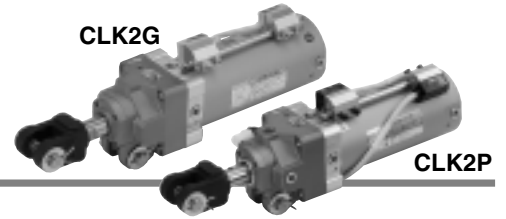


# Clamp Cylinder with Lock with Magnetic Field Resistant Auto Switch Rod Mounting

## Series *CLK2G/CLK2P*

ø40, ø50, ø63



### How to Order

**Built-in standard magnet type with magnetic field resistant auto switch**

**CLK2G** A 50   - 100 Y   - B     - P4DWSC    

**Built-in strong magnet type with magnetic field resistant auto switch**

**CLK2P** A 50   - 100 Y   - B     - P79WSE    

**Clevis width**

<b>A</b>	16.5 mm	ø40, ø50, ø63
<b>B</b>	19.5 mm	ø50, ø63

**Bore size**

<b>40</b>	40 mm
<b>50</b>	50 mm
<b>63</b>	63 mm

**Port type**

<b>Nil</b>	Rc
<b>TN</b>	NPT

**Cylinder stroke**

50, 75, 100, 125, 150
-----------------------

**End bracket**

<b>Nil</b>	None
<b>I</b>	Single knuckle joint (M6 without tap)
<b>IA</b>	Single knuckle joint (M6 with tap)
<b>Y</b>	Double knuckle joint (M6 without tap)
<b>YA</b>	Double knuckle joint (M6 with tap)

Note) Pin (for knuckle), cotter pin and flat washer are provided as a standard for Y and YA.

**Option**

<b>Nil</b>	None
<b>B</b>	Limit switch mounting base
<b>D</b>	Dog fitting <sup>Note 1)</sup>
<b>L</b>	Foot
<b>K</b> <sup>Note 2)</sup>	Pedestal (for 75, 100, 150 strokes only)

Note 1) When the dog bracket is selected, choose the rod end bracket IA or YA (M6 with tap).

Note 2) Clevis width B is not available with mounting base K.

**Number of auto switches**

<b>Nil</b>	2 pcs.
<b>S</b>	1 pc.
<b>n</b>	"n" pcs. (n = 3, 4, 5...n)

**Auto switch**

<b>Nil</b>	Without auto switch, Without switch mounting rod
<b>P</b>	Without auto switch, With switch mounting rod
<b>Auto switch model</b>	With auto switch, With switch mounting rod

Note) Select applicable auto switch models from the table below.

**Switch mounting rod position**

<b>Nil</b>	Top
<b>L</b>	Left
<b>R</b>	Right

Note 1) Viewed from the rod end.

Note 2) When the auto switch D-P79WSE is mounted, by-pass piping and a switch mounting rod cannot be placed at the same position.

**Port/By-pass piping position**

\* Refer to page 2.

**Locking direction**

<b>B</b>	Retraction locking
<b>F</b>	Extension locking

### Built-in Standard (Strong) Magnet Cylinder Part No.

- 1) Built-in standard (strong) magnet type without auto switch and switch mounting rod  
Symbol for the auto switch type is "Nil" as shown below.  
CLK2G: (Example) CLK2GA50-50Y  
CLK2P: (Example) CLK2PA50-50Y
- 2) Built-in standard (strong) magnet type without auto switch, with switch mounting rod  
Symbol for the auto switch type is "P" as shown below.  
CLK2G: (Example) CLK2GA50-50Y-P  
CLK2P: (Example) CLK2PA50-50Y-P

### Applicable Magnetic Field Resistant Auto Switches (Refer to page 21 through to 25 for detailed auto switch specifications.)

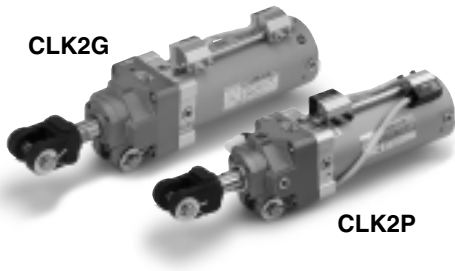
Applicable cylinder series	Type	Auto switch model	Applicable magnetic field	Electrical entry	Indicator light	Wiring (Pin no. in use)	Load voltage	Lead wire length	Applicable load
<b>CLK2G series</b>	<b>Solid state switch</b>	<b>P4DWSC</b>	AC magnetic field (Single-phase AC welding magnetic field)	Pre-wired connector	2-color display	2-wire (3-4)	24 VDC	0.3 m	Relay, PLC
		<b>P4DWSE</b>				2-wire (1-4)			
		<b>P4DWL</b>		Grommet		2-wire		3 m	
		<b>P4DWZ</b>						5 m	
<b>CLK2P series</b>	<b>Reed switch</b>	<b>P79WSE</b>	DC / AC magnetic field	Pre-wired connector	2-color display	2-wire (1-4)	24 VDC	0.3 m	Relay, PLC
		<b>P74L</b>		Grommet (Pre-wired connector)	1-color display	2-wire	24 VDC	3 m	
		<b>P74Z</b>					100 VAC	5 m	

Note 1) PLC: Programmable Logic Controller

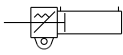
Note 2) Refer to page 17 when ordering the auto switch mounting bracket assembly or switch mounting rod assembly.

# Clamp Cylinder with Lock With Magnetic Field Resistant Auto Switch *Series CLK2G/CLK2P*

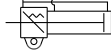
## Clamp Cylinder with Lock Specifications



### Symbol



Retraction locking type



Extension locking type

Bore size	40	50	63
<b>Action</b>	Double acting, Single rod		
<b>Fluid</b>	Air		
<b>Proof pressure</b>	1.5 MPa		
<b>Maximum operating pressure</b>	1.0 MPa		
<b>Minimum operating pressure</b>	0.2 MPa		
<b>Locking action</b>	Spring locking		
<b>Locking pressure</b>	0.05 MPa		
<b>Locking direction</b>	One direction (Retraction, Extension)		
<b>Lock holding force N</b> <small>Note 1)</small> <b>(Max. static load)</b>	0.5 MPa or equivalent		
	629	982	1559
<b>Lock application</b>	Drop prevention, Position holding		
<b>Ambient and fluid temperature</b>	Without auto switch: -10°C to 70°C With auto switch: -10°C to 60°C		
<b>Lubrication</b>	Non-lube		
<b>Piston speed</b>	50 to 500 mm/s		
<b>Stroke length tolerance</b>	+1.0/0		
<b>Cushion</b>	Retraction direction (Head end): With air cushion		
<b>Thread tolerance</b>	JIS Class 2		
<b>Mounting</b>	Double clevis <small>Note 2)</small>		

Note 1) Be sure to comply with guidelines in the back of page 3 when selecting cylinders.

