

Pin Clamp Cylinders

Compact Cylinder Type C(L)KQG32

Magnetic field resistant auto switch mounting type

LOW type (-X2081)

HIGH type (-X2082)

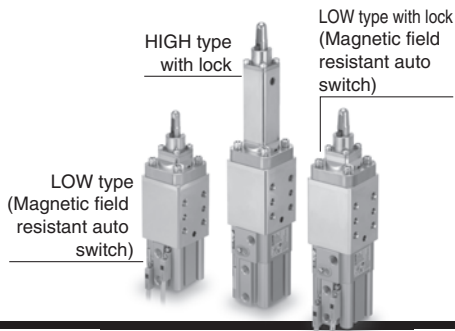
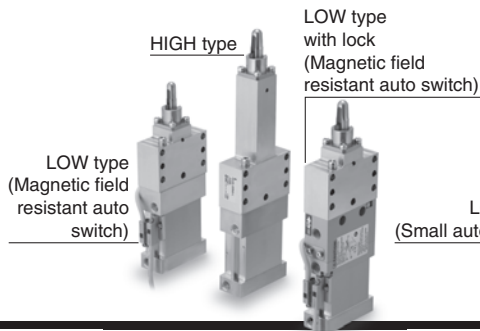


Plate Cylinder Type C(L)KU32

Magnetic field resistant auto switch mounting type

LOW type (-X2091)

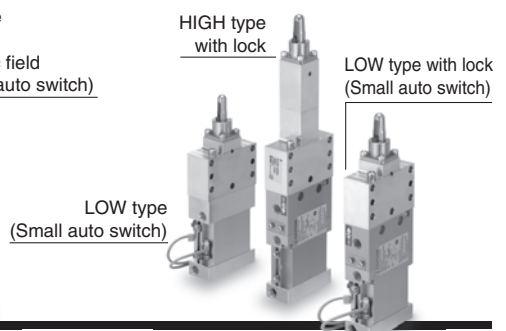
HIGH type (-X2092)



New Small auto switch mounting type

LOW type (-X2321)

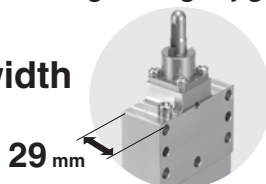
HIGH type (-X2322)



Added $\phi 32$ pin clamp cylinder

- Compact design makes it applicable to a broad range of workpieces
- Contributes to a lightweight jig

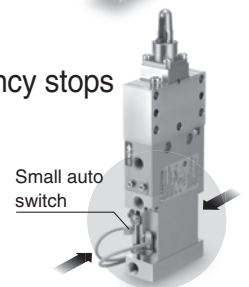
29 mm width



New All types with lock

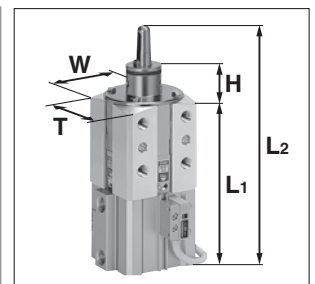
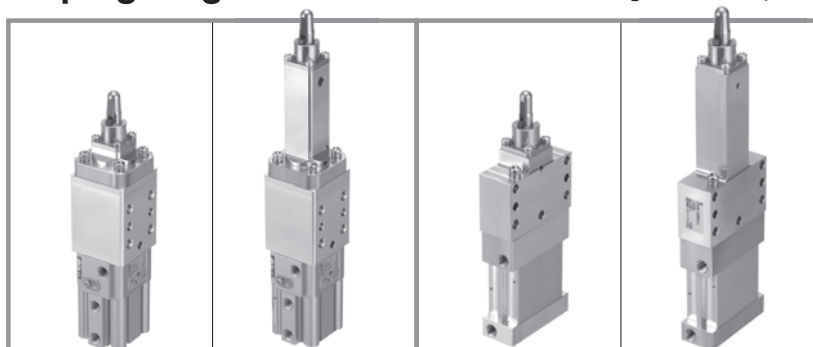
- Holds a workpiece during emergency stops

New Plate cylinder type with small auto switch



New Newly added guide pins and a diamond shape option (available for $\phi 10$ or more) for workpieces with $\phi 9$, $\phi 11$ and $\phi 13$ hole diameters.

2 types of clamping heights can be selected Height: 30 mm (LOW type), 100 mm (HIGH type)



(mm)

Model	C(L)KQG32 Compact cylinder type (Guide pin diameter: $\phi 12$)		C(L)KU32 Plate cylinder type (Guide pin diameter: $\phi 12$)		C(L)KQG50 (Guide pin diameter: $\phi 13$)	
Clamping height	LOW type	HIGH type	LOW type	HIGH type	LOW type	HIGH type
Clamping height H	30	100	30	100	24	54
Body thickness T	50		29		66	
Body width W	50		70		66	
Body length L1	127 (159)		132.5 (160)		147.5 (182.5)	
Overall length L2	183 (215)	253 (295)	118.5 (216)	258.5 (286)	204.5 (239.5)	234.5 (269.5)
Weight (g)	900 (1140)	1110 (1350)	740 (950)	910 (1120)	1670 (2190)	1840 (2350)

* Values in () for specification with lock

Pin Clamp Cylinders

Series **C(L)KQG32/C(L)KU32**

New

■ Added diamond type to guide pin shapes

- Applicable hole diameter of workpiece for $\varnothing 10$ to $\varnothing 20$

New

■ Magnetic field resistant auto switch and small auto switch available

- Magnetic field resistant auto switch: D-P3DW

Target model

C(L)KQG32 type (-X2081/-X2082)

C(L)KU32 type (-X2091/-X2092)

D-P4DW also available for C(L)KQG32 type only.

(Order separately)

Refer to page 25.

New

■ Lock mechanism to prevent dropping of workpiece during emergency stops

- Solid state auto switch:

D-M9□V/D-M9□WV

- Reed auto switch:

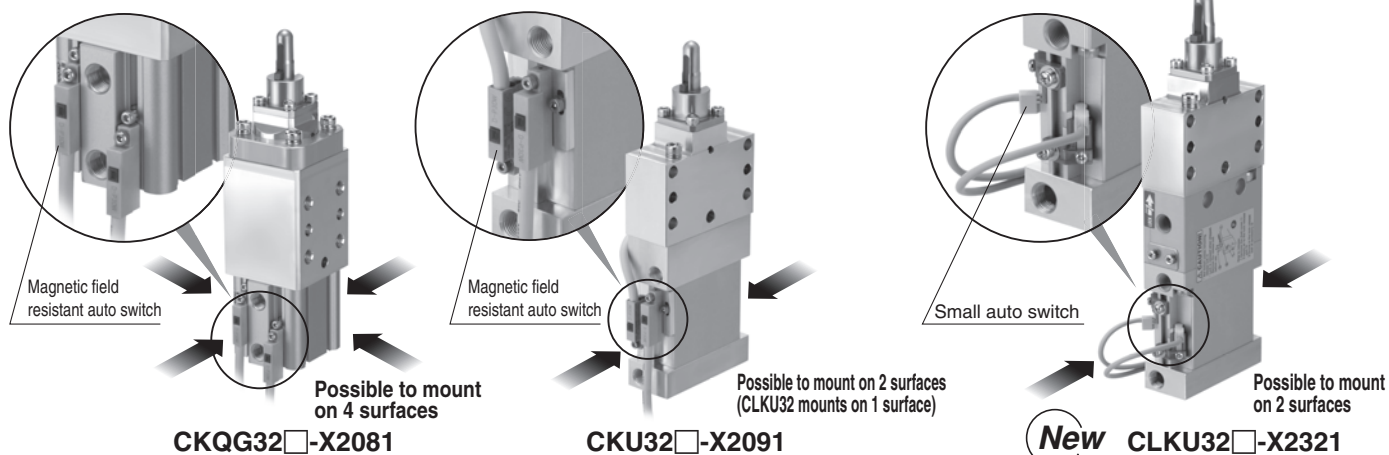
D-A73/D-A79W

Target model

C(L)KU32 type

(-X2321/-X2322 only)

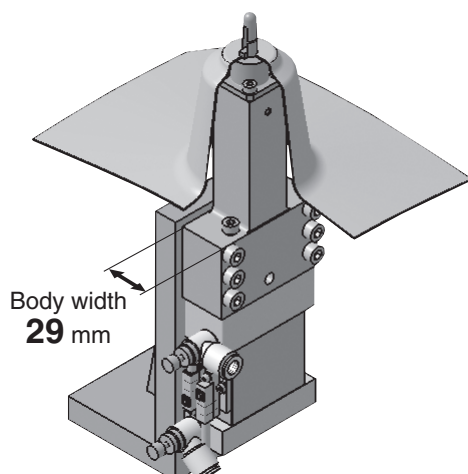
⚠ Cannot be used under strong magnetic field.



Application Examples

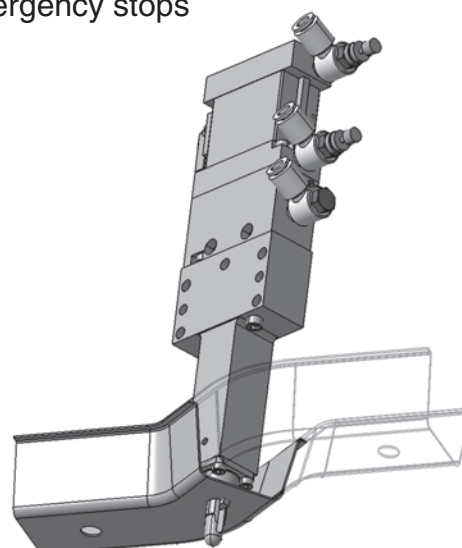
CKU32 (Plate cylinder type)

- Compatible with installing in narrow spaces
- For clamping small and lightweight workpiece, etc.



CLKU32 (Plate cylinder type with lock)

- Unclamp direction locking
- Drop prevention for workpiece during emergency stops



Pin Clamp Cylinder Compact Cylinder Type

Series C(L)KQG32

How to Order

Clamping height LOW type

Clamping height HIGH type

C L K Q G B 32 - 075 R A L - C - X2081

C L K Q G B 32 - 075 R A H - C - X2082

Number of auto switches

Nil	2 pcs.
S	1 pc. (Unclamping side)

With lock

Nil	Without lock
L	With lock

Bore size

32	32 mm
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Guide pin diameter

* For guide pin diameter, refer to Table 1 below.

Guide pin shape

R	Round type	D	Diamond type
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Mounting surface position (viewed from top)

Symbol	Mounting surface position
A	
B	
C	
D	

Auto switch type

Nil	Without auto switch (Built-in magnet)
C	D-P3DWSC
E	D-P3DWSE
N	D-P3DW
L	D-P3DWL
Z	D-P3DWZ

* Auto switches and mounting brackets are shipped together, (but not assembled).
 * Refer to the table below for the applicable auto switches.
 * When the total thickness of clamped workpiece is over 2 mm, the auto switch may not be adjusted to the most sensitive position.
 * Secure the minimum bending radius of the auto switch lead wire before use (Refer to page 24).

Clamp arm position (clockwise viewed from top)

Symbol	Clamp arm position	Symbol	Clamp arm position
A	Same as the port side 	C	180° from the port side
B	90° from the port side 	D	270° from the port side

Table 1. Guide Pin Diameter

Symbol	075	076	077	078	079	080	085	086	087	088	089	090	095	096	097	098	099	100	105	106	107	108	109	110
Guide pin diameter [mm]	7.5	7.6	7.7	7.8	7.9	8.0	8.5	8.6	8.7	8.8	8.9	9.0	9.5	9.6	9.7	9.8	9.9	10.0	10.5	10.6	10.7	10.8	10.9	11.0
Applicable hole diameter of workpiece [mm]	For ø8					For ø9							For ø10					For ø11						
Guide pin shape	Round type												Round type/Diamond type											

Symbol	115	116	117	118	119	120	125	126	127	128	129	130	135	136	137	138	139	140	145	146	147	148	149	150
Guide pin diameter [mm]	11.5	11.6	11.7	11.8	11.9	12.0	12.5	12.6	12.7	12.8	12.9	13.0	13.5	13.6	13.7	13.8	13.9	14.0	14.5	14.6	14.7	14.8	14.9	15.0
Applicable hole diameter of workpiece [mm]	For ø12					For ø13							For ø14					For ø15						
Guide pin shape	Round type/Diamond type																							

Symbol	155	156	157	158	159	160	175	176	177	178	179	180	195	196	197	198	199	200	
Guide pin diameter [mm]	15.5	15.6	15.7	15.8	15.9	16.0	17.5	17.6	17.7	17.8	17.9	18.0	19.5	19.6	19.7	19.8	19.9	20.0	
Applicable hole diameter of workpiece [mm]	For ø16					For ø18							For ø20						
Guide pin shape	Round type/Diamond type																		

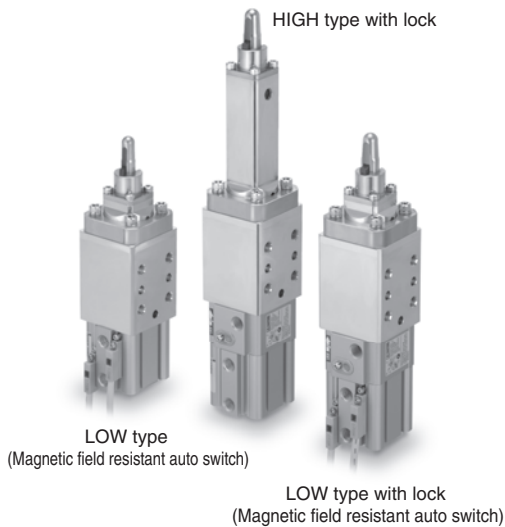
Applicable Auto Switches/Refer to the D-P3DW□ series catalog (CAT.ES20-201) for further information on auto switches.

Applicable Auto Switches (refer to the D-P3DW series catalog (CAT.ES25-ES27) for further information on auto switches).								
Type	Auto switch model	Applicable magnetic field	Electrical entry	Indicator light	Wiring (Pin no. in use)	Load voltage	Lead wire length	Applicable load
Solid state auto switch	D-P3DWSC	AC magnetic field (Single-phase AC welding magnetic field)	Pre-wired connector	2-color indication	2-wire (3-4)	24 VDC	0.3 m	Relay, PLC ^{Note 1)}
	D-P3DWSE		2-wire (1-4)		0.5 m			
	D-P3DW		Grommet		2-wire		3 m	
	D-P3DWL						5 m	
	D-P3DWZ							

Note 1) PLC: Programmable Logic Controller

Note 2) There are applicable auto switches other than the listed above. For details, refer to page 25.

Series C(L)KQG32



Basic Specifications

Model			C(L)KQG32
Action			Double acting
Bore size (mm)			32
Cylinder stroke/Clamp stroke (mm)			12.5 (Without workpiece)/10
Fluid			Air
Minimum operating pressure			CKQ□: 0.1 MPa CLKQ□: 0.15 MPa*
Maximum operating pressure	Guide pin diameter (mm)	ø7.5 to ø13.0	0.7 MPa
		ø13.5 to ø20.0	1.0 MPa
Ambient and fluid temperature			−10 to 60°C (No freezing)
Cushion			None
Lubrication			Non-lube
Piston speed (Clamp speed)			50 to 150 mm/sec
Port size (Cylinder port)			Rc1/8

* Minimum operating pressure is 0.2 MPa when cylinder part and locking part use the same piping.

