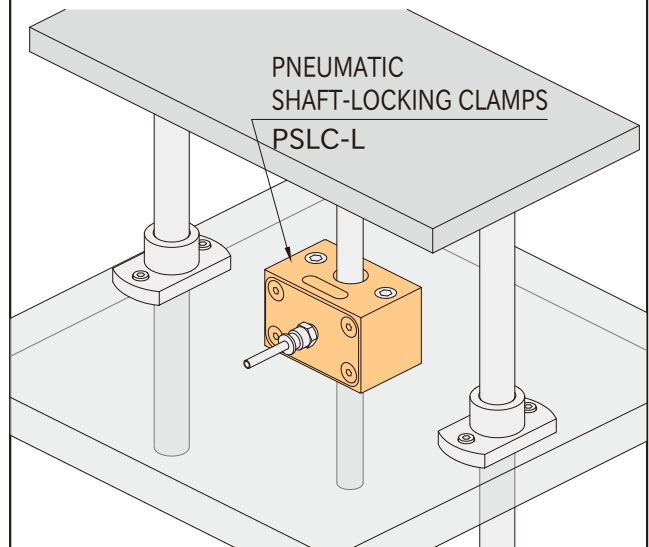


Application Example

- Three-way valves are recommended.
- Use bushings or bearings with the unit as needed.

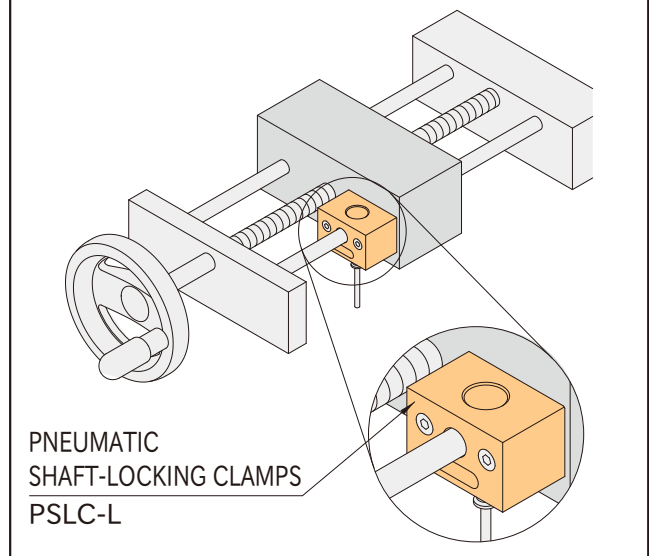
Sliding shaft locking

Lock for position adjustment



Sliding shaft locking

Slip prevention from backlash of linear slides



PSLC-M, PSLC-M-S PNEUMATIC SHAFT LOCKING CLAMPS



PSLC-M

(Standard, Single Acting)



PSLC-M-S

(Sensor Mountable, Single Acting)

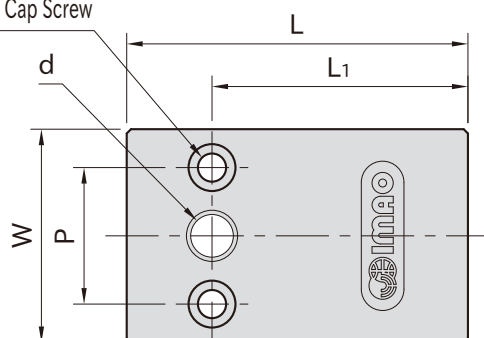
★Key Point

For automation of shaft locking.
Usable with sensors.

