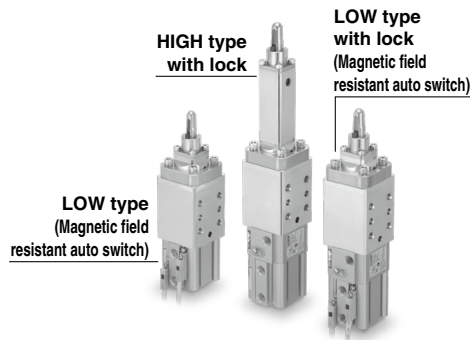


# Pin Clamp Cylinders

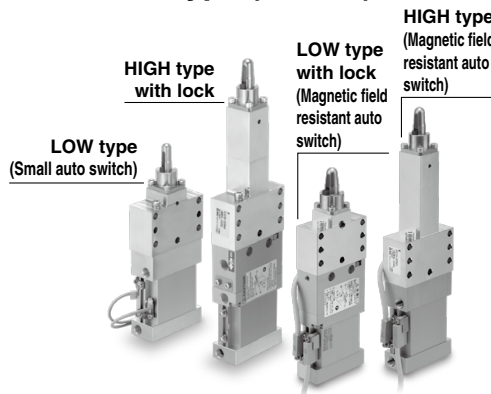
## Compact Cylinder Type C(L)KQG32

Magnetic field resistant auto switch mounting type  
LOW type (-X2081)  
HIGH type (-X2082)

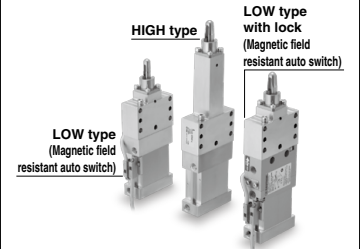


## Plate Cylinder Type C(L)KU32

**New** Magnetic field resistant auto switch mountable  
Small auto switch mounting type  
LOW type (-X2321)  
HIGH type (-X2322)



Magnetic field resistant auto switch mounting type  
LOW type (-X2091)  
HIGH type (-X2092)

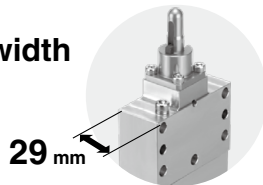


Use the new series "C(L)KU32-X2321/X2322" with improved mountability of the magnetic field resistant auto switch.

■  $\varnothing 32$  pin clamp cylinder available

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

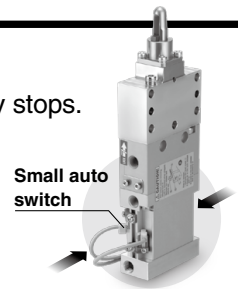
■ 29 mm width



■ All types with lock

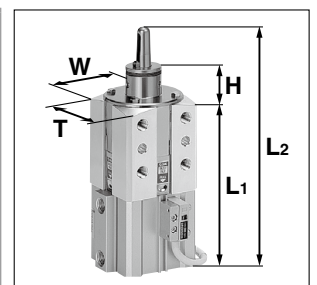
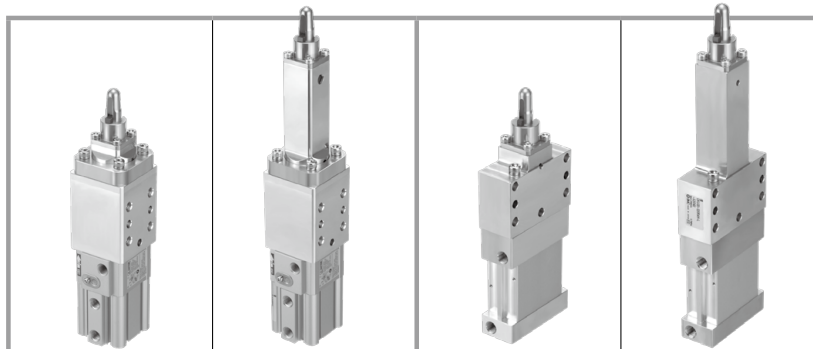
- Holds a workpiece during emergency stops.

■ Plate cylinder type with small auto switch



■ Guide pins and a diamond shape option (available for  $\varnothing 10$  or more) for workpieces with  $\varnothing 9$ ,  $\varnothing 11$  and  $\varnothing 13$  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: $\varnothing 12$ )		C(L)KU32 Plate cylinder type (Guide pin diameter: $\varnothing 12$ )		C(L)KQG50 (Guide pin diameter: $\varnothing 13$ )	
	LOW type	HIGH type	LOW type	HIGH type	LOW type	HIGH type
Clamping height	30	100	30	100	24	54
Clamping height	H					
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

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



# Pin Clamp Cylinders

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

### ■ Added diamond type to guide pin shapes.

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

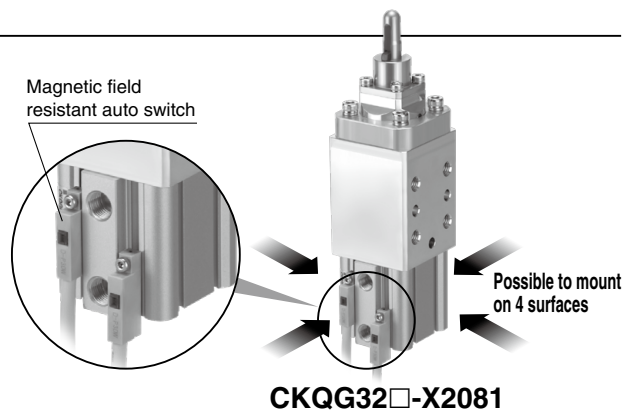
### ■ Lock mechanism to prevent dropping of workpiece during emergency stops

### ■ Magnetic field resistant auto switch and small auto switch available

Corresponding model/C(L)KQG32 type  
(-X2081, -X2082)

- Magnetic field resistant auto switch: D-P3DWA□

\* D-P4DW also available. (Order separately)  
Refer to page 20.



Corresponding model/C(L)KU32 type (-X2321, -X2322 only)

- New** • Magnetic field resistant auto switch: D-P3DWA□

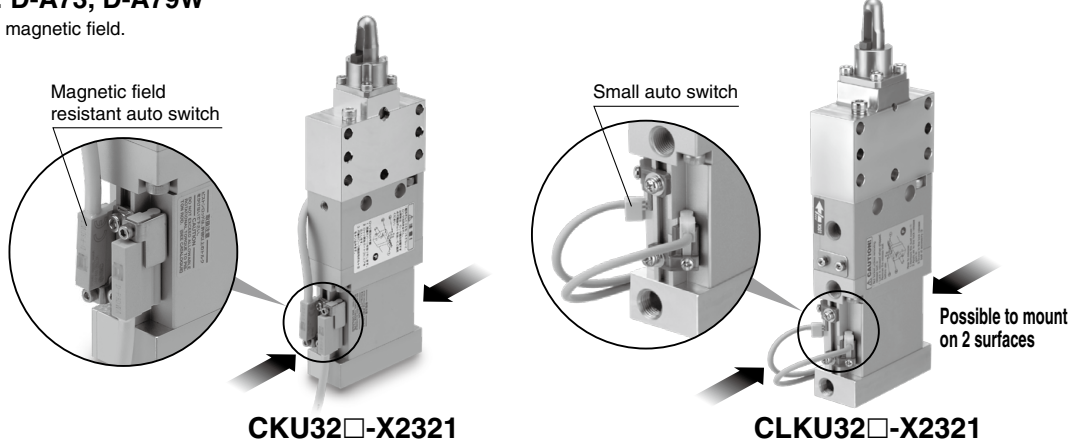
- Solid state auto switch\*: D-M9□V, D-M9□WV

- Reed auto switch\*: D-A73, D-A79W

\* Cannot be used under strong magnetic field.

#### **New** Magnetic field resistant auto switch available

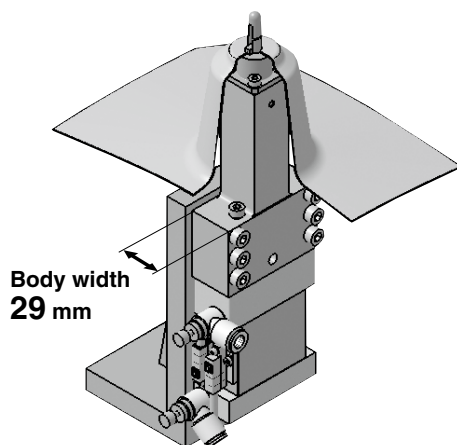
Mounting workability improved by changing the auto switch structure



## Application Examples

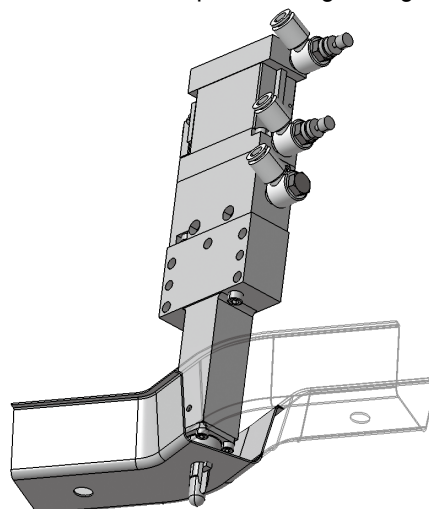
### CKU32 (Plate cylinder type)

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



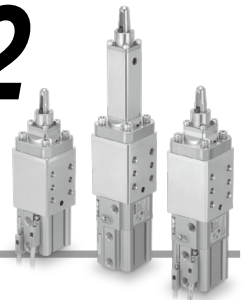
### CLKU32 (Plate cylinder type with lock)

- 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)

• Auto switch type

Nil	Without auto switch (Built-in magnet)
C	D-P3DWASC
E	D-P3DWASE
N	D-P3DWA
L	D-P3DWAL
Z	D-P3DWAZ

\* Auto switches 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 19).