Lock Specifications

Locking action	Spring locking (Exhaust locking)
Unlocking pressure	0.2 MPa
Lock starting pressure	0.05 MPa
Locking direction	Unclamp direction locking
Port size (Lock release port)	Rc1/8
Holding force (Maximum static load)	402 N

Clamping Force

Model	Guide pin diameter (mm)	Operating pressure (MPa)									(N)
		0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	
C(L)KQG32	ø7.5 to ø13.0	121	181	241	302	362	422	—	—	—	
	ø13.5 to ø20.0	121	181	241	302	362	422	483	543	603	

Note 1) It takes approximately 0.3 seconds for the cylinder to operate to generate clamping force from an unclamping state (when no speed controller is installed). Design circuit taking into consideration the time before the clamping force is generated.

Note 2) Determine the clamping force according to the strength of the workpiece. It can be damaged if the clamping force is too large.

Note 3) Guide pins and clamp arms are consumable items. Please prepare spare parts in case they are damaged. It is recommended to prepare spare parts for guide pins and clamp arms, especially for products used in workpieces with ø12 or less hole diameters.

Clamp Specifications

Model	C(L)KQG32
Clamp stroke	10 mm
Clamp arm	1 pc.
Guide pin shape	Round type/Diamond type

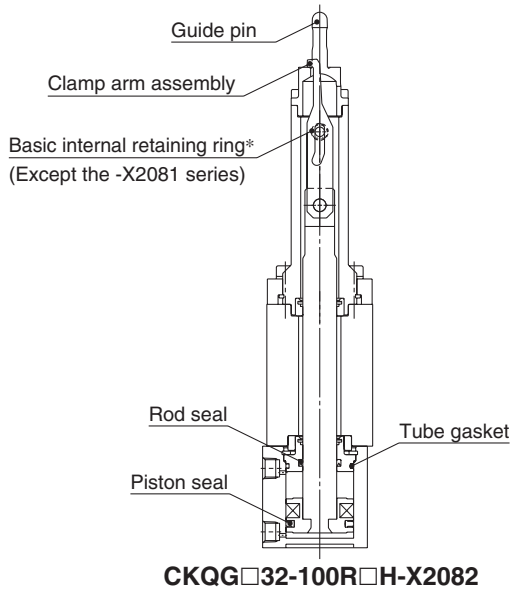
* Refer to the above "Clamping Force" for detailed specifications of the clamping force, etc.

Weight

Model		CKQG32		CLKQG32	
		-X2081	-X2082	-X2081	-X2082
Guide pin diameter (mm)	ø7.5 to ø8.0	900	1110	1140	1350
	ø8.5 to ø9.0				
	ø9.5 to ø10.0				
	ø10.5 to ø11.0				
	ø11.5 to ø12.0				
	ø12.5 to ø13.0	940	1150	1180	1390
	ø13.5 to ø14.0				
	ø14.5 to ø15.0				
	ø15.5 to ø16.0	950	1160	1190	1400
	ø17.5 to ø18.0				
	ø19.5 to ø20.0				

Unit: g

Replacement Parts



■ Seal Kit (For type without lock only)

Kit No.	Contents
CQ2B32-PS	① Piston seal ② Rod seal ③ Tube gasket

* Seal kit includes ①, ②, ③. Since the seal kit does not include a grease pack, order the "Grease Pack" below separately.

* CLKQ cannot be disassembled and therefore no seal kit is available.

■ Grease Pack

Kit No.	Contents
GR-S-010	Grease 10 g

* Consult with SMC when replacing the actuating cylinders.

■ Guide Pin Order No.

CKQG32X-075 R

Guide pin diameter

* Refer to Table 1 (Symbol 2) below

Guide pin shape

	Round type	Diamond type
R		

■ Clamp Arm Assembly Order No.

CKQG32X-08 B

Applicable hole diameter of workpiece

* Refer to Table 1 (Symbol 1) below

Clamp arm assembly

* The clamp arm includes a basic internal retaining ring.

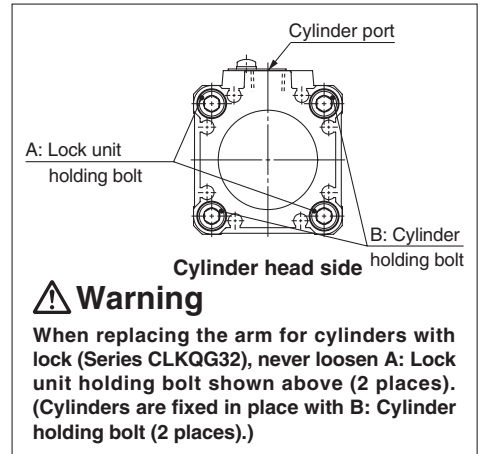


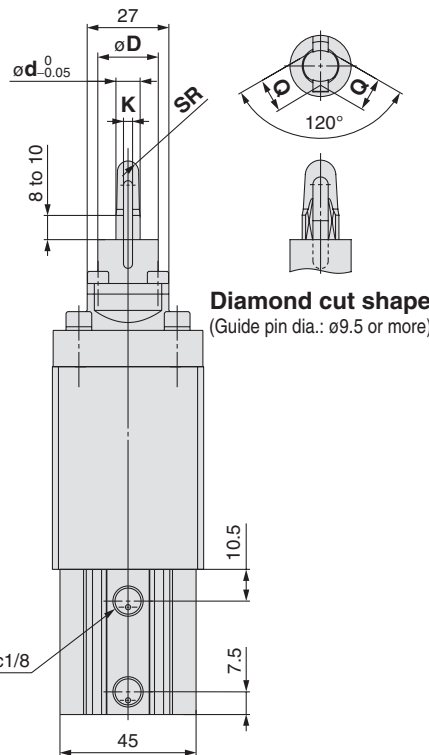
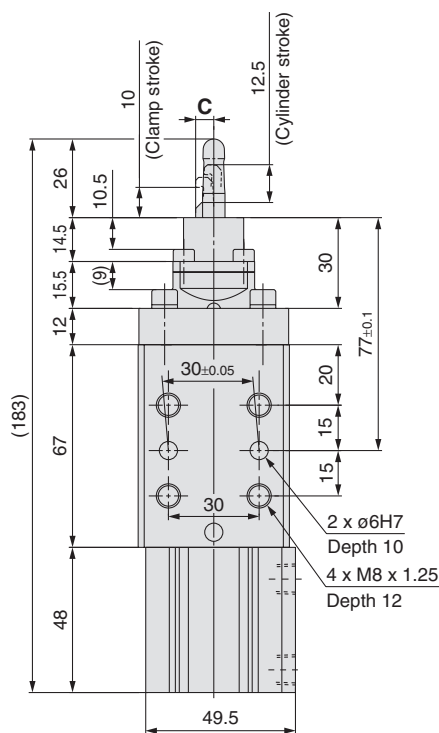
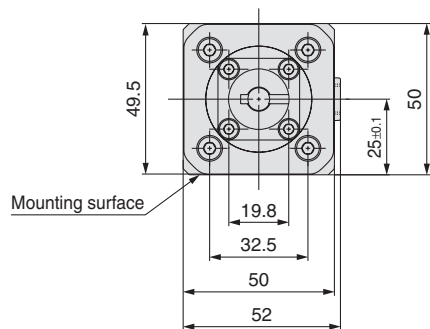
Table 1. Guide Pin Diameter/Applicable Hole Diameter of Workpiece

Symbol 1	Applicable hole diameter of workpiece	Symbol 2	Guide pin diameter	Shape	Symbol 1	Applicable hole diameter of workpiece	Symbol 2	Guide pin diameter	Shape	Symbol 1	Applicable hole diameter of workpiece	Symbol 2	Guide pin diameter	Shape
08	8	075	7.5	Round type	12	12	115	11.5	Round type	16	16	155	15.5	Round type
		076	7.6				116	11.6				156	15.6	
		077	7.7				117	11.7				157	15.7	
		078	7.8				118	11.8				158	15.8	
		079	7.9				119	11.9				159	15.9	
		080	8.0				120	12.0				160	16.0	
09	9	085	8.5	Round type	13	13	125	12.5	Round type	18	18	175	17.5	Round type
		086	8.6				126	12.6				176	17.6	
		087	8.7				127	12.7				177	17.7	
		088	8.8				128	12.8				178	17.8	
		089	8.9				129	12.9				179	17.9	
		090	9.0				130	13.0				180	18.0	
10	10	095	9.5	Round type	14	14	135	13.5	Diamond type	20	20	195	19.5	Diamond type
		096	9.6				136	13.6				196	19.6	
		097	9.7				137	13.7				197	19.7	
		098	9.8				138	13.8				198	19.8	
		099	9.9				139	13.9				199	19.9	
		100	10.0				140	14.0				200	20.0	
11	11	105	10.5	Diamond type	15	15	145	14.5						
		106	10.6				146	14.6						
		107	10.7				147	14.7						
		108	10.8				148	14.8						
		109	10.9				149	14.9						
		110	11.0				150	15.0						

Series C(L)KQG32

Dimensions

CKQG□32 (Clamping height LOW type) * The figures below indicate the CKQGB32-□RCL-X2081.



Mounting surface position

A	
B	
C	
D	

Clamp arm position

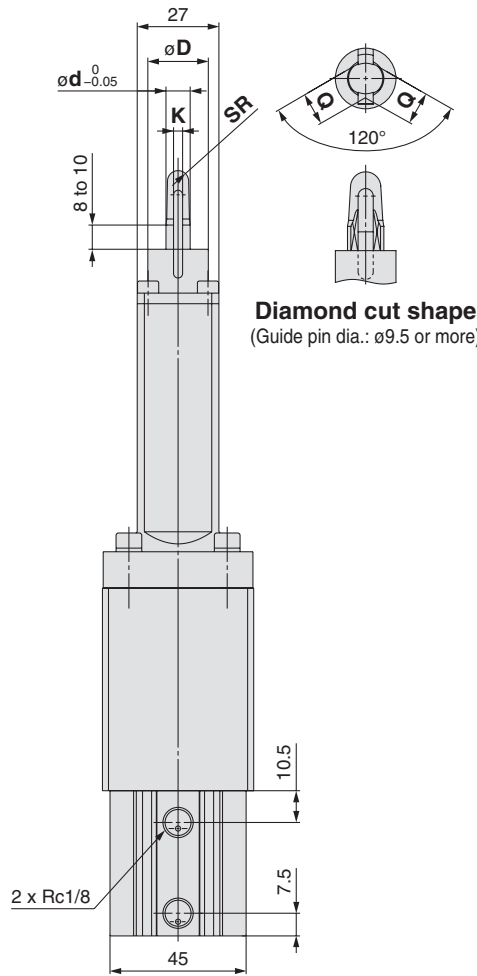
A	Same as the port side
B	90° from the port side
C	180° from the port side
D	270° from the port side

Hole diameter of workpiece	C	D	d	K	SR	Q	Model number
ø8	6	20	7.5	3.5	3.5	—	075
			7.6				076
			7.7				077
			7.8				078
			7.9				079
			8.0				080
			8.5				085
ø9	6.5	20	8.6	4	4	—	086
			8.7				087
			8.8				088
			8.9				089
			9.0				090
			9.5				095
			9.6				096
ø10	7.5	20	9.7	4	4.5	9.2	097
			9.8				098
			9.9				099
			10.0				100
			10.5				105
			10.6				106
			10.7				107
ø11	7.5	20	10.8	4	4.5	9.8	108
			10.9				109
			11.0				110

Hole diameter of workpiece	C	D	d	K	SR	Q	Model number
ø12	8.5	20	11.5	5	5	10.9	115
			11.6				116
			11.7				117
			11.8				118
			11.9				119
			12.0				120
			12.5				125
ø13	8.5	20	12.6	5	5.5	11.6	126
			12.7				127
			12.8				128
			12.9				129
			13.0				130
			13.5				135
			13.6				136
ø14	10.5	25	13.7	6	5.5	12.6	137
			13.8				138
			13.9				139
			14.0				140
			14.5				145
			14.6				146
			14.7				147
ø15	10.5	25	14.8	6	6	13.3	148
			14.9				149
			15.0				150

Hole diameter of workpiece	C	D	d	K	SR	Q	Model number
ø16	11.5	25	15.5	6	6.5	14.3	155
			15.6				156
			15.7				157
			15.8				158
			15.9				159
			16.0				160
			17.5				175
ø18	13	27	17.6	6	7.5	16.4	176
			17.7				177
			17.8				178
			17.9				179
			18.0				180
			19.5				195
			19.6				196
ø20	13	27	19.7	6	8	17.2	197
			19.8				198
			19.9				199
			20.0				200

CKQG□32 (Clamping height HIGH type) * The figures below indicate the CKQGB32-□RCH-X2082.



A	 Port side Mounting surface
B	 Port side Mounting surface
C	 Mounting surface Port side
D	 Mounting surface Port side

A	Same as the port side
B	90° from the port side
C	180° from the port side
D	270° from the port side

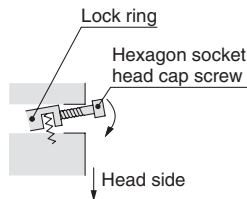
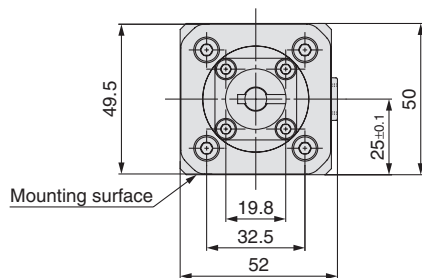
The diagram shows a square valve body with four ports labeled A, B, C, and D. Port A is on the right side, with an arrow pointing to it from the text 'Port side'. Port B is at the bottom, Port C is on the left, and Port D is at the top. A 'Clamp arm' is shown at the top left, pointing towards the valve body.