Note 2) Pin (for clevis), cotter pin, flat washer are equipped as standard.

Clevis width	16.5 mm	ø40, ø50, ø63
	19.5 mm	ø50, ø63

### Weight (Basic weight is for a 0 mm stroke.)

Unit: kg

Cylinder basic weight	Bore size (mm)	40	50	63
	<b>CLK2G series</b>	B: 1.05 F: 1.11	B: 1.48 F: 1.54	B: 1.96 F: 2.02
<b>CLK2P series</b>	B: 1.12 F: 1.18	B: 1.49 F: 1.55	B: 2.06 F: 2.08	
<b>Additional weight per 25 mm stroke</b>		0.08	0.11	0.13
<b>Single knuckle joint</b>		0.25	0.20	
<b>Double knuckle joint (Pin, cotter pin, flat washer are included.)</b>		0.36	0.34	
<b>Limit switch mounting base</b>		0.22		
<b>Dog fitting</b>		0.12		
<b>Foot</b>		0.24		
<b>Pedestal</b>		2.04		

Note) The above values do not include the weight of the auto switch and bracket.

Calculation  
 Example) CLK2PB50-100Y-B  
 • Basic weight ... 1.49 (ø50)  
 • Additional weight ... 0.11/25 mm  
 • Cylinder stroke ... 100 mm  
 • Double knuckle joint ... 0.34 (Y)  
 • 1.49 + 0.11 x 100 / 25 + 0.34 = 2.27 kg

### Standard Stroke

Bore size (mm)	Standard stroke (mm)
<b>40, 50, 63</b>	50, 75, 100, 125, 150

### Port/By-pass Piping Position

Symbol	Port position	By-pass piping position	Locking direction	
			B: Retraction locking	F: Extension locking
Nil	Port on top	By-pass piping on left		
2	Port on left	By-pass piping on right		
3	Port on right	By-pass piping on left		
4	Port on top	By-pass piping on right	—	
5	Port on left	By-pass piping on top	—	
6	Port on right	By-pass piping on top	—	

⇒ Port    By-pass piping

### Theoretical Output

Unit: N

Bore size (mm)	Rod size (mm)	Operating direction	Piston area (mm <sup>2</sup> )	Operating pressure (MPa)			
				0.3	0.4	0.5	0.6
40	16	OUT	1260	378	504	630	756
		IN	1060	318	424	530	636
50	20	OUT	1960	588	784	980	1180
		IN	1650	495	660	825	990
63	20	OUT	3120	934	1250	1560	1870
		IN	2800	840	1120	1400	1680

### Accessories (Options)

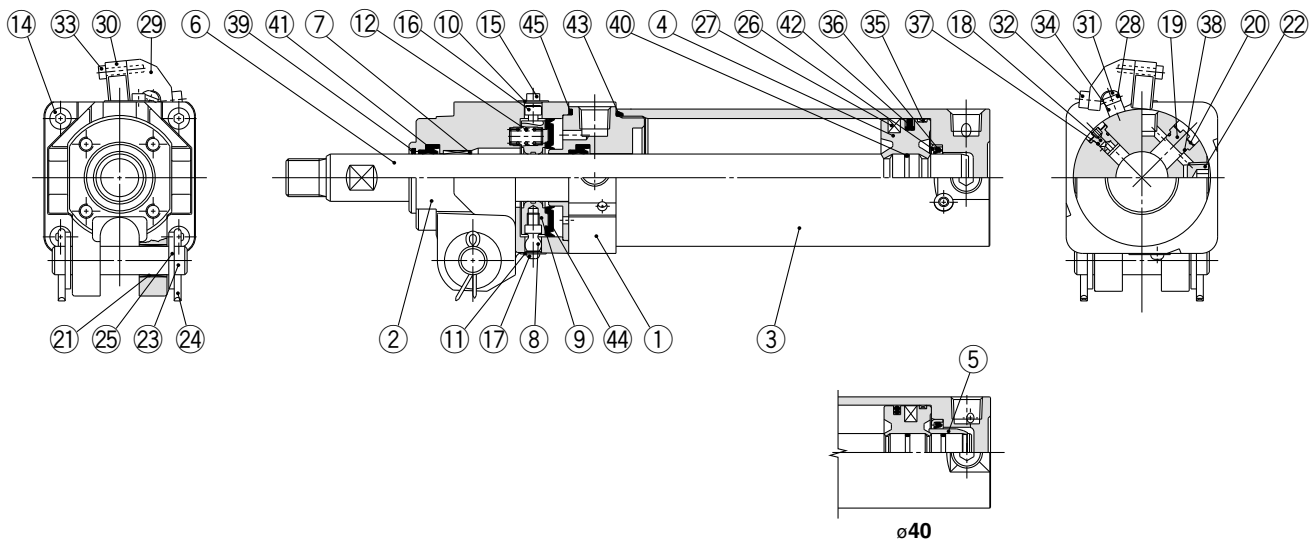
Symbol	Description	Parts no.		
		CLK2GA/CLK2PA series		CLK2GB/CLK2PB series
		40	50, 63	50, 63
I	Single knuckle joint	M6 without tap	CLK-I04	CKB-I04
IA		M6 with tap	CLK-IA04	CKB-IA04
Y	Double knuckle joint (knuckle pin, cotter pin, flat washer are equipped as a standard.)	M6 without tap	CLK-Y04	CKA-Y04
YA		M6 with tap	CLK-YA04	CKA-YA04
B	Limit switch mounting base	CK-B04		
D	Dog fitting	CK-D04		
L	Foot	CK-L04		
K	Pedestal	For 75 stroke	CKA-K075	—
		For 100 stroke	CKA-K100	—
		For 150 stroke	CKA-K150	—