• With lock

Nil	Without lock
L	With lock

• Bore size

32	32 mm
----	-------

• Guide pin diameter

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

• Guide pin shape

R	Round type	D	Diamond type
---	------------	---	--------------

• Mounting surface position (viewed from top)

Symbol	Mounting surface position
A	
B	
C	
D	

• Clamp arm position (clockwise viewed from top)

Symbol	Clamp arm position	Symbol	Clamp arm position
A		C	
B		D	

**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 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																								

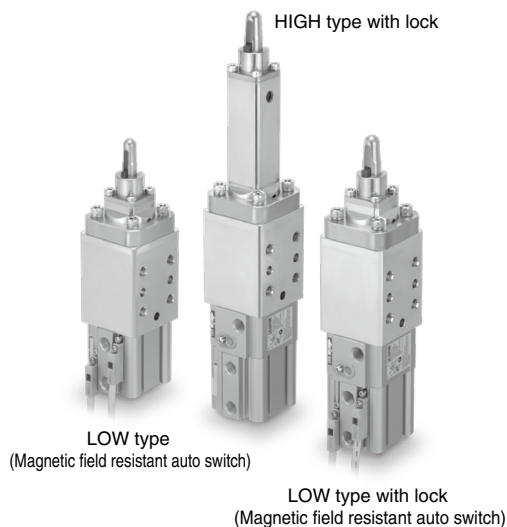
**Applicable Auto Switches**/Refer to the Best Pneumatics No.3 for further information on auto switches.

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-P3DWASC	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-P3DWASE				2-wire (1-4)			
	D-P3DWA		Grommet		2-wire			
	D-P3DWAL							
	D-P3DWAZ							

Note 1) PLC: Programmable Logic Controller

Note 2) There are applicable auto switches other than the listed above. For details, refer to page 20.

# 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]								
		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.

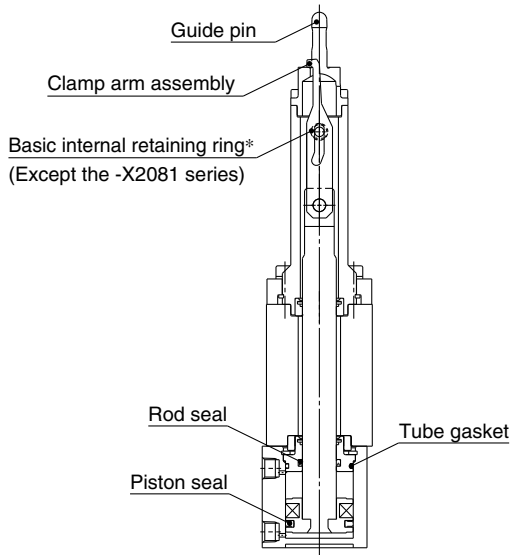
Note 3) Guide pins and clamp arms are consumable items. Please prepare spare parts in case they are damaged. It is recommended to prepare spare parts for guide pins and clamp arms, especially for products used in workpieces with ø12 or less hole diameters.

## 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**



**CKQG□32-100R□H-X2082**

**■ Guide Pin Order No.**

**CKQG32X - 075 R**

Guide pin diameter ●

\* Refer to Table 1 (Symbol 2) below.

Guide pin shape ●

	Round type	Diamond type
<b>R</b>		

**■ 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.

**■ Seal Kit (For type without lock only)**

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

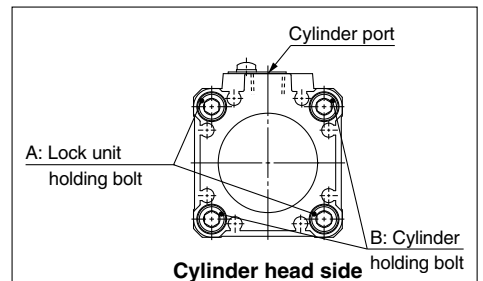
\* Seal kit includes ①, ②, ③. Since the seal kit does not include a grease pack, order the "Grease Pack" below separately.

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

**■ Grease Pack**

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

\* Please consult with SMC when replacing the actuating cylinders.



**⚠ Warning**

When replacing the arm for cylinders with lock (Series CLKQG32), never loosen A: Lock unit holding bolt shown above (2 places). (Cylinders are fixed in place with B: Cylinder holding bolt (2 places).)

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

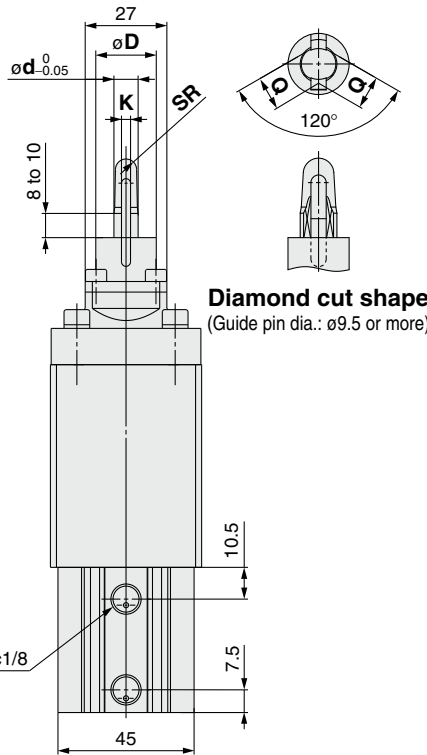
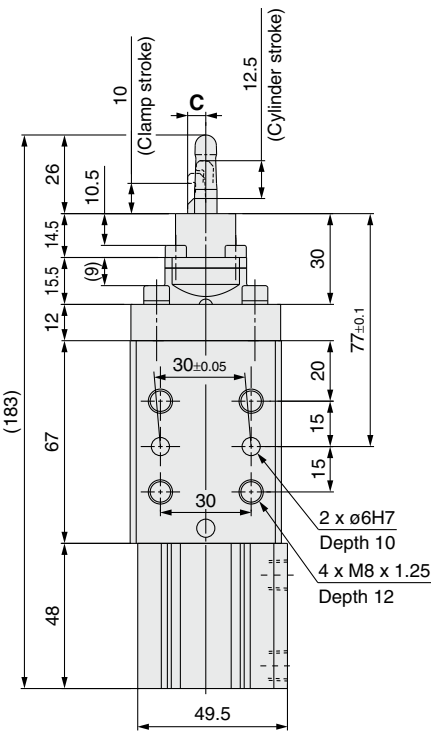
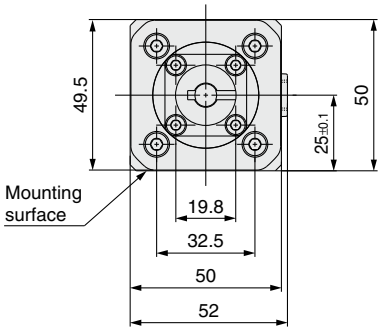
Symbol 1	Applicable hole diameter of workpiece	Symbol 2	Guide pin diameter	Shape	Symbol 1	Applicable hole diameter of workpiece	Symbol 2	Guide pin diameter	Shape	Symbol 1	Applicable hole diameter of workpiece	Symbol 2	Guide pin diameter	Shape
<b>08</b>	8	<b>075</b>	7.5	Round type	<b>12</b>	12	<b>115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

# Series C(L)KQG32

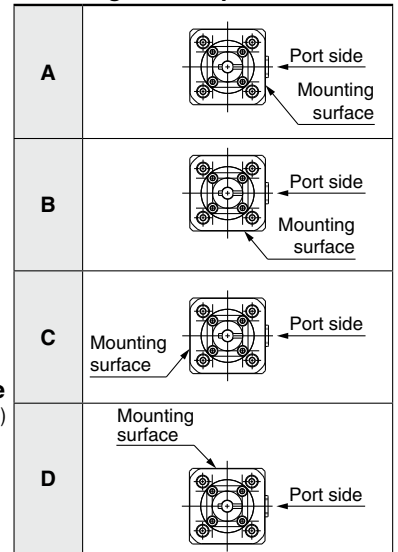


## Dimensions

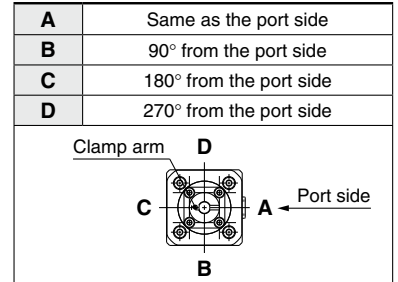
**CKQG□32 (Clamping height LOW type)** \* The figures below indicate the CKQGB32-□RCL-X2081.