Hole diameter of workpiece	C	D	d	K	SR	Q	Model number
ø16	11.5	25	15.5	6	6.5	14.3	155
			15.6				156
			15.7				157
			15.8				158
			15.9				159
			16.0				160
ø18	13	27	17.5	6	7.5	16.4	175
			17.6				176
			17.7				177
			17.8				178
			17.9				179
			18.0				180
ø20	13	27	19.5	6	8	17.2	195
			19.6				196
			19.7				197
			19.8				198
			19.9				199
			20.0				200

Series C(L)KQG32

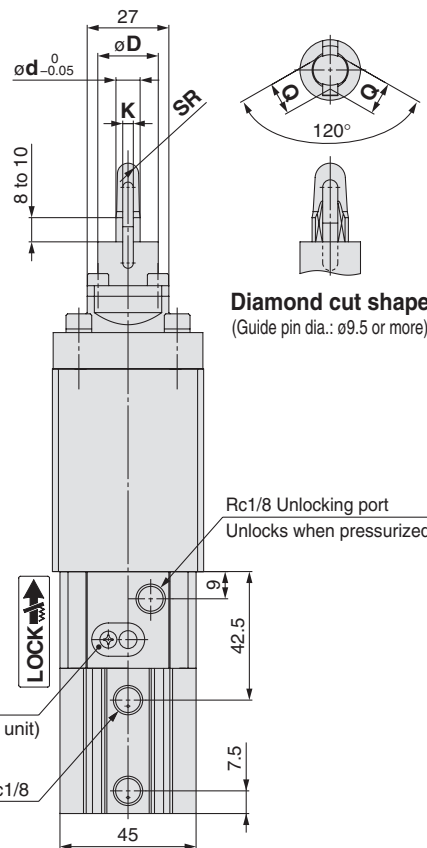
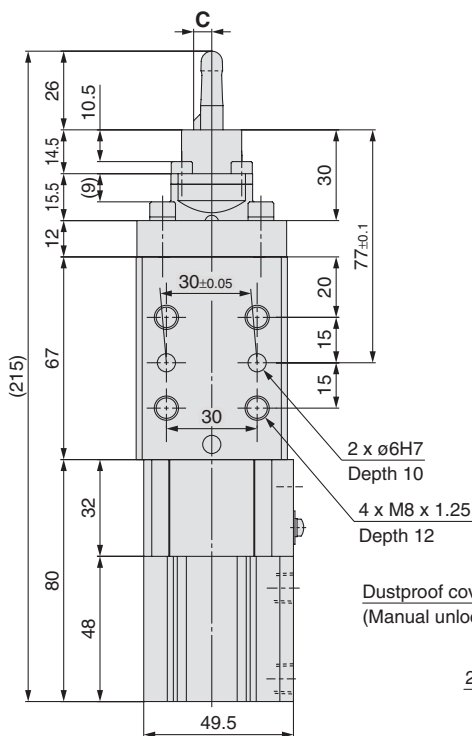
Dimensions

CLKQG□32 (Clamping height LOW type) * The figures below indicate the CLKQGB32-□RCL-X2081.



Manually unlocking

- 1) Remove the dustproof cover.
- 2) Screw the hexagon socket head cap screw (M3 x 15 L or more) into the lock ring shown on the left and raise the lock ring toward the head side.
- 3) The lock ring and piston rod form a right angle, and the lock is released.



Mounting surface position

A	
B	
C	
D	

Clamp arm position

A	Same as the port side
B	90° from the port side
C	180° from the port side
D	270° from the port side

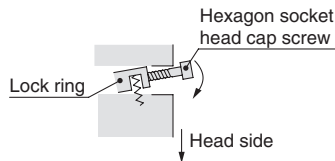
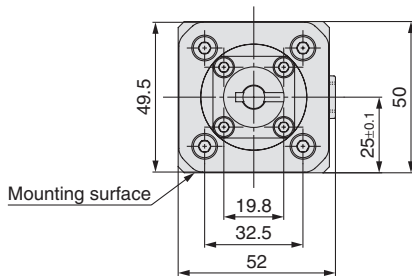
Hole diameter of workpiece	C	D	d	K	SR	Q	Model number
ø8	6	20	7.5	3.5	3.5	—	075
			7.6				076
			7.7				077
			7.8				078
			7.9				079
			8.0				080
ø9	6.5	20	8.5	4	4	—	085
			8.6				086
			8.7				087
			8.8				088
			8.9				089
			9.0				090
ø10	7.5	20	9.5	4	4.5	9.2	095
			9.6				096
			9.7				097
			9.8				098
			9.9				099
			10.0				100
ø11	7.5	20	10.5	4	4.5	9.8	105
			10.6				106
			10.7				107
			10.8				108
			10.9				109
			11.0				110

Hole diameter of workpiece	C	D	d	K	SR	Q	Model number
ø12	8.5	20	11.5	5	5	10.9	115
			11.6				116
			11.7				117
			11.8				118
			11.9				119
			12.0				120
ø13	8.5	20	12.5	5	5.5	11.6	125
			12.6				126
			12.7				127
			12.8				128
			12.9				129
			13.0				130
ø14	10.5	25	13.5	6	5.5	12.6	135
			13.6				136
			13.7				137
			13.8				138
			13.9				139
			14.0				140
ø15	10.5	25	14.5	6	6	13.3	145
			14.6				146
			14.7				147
			14.8				148
			14.9				149
			15.0				150

Hole diameter of workpiece	C	D	d	K	SR	Q	Model number
ø16	11.5	25	15.5	6	6.5	14.3	155
			15.6				156
			15.7				157
			15.8				158
			15.9				159
			16.0				160
ø18	13	27	17.5	6	7.5	16.4	175
			17.6				176
			17.7				177
			17.8				178
			17.9				179
			18.0				180
ø20	13	27	19.5	6	8	17.2	195
			19.6				196
			19.7				197
			19.8				198
			19.9				199
			20.0				200

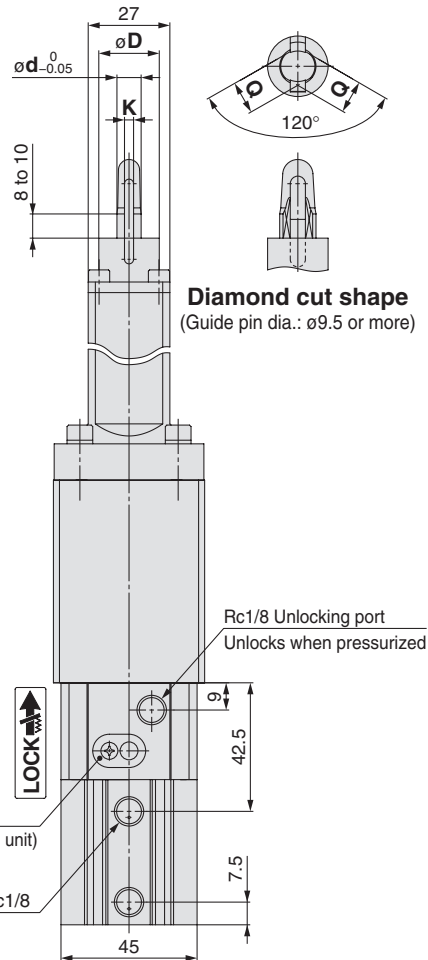
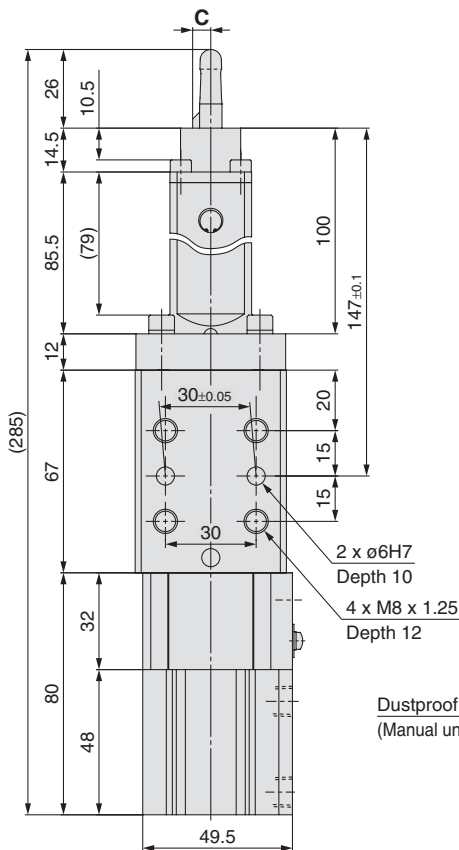
Dimensions

CLKQG□32 (Clamping height HIGH type) * The figures below indicate the CLKQGB32-□RCH-X2082.



Manually unlocking

- 1) Remove the dustproof cover.
- 2) Screw the hexagon socket head cap screw (M3 x 15 L or more) into the lock ring shown on the left and raise the lock ring toward the head side.
- 3) The lock ring and piston rod form a right angle, and the lock is released.



Mounting surface position

A	
B	
C	
D	

Clamp arm position

A	Same as the port side
B	90° from the port side
C	180° from the port side
D	270° from the port side

Hole diameter of workpiece	C	D	d	K	SR	Q	Model number
ø8	6	20	7.5	3.5	3.5	—	075
			7.6				076
			7.7				077
			7.8				078
			7.9				079
			8.0				080
ø9	6.5	20	8.5	4	4	—	085
			8.6				086
			8.7				087
			8.8				088
			8.9				089
			9.0				090
ø10	7.5	20	9.5	4	4.5	9.2	095
			9.6				096
			9.7				097
			9.8				098
			9.9				099
			10.0				100
ø11	7.5	20	10.5	4	4.5	9.8	105
			10.6				106
			10.7				107
			10.8				108
			10.9				109
			11.0				110

Hole diameter of workpiece	C	D	d	K	SR	Q	Model number
ø12	8.5	20	11.5	5	5	10.9	115
			11.6				116
			11.7				117
			11.8				118
			11.9				119
			12.0				120
ø13	8.5	20	12.5	5	5.5	11.6	125
			12.6				126
			12.7				127
			12.8				128
			12.9				129
			13.0				130
ø14	10.5	25	13.5	6	5.5	12.6	135
			13.6				136
			13.7				137
			13.8				138
			13.9				139
			14.0				140
ø15	10.5	25	14.5	6	6	13.3	145
			14.6				146
			14.7				147
			14.8				148
			14.9				149
			15.0				150

Hole diameter of workpiece	C	D	d	K	SR	Q	Model number
ø16	11.5	25	15.5	6	6.5	14.3	155
			15.6				156
			15.7				157
			15.8				158
			15.9				159
			16.0				160
ø18	13	27	17.5	6	7.5	16.4	175
			17.6				176
			17.7				177
			17.8				178
			17.9				179
			18.0				180
ø20	13	27	19.5	6	8	17.2	195
			19.6				196
			19.7				197
			19.8				198
			19.9				199
			20.0				200

Pin Clamp Cylinder Plate Cylinder Type Series *C(L)KU32*

How to Order

Clamping height LOW type

Clamping height HIGH type

C L KU 32 - 075 R A L - C - X2091

C L KU 32 - 075 R A H - C - X2092

With lock

Nil	Without lock
L	With lock

Bore size

32 Equiv. ø32 piston area

Guide pin diameter

* For guide pin diameter, refer to Table 1 below.

Guide pin shape

R Round type



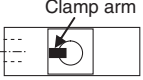
D Diamond type



Clamp arm position (viewed from top)

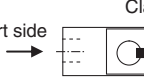
A

Same direction as the port side



B

Opposite direction of the port side



Number of auto switches

Nil	2 pcs.
S	1 pc. (Unclamping side)

Auto switch type

Nil	Without auto switch (Built-in magnet)
C	D-P3DWSC
E	D-P3DWSE
N	D-P3DW
L	D-P3DWL
Z	D-P3DWZ

* Auto switches and mounting brackets are shipped together, (but not assembled).
 * Refer to the table below for the applicable auto switches.
 * When the total thickness of clamped workpiece is over 2 mm, the auto switch may not be adjusted to the most sensitive position.

Table 1. Guide Pin Diameter

Symbol	075	076	077	078	079	080	085	086	087	088	089	090	095	096	097	098	099	100	105	106	107	108	109	110
Guide pin diameter [mm]	7.5	7.6	7.7	7.8	7.9	8.0	8.5	8.6	8.7	8.8	8.9	9.0	9.5	9.6	9.7	9.8	9.9	10.0	10.5	10.6	10.7	10.8	10.9	11.0
Applicable hole diameter of workpiece [mm]	For ø8					For ø9							For ø10					For ø11						
Guide pin shape	Round type												Round type/Diamond type											

Symbol	115	116	117	118	119	120	125	126	127	128	129	130	135	136	137	138	139	140	145	146	147	148	149	150
Guide pin diameter [mm]	11.5	11.6	11.7	11.8	11.9	12.0	12.5	12.6	12.7	12.8	12.9	13.0	13.5	13.6	13.7	13.8	13.9	14.0	14.5	14.6	14.7	14.8	14.9	15.0
Applicable hole diameter of workpiece [mm]	For ø12					For ø13							For ø14					For ø15						
Guide pin shape	Round type/Diamond type																							

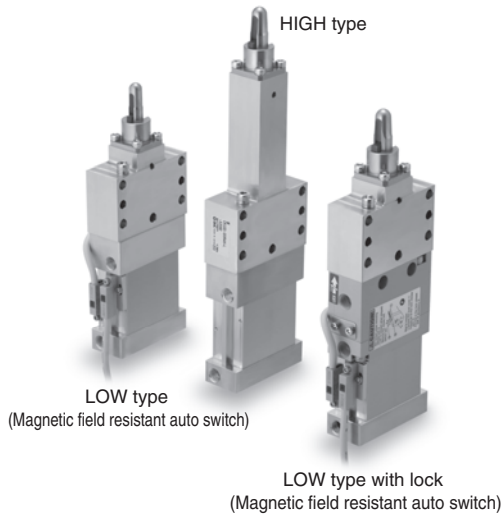
Symbol	155	156	157	158	159	160	175	176	177	178	179	180	195	196	197	198	199	200
Guide pin diameter [mm]	15.5	15.6	15.7	15.8	15.9	16.0	17.5	17.6	17.7	17.8	17.9	18.0	19.5	19.6	19.7	19.8	19.9	20.0
Applicable hole diameter of workpiece [mm]	For ø16					For ø18							For ø20					
Guide pin shape	Round type/Diamond type																	

Applicable Auto Switches/Refer to the D-P3DW□ series catalog (CAT.ES20-201) for further information on auto switches.

Applicable State Switches refer to the D-P3DW series catalog (D-P3DWSC to D-P3DWZ) for further information on auto switches.								
Type	Auto switch model	Applicable magnetic field	Electrical entry	Indicator light	Wiring (Pin no. in use)	Load voltage	Lead wire length	Applicable load
Solid state auto switch	D-P3DWSC	AC magnetic field (Single-phase AC welding magnetic field)	Pre-wired connector	2-color indication	2-wire (3-4)	24 VDC	0.3 m	Relay, PLC ^(Note)
	D-P3DWSE				2-wire (1-4)		0.5 m	
	D-P3DW		Grommet		2-wire		3 m	
	D-P3DWL						5 m	
	D-P3DWZ							

(Note) PLC: Programmable Logic Controller

Basic Specifications



Model	C(L)KU32	
Action	Double acting	
Bore size (mm)	Equivalent to 32	
Cylinder stroke/Clamp stroke (mm)	12.5 (Without workpiece)/10	
Fluid	Air	
Minimum operating pressure	CKU□: 0.1 MPa	CLKU□: 0.15 MPa*
Maximum operating pressure	0.7 MPa	
Ambient and fluid temperature	-10 to 60°C (No freezing)	
Cushion	None	
Lubrication	Non-lube	
Piston speed (Clamp speed)	50 to 150 mm/sec	
Port size (Cylinder port)	Rc1/8	

* Minimum operating pressure is 0.2 MPa when cylinder part and locking part use the same piping.

Lock Specifications

Locking action	Spring locking (Exhaust locking)
Unlocking pressure	0.2 MPa
Locking pressure	0.05 MPa
Locking direction	Unclamp direction locking
Port size (Lock release port)	Rc1/8
Holding force (Maximum static load)	402 N

Clamping Force

Model	Guide pin diameter (mm)	Operating pressure (MPa)						(N)
		0.2	0.3	0.4	0.5	0.6	0.7	
C(L)KU32	ø7.5 to ø20.0	130	195	260	325	390	455	

Note 1) It takes approximately 0.3 seconds for the cylinder to operate to generate clamping force from an unclamping state (when no speed controller is installed). Design circuit taking into consideration the time before the clamping force is generated.