Body	Cover	Clamping Shaft
A5052 aluminum Anodized	A5056 aluminum Anodized	S45C steel Electroless nickel plated

For 2-M

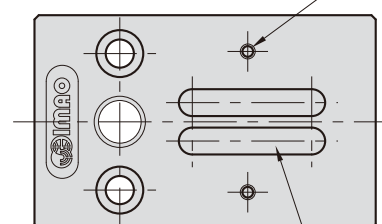
Hex-Socket Head Cap Screw



PSLC-M

(Standard, Single Acting)

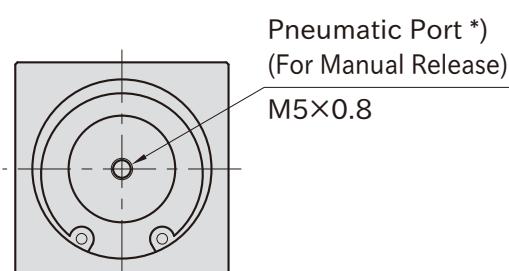
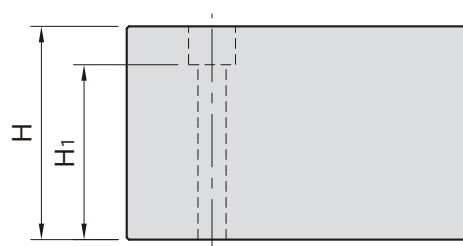
2-M3×0.5 Mounting Hole
for Sensor Brackets



Slots for Magnetic Sensors

PSLC-M-S

(Sensor Mountable, Single Acting)



Pneumatic Port *)
(For Manual Release)
M5×0.8

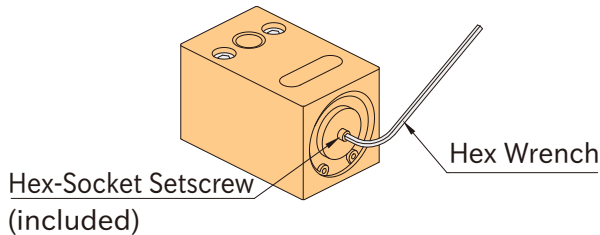
*) Delivered with the setscrew installed.
See the Feature section for details.

Part Number		d	L ₁	L	W	H	M	H ₁	P	Weight (g)	Suitable shaft dia. (h7,g6,f8) **)
Standard Type	Sensor Mountable Type										
PSLC10-3M	PSLC10-3M-S	10	60	80	50	50	M 6	41	32	530	φ 10
PSLC12-3M	PSLC12-3M-S	12								520	φ 12
PSLC16-3M	PSLC16-3M-S	16	70	95	63	63	M 8	53	42	1000	φ 16
PSLC20-3M	PSLC20-3M-S	20									φ 20
PSLC25-3M	PSLC25-3M-S	25	95	130	80	80	M10	65	56	2310	φ 25
PSLC30-3M	PSLC30-3M-S	30									φ 30

**) Recommended shaft: Heat treated (over HRC50) or hard chrome plated (over HV750, over 10 μm thickness)

Feature

- Spring clamping and pneumatic unclamping mechanism prevents the decrease of clamping force by air leakage.
- Available for remote and multiple operations.
- **PSLC-M-S** type can be used in combination with sensors to detect the clamping condition. The sensors must be supplied separately by customer.
- For details on applicable sensors and installation details, refer to **PSLC-M-SB**.
- Can be unclamped manually. The clamp can be released without air supply by fully tightening the setscrew into the manual unclamping hole.
- A setscrew is attached to the pneumatic port for shipping. Remove the setscrew for air supply.

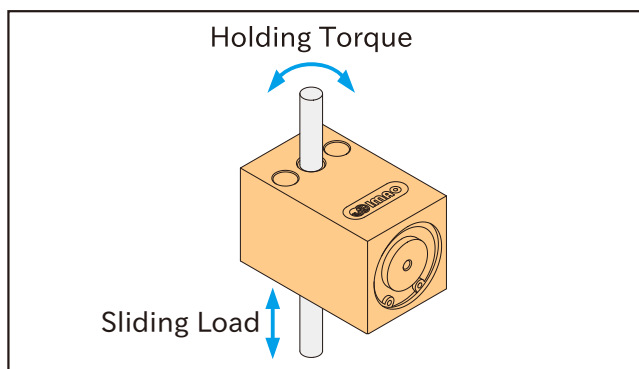


Note

- Clamping/unclamping operations must be performed with the shaft not in motion. Cannot be used as a brake of a moving shaft.
- Do not force the clamped shaft to move.
- Do not operate frequently without the shaft.