### Mounting surface position



### Clamp arm position



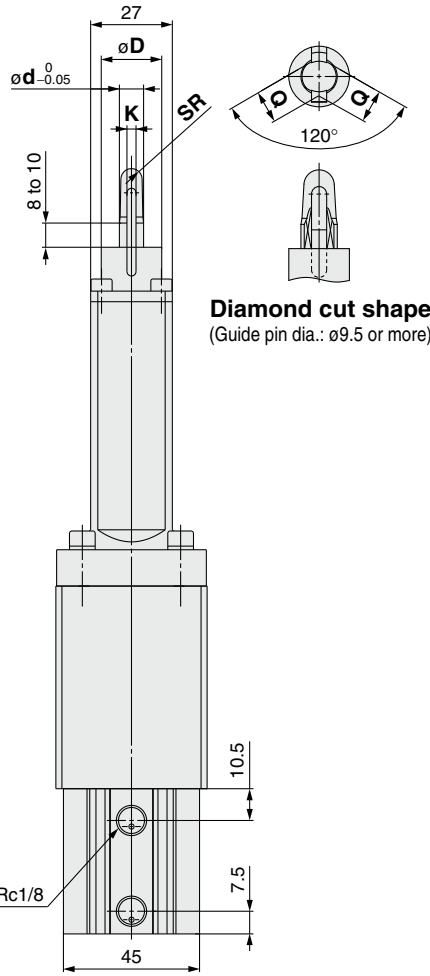
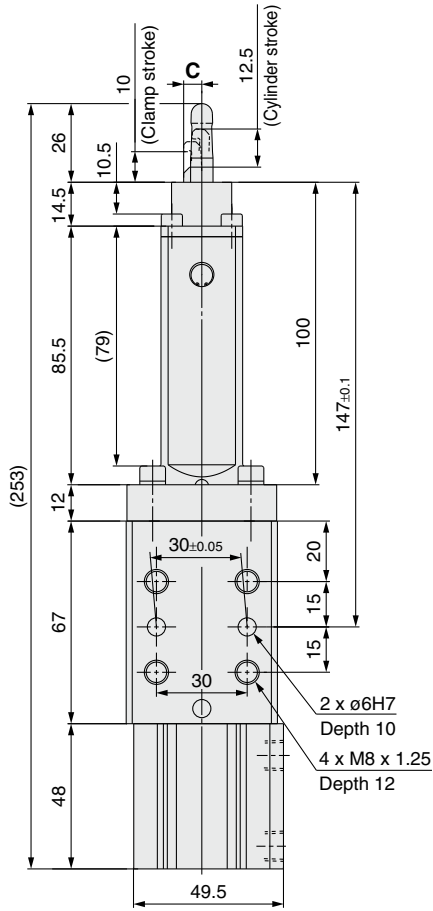
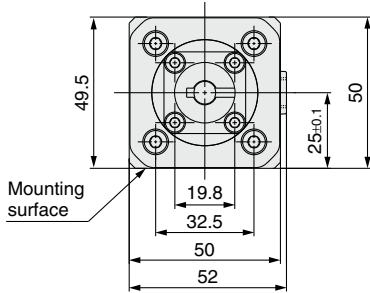
Hole diameter of workpiece	C	D	d	K	SR	Q	Model number
ø8	6	20	7.5	3.5	3.5	—	075
			7.6				076
			7.7				077
			7.8				078
			7.9				079
			8.0				080
ø9	6.5	20	8.5	4	4	—	085
			8.6				086
			8.7				087
			8.8				088
			8.9				089
			9.0				090
ø10	7.5	20	9.5	4	4.5	9.2	095
			9.6				096
			9.7				097
			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

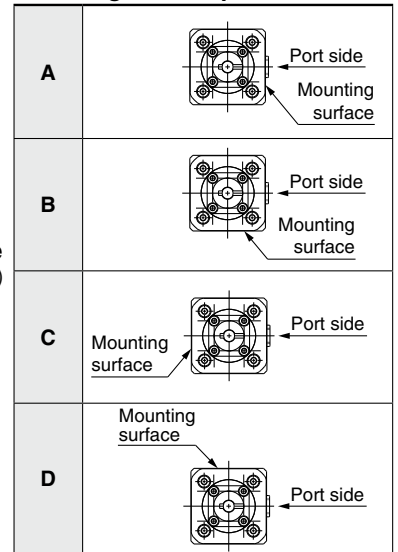
Hole diameter of workpiece	C	D	d	K	SR	Q	Model number
ø16	11.5	25	15.5	6	6.5	14.3	155
			15.6				156
			15.7				157
			15.8				158
			15.9				159
			16.0				160
ø18	13	27	17.5	6	7.5	16.4	175
			17.6				176
			17.7				177
			17.8				178
			17.9				179
			18.0				180
ø20	13	27	19.5	6	8	17.2	195
			19.6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

**Dimensions**

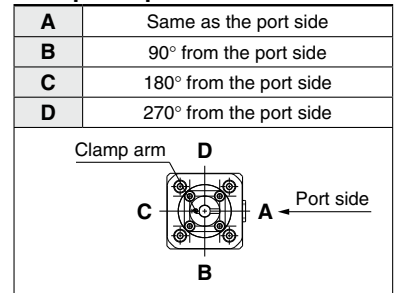
**CKQG□32 (Clamping height HIGH type)** \* The figures below indicate the CKQGB32-□RCH-X2082.



**Mounting surface position**



**Clamp arm position**



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

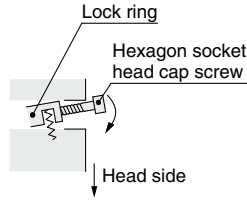
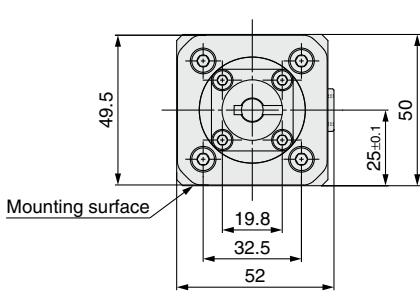
Hole diameter of workpiece	C	D	d	K	SR	Q	Model number
ø16	11.5	25	15.5	6	6.5	14.3	155
			15.6				156
			15.7				157
			15.8				158
			15.9				159
			16.0				160
ø18	13	27	17.5	6	7.5	16.4	175
			17.6				176
			17.7				177
			17.8				178
			17.9				179
			18.0				180
ø20	13	27	19.5	6	8	17.2	195
			19.6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

# Series C(L)KQG32



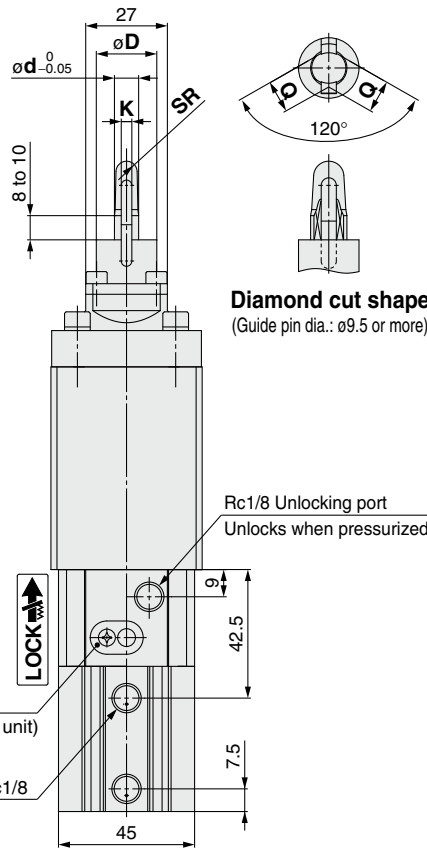
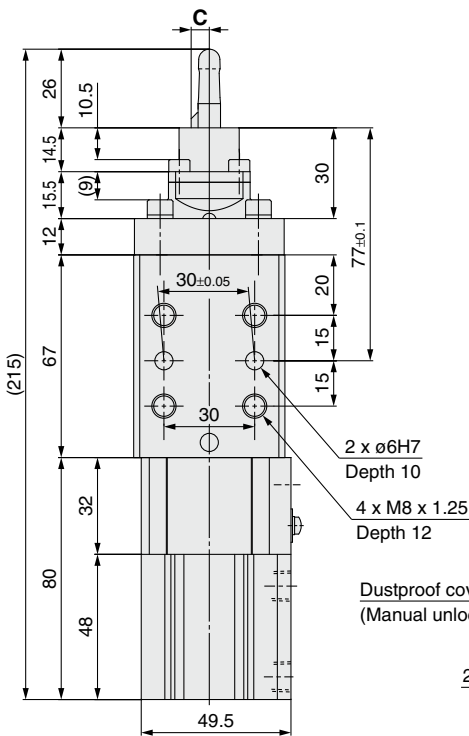
## Dimensions

**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

<b>A</b>	
<b>B</b>	
<b>C</b>	
<b>D</b>	

### Clamp arm position

<b>A</b>	Same as the port side
<b>B</b>	90° from the port side
<b>C</b>	180° from the port side
<b>D</b>	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

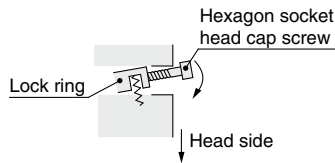
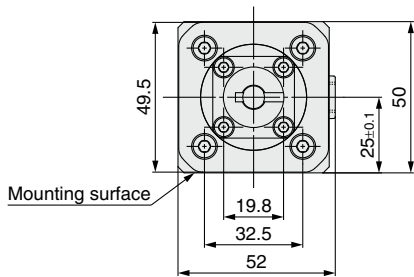
Hole diameter of workpiece	C	D	d	K	SR	Q	Model number
ø16	11.5	25	15.5	6	6.5	14.3	155
			15.6				156
			15.7				157
			15.8				158
			15.9				159
			16.0				160
ø18	13	27	17.5	6	7.5	16.4	175
			17.6				176
			17.7				177
			17.8				178
			17.9				179
			18.0				180
ø20	13	27	19.5	6	8	17.2	195
			19.6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