Note 2) Determine the clamping force according to the strength of the workpiece. It can be damaged if the clamping force is too large.

Note 3) Guide pins and clamp arms are consumable items. Please prepare spare parts in case they are damaged. It is recommended to prepare spare parts for guide pins and clamp arms, especially for products used in workpieces with ø12 or less hole diameters.

Clamp Specifications

Model	C(L)KU32
Clamp stroke	10 mm
Clamp arm	1 pc.
Guide pin shape	Round type, Diamond type

* Refer to the above "Clamping Force" for detailed specifications of the clamping force, etc.

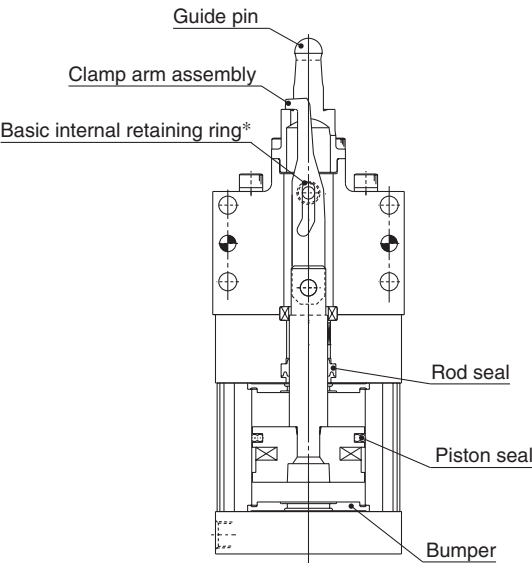
Weight

Unit: g

Model		CKU32		CLKU32	
		-X2091	-X2092	-X2091	-X2092
Guide pin diameter (mm)	ø7.5 to ø8.0	740	910	950	1120
	ø8.5 to ø9.0				
	ø9.5 to ø10.0				
	ø10.5 to ø11.0				
	ø11.5 to ø12.0				
	ø12.5 to ø13.0	780	950	990	1160
	ø13.5 to ø14.0				
	ø14.5 to ø15.0				
	ø15.5 to ø16.0	790	960	1000	1170
	ø17.5 to ø18.0				
ø19.5 to ø20.0					

Series C(L)KU32

Replacement Parts



CKU32-120R□L-X2091

■Guide Pin Order No.

CKQG32X – **075** **R**

Guide pin diameter

* Refer to Table 1 (Symbol 2) below

Guide pin shape

	Round type	Diamond type
R		

■Seal Kit (For type without lock only)

Kit No.	Contents
MUB32-PS	①Piston seal ②Rod seal ③Bumper

* Seal kit includes ①, ②, ③. Since the seal kit does not include a grease pack, order the “Grease Pack” below separately.
* CLKU cannot be disassembled and therefore no seal kit is available.

■Grease Pack

Kit No.	Contents
GR-S-010	Grease 10 g

* Consult with SMC when replacing the actuating cylinders.

■Clamp Arm Assembly Order No.

CKQG32X – **08** **B**

Applicable hole diameter of workpiece

* Refer to Table 1 (Symbol 1) below

Clamp arm assembly

* The clamp arm includes a basic internal retaining ring.

Table 1. Guide Pin Diameter/Applicable Hole Diameter of Workpiece

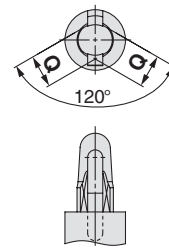
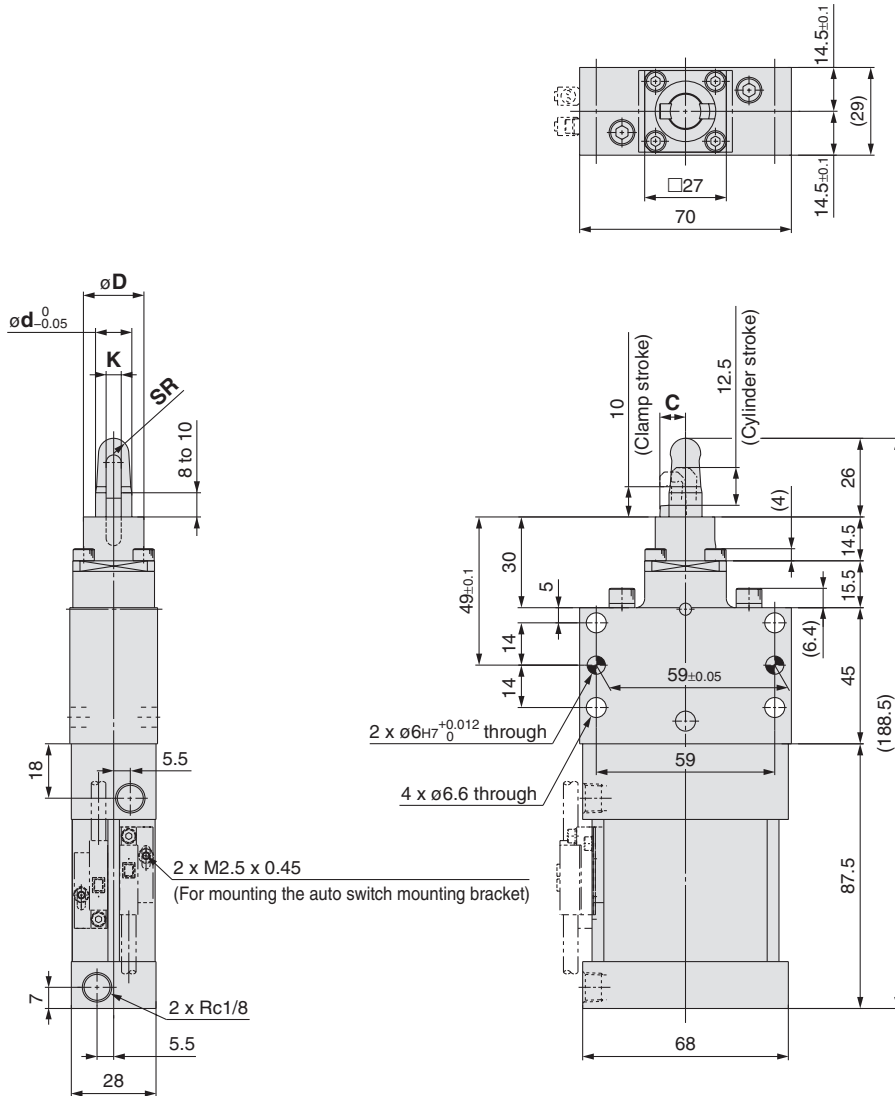
Symbol 1	Applicable hole diameter of workpiece	Symbol 2	Guide pin diameter	Shape	Symbol 1	Applicable hole diameter of workpiece	Symbol 2	Guide pin diameter	Shape	Symbol 1	Applicable hole diameter of workpiece	Symbol 2	Guide pin diameter	Shape
08	8	075	7.5	Round type	12	12	115	11.5	Round type Diamond type	16	16	155	15.5	Round type Diamond type
		076	7.6				116	11.6				156	15.6	
		077	7.7				117	11.7				157	15.7	
		078	7.8				118	11.8				158	15.8	
		079	7.9				119	11.9				159	15.9	
		080	8.0				120	12.0				160	16.0	
09	9	085	8.5	Round type Diamond type	13	13	125	12.5	Round type Diamond type	18	18	175	17.5	Round type Diamond type
		086	8.6				126	12.6				176	17.6	
		087	8.7				127	12.7				177	17.7	
		088	8.8				128	12.8				178	17.8	
		089	8.9				129	12.9				179	17.9	
		090	9.0				130	13.0				180	18.0	
10	10	095	9.5	Round type Diamond type	14	14	135	13.5	Round type Diamond type	20	20	195	19.5	Round type Diamond type
		096	9.6				136	13.6				196	19.6	
		097	9.7				137	13.7				197	19.7	
		098	9.8				138	13.8				198	19.8	
		099	9.9				139	13.9				199	19.9	
		100	10.0				140	14.0				200	20.0	
11	11	105	10.5	Round type Diamond type	15	15	145	14.5	Round type Diamond type	20	20	195	19.5	Round type Diamond type
		106	10.6				146	14.6				196	19.6	
		107	10.7				147	14.7				197	19.7	
		108	10.8				148	14.8				198	19.8	
		109	10.9				149	14.9				199	19.9	
		110	11.0				150	15.0				200	20.0	

Dimensions

CKU32 (Clamping height LOW type)

* Refer to "How to Order" for positional relationship of the mounting surface and port.

* The figures below indicate the CKU32-□RAL-X2091.



Diamond cut shape
(Guide pin dia.: ø9.5 or more)

Clamp arm position

A	Same as the port side
B	Opposite side of the port

Hole diameter of workpiece	C	D	d	K	SR	Q	Model number
ø8	6	20	7.5	3.5	3.5	—	075
			7.6				076
			7.7				077
			7.8				078
			7.9				079
			8.0				080
ø9	6.5	20	8.5	4	4	—	085
			8.6				086
			8.7				087
			8.8				088
			8.9				089
			9.0				090
ø10	7.5	20	9.5	4	4.5	9.2	095
			9.6				096
			9.7				097
			9.8				098
			9.9				099
			10.0				100
ø11	7.5	20	10.5	4	4.5	9.8	105
			10.6				106
			10.7				107
			10.8				108
			10.9				109
			11.0				110

Hole diameter of workpiece	C	D	d	K	SR	Q	Model number
ø12	8.5	20	11.5	5	5	10.9	115
			11.6				116
			11.7				117
			11.8				118
			11.9				119
			12.0				120
ø13	8.5	20	12.5	5	5.5	11.6	125
			12.6				126
			12.7				127
			12.8				128
			12.9				129
			13.0				130
ø14	10.5	25	13.5	6	5.5	12.6	135
			13.6				136
			13.7				137
			13.8				138
			13.9				139
			14.0				140
ø15	10.5	25	14.5	6	6	13.3	145
			14.6				146
			14.7				147
			14.8				148
			14.9				149
			15.0				150

Hole diameter of workpiece	C	D	d	K	SR	Q	Model number
ø16	11.5	25	15.5	6	6.5	14.3	155
			15.6				156
			15.7				157
			15.8				158
			15.9				159
			16.0				160
ø18	13	27	17.5	6	7.5	16.4	175
			17.6				176
			17.7				177
			17.8				178
			17.9				179
			18.0				180
ø20	13	27	19.5	6	8	17.2	195
			19.6				196
			19.7				197
			19.8				198
			19.9				199
			20.0				200

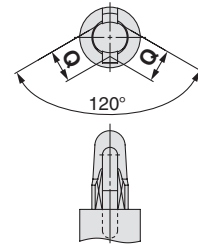
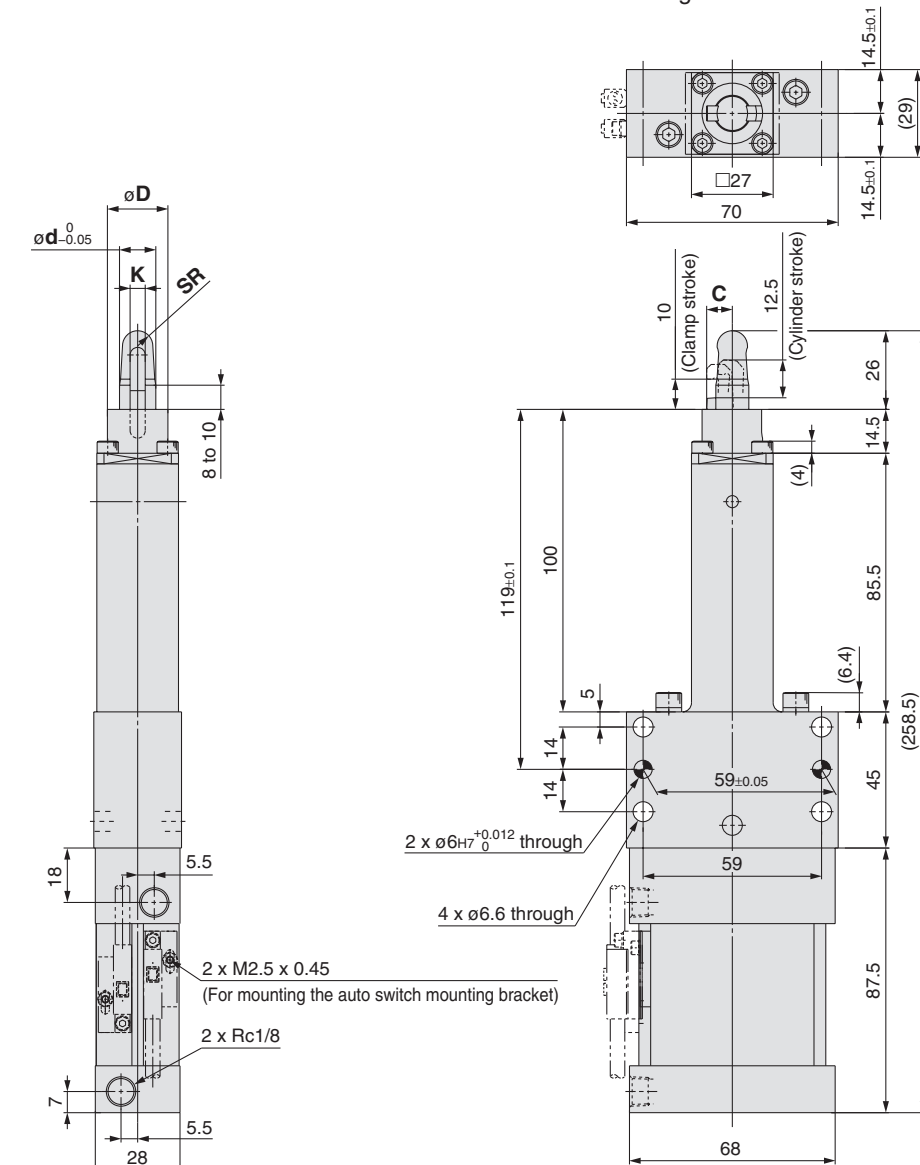
Series C(L)KU32

Dimensions

CKU32 (Clamping height HIGH type)

* Refer to "How to Order" for positional relationship of the mounting surface and port.

* The figures below indicate the CKU32-□RAH-X2092.



Diamond cut shape
(Guide pin dia.: $\phi 9.5$ or more)

Clamp arm position

A	Same as the port side
B	Opposite side of the port

Diagram showing the clamp arm position A and B relative to the port.