# Series CLK2G/CLK2P

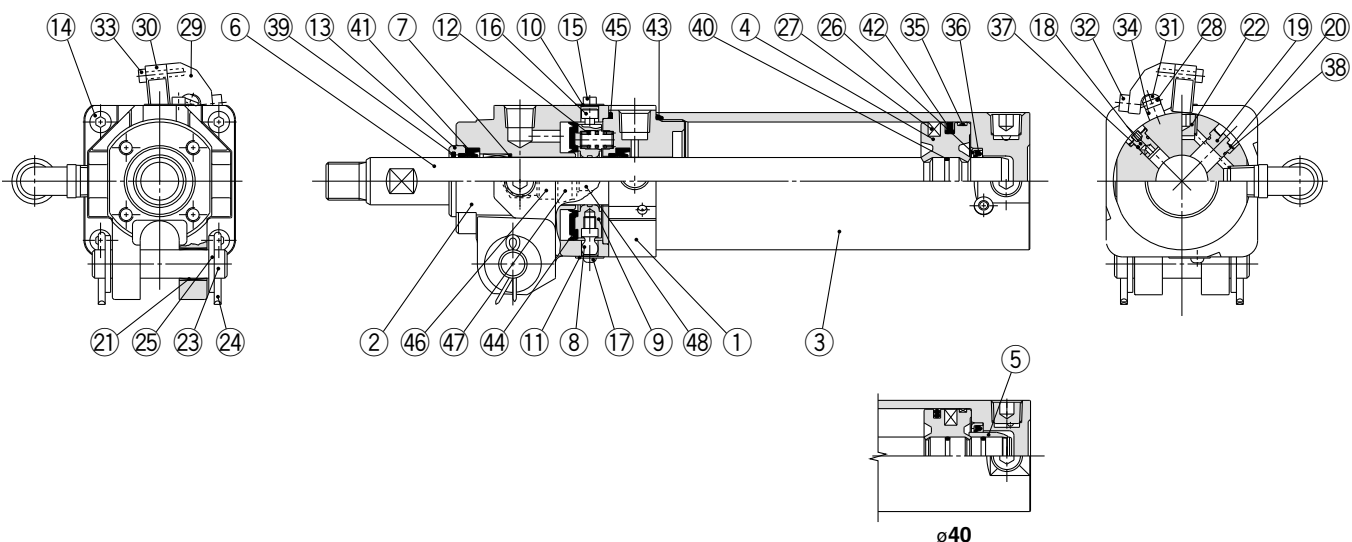
Construction: CLK2G□40/50/63

Built-in Standard Magnet Type / With Magnetic Field Resistant Auto Switch (D-P4DW□ type)

## Retraction locking (B)



## Extension locking (F)



### Component Parts

No.	Description	Material	Qty	Note
1	Rod cover	Aluminum alloy	1	Hard anodized
2	Cover	Aluminum alloy	1	Hard anodized
3	Tube cover	Aluminum alloy	1	Hard anodized
4	Piston	Aluminum alloy	1	Chromated
5	Cushion ring	Copper alloy	1	ø40 only
6	Piston rod	Carbon steel	1	Hard chrome plated
7	Bushing	Copper alloy	1	
8	Pivot	Carbon steel	1	Heat treated, Electroless nickel plated
9	Lock ring	Carbon steel	1	Zinc chromated
10	Dust cover	Stainless steel	1	
11	Dust cover	Stainless steel	1	
12	Brake spring	Steel wire	2	Zinc chromated
13	Retainer plate	Aluminum alloy	1	Anodized, Extension locking only
14	Hexagon socket head cap screw	Chrome molybdenum steel	4	Nickel plated
15	Hexagon socket head cap screw	Chrome molybdenum steel	1	Nickel plated
16	Hexagon socket head cap screw	Chrome molybdenum steel	1	Nickel plated
17	Round head Phillips screw	Chrome molybdenum steel	1	Nickel plated
18	Cushion valve	Aluminum alloy	1	
19	Plug	Aluminum alloy	1	
20	Retaining ring	Spring steel	2	
21	Clevis bushing	Oil-impregnated sintered alloy	2	
22	Hexagon socket head plug	Carbon steel	4(5)	Rc1/4, 5 pcs. of extension locking
23	Pin	Carbon steel	1	
24	Cotter pin	Low carbon steel wire rod	2	Zinc chromated

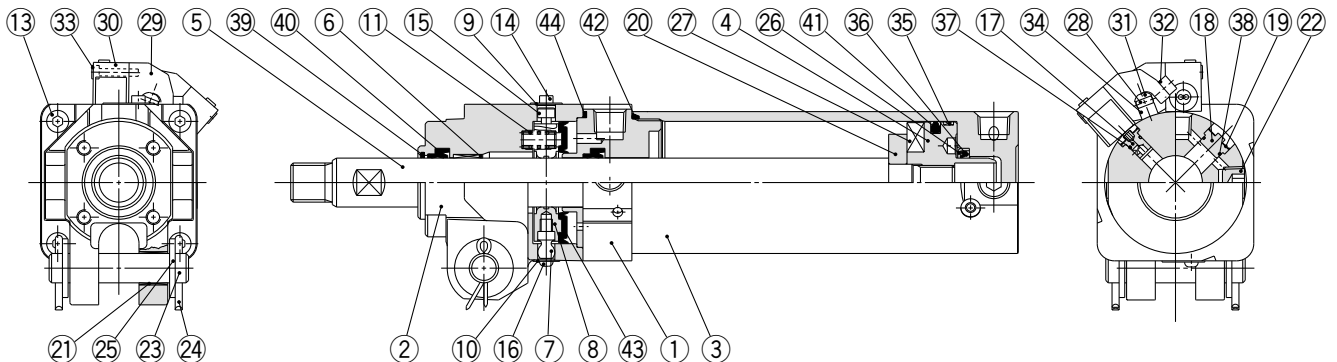
No.	Description	Material	Qty	Note
25	Flat washer	Rolled steel	2	Zinc chromated
26	Cushion seal retainer	Rolled steel	1	Zinc chromated
27	Magnet	Magnetic material	1	
28	Switch mounting rod	Carbon steel	1	Zinc chromated
29	Switch mounting bracket	Aluminum alloy	—	
30	Magnetic field resistant auto switch	—	—	
31	Hexagon socket head button screw	Chrome molybdenum steel	2	Nickel plated, M4 x 0.7 x 12 L
32	Hexagon socket head cap screw	Chrome molybdenum steel	2 pcs. per switch	Nickel plated, M4 x 0.7 x 8 L
33	Hexagon socket head cap screw	Chrome molybdenum steel	2 pcs. per switch	Nickel plated, M3 x 0.5 x 14 L
34	Switch mounting spacer	Aluminum alloy	1(2)	2 pcs. for ø63
35	Wear ring	Resin	1	
36	Cushion seal	Urethane	1	
37	Cushion valve seal	NBR	1	
38	Plug gasket	NBR	1	
39	Coil scraper	Phosphor bronze	1	
40	Piston gasket	NBR	1	
41	Rod seal	NBR	2	
42	Piston seal	NBR	1(2)	2 pcs. for ø40
43	Tube gasket	NBR	1	
44	Lock ring seal	NBR	1	
45	O-ring	NBR	1	
46	FR one-touch fitting		2	Extension locking only
47	Spatter cover		2	Extension locking only
48	FR double layer tube		1	Extension locking only