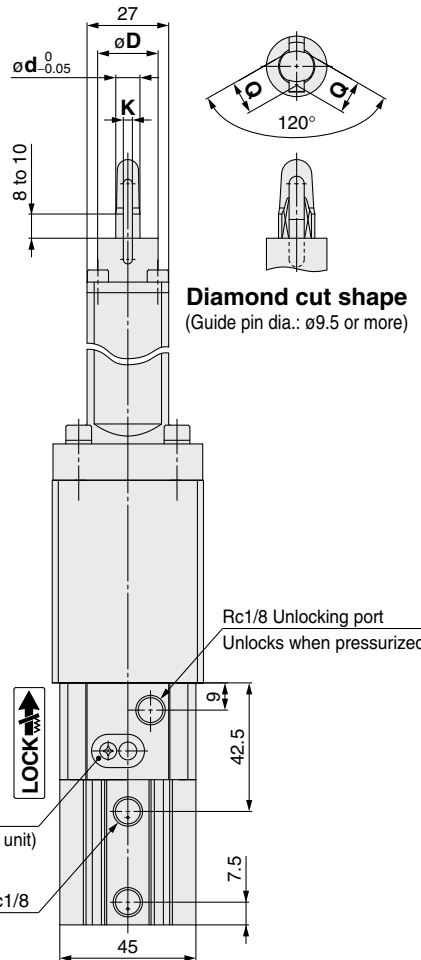
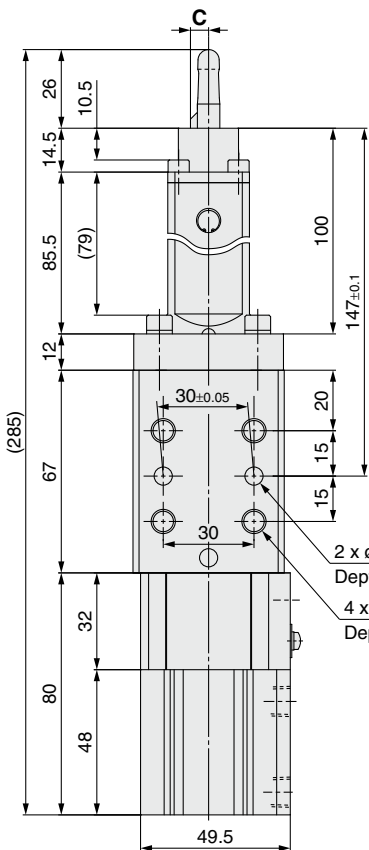
Dimensions

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

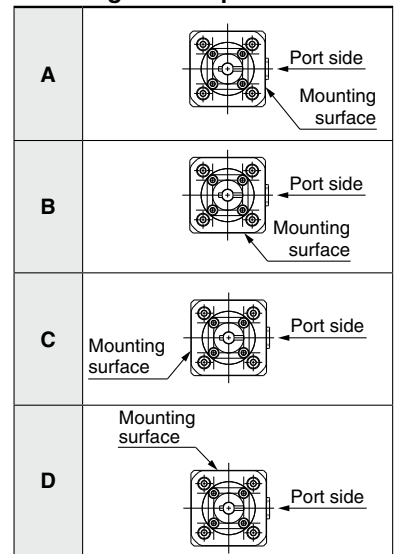


Manually unlocking

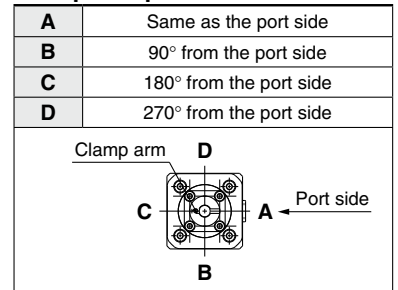
- 1) Remove the dustproof cover.
- 2) Screw the hexagon socket head cap screw (M3 x 15 L or more) into the lock ring shown on the left and raise the lock ring toward the head side.
- 3) The lock ring and piston rod form a right angle, and the lock is released.



Mounting surface position



Clamp arm position



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
ø10	7.5	20	9.6	4	4.5	9.2	096
			9.7				097
			9.8				098
			9.9				099
			10.0				100
			10.5				105
			10.6				106
ø11	7.5	20	10.7	4	4.5	9.8	107
			10.8				108
			10.9				109
			11.0				110

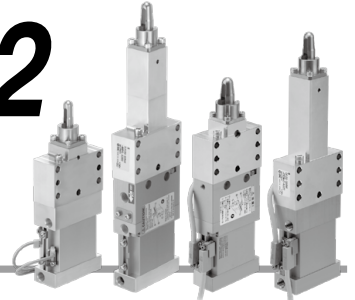
Hole diameter of workpiece	C	D	d	K	SR	Q	Model number
ø12	8.5	20	11.5	5	5	10.9	115
			11.6				116
			11.7				117
			11.8				118
			11.9				119
			12.0				120
			12.5				125
			12.6				126
			12.7				127
			12.8				128
ø13	8.5	20	12.9	5	5.5	11.6	129
			13.0				130
			13.5				135
			13.6				136
			13.7				137
			13.8				138
			13.9				139
ø14	10.5	25	14.0	6	5.5	12.6	140
			14.5				145
			14.6				146
			14.7				147
			14.8				148
			14.9				149
ø15	10.5	25	15.0	6	6	13.3	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
ø20	13	27	19.6	6	8	17.2	196
			19.7				197
			19.8				198
			19.9				199
			20.0				200

# Pin Clamp Cylinder Plate Cylinder Type

## Magnetic Field Resistant Auto Switch/Small Auto Switch Mounting

# Series C(L)KU32



### How to Order

**Clamping height LOW type** C L KU 32 - 075 R A L - P3DWASC [ ] - X2321

**Clamping height HIGH type** C L KU 32 - 075 R A H - M9BWV [ ] - 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 on the next page.

**Guide pin shape**

R	Round type	D	Diamond type
---	------------	---	--------------

**Auto switch**

Nil	Without auto switch
-----	---------------------

\* For applicable auto switches, refer to the table below.

**Number of auto switches**

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

**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 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 (D-M9□/D-A7□) cannot be used under strong magnetic field.

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

#### Magnetic Field Resistant Auto Switch

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-P3DWASC	AC magnetic field (Single-phase AC welding magnetic field)	Pre-wired connector	2-color indication	2-wire (3-4)	24 VDC	0.3 m 0.5 m 3 m 5 m	Relay, PLC (Note 1)
	D-P3DWASE				2-wire (1-4)			
	D-P3DWA		2-wire					
	D-P3DWAL							
	D-P3DWAZ	Grommet						

Note 1) PLC: Programmable Logic Controller

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

#### Small Auto Switch

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	In-line	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
				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	—	100 V	A73	●	—	●	—	—	Relay, PLC
								A79W	●	—	●	—	—	Relay, PLC

\* Solid state auto switches marked with "○" are produced upon receipt of order.

\* The D-A9□ and A9□V cannot be mounted.

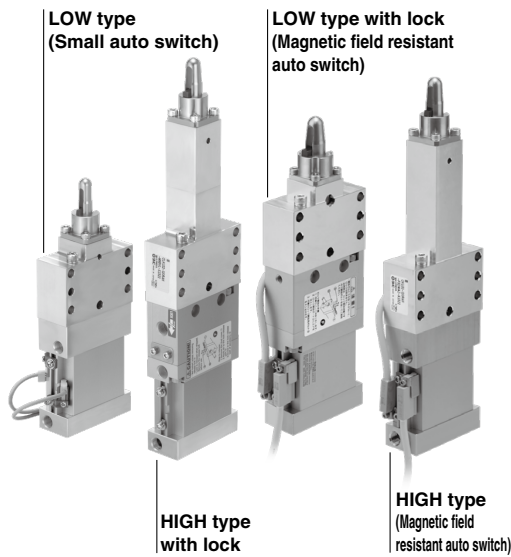
\* For details about auto switches with pre-wired connector, refer to the Best Pneumatics No. 3.

\* Auto switches and mounting brackets are shipped together, (but not assembled).

\* Lead wire length symbols: 0.5 m.....Nil (Example) M9NWV  
1 m.....M (Example) M9NWVM  
3 m.....L (Example) M9NWVL  
5 m.....L (Example) M9NWVZ

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

Magnetic Field Resistant Auto Switch/Small Auto Switch Mounting



## 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]					
		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.

**Table 1. Guide Pin Diameter**

Symbol	<b>075</b>	<b>076</b>	<b>077</b>	<b>078</b>	<b>079</b>	<b>080</b>	<b>085</b>	<b>086</b>	<b>087</b>	<b>088</b>	<b>089</b>	<b>090</b>	<b>095</b>	<b>096</b>	<b>097</b>	<b>098</b>	<b>099</b>	<b>100</b>	<b>105</b>	<b>106</b>	<b>107</b>	<b>108</b>	<b>109</b>	<b>110</b>
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	<b>115</b>	<b>116</b>	<b>117</b>	<b>118</b>	<b>119</b>	<b>120</b>	<b>125</b>	<b>126</b>	<b>127</b>	<b>128</b>	<b>129</b>	<b>130</b>	<b>135</b>	<b>136</b>	<b>137</b>	<b>138</b>	<b>139</b>	<b>140</b>	<b>145</b>	<b>146</b>	<b>147</b>	<b>148</b>	<b>149</b>	<b>150</b>
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	<b>155</b>	<b>156</b>	<b>157</b>	<b>158</b>	<b>159</b>	<b>160</b>	<b>175</b>	<b>176</b>	<b>177</b>	<b>178</b>	<b>179</b>	<b>180</b>	<b>195</b>	<b>196</b>	<b>197</b>	<b>198</b>	<b>199</b>	<b>200</b>						
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																							