Hole diameter of workpiece	C	D	d	K	SR	Q	Model number
$\phi 8$	6	20	7.5	3.5	3.5	—	075
			7.6				076
			7.7				077
			7.8				078
			7.9				079
			8.0				080
$\phi 9$	6.5	20	8.5	4	4	—	085
			8.6				086
			8.7				087
			8.8				088
			8.9				089
			9.0				090
$\phi 10$	7.5	20	9.5	4	4.5	9.2	095
			9.6				096
			9.7				097
			9.8				098
			9.9				099
			10.0				100
$\phi 11$	7.5	20	10.5	4	4.5	9.8	105
			10.6				106
			10.7				107
			10.8				108
			10.9				109
			11.0				110

Hole diameter of workpiece	C	D	d	K	SR	Q	Model number
$\phi 12$	8.5	20	11.5	5	5	10.9	115
			11.6				116
			11.7				117
			11.8				118
			11.9				119
			12.0				120
$\phi 13$	8.5	20	12.5	5	5.5	11.6	125
			12.6				126
			12.7				127
			12.8				128
			12.9				129
			13.0				130
$\phi 14$	10.5	25	13.5	6	5.5	12.6	135
			13.6				136
			13.7				137
			13.8				138
			13.9				139
			14.0				140
$\phi 15$	10.5	25	14.5	6	6	13.3	145
			14.6				146
			14.7				147
			14.8				148
			14.9				149
			15.0				150

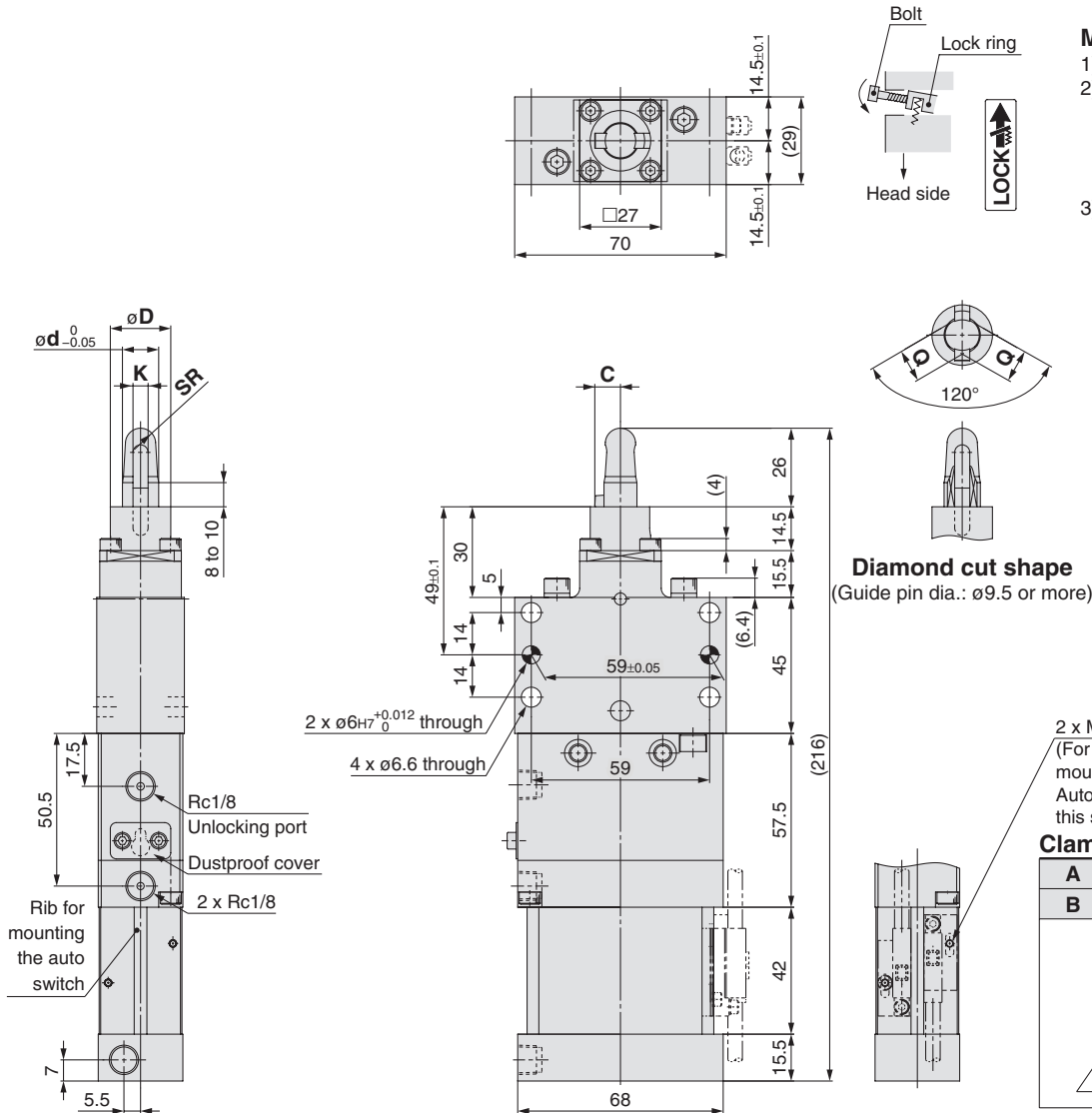
Hole diameter of workpiece	C	D	d	K	SR	Q	Model number
$\phi 16$	11.5	25	15.5	6	6.5	14.3	155
			15.6				156
			15.7				157
			15.8				158
			15.9				159
			16.0				160
$\phi 18$	13	27	17.5	6	7.5	16.4	175
			17.6				176
			17.7				177
			17.8				178
			17.9				179
			18.0				180
$\phi 20$	13	27	19.5	6	8	17.2	195
			19.6				196
			19.7				197
			19.8				198
			19.9				199
			20.0				200

Dimensions

CLKU32 (Clamping height LOW type)

* Refer to "How to Order" for positional relationship of the mounting surface and port.

* The figures below indicate the CLKU32-□RAL-X2091.



Hole diameter of workpiece	C	D	d	K	SR	Q	Model number
$\phi 8$	6	20	7.5	3.5	3.5	—	075
			7.6				076
			7.7				077
			7.8				078
			7.9				079
			8.0				080
$\phi 9$	6.5	20	8.5	4	4	—	085
			8.6				086
			8.7				087
			8.8				088
			8.9				089
			9.0				090
$\phi 10$	7.5	20	9.5	4	4.5	9.2	095
			9.6				096
			9.7				097
			9.8				098
			9.9				099
			10.0				100
$\phi 11$	7.5	20	10.5	4	4.5	9.8	105
			10.6				106
			10.7				107
			10.8				108
			10.9				109
			11.0				110

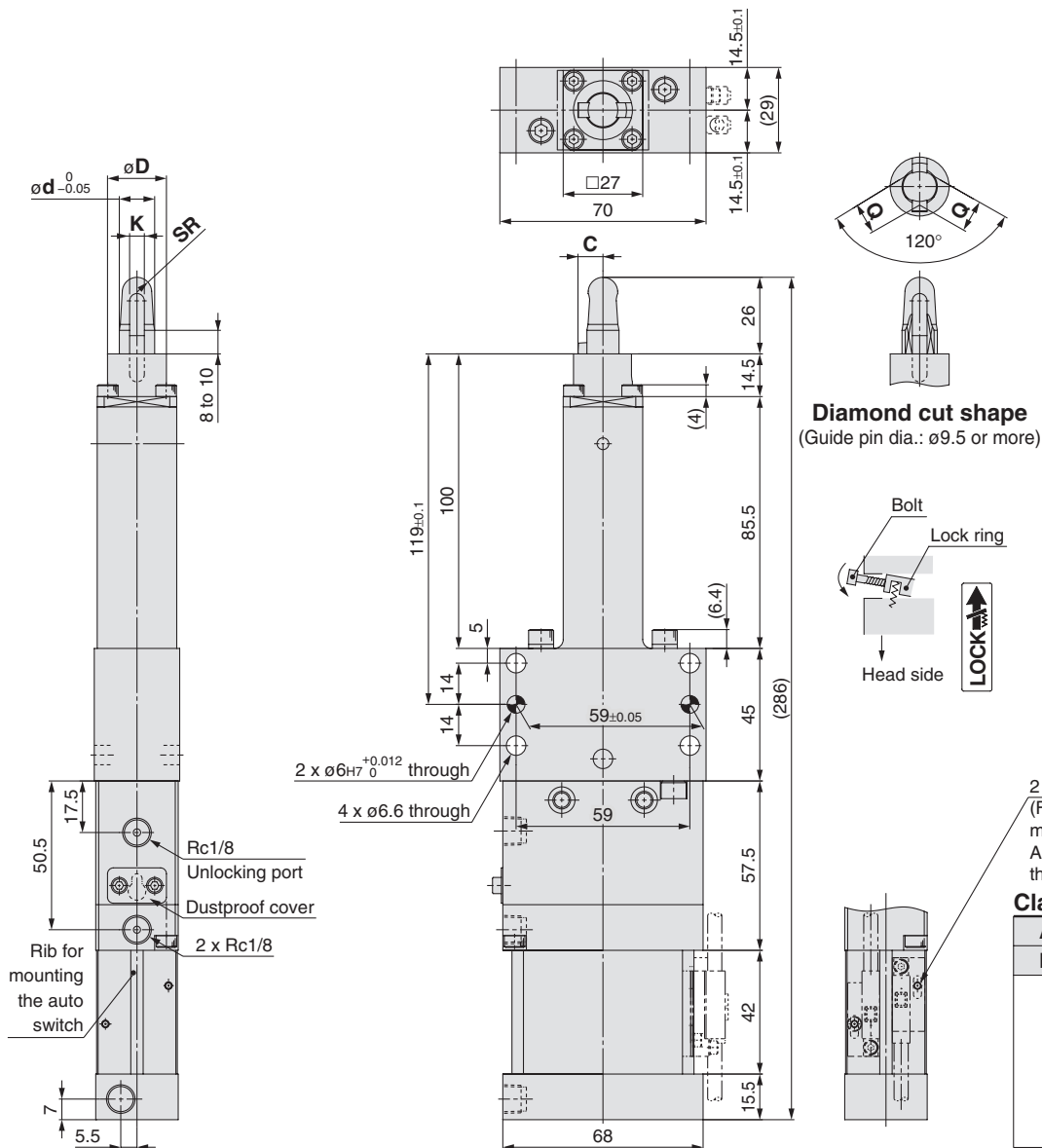
Hole diameter of workpiece	C	D	d	K	SR	Q	Model number
$\phi 12$	8.5	20	11.5	5	5	10.9	115
			11.6				116
			11.7				117
			11.8				118
			11.9				119
			12.0				120
$\phi 13$	8.5	20	12.5	5	5.5	11.6	125
			12.6				126
			12.7				127
			12.8				128
			12.9				129
			13.0				130
$\phi 14$	10.5	25	13.5	6	5.5	12.6	135
			13.6				136
			13.7				137
			13.8				138
			13.9				139
			14.0				140
$\phi 15$	10.5	25	14.5	6	6	13.3	145
			14.6				146
			14.7				147
			14.8				148
			14.9				149
			15.0				150

Hole diameter of workpiece	C	D	d	K	SR	Q	Model number
$\phi 16$	11.5	25	15.5	6	6.5	14.3	155
			15.6				156
			15.7				157
			15.8				158
			15.9				159
			16.0				160
$\phi 18$	13	27	17.5	6	7.5	16.4	175
			17.6				176
			17.7				177
			17.8				178
			17.9				179
			18.0				180
$\phi 20$	13	27	19.5	6	8	17.2	195
			19.6				196
			19.7				197
			19.8				198
			19.9				199
			20.0				200

Series C(L)KU32

Dimensions

CLKU32 (Clamping height HIGH type) * Refer to "How to Order" for positional relationship of the mounting surface and port.
* The figures below indicate the CLKU32-□RAH-X2092.



Hole diameter of workpiece	C	D	d	K	SR	Q	Model number
$\phi 8$	6	20	7.5	3.5	3.5	—	075
			7.6				076
			7.7				077
			7.8				078
			7.9				079
			8.0				080
$\phi 9$	6.5	20	8.5	4	4	—	085
			8.6				086
			8.7				087
			8.8				088
			8.9				089
			9.0				090
$\phi 10$	7.5	20	9.5	4	4.5	9.2	095
			9.6				096
			9.7				097
			9.8				098
			9.9				099
			10.0				100
$\phi 11$	7.5	20	10.5	4	4.5	9.8	105
			10.6				106
			10.7				107
			10.8				108
			10.9				109
			11.0				110

Hole diameter of workpiece	C	D	d	K	SR	Q	Model number
$\phi 12$	8.5	20	11.5	5	5	10.9	115
			11.6				116
			11.7				117
			11.8				118
			11.9				119
			12.0				120
$\phi 13$	8.5	20	12.5	5	5.5	11.6	125
			12.6				126
			12.7				127
			12.8				128
			12.9				129
			13.0				130
$\phi 14$	10.5	25	13.5	6	5.5	12.6	135
			13.6				136
			13.7				137
			13.8				138
			13.9				139
			14.0				140
$\phi 15$	10.5	25	14.5	6	6	13.3	145
			14.6				146
			14.7				147
			14.8				148
			14.9				149
			15.0				150

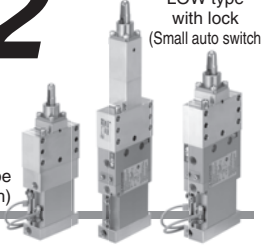
Hole diameter of workpiece	C	D	d	K	SR	Q	Model number
$\phi 16$	11.5	25	15.5	6	6.5	14.3	155
			15.6				156
			15.7				157
			15.8				158
			15.9				159
			16.0				160
$\phi 18$	13	27	17.5	6	7.5	16.4	175
			17.6				176
			17.7				177
			17.8				178
			17.9				179
			18.0				180
$\phi 20$	13	27	19.5	6	8	17.2	195
			19.6				196
			19.7				197
			19.8				198
			19.9				199
			20.0				200

Pin Clamp Cylinder

Small Auto Switch Mounting Plate Cylinder Type

Series C(L)KU32

HIGH type
with lock
LOW type
with lock
(Small auto switch)



How to Order

Clamping height
LOW type

C L KU 32 - 075 R A L - M9BVL - X2321

Clamping height
HIGH type

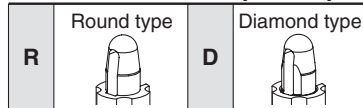
C L KU 32 - 075 R A H - M9BVL - X2322

With lock	●
Nil	Without lock
L	With lock

Bore size
32 Equiv. ø32 piston area

Guide pin diameter
* For guide pin diameter,
refer to Table 1 below.

Guide pin shape



Clamp arm position (viewed from top)

Symbol	Clamp arm position	Symbol	Clamp arm position
A	Same direction as the port side Port side → Clamp arm	B	Opposite direction of the port side Port side → Clamp arm

Auto switch type

Nil	Without auto switch
M9NV□	D-M9NV□
M9PV□	D-M9PV□
M9BV□	D-M9BV□
M9NWV□	D-M9NWV□
M9PWV□	D-M9PWV□
M9BWV□	D-M9BWV□
A73□	D-A73□
A79W□	D-A79W□

□ = Lead wire

* Auto switches and mounting brackets are shipped together, (but not assembled).
* For the M9□WV, A73 and A79W, when the total thickness of
clamped workpiece is over 2 mm, the auto switch may not be
adjusted to the most sensitive position.

△ Small auto switches cannot be used under strong magnetic field.

Specifications and replacement parts are the same for C(L)KU32-X2091/X2092. For details, refer to pages 11 and 12.