Technical Information

Size	Operating Air Pressure (MPa)	Holding Torque (N·m)	Sliding Load (N)
PSLC-M PSLC-M-S	0.3~0.7	6	800
		9	
		21	1600
		23	
		35	2200
		40	



Supplied With

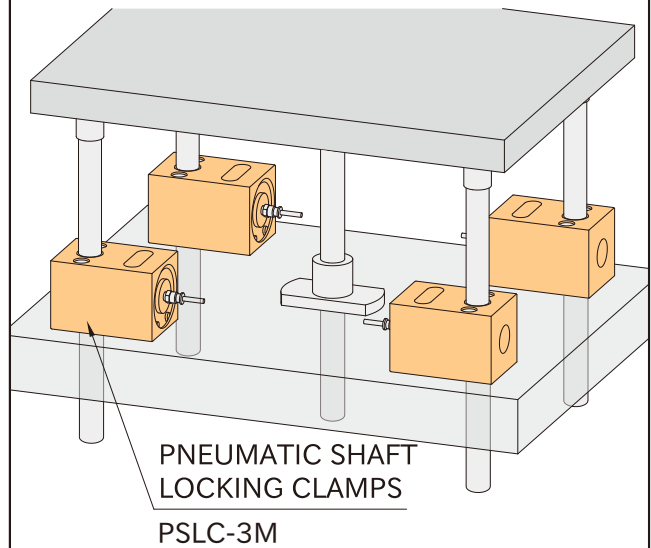
1 of hex. socket setscrew

Application Example

- Three-way valves are recommended.
- Use bushings or bearings with the unit as needed.