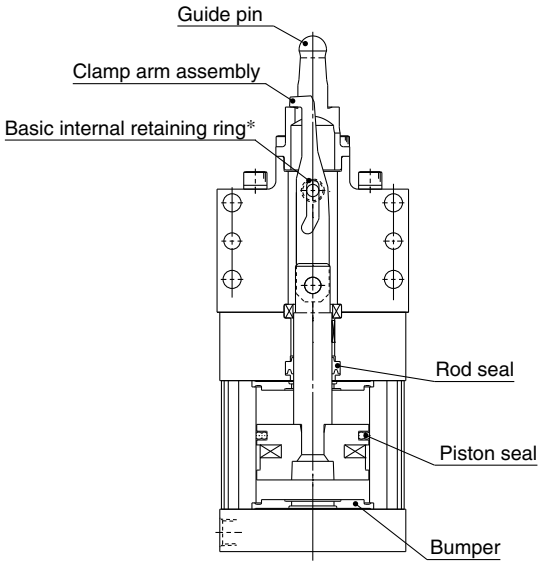
## Weight

Model		CKU32		CLKU32	
		-X2321	-X2322	-X2321	-X2322
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	780	950	990	1160
	ø12.5 to ø13.0				
	ø13.5 to ø14.0				
	ø14.5 to ø15.0				
	ø15.5 to ø16.0				
ø17.5 to ø18.0	790	960	1000	1170	
ø19.5 to ø20.0					

Unit: g

# Series C(L)KU32

## Replacement Parts



CKU32-120R□L-X2321

### ■ Seal Kit (For type without lock only)

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

\* 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

\* Please 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

R	Round type	D	Diamond type

### ■ Clamp Arm Assembly Order No.

CKQG32X-**08****B**

Applicable hole diameter of workpiece

\* Refer to Table 1 (Symbol 1) below.

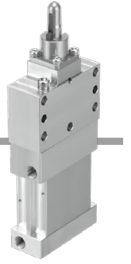
Clamp arm assembly

\* The clamp arm includes a basic internal retaining ring.

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

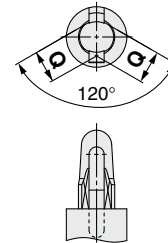
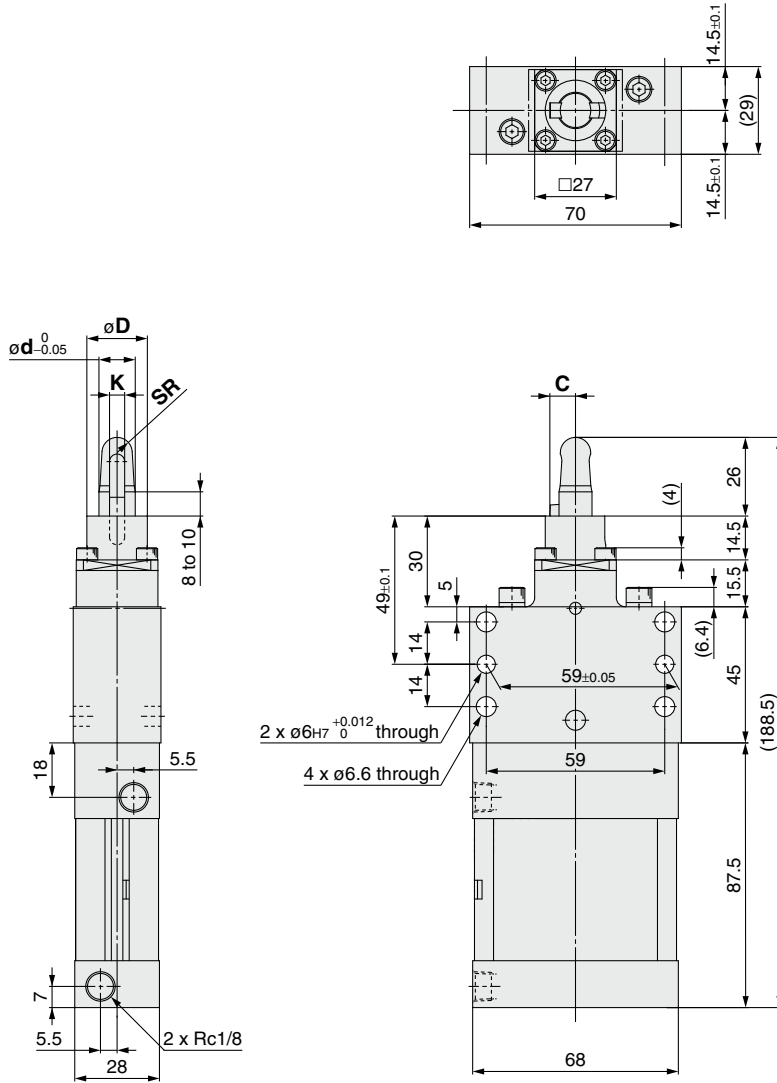
Symbol 1	Applicable hole diameter of workpiece	Symbol 2	Guide pin diameter	Shape	Symbol 1	Applicable hole diameter of workpiece	Symbol 2	Guide pin diameter	Shape	Symbol 1	Applicable hole diameter of workpiece	Symbol 2	Guide pin diameter	Shape
08	8	075	7.5	Round type	12	12	115	11.5	Round type	16	16	155	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	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	14	14	135	13.5	Diamond type	20	20	195	19.5	
		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				195	19.5	
		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	

**Pin Clamp Cylinder Plate Cylinder Type Magnetic Field Resistant Auto Switch/Small Auto Switch Mounting *Series C(L)KU32***



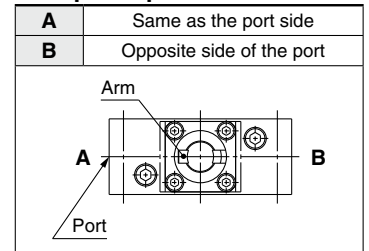
**Dimensions**

**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.



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

**Clamp arm position**



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

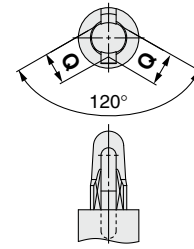
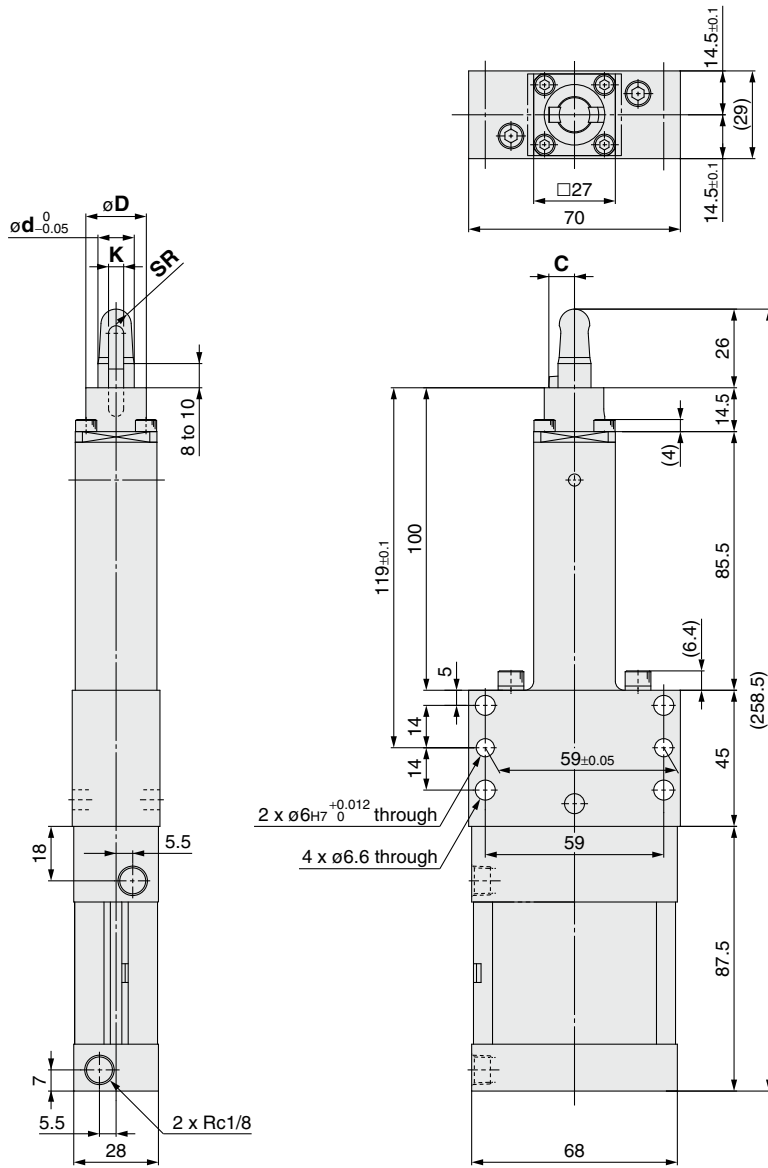
Hole diameter of workpiece	C	D	d	K	SR	Q	Model number
ø12	8.5	20	11.5	5	5	10.9	115
			11.6				116
			11.7				117
			11.8				118
			11.9				119
			12.0				120
ø13	8.5	20	12.5	5	5.5	11.6	125
			12.6				126
			12.7				127
			12.8				128
			12.9				129
			13.0				130
ø14	10.5	25	13.5	6	5.5	12.6	135
			13.6				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.