Table 1. Guide Pin Diameter

Symbol	075	076	077	078	079	080	085	086	087	088	089	090	095	096	097	098	099	100	105	106	107	108	109	110
Guide pin diameter [mm]	7.5	7.6	7.7	7.8	7.9	8.0	8.5	8.6	8.7	8.8	8.9	9.0	9.5	9.6	9.7	9.8	9.9	10.0	10.5	10.6	10.7	10.8	10.9	11.0
Applicable hole diameter of workpiece [mm]	For ø8					For ø9							For ø10					For ø11						
Guide pin shape	Round type												Round type/Diamond type											

Symbol	115	116	117	118	119	120	125	126	127	128	129	130	135	136	137	138	139	140	145	146	147	148	149	150
Guide pin diameter [mm]	11.5	11.6	11.7	11.8	11.9	12.0	12.5	12.6	12.7	12.8	12.9	13.0	13.5	13.6	13.7	13.8	13.9	14.0	14.5	14.6	14.7	14.8	14.9	15.0
Applicable hole diameter of workpiece [mm]	For ø12					For ø13							For ø14					For ø15						
Guide pin shape	Round type/Diamond type																							

Symbol	155	156	157	158	159	160	175	176	177	178	179	180	195	196	197	198	199	200
Guide pin diameter [mm]	15.5	15.6	15.7	15.8	15.9	16.0	17.5	17.6	17.7	17.8	17.9	18.0	19.5	19.6	19.7	19.8	19.9	20.0
Applicable hole diameter of workpiece [mm]	For ø16					For ø18							For ø20					
Guide pin shape	Round type/Diamond type																	

Applicable Auto Switches/Refer to Best Pneumatics No. 3 for further information on auto switches.

Type	Special function	Electrical entry	Indicator light	Wiring (Output)	Load voltage		Auto switch model	Lead wire length (m)				Pre-wired connector	Applicable load	
					DC	AC	Perpendicular	0.5 (Nil)	1 (M)	3 (L)	5 (Z)			
Solid state auto switch	Diagnostic indication (2-color indication)	Grommet	Yes	3-wire (NPN)	24 V	5 V, 12 V	M9NV	●	●	●	○	○	IC circuit	Relay, PLC
				3-wire (PNP)			M9PV	●	●	●	○	○		
				2-wire			M9BV	●	●	●	○	○		
				3-wire (NPN)			M9NWV	●	●	●	○	○		
				3-wire (PNP)			M9PWV	●	●	●	○	○		
				2-wire			M9BWV	●	●	●	○	○		
Reed auto switch	Diagnostic indication (2-color indication)	Grommet	Yes	2-wire	24 V	12 V	A73	●	—	●	●	—	—	Relay, PLC
						—	A79W	●	—	●	—	—		

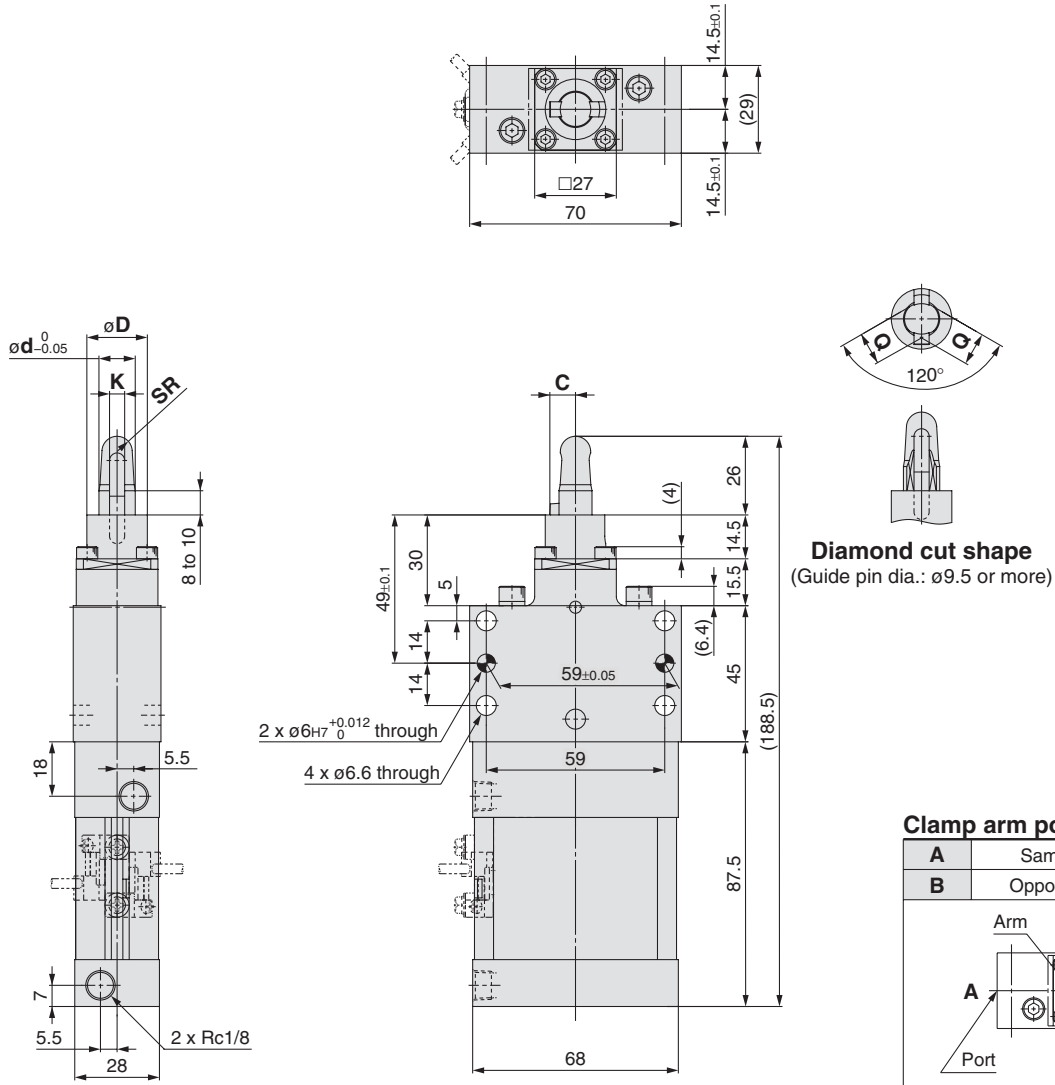
- * Solid state auto switches marked with "○" are produced upon receipt of order.
- * Electrical entry direction is perpendicular only.
- * The D-A9□ and A9□V cannot be mounted.
- * For details about auto switches with pre-wired connector, refer to Best Pneumatics No. 3.
- * Auto switches and mounting brackets are shipped together, (but not assembled).

Dimensions

CKU32 (Clamping height LOW type)

* Refer to “How to Order” for positional relationship of the mounting surface and port.

* The figures below indicate the CKU32-□RAL-X2321.



Hole diameter of workpiece	C	D	d	K	SR	Q	Model number
ø8	6	20	7.5	3.5	3.5	—	075
			7.6				076
			7.7				077
			7.8				078
			7.9				079
			8.0				080
ø9	6.5	20	8.5	4	4	—	085
			8.6				086
			8.7				087
			8.8				088
			8.9				089
			9.0				090
ø10	7.5	20	9.5	4	4.5	9.2	095
			9.6				096
			9.7				097
			9.8				098
			9.9				099
			10.0				100
ø11	7.5	20	10.5	4	4.5	9.8	105
			10.6				106
			10.7				107
			10.8				108
			10.9				109
			11.0				110

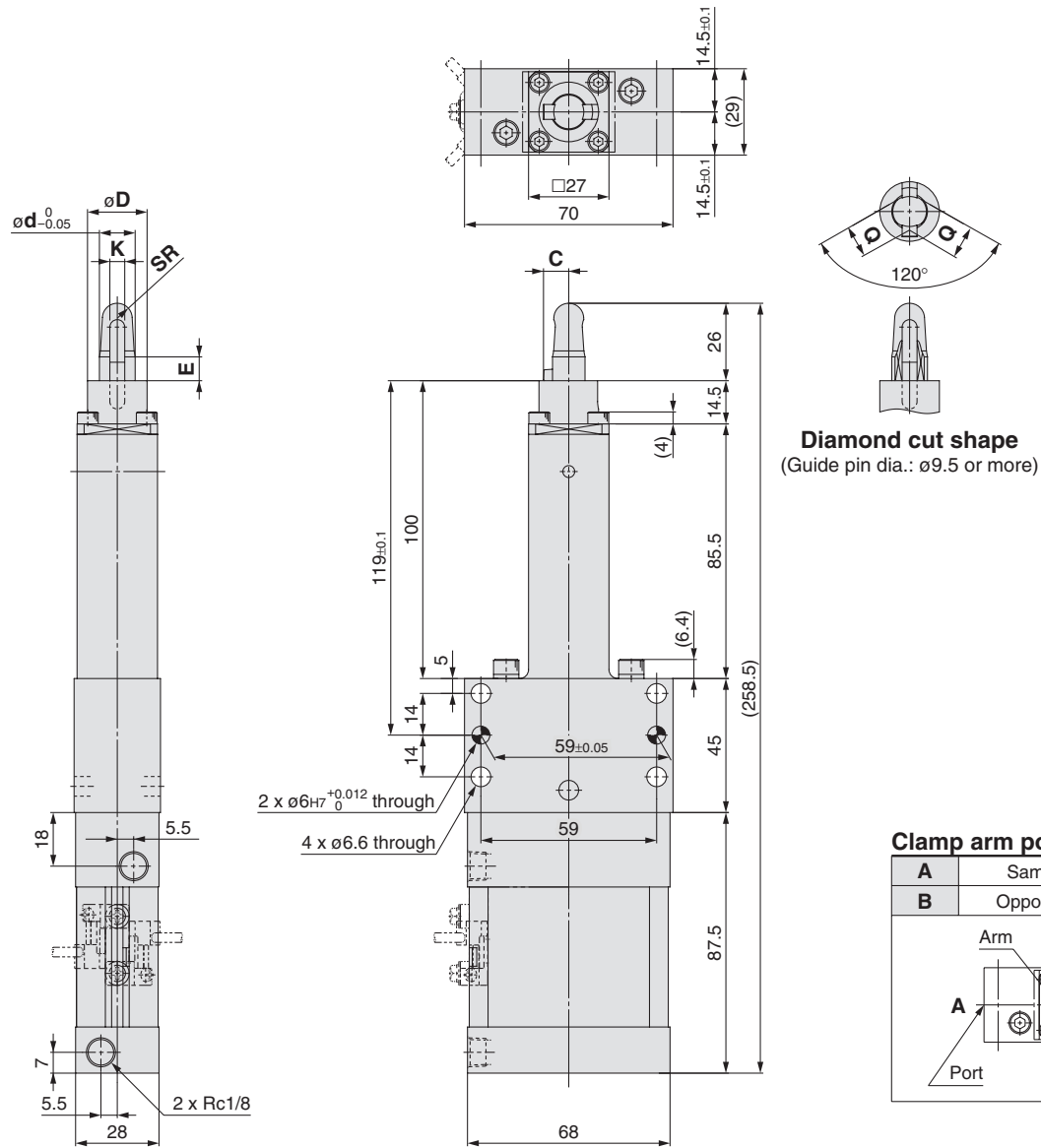
Hole diameter of workpiece	C	D	d	K	SR	Q	Model number
ø12	8.5	20	11.5	5	5	10.9	115
			11.6				116
			11.7				117
			11.8				118
			11.9				119
			12.0				120
ø13	8.5	20	12.5	5	5.5	11.6	125
			12.6				126
			12.7				127
			12.8				128
			12.9				129
			13.0				130
ø14	10.5	25	13.5	6	5.5	12.6	135
			13.6				136
			13.7				137
			13.8				138
			13.9				139
			14.0				140
ø15	10.5	25	14.5	6	6	13.3	145
			14.6				146
			14.7				147
			14.8				148
			14.9				149
			15.0				150

Hole diameter of workpiece	C	D	d	K	SR	Q	Model number
ø16	11.5	25	15.5	6	6.5	14.3	155
			15.6				156
			15.7				157
			15.8				158
			15.9				159
			16.0				160
ø18	13	27	17.5	6	7.5	16.4	175
			17.6				176
			17.7				177
			17.8				178
			17.9				179
			18.0				180
ø20	13	27	19.5	6	8	17.2	195
			19.6				196
			19.7				197
			19.8				198
			19.9				199
			20.0				200

Series C(L)KU32

Dimensions

CKU32 (Clamping height HIGH type) * Refer to "How to Order" for positional relationship of the mounting surface and port.
* The figures below indicate the CKU32-□RAH-X2322.



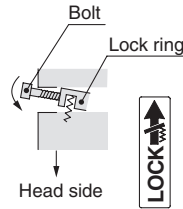
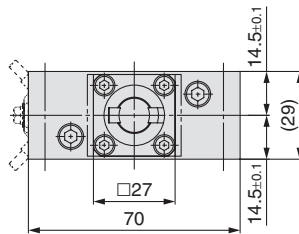
Hole diameter of workpiece	C	D	d	K	SR	Q	Model number
ø8	6	20	7.5	3.5	3.5	—	075
			7.6				076
			7.7				077
			7.8				078
			7.9				079
			8.0				080
ø9	6.5	20	8.5	4	4	—	085
			8.6				086
			8.7				087
			8.8				088
			8.9				089
			9.0				090
ø10	7.5	20	9.5	4	4.5	9.2	095
			9.6				096
			9.7				097
			9.8				098
			9.9				099
			10.0				100
ø11	7.5	20	10.5	4	4.5	9.8	105
			10.6				106
			10.7				107
			10.8				108
			10.9				109
			11.0				110

Hole diameter of workpiece	C	D	d	K	SR	Q	Model number
ø12	8.5	20	11.5	5	5	10.9	115
			11.6				116
			11.7				117
			11.8				118
			11.9				119
			12.0				120
ø13	8.5	20	12.5	5	5.5	11.6	125
			12.6				126
			12.7				127
			12.8				128
			12.9				129
			13.0				130
ø14	10.5	25	13.5	6	5.5	12.6	135
			13.6				136
			13.7				137
			13.8				138
			13.9				139
			14.0				140
ø15	10.5	25	14.5	6	6	13.3	145
			14.6				146
			14.7				147
			14.8				148
			14.9				149
			15.0				150

Hole diameter of workpiece	C	D	d	K	SR	Q	Model number
ø16	11.5	25	15.5	6	6.5	14.3	155
			15.6				156
			15.7				157
			15.8				158
			15.9				159
			16.0				160
ø18	13	27	17.5	6	7.5	16.4	175
			17.6				176
			17.7				177
			17.8				178
			17.9				179
			18.0				180
ø20	13	27	19.5	6	8	17.2	195
			19.6				196
			19.7				197
			19.8				198
			19.9				199
			20.0				200

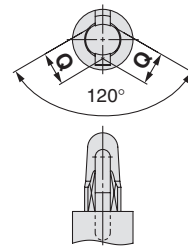
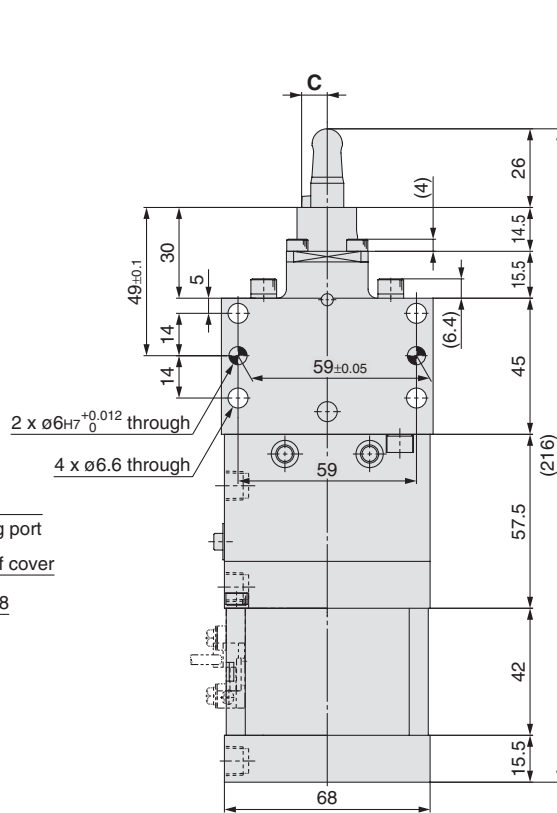
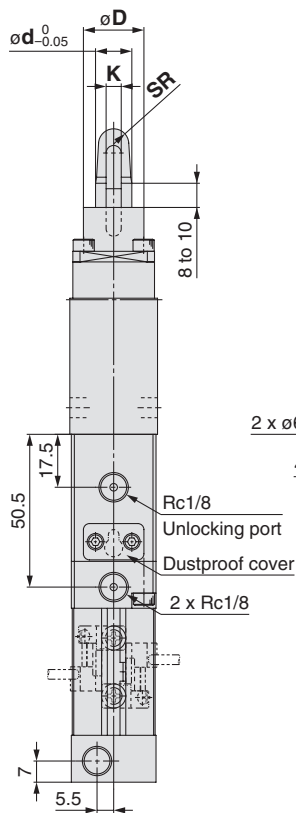
Dimensions

CLKU32 (Clamping height LOW type) * Refer to "How to Order" for positional relationship of the mounting surface and port.
* The figures below indicate the CLKU32-□RAL-X2321.