# Clamp Cylinder with Lock With Magnetic Field Resistant Auto Switch **Series CLK2G/CLK2P**

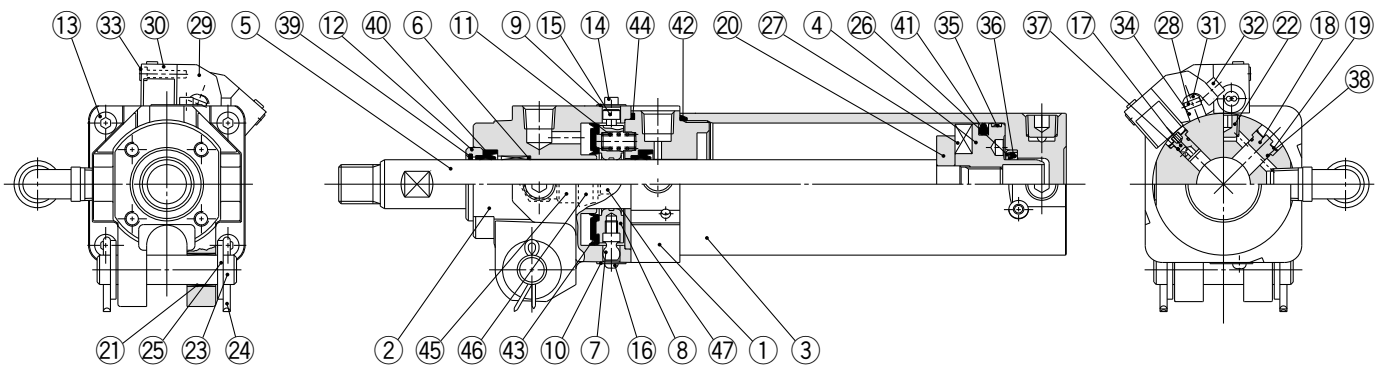
**Construction: CLK2P□40/50/63**

**Built-in Strong Magnet Type / With Magnetic Field Resistant Auto Switch (D-P7□□ type)**

## Retraction locking (B)



## Extension locking (F)



### Component Parts

No.	Description	Material	Qty	Note
1	Rod cover	Aluminum alloy	1	Hard anodized
2	Cover	Aluminum alloy	1	Hard anodized
3	Tube cover	Aluminum alloy	1	Hard anodized
4	Piston	Aluminum alloy	1	Chromated
5	Piston rod	Carbon steel	1	Hard chrome plated
6	Bushing	Copper alloy	1	
7	Pivot	Carbon steel	1	Heat treated, Electroless nickel plated
8	Lock ring	Carbon steel	1	Zinc chromated
9	Dust cover	Stainless steel	1	
10	Dust cover	Stainless steel	1	
11	Brake spring	Steel wire	2	Zinc chromated
12	Retainer plate	Aluminum alloy	1	Anodized, Extension locking only
13	Hexagon socket head cap screw	Chrome molybdenum steel	4	Nickel plated
14	Hexagon socket head cap screw	Chrome molybdenum steel	1	Nickel plated
15	Hexagon socket head cap screw	Chrome molybdenum steel	1	Nickel plated
16	Round head Phillips screw	Chrome molybdenum steel	1	Nickel plated
17	Cushion valve	Aluminum alloy	1	
18	Plug	Aluminum alloy	1	
19	Retaining ring	Spring steel	2	
20	Magnet holder	Aluminum alloy	1	Chromated
21	Clevis bushing	Oil-impregnated sintered alloy	2	
22	Hexagon socket head plug	Carbon steel	4(5)	Rc1/4, 5 pcs. of extension locking
23	Pin	Carbon steel	1	
24	Cotter pin	Low carbon steel wire rod	2	Zinc chromated