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

### Clamp arm position

<b>A</b>	Same as the port side
<b>B</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

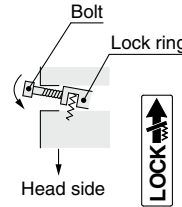
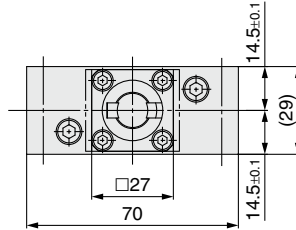
# Pin Clamp Cylinder Plate Cylinder Type **Series C(L)KU32**

Magnetic Field Resistant Auto Switch/Small Auto Switch Mounting



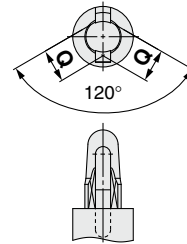
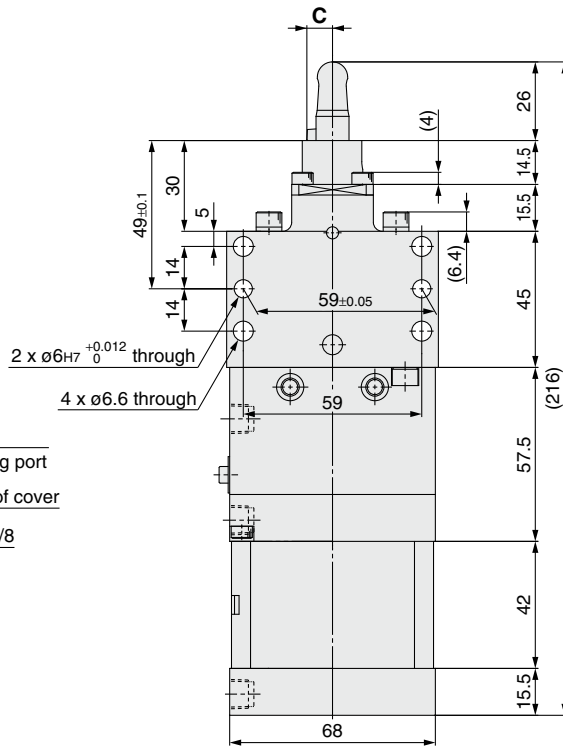
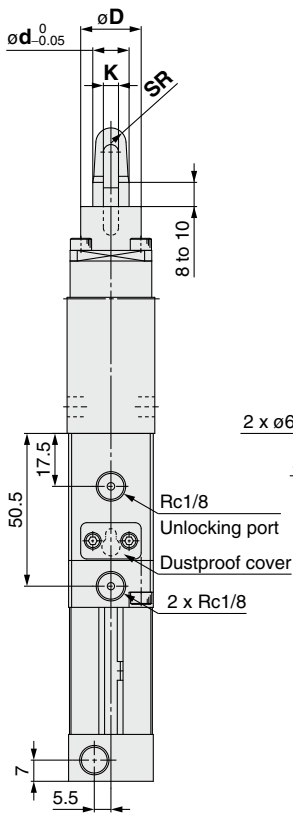
## Dimensions

**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.:  $\phi 11.5$  or more)

### Clamp arm position

<b>A</b>	Same as the port side
<b>B</b>	Opposite side of 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
			9.5				095
9.6	096						
$\phi 10$	7.5	20	9.7	4	4.5	9.2	097
			9.8				098
			9.9				099
			10.0				100
			10.5				105
$\phi 11$	7.5	20	10.6	4	4.5	9.8	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
			13.5				135
13.6	136						
$\phi 14$	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
$\phi 15$	10.5	25	14.7	6	6	13.3	147
			14.8				148
			14.9				149
			15.0				150

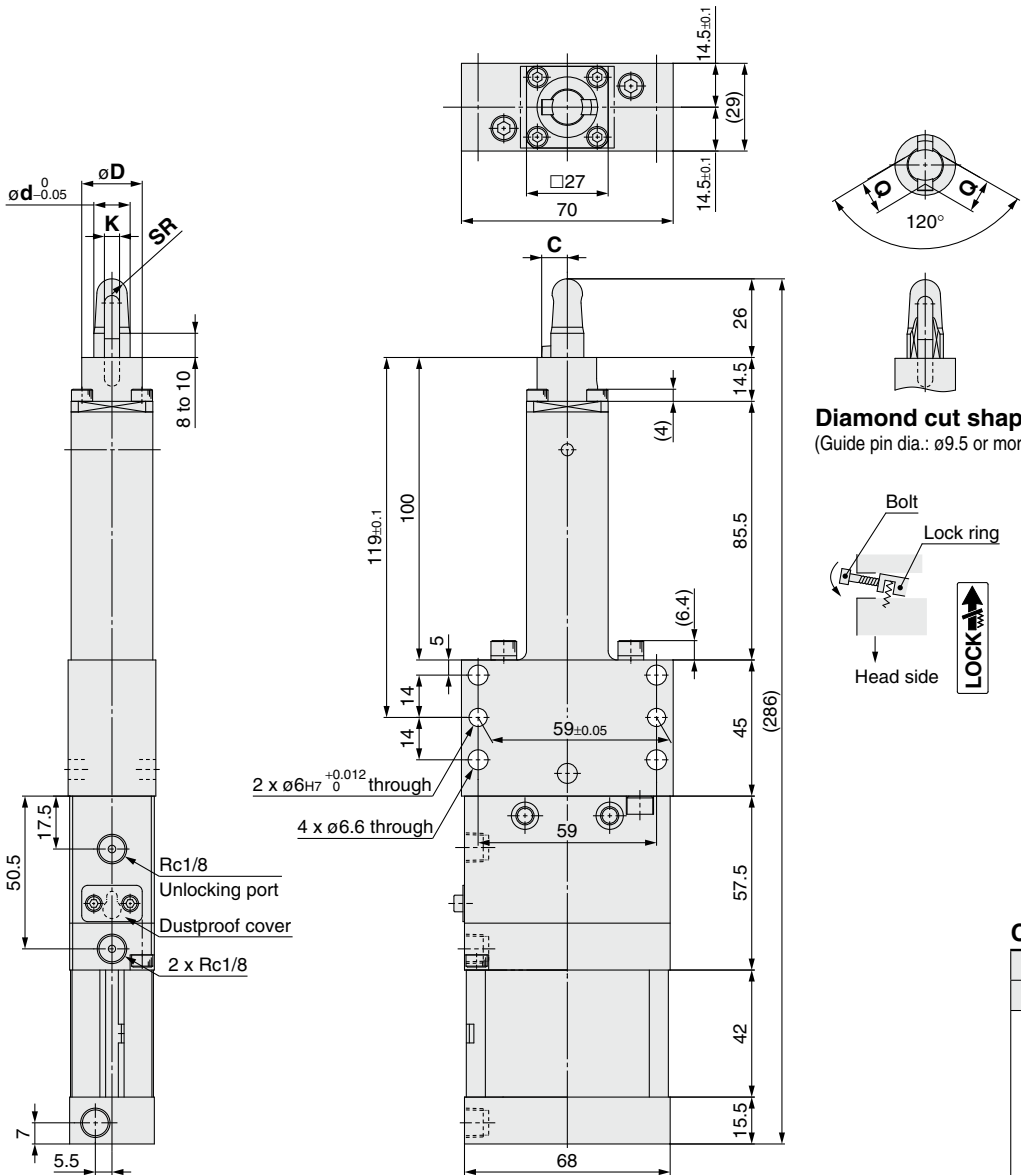
Hole diameter of workpiece	C	D	d	K	SR	Q	Model number
$\phi 16$	11.5	25	15.5	6	6.5	14.3	155
			15.6				156
			15.7				157
			15.8				158
			15.9				159
16.0	160						
$\phi 18$	13	27	17.5	6	7.5	16.4	175
			17.6				176
			17.7				177
			17.8				178
			17.9				179
			18.0				180
			19.5				195
19.6	196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

# Series C(L)KU32

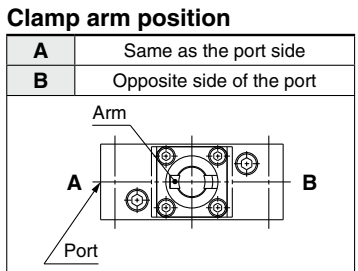


## Dimensions

**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.



- 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.



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

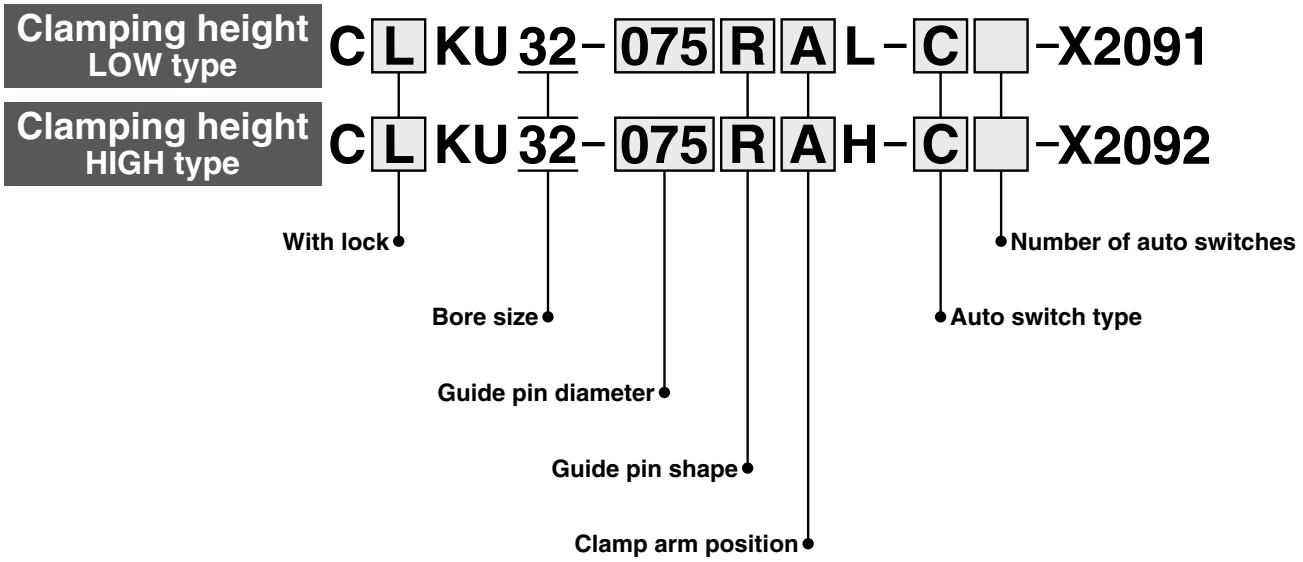
Hole diameter of workpiece	C	D	d	K	SR	Q	Model number
ø16	11.5	25	15.5	6	6.5	14.3	155
			15.6				156
			15.7				157
			15.8				158
			15.9				159
			16.0				160
ø18	13	27	17.5	6	7.5	16.4	175
			17.6				176
			17.7				177
			17.8				178
			17.9				179
			18.0				180
ø20	13	27	19.5	6	8	17.2	195
			19.6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



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

Use the new series "Pin Clamp Cylinder/Plate Cylinder Type **C(L)KU32-X2321/X2322**" with improved mountability of the magnetic field resistant auto switch. For details, refer to page 9.