Manually unlocking

- 1) Remove the dustproof cover.
- 2) Screw the commercially available bolt (M3 x 25 L or more) into the lock ring shown on the left and raise the lock ring toward the head side.
- 3) The lock ring and piston rod form a right angle, and the lock is released.



Diamond cut shape
(Guide pin dia.: Ø11.5 or more)

Clamp arm position

A	Same as the port side
B	Opposite side of the port

Hole diameter of workpiece	C	D	d	K	SR	Q	Model number
Ø8	6	20	7.5	3.5	3.5	—	075
			7.6				076
			7.7				077
			7.8				078
			7.9				079
			8.0				080
Ø9	6.5	20	8.5	4	4	—	085
			8.6				086
			8.7				087
			8.8				088
			8.9				089
			9.0				090
Ø10	7.5	20	9.5	4	4.5	9.2	095
			9.6				096
			9.7				097
			9.8				098
			9.9				099
			10.0				100
Ø11	7.5	20	10.5	4	4.5	9.8	105
			10.6				106
			10.7				107
			10.8				108
			10.9				109
			11.0				110

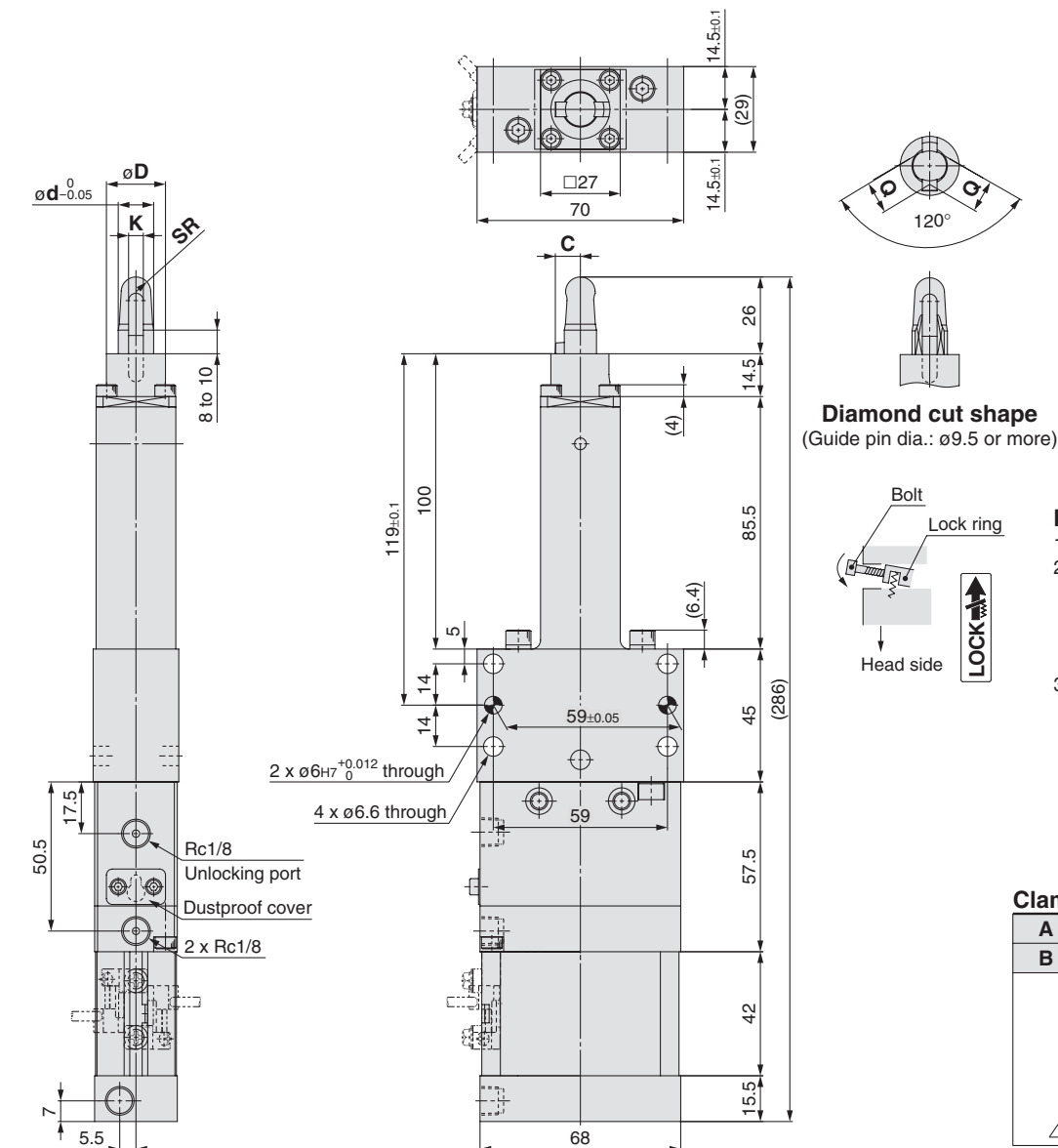
Hole diameter of workpiece	C	D	d	K	SR	Q	Model number
Ø12	8.5	20	11.5	5	5	10.9	115
			11.6				116
			11.7				117
			11.8				118
			11.9				119
			12.0				120
Ø13	8.5	20	12.5	5	5.5	11.6	125
			12.6				126
			12.7				127
			12.8				128
			12.9				129
			13.0				130
Ø14	10.5	25	13.5	6	5.5	12.6	135
			13.6				136
			13.7				137
			13.8				138
			13.9				139
			14.0				140
Ø15	10.5	25	14.5	6	6	13.3	145
			14.6				146
			14.7				147
			14.8				148
			14.9				149
			15.0				150

Hole diameter of workpiece	C	D	d	K	SR	Q	Model number
Ø16	11.5	25	15.5	6	6.5	14.3	155
			15.6				156
			15.7				157
			15.8				158
			15.9				159
			16.0				160
Ø18	13	27	17.5	6	7.5	16.4	175
			17.6				176
			17.7				177
			17.8				178
			17.9				179
			18.0				180
Ø20	13	27	19.5	6	8	17.2	195
			19.6				196
			19.7				197
			19.8				198
			19.9				199
			20.0				200

Series C(L)KU32

Dimensions

CLKU32 (Clamping height HIGH type) * Refer to "How to Order" for positional relationship of the mounting surface and port.
* The figures below indicate the CLKU32-□RAH-X2322.



Hole diameter of workpiece	C	D	d	K	SR	Q	Model number
ø8	6	20	7.5	3.5	3.5	—	075
			7.6				076
			7.7				077
			7.8				078
			7.9				079
			8.0				080
ø9	6.5	20	8.5	4	4	—	085
			8.6				086
			8.7				087
			8.8				088
			8.9				089
			9.0				090
ø10	7.5	20	9.5	4	4.5	9.2	095
			9.6				096
			9.7				097
			9.8				098
			9.9				099
			10.0				100
ø11	7.5	20	10.5	4	4.5	9.8	105
			10.6				106
			10.7				107
			10.8				108
			10.9				109
			11.0				110

Hole diameter of workpiece	C	D	d	K	SR	Q	Model number
ø12	8.5	20	11.5	5	5	10.9	115
			11.6				116
			11.7				117
			11.8				118
			11.9				119
			12.0				120
ø13	8.5	20	12.5	5	5.5	11.6	125
			12.6				126
			12.7				127
			12.8				128
			12.9				129
			13.0				130
ø14	10.5	25	13.5	6	5.5	12.6	135
			13.6				136
			13.7				137
			13.8				138
			13.9				139
			14.0				140
ø15	10.5	25	14.5	6	6	13.3	145
			14.6				146
			14.7				147
			14.8				148
			14.9				149
			15.0				150

Hole diameter of workpiece	C	D	d	K	SR	Q	Model number
ø16	11.5	25	15.5	6	6.5	14.3	155
			15.6				156
			15.7				157
			15.8				158
			15.9				159
			16.0				160
ø18	13	27	17.5	6	7.5	16.4	175
			17.6				176
			17.7				177
			17.8				178
			17.9				179
			18.0				180
ø20	13	27	19.5	6	8	17.2	195
			19.6				196
			19.7				197
			19.8				198
			19.9				199
			20.0				200

Series C(L)KQG32/C(L)KU32

Options

Dimensions

Shim

C(L)KQG32-X2081

C(L)KQG32-X2082

C(L)KU32-X2091
-X2321

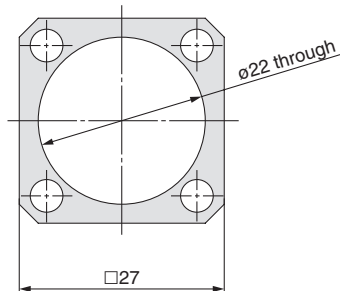
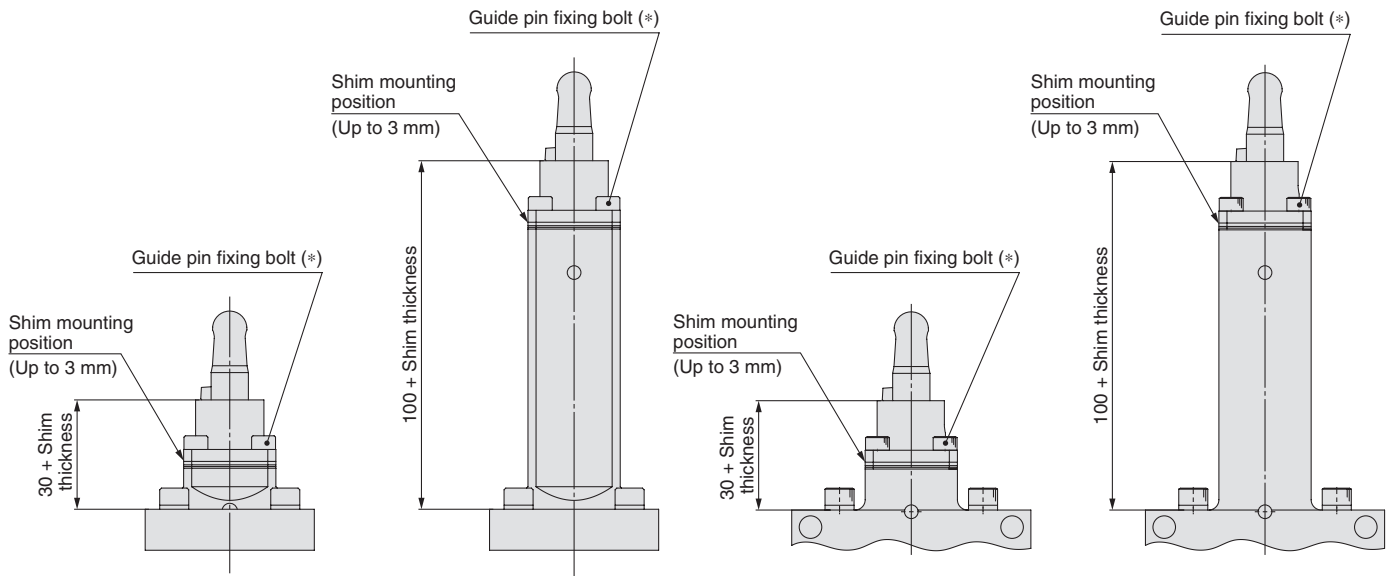
C(L)KU32-X2092
-X2322

LOW type

HIGH type

LOW type

HIGH type



Shim dimensions

Description	Part No.	Note
Shim A	CKQ32-36A746MN	Plate thickness 1 (mm)
Shim B	CKQ32-36B746MN	Plate thickness 0.5 (mm)
Guide pin fixing long bolt	CA00644	Bolt size M4 x 12 L

- Shims can be mounted up to 3 mm.
However, when mounting 2 mm or more shims, use the above guide pin fixing long bolt instead of a guide pin fixing bolt (marked with *).
- For auto switches (except the M9□V), when the total thickness of shims and a workpiece is over 2 mm, the auto switch may not be adjusted to the most sensitive position.