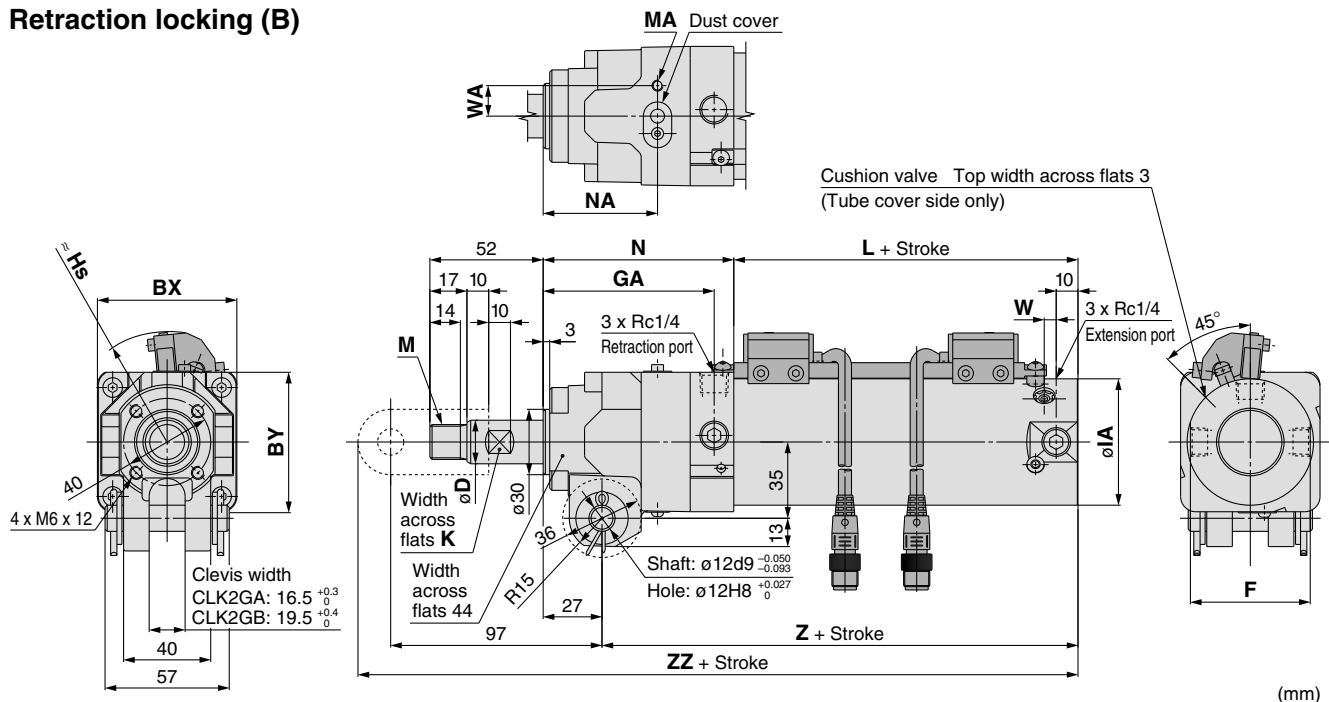
No.	Description	Material	Qty	Note
25	Flat washer	Rolled steel	2	Zinc chromated
26	Cushion seal retainer	Rolled steel	1	Zinc chromated
27	Magnet	Magnetic material	1	
28	Switch mounting rod	Carbon steel	1	Zinc chromated
29	Switch mounting bracket	Aluminum alloy	—	
30	Magnetic field resistant auto switch	—	—	
31	Hexagon socket head button screw	Chrome molybdenum steel	2	Nickel plated, M4 x 0.7 x 12 L
32	Hexagon socket head cap screw	Chrome molybdenum steel	2 pcs. per switch	Black zinc chromated, M4 x 0.7 x 8 L
33	Hexagon socket head cap screw	Chrome molybdenum steel	2 pcs. per switch	Black zinc chromated, M3 x 0.5 x 16 L
34	Switch mounting spacer	Aluminum alloy	1(2)	2 pcs. for ø63
35	Wear ring	Resin	1	
36	Cushion seal	Urethane	1	
37	Cushion valve seal	NBR	1	
38	Plug gasket	NBR	1	
39	Coil scraper	Phosphor bronze	1	
40	Rod seal	NBR	2	
41	Piston seal	NBR	1	
42	Tube gasket	NBR	1	
43	Lock ring seal	NBR	1	
44	O-ring	NBR	1	
45	FR one-touch fitting		2	Extension locking only
46	Spatter cover		2	Extension locking only
47	FR double layer tube		1	Extension locking only

# Series CLK2G/CLK2P

Dimensions: CLK2G□40/50/63

Built-in Standard Magnet Type / With Magnetic Field Resistant Solid State Switch (D-P4DW□ type)

## Retraction locking (B)

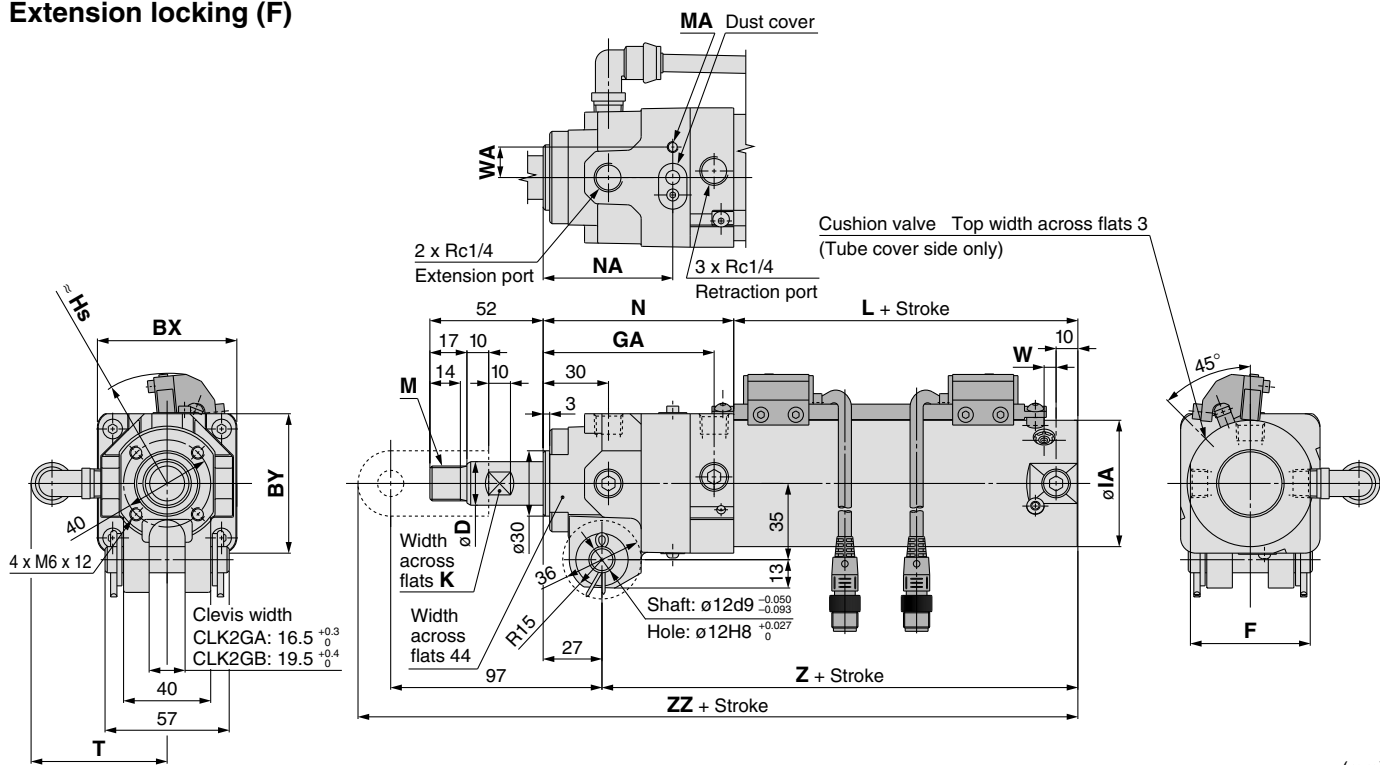


(mm)

Symbol	BX	BY	D	F	GA	IA	K	L	M	MA	N	NA	W	WA	Z	ZZ	Hs
Bore size 40	56	54	16	44	77	47	14	55	M12 x 1.5	M4 x 7	86	51.5	5	12.5	114	226	45.5
50	64	64	20	55	78.5	58	17	58	M16 x 1.5	M4 x 7	87.5	52.5	5.5	14	118.5	230.5	51
63	74	74	20	69	82	72	17	58	M16 x 1.5	M5 x 7	91	53.5	5.5	19	122	234	58.5

Note) Refer to page 14 and 15 for Accessories.