## How to Order



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

## Dimensions

### Shim

C(L)KQG32-X2081

LOW type

C(L)KQG32-X2082

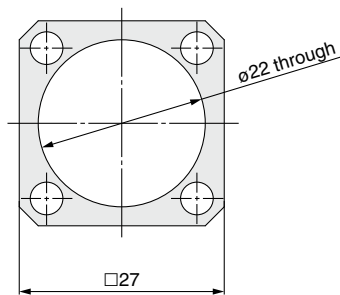
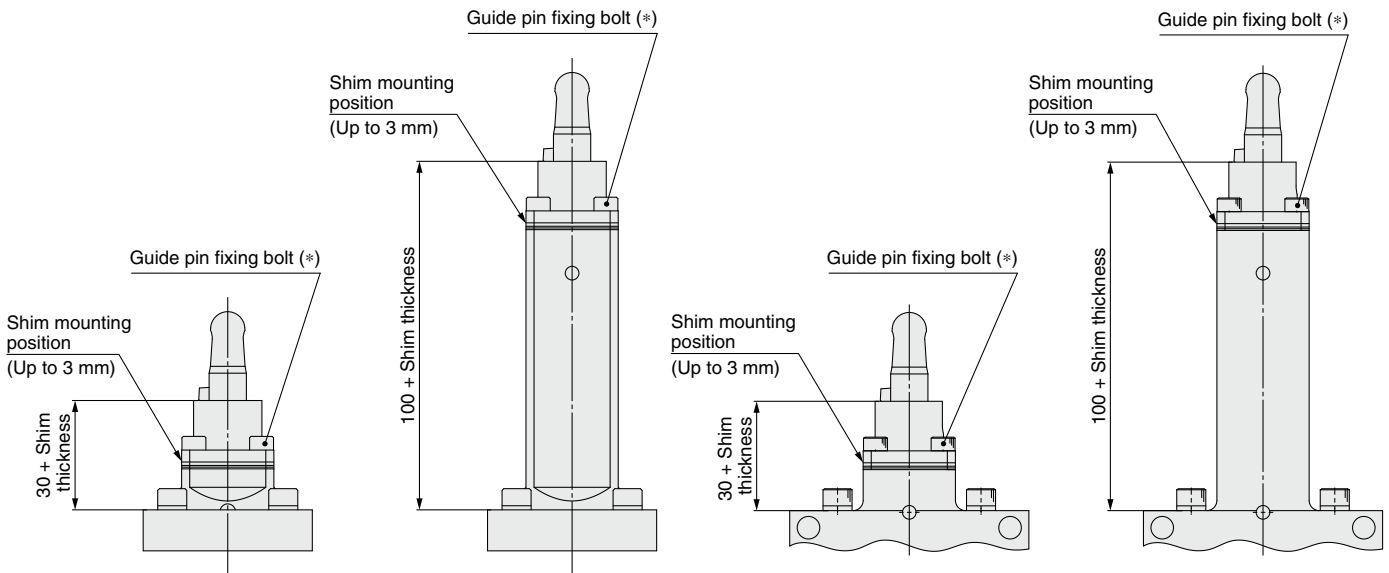
HIGH type

C(L)KU32-X2321

LOW type

C(L)KU32-X2322

HIGH type



Shim dimensions

Description	Part no.	Note
Shim A	<b>CKQ32-36A746MN</b>	Plate thickness 1 [mm]
Shim B	<b>CKQ32-36B746MN</b>	Plate thickness 0.5 [mm]
Guide pin fixing long bolt	<b>CA00644</b>	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.

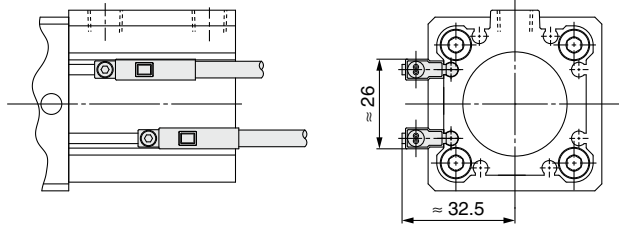


# Series C(L)KQG32 Auto Switch Mounting 1

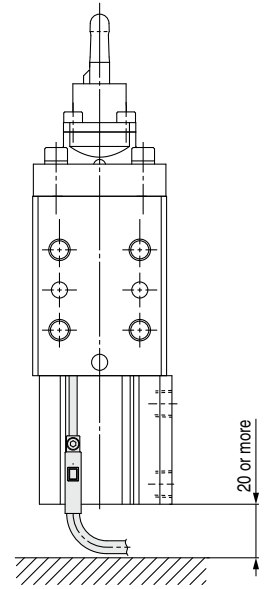
## Auto Switch Mounting Height

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

D-P3DWA□

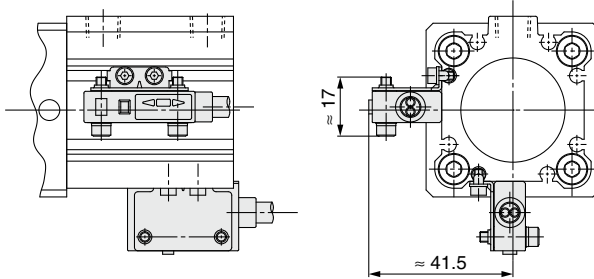


For D-P3DWA□

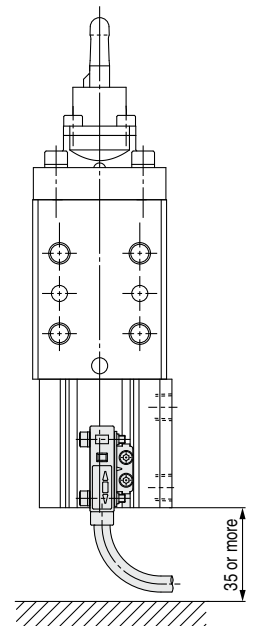


Note) Allow 20 mm or more space at the cylinder head side to secure the minimum bending radius of the auto switch lead wire.

D-P4DW□

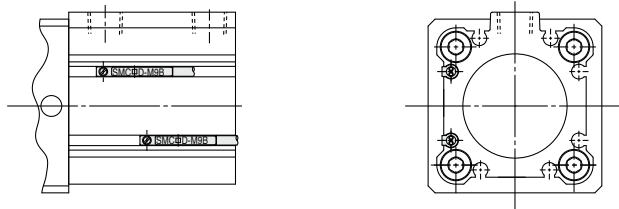


For D-P4DW□

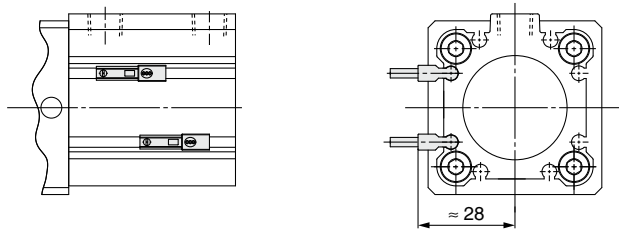


Note) Allow 35 mm or more space at the cylinder head side to secure the minimum bending radius of the auto switch lead wire.