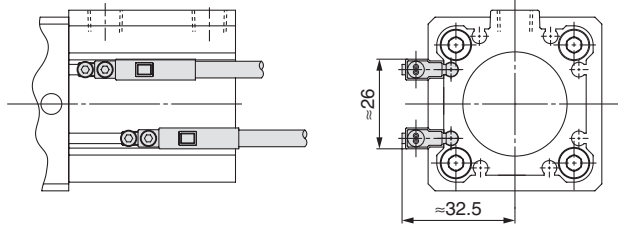
Series C(L)KQG32

Auto Switch Mounting 1

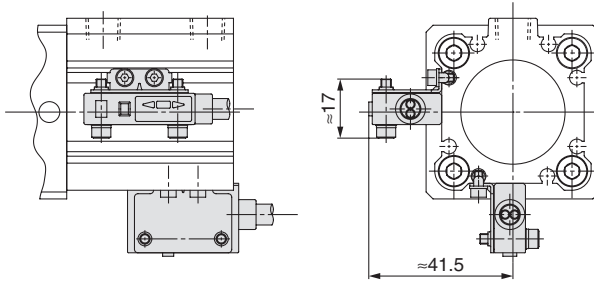
Auto Switch Mounting Height

Applicable cylinder: C(L)KQG32-X2081
C(L)KQG32-X2082

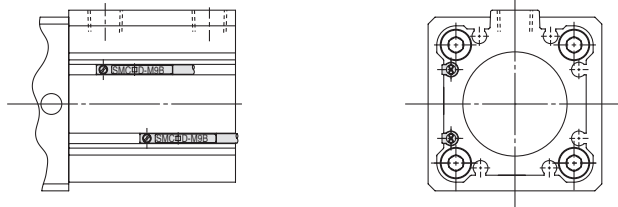
D-P3DW□



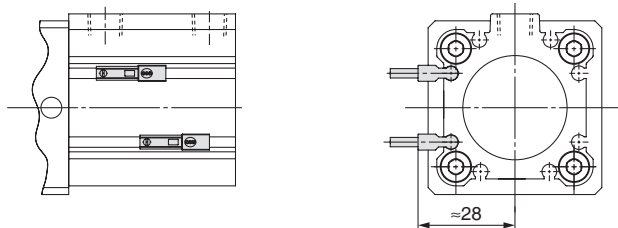
D-P4DW□



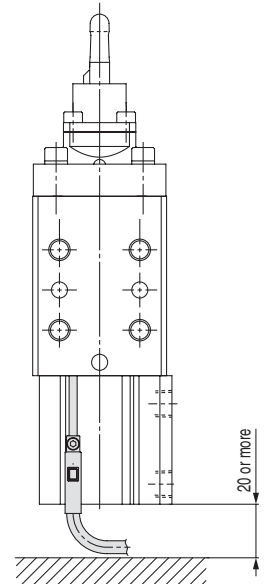
D-M9□
D-M9□W
D-A9□



D-M9□V
D-M9□WV
D-A9□V

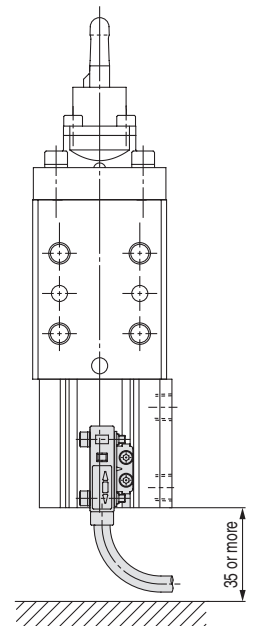


For D-P3DW□



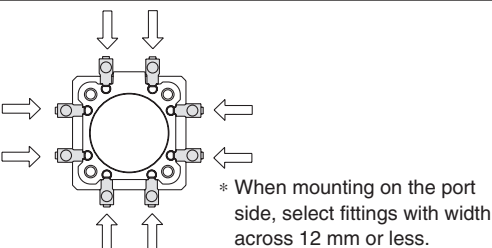
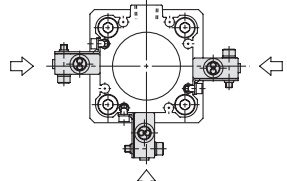
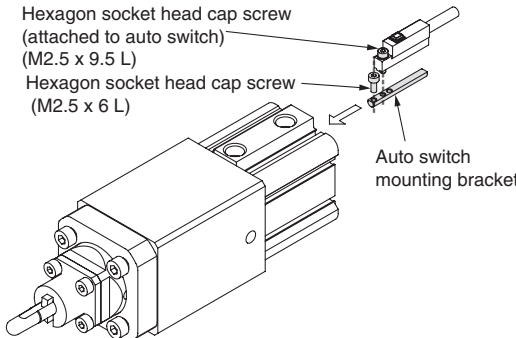
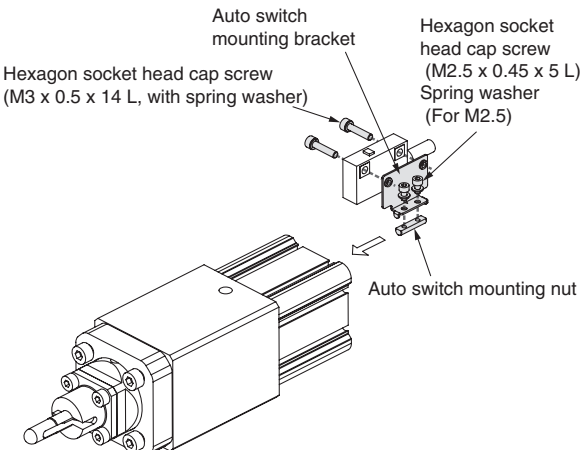
Note) Allow 20 mm or more space at the cylinder head side to secure the minimum bending radius of the auto switch lead wire.

For D-P4DW□



Note) Allow 35 mm or more space at the cylinder head side to secure the minimum bending radius of the auto switch lead wire.

Auto Switch Mounting Bracket Part No./Mounting Method

Applicable cylinder	C(L)KQG32-X2081/-X2082	
Applicable auto switches	D-P3DW□	D-P4DW□
Bore size (mm)	ø32	ø32
Auto switch mounting bracket part no.	BQ6-032S	C2Q32-42-880NN-R
Auto switch mounting bracket fitting parts lineup/Weight	- Hexagon socket head cap screw (M2.5 x 6 L) - Auto switch mounting bracket (Nut) - Weight: 2.5 g	- Auto switch mounting bracket - Hexagon socket head cap screw (M2.5 x 0.45 x 5 L) - Auto switch mounting nut - Hexagon socket head cap screw (M3 x 0.5 x 14 L, with spring washer) - Spring washer (For M2.5) - Weight: 8.5 g
Auto switch mounting surfaces	Surfaces with auto switch mounting slot	Surfaces with auto switch mounting slot
		
Mounting of auto switch	① Fix the auto switch and the auto switch mounting bracket temporarily by tightening the hexagon socket head cap screw (M2.5 x 9.5 L) 1 to 2 turns. ② Insert the temporarily tightened mounting bracket into the mating groove of the cylinder tube, and slide the auto switch onto the cylinder tube through the groove. Insert the auto switch onto the cylinder tube through the groove with the back part of the auto switch (lead wire side) and the back part of the auto switch mounting bracket. ③ Check the detecting position of the auto switch and fix the auto switch firmly with the hexagon socket head cap screw (M2.5 x 6 L, M2.5 x 9.5 L).* ④ If the detecting position is changed, go back to step ②. * The hexagon socket head cap screw (M2.5 x 6 L) is used to fix the mounting bracket and cylinder tube. This enables the replacement of the auto switch without adjusting the auto switch position. Note 1) Ensure that the auto switch is covered with the mating groove to protect the auto switch. Note 2) The tightening torque for the hexagon socket head cap screw (M2.5 x 6 L, M2.5 x 9.5 L) is 0.2 to 0.3 N·m. Note 3) Tighten the hexagon socket head cap screws evenly. Hexagon socket head cap screw (attached to auto switch) (M2.5 x 9.5 L) Hexagon socket head cap screw (M2.5 x 6 L) Auto switch mounting bracket 	① Fix the auto switch and the auto switch mounting bracket temporarily with the hexagon socket head cap screws (M3 x 14 L). ② Insert the hexagon socket head cap screws (M2.5 x 5 L) into the spring washers (for M2.5), and tighten the auto switch mounting bracket and auto switch mounting nut temporarily. ③ Insert the temporarily fixed auto switch mounting nut into the mating groove of the cylinder tube. ④ Check the detecting position of the auto switch and fix the auto switch firmly with the hexagon socket head cap screw (M2.5 x 5 L, M3 x 14 L). Note 1) The tightening torque for the hexagon socket head cap screw (M3 x 14 L) is 0.5 to 0.6 N·m. Note 2) The tightening torque for the hexagon socket head cap screw (M2.5 x 5 L) is 0.25 to 0.35 N·m. Auto switch mounting bracket Hexagon socket head cap screw (M3 x 0.5 x 14 L, with spring washer) Hexagon socket head cap screw (M2.5 x 0.45 x 5 L) Spring washer (For M2.5) Auto switch mounting nut 

Other than the applicable auto switches listed in “How to Order”, the following auto switches are mountable.

Refer to Best Pneumatics No. 3 for detailed specifications.

Applicable Cylinder: C(L)KQG32-X2081, C(L)KQG32-X2082

Type	Model	Electrical entry	Features	Type	Model	Electrical entry	Features
Solid state auto switch	D-M9□	Grommet (In-line)	—	Reed auto switch	D-A90	Grommet (In-line)	Without Indicator light
	D-M9□W		Diagnostic indication (2-color indication)		D-A93/A96		—
	D-M9□V	Grommet (Perpendicular)	—		D-A90V	Grommet (Perpendicular)	Without Indicator light
	D-M9□WV		Diagnostic indication (2-color indication)		D-A93V/A96V		—
	D-P4DW	Grommet (In-line)	Magnetic field resistant (2-color indication)				

* With pre-wired connector is also available for solid state auto switches. For details, refer to Best Pneumatics No. 3.

* When installing the D-P4DW□, use the C2Q32-42-880NN-R auto switch mounting bracket.

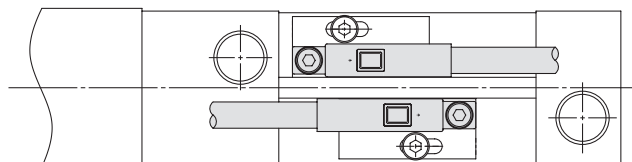
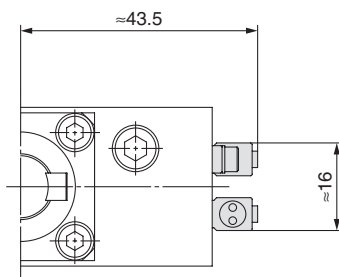
Series C(L)KU32

Auto Switch Mounting 2

Auto Switch Mounting Height

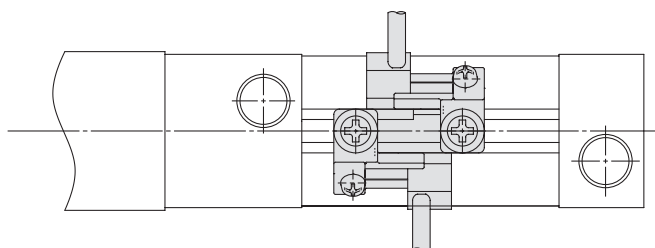
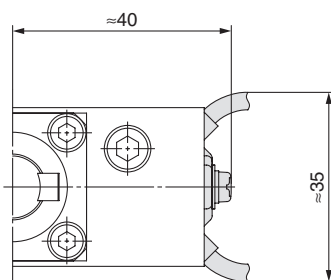
Applicable cylinder: C(L)KU32-X2091
C(L)KU32-X2092

D-P3DW□

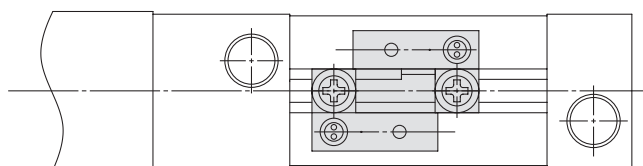
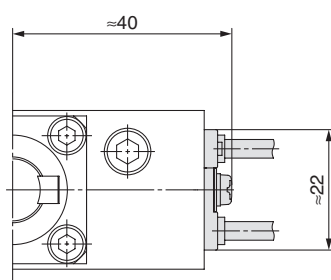


Applicable cylinder: C(L)KU32-X2321
C(L)KU32-X2322

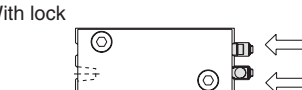
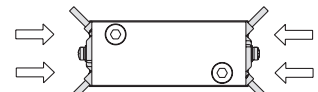
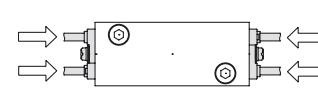
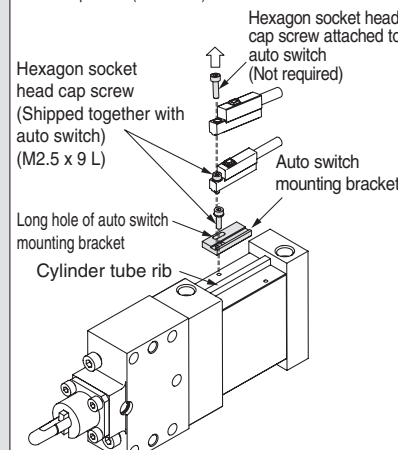
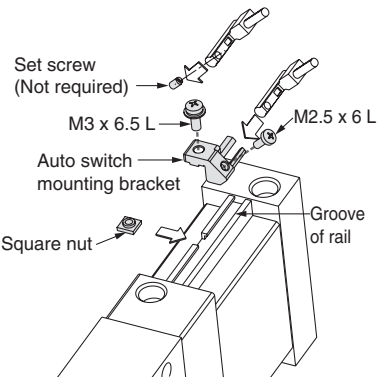
D-M9□V



D-A7□



Auto Switch Mounting Bracket Part No./Mounting Method

Applicable cylinder	-X2091/-X2092	-X2321/-X2322	-X2321/-X2322
Applicable auto switches	D-P3DW□	D-M9□V/M9□WV	D-A73/A79W
Bore size (mm)	ø32	ø32	ø32
Auto switch mounting bracket part no.	CKU32-42-088EN-R	BMU1-025 (Below ①, ②) BQ2-012 (Below ③, ④)	BMU1-025
Auto switch mounting bracket fitting parts lineup/Weight	- Hexagon socket head cap screw (M2.5 x 9 L) - Auto switch mounting bracket Weight: 4 g	① Cross recessed round head screw (M3 x 6.5 L) ② Square nut ③ Auto switch mounting bracket ④ Round head combination screw (M2.5 x 6 L) Weight: 5 g	- Cross recessed round head screw (M3 x 6.5 L) - Square nut Weight: 2 g
Auto switch mounting surfaces	Surfaces with auto switch mounting slot Without lock  With lock 	Surfaces with auto switch mounting slot 	Surfaces with auto switch mounting slot 
Mounting of auto switch	① The hexagon socket head cap screw attached to the auto switch is not required. Turn to loosen and remove. * This procedure is only for auto switches that are ordered separately. Hexagon socket head cap screws are removed when auto switches are shipped together with cylinder. ② Fix the auto switch and the auto switch mounting bracket with the hexagon socket head cap screw (M2.5 x 9 L) shipped together with the auto switch mounting bracket. ③ Check the detecting position of the auto switch by sliding it along the cylinder tube rib, before fixing the auto switch on the cylinder tube threaded portion by inserting the hexagon socket head cap screw (M2.5 x 9 L) into the long hole of the auto switch mounting bracket. Note) The tightening torque for the hexagon socket head cap screw (M2.5 x 9 L) is 0.2 to 0.3 N·m. 	① Remove the set screw attached to the auto switch. (The set screw is not required.) ② Fix the auto switch to the auto switch mounting bracket with the round head combination screw (M2.5 x 6 L). ③ Slide the square nut into the groove of the rail, and fix the auto switch mounting bracket on the cylinder with the cross recessed round head screw (M3 x 6.5 L). Note) The tightening torque for the round head combination screw (M2.5 x 6 L) is 0.1 to 0.2 N·m and for the cross recessed round head screw (M3 x 6.5 L) is 0.5 to 0.7 N·m. 	① Slide the square nut into the groove of the rail, and fix the auto switch on the cylinder with the cross recessed round head screw (M3 x 6.5 L). Note) The tightening torque for the cross recessed round head screw (M3 x 6.5 L) is 0.5 to 0.7 N·m. 