## Extension locking (F)



(mm)

Symbol	BX	BY	D	F	GA	IA	K	L	M	MA	N	NA	T	W	WA	Z	ZZ	Hs
Bore size 40	56	54	16	44	77	47	14	55	M12 x 1.5	M4 x 7	86	59	57	5	12.5	114	226	45.5
50	64	64	20	55	78.5	58	17	58	M16 x 1.5	M4 x 7	87.5	59.5	60	5.5	14	118.5	230.5	51
63	74	74	20	69	82	72	17	58	M16 x 1.5	M5 x 7	91	61	67	5.5	19	122	234	58.5

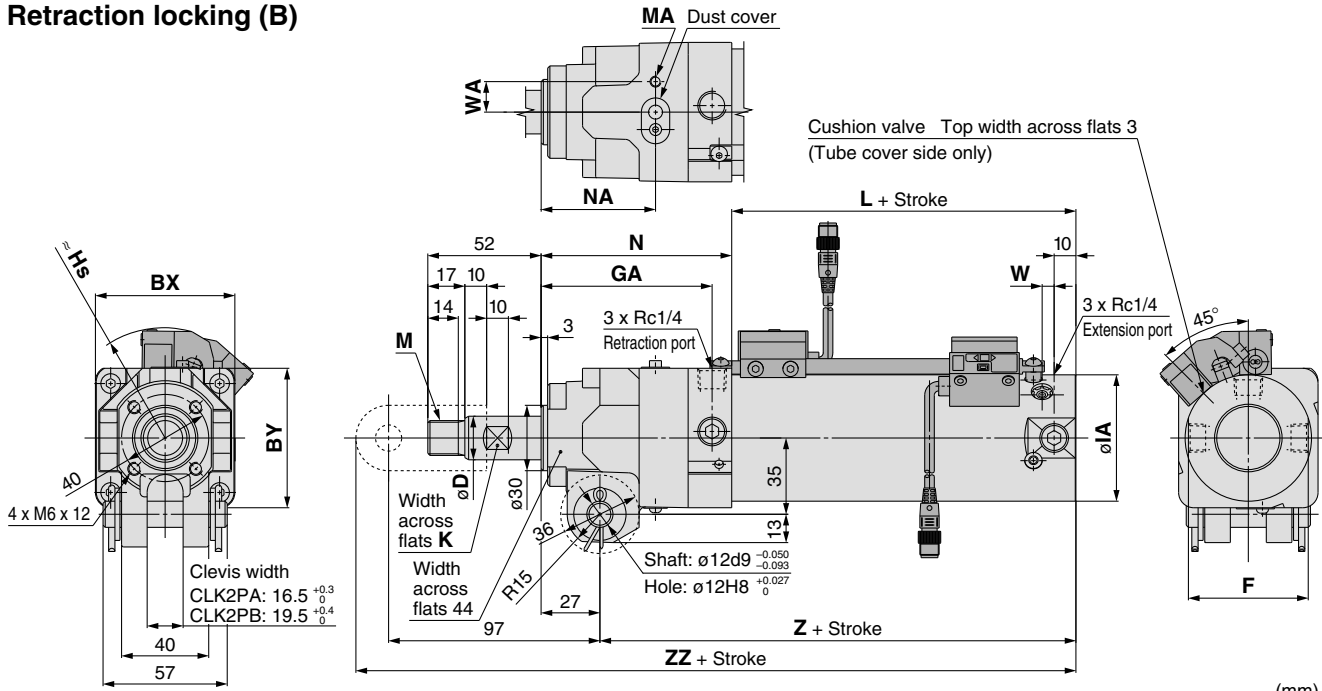
Note) Refer to page 14 and 15 for Accessories.

# Clamp Cylinder with Lock With Magnetic Field Resistant Auto Switch *Series CLK2G/CLK2P*

**Dimensions: CLK2P□40/50/63**

**Built-in Strong Magnet Type / With Magnetic Field Resistant Reed Switch (D-P7□□ type)**

## Retraction locking (B)

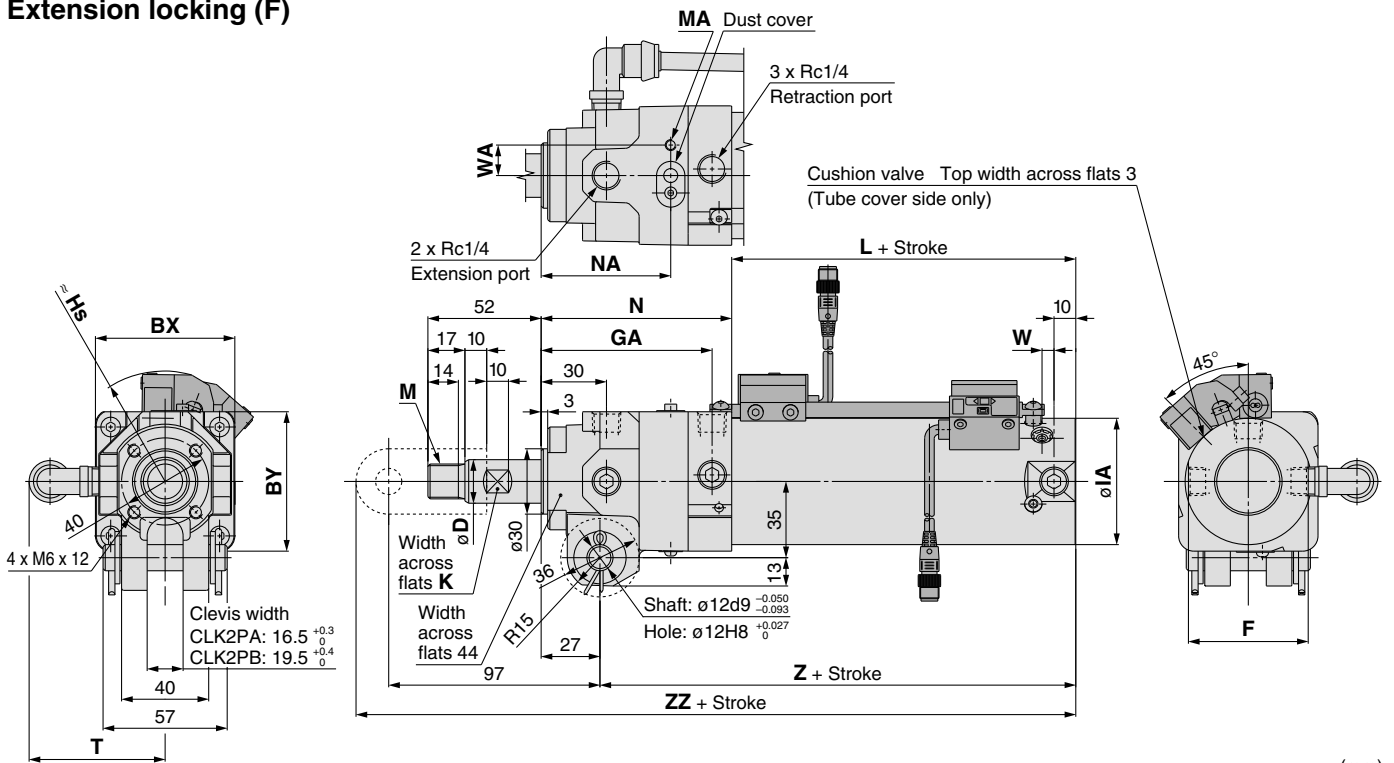


(mm)

Symbol	BX	BY	D	F	GA	IA	K	L	M	MA	N	NA	W	WA	Z	ZZ	Hs
Bore size																	
40	56	54	16	44	77	47	14	65	M12 x 1.5	M4 x 7	86	51.5	5	12.5	124	236	46
50	64	64	20	55	78.5	58	17	58	M16 x 1.5	M4 x 7	87.5	52.5	5.5	14	118.5	230.5	51
63	74	74	20	69	82	72	17	58	M16 x 1.5	M5 x 7	91	53.5	5.5	19	122	234	57.5

Note) Refer to page 14 and 15 for Accessories.

## Extension locking (F)



(mm)

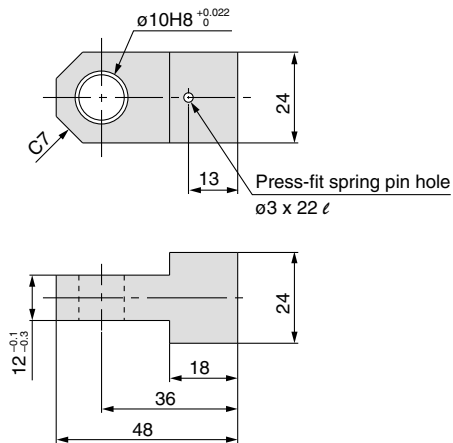
Symbol	BX	BY	D	F	GA	IA	K	L	M	MA	N	NA	T	W	WA	Z	ZZ	Hs
Bore size																		
40	56	54	16	44	77	47	14	65	M12 x 1.5	M4 x 7	86	59	57	5	12.5	124	236	46
50	64	64	20	55	78.5	58	17	58	M16 x 1.5	M4 x 7	87.5	59.5	60	5.5	14	118.5	230.5	51
63	74	74	20	69	82	72	17	58	M16 x 1.5	M5 x 7	91	61	67	5.5	19	122	234	57.5

Note) Refer to page 14 and 15 for Accessories.

# Series CLK2 Accessories

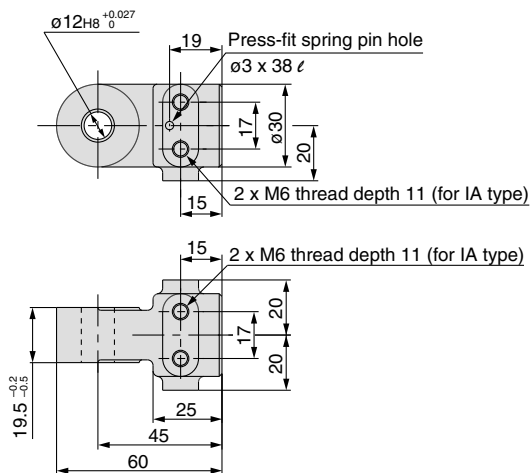
## Single Knuckle Joint

For  $\phi 32$



**CLK-I03**

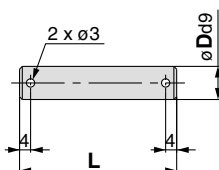
For  $\phi 40, \phi 50, \phi 63$



Part no.	Rod end bracket symbol	Applicable clamp cylinder
<b>CLK-I04</b>	I (M6 without tap)	CLK2□A40 series
<b>CLK-IA04</b>	IA (M6 with tap)	CLK2□B40 series
<b>CKB-I04</b>	I (M6 without tap)	CLK2□A50 to 63 series
<b>CKB-IA04</b>	IA (M6 with tap)	CLK2□B50 to 63 series

Note) The conventional model (the CLK1 series) is equivalent to the component part no. CLK-IA04, CKB-IA04 (rod end bracket symbol IA).

## Pin (for Clevis/Double Knuckle Joint)

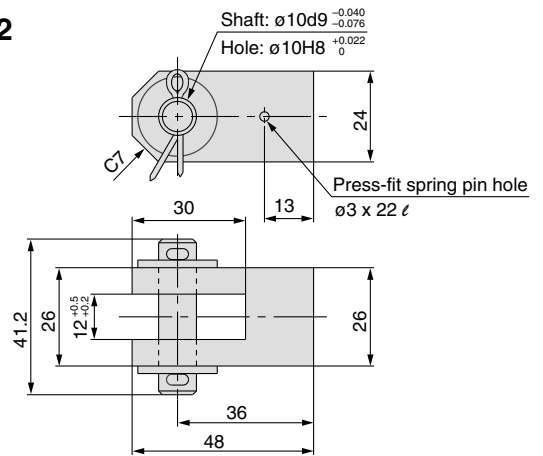


Part no.	D	L	Applicable clamp cylinder
<b>CDP-2</b>	10 $\begin{matrix} -0.040 \\ -0.076 \end{matrix}$	41.2	CLK2□A32 series
<b>CK-P04</b>	12 $\begin{matrix} -0.050 \\ -0.093 \end{matrix}$	57	CLK2□□40 to 63 series

Note) Cotter pin and flat washer are provided as a standard.

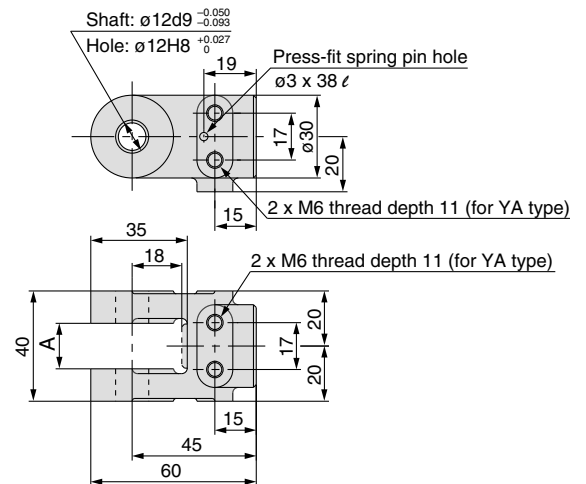
## Double Knuckle Joint

For  $\phi 32$



**CLK-Y03**

For  $\phi 40, \phi 50, \phi 63$



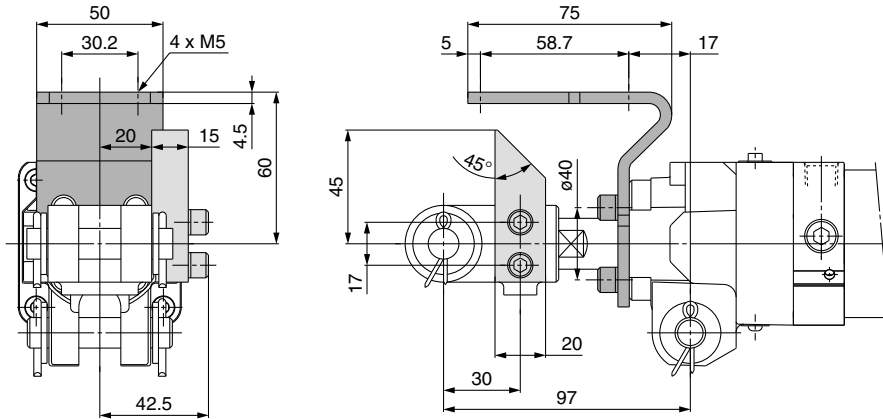
Part no.	Rod end bracket symbol	A	Applicable clamp cylinder
<b>CLK-Y04</b>	Y (M6 without tap)	16.5 $\begin{matrix} +0.3 \\ 0 \end{matrix}$	CLK2□A40 series
<b>CLK-YA04</b>	YA (M6 with tap)		CLK2□A50 to 63 series
<b>CKA-Y04</b>	Y (M6 without tap)	19.5 $\begin{matrix} +0.4 \\ 0 \end{matrix}$	CLK2□B50 to 63 series
<b>CKA-YA04</b>	YA (M6 with tap)		CLK2□B50 to 63 series

Note 1) Pin (for knuckle), cotter pin and flat washer are attached to the double knuckle joint as a standard.

Note 2) The conventional model (the CLK1 series) is equivalent to the component part no. CLK-YA04, CKA-YA04, CKB-YA04 (rod end bracket symbol YA).

# Series CLK2 Accessories

## Limit Switch Mounting Base/Dog Fitting



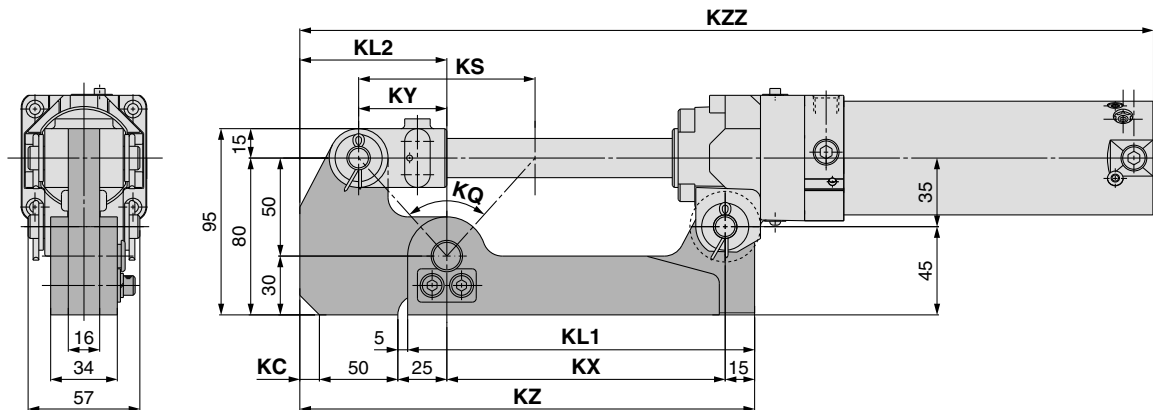
When you attach a dog fitting, be sure to use a knuckle joint, M6 with tap (rod end bracket symbol IA or YA). The dog fitting cannot be attached to the knuckle joint, M6 without tap (rod end bracket symbol I or Y).

Part no.	Option symbol	Name	Applicable clamp cylinder
CK-B04	B	Limit switch mounting base	CLK2□A40 to 63 series
CK-D04	D	Dog fitting	CLK2□B40 to 63 series

Note 1) Limit switch mounting base and dog fitting can be repositioned by removing the hexagon socket head cap screw.

Note 2) When ordering the limit switch base and the dog bracket individually, a spring washer for the mounting bolt (hexagon socket head cap screw) will be attached as a standard.

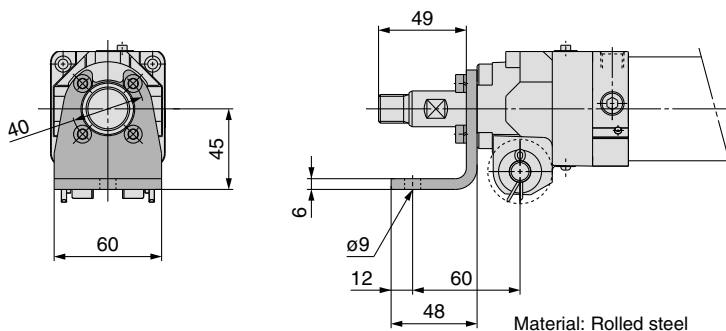
## Pedestal



Type	KL1	KL2	KX	KZ	KY	KS	KQ	KC	KZZ			Applicable cylinder
									Bore size			
									40	50	63	
CKA-K075	167	75	132	222	35	70	69° 59'	0	396 (406)	400.5	404	CLK2□A40-75Y, CLK2□A50-75Y, CLK2□A63-75Y
CKA-K100	177	75	142	232	45	90	83° 58'	0	431 (441)	435.5	439	CLK2□A40-100Y, CLK2□A50-100Y, CLK2