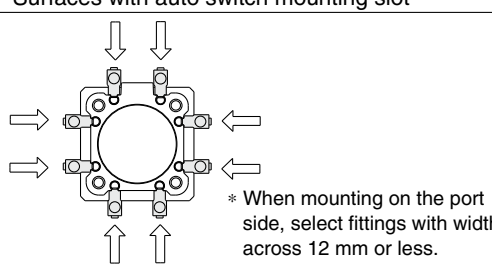
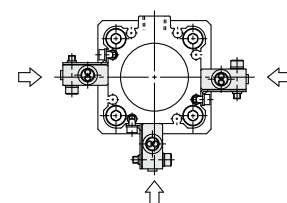
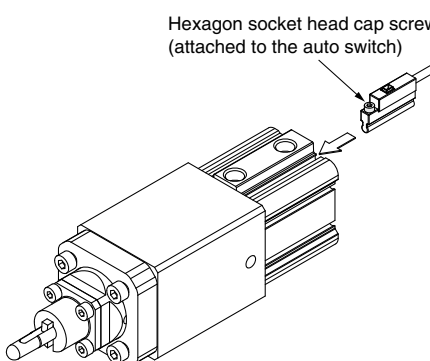
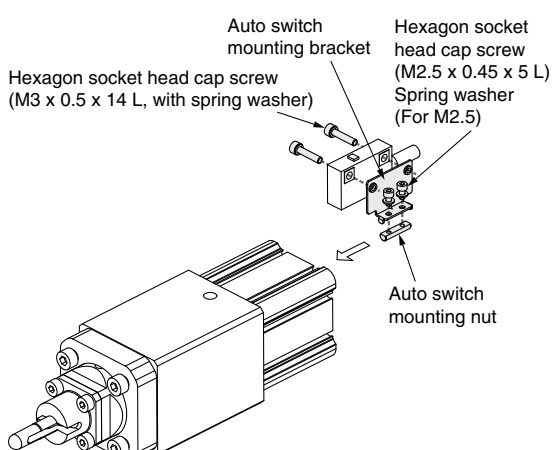
D-M9□  
D-M9□W  
D-A9□



D-M9□V  
D-M9□WV  
D-A9□V



## Auto Switch Mounting Bracket Part No./Mounting Method

Applicable cylinder	C(L)KQG32-X2081/-X2082	
Applicable auto switches	<b>D-P3DWA□</b>	<b>D-P4DW□</b>
Bore size [mm]	<b>ø32</b>	
Auto switch mounting bracket part no.	—	BQ7-032
Auto switch mounting bracket fitting parts lineup/Weight	—	<ul style="list-style-type: none"> <li>• Auto switch mounting bracket</li> <li>• Auto switch mounting nut (M2.5 x 0.45 x 5 L)</li> <li>• Hexagon socket head cap screw (M3 x 0.5 x 14 L, with spring washer)</li> <li>• Spring washer (For M2.5)</li> </ul> Weight: 8.5 g
Auto switch mounting surfaces	Surfaces with auto switch mounting slot	Surfaces with auto switch mounting slot
		
Mounting of auto switch	<p>① Insert the auto switch into the mating groove of the cylinder tube.</p> <p>② Check the detecting position of the auto switch and fix the auto switch firmly with the hexagon socket head cap screw (attached to the auto switch).</p> <p>Note) The tightening torque for the hexagon socket head cap screw is 0.2 to 0.3 N·m.</p> <div style="text-align: center;">  <p>Hexagon socket head cap screw (attached to the auto switch)</p> </div>	<p>① Fix the auto switch and the auto switch mounting bracket temporarily with the hexagon socket head cap screws (M3 x 14 L).</p> <p>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.</p> <p>③ Insert the temporarily fixed auto switch mounting nut into the mating groove of the cylinder tube.</p> <p>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).</p> <p>Note 1) The tightening torque for the hexagon socket head cap screw (M3 x 14 L) is 0.5 to 0.6 N·m.</p> <p>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.</p> <div style="text-align: center;">  <p>Auto switch mounting bracket</p> <p>Hexagon socket head cap screw (M2.5 x 0.45 x 5 L)</p> <p>Spring washer (For M2.5)</p> <p>Hexagon socket head cap screw (M3 x 0.5 x 14 L, with spring washer)</p> <p>Auto switch mounting nut</p> </div>

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

Refer to the 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
<b>Solid state auto switch</b>	D-M9□	Grommet (In-line)	—	<b>Reed auto switch</b>	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		—

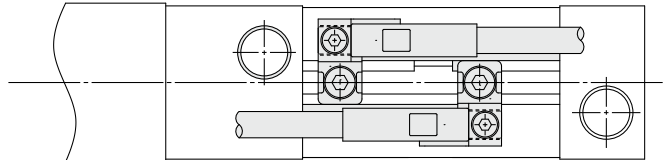
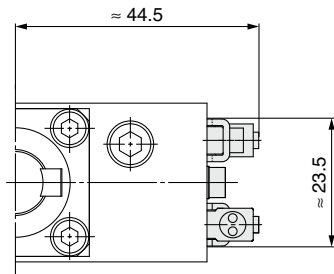
\* With pre-wired connector is also available for solid state auto switches. For details, refer to the Best Pneumatics No. 3.

# Series C(L)KU32 Auto Switch Mounting 2

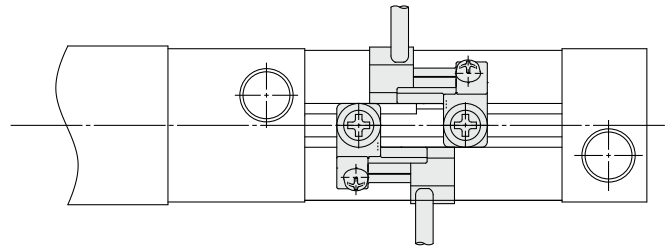
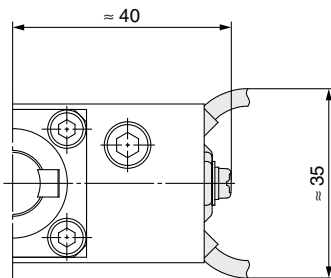
## Auto Switch Mounting Height

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

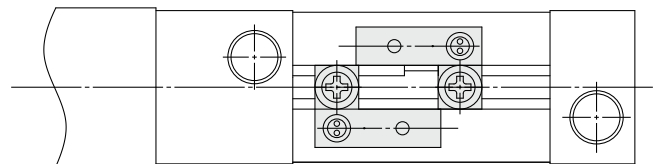
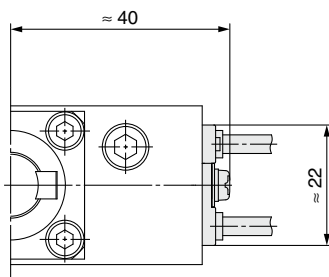
D-P3DWA□



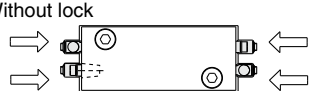
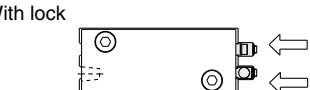
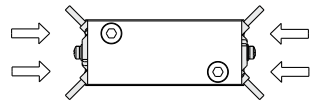
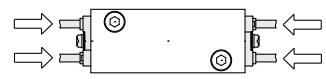
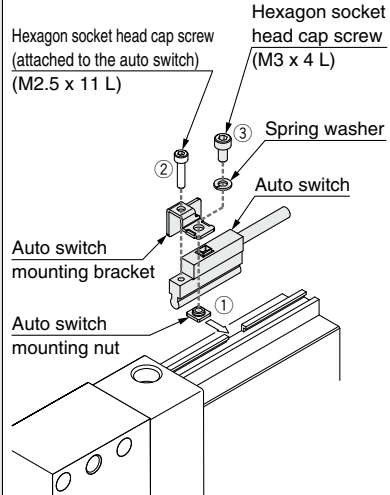
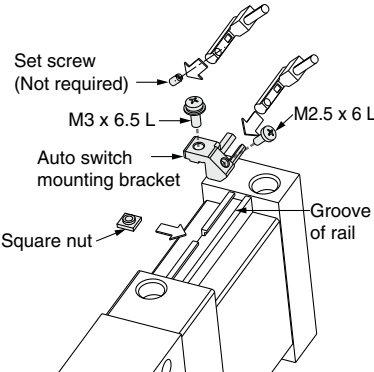
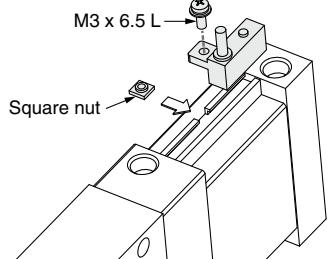
D-M9□V  
D-M9□WV




D-A7□



## Auto Switch Mounting Bracket Part No./Mounting Method

Applicable cylinder	-X2321/-X2322	-X2321/-X2322	-X2321/-X2322
Applicable auto switches	D-P3DWA□	D-M9□V/M9□WV	D-A73/A79W
Bore size [mm]	ø32	ø32	ø32
Auto switch mounting bracket part no.	BMU4-040S	BMU1-025 (Below ①, ②) BQ2-012 (Below ③, ④)	BMU1-025
Auto switch mounting bracket fitting parts lineup/Weight	①Hexagon socket head cap screw (M3 x 4 L) ②Auto switch mounting nut ③Spring washer (M3) ④Auto switch mounting bracket Weight: 4 g	①Cross recessed round head screw (M3 x 6.5 L) ②Square nut ③Auto switch mounting bracket ④Round 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	<ol style="list-style-type: none"> <li>Remove the screw (M2.5 x 11 L) attached to the auto switch temporarily.</li> <li>Insert the temporarily removed screw into the auto switch mounting bracket, and fix the bracket on the auto switch.</li> <li>Slide the auto switch mounting nut into the groove of the rail, and fix the auto switch mounting bracket on the cylinder with the hexagon socket head cap screw (M3 x 4 L) and spring washer (M3).</li> </ol> <p>Note) The tightening torque for the hexagon socket head cap screw (M2.5 x 11 L) is 0.2 to 0.3 N·m. The tightening torque for the hexagon socket head cap screw (M3 x 4 L) is 0.5 to 0.7 N·m.</p> 	<ol style="list-style-type: none"> <li>Remove the set screw attached to the auto switch. (The set screw is not required.)</li> <li>Fix the auto switch to the auto switch mounting bracket with the round head combination screw (M2.5 x 6 L).</li> <li>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).</li> </ol> <p>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.</p> 	<ol style="list-style-type: none"> <li>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).</li> </ol> <p>Note) The tightening torque for the cross recessed round head screw (M3 x 6.5 L) is 0.5 to 0.7 N·m.</p> 

 **Safety Instructions** Be sure to read "Handling Precautions for SMC Products" (M-E03-3) before using.

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D-G

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