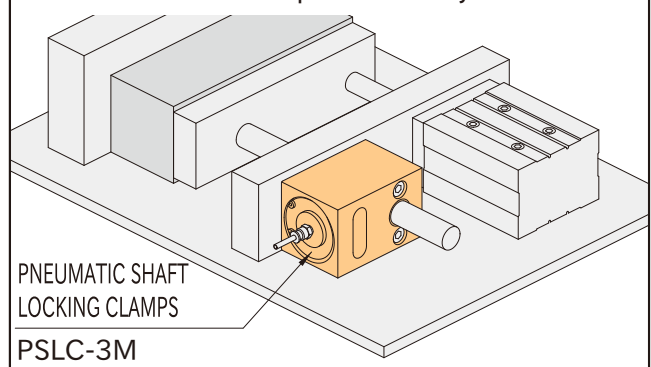
Sliding shaft locking

Vertical lock for elevator table



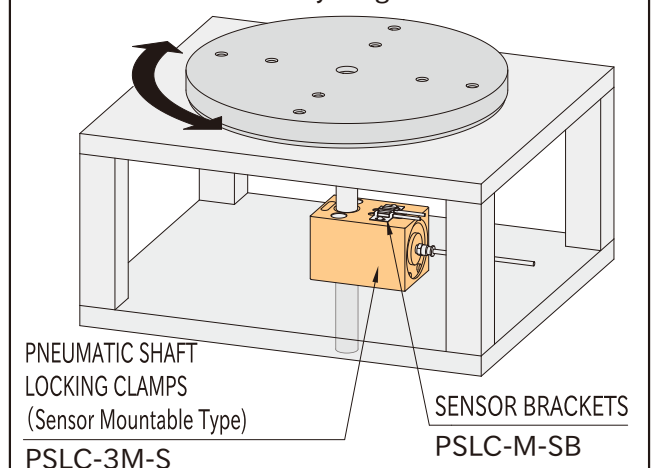
Sliding shaft locking

Horizontal lock with pneumatic cylinder



Spindle locking

Rotation lock for rotary stages

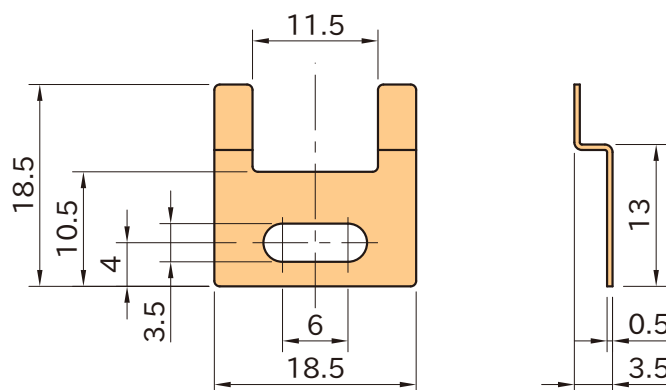
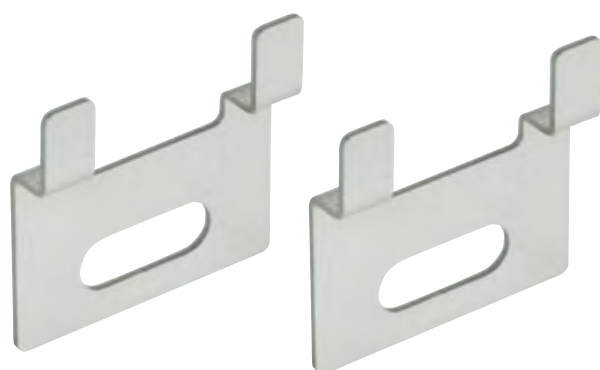


Reference

PSLC-M-SB Sensor Brackets

PSLC-M-SB

SENSOR BRACKETS



(sold in pairs)

Body
SUS304 stainless steel

Part Number	Weight (g)	Applicable Sensor *)
PSLC-M-SB	3	ACH01S, ACH01N

*) Magnetic Proximity Sensors manufactured by ASA ELECTRONICS INDUSTRY CO., LTD.
L-shaped sensors cannot be used with these brackets.
Please refer to their catalog for details of sensors.

Feature

- Clamping conditions can be detected by using applicable sensors.
- Sensor must be supplied separately by the customer.

How To Use

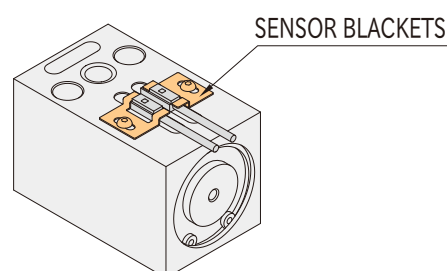
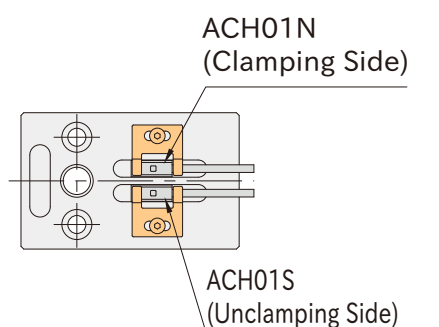
- Remove the screws from the sensor cases with a slotted screwdriver and fix the sensors to Pneumatic Shaft-Locking Clamps using **PSLC-M-SB** Sensor Brackets.
- Be sure to use 1 pc. each of ACH01S (S pole) and ACH01N (N pole).
- Adjust the detecting positions by mounting sensors of S and N poles as shown below.

Supplied With

2 of M3x0.5-5L Hex socket button head screw

Reference

PSLC-M-S PNEUMATIC SHAFT LOCKING CLAMPS (Sensor Mountable)



Magnetic sensor detects piston position and determines clamping condition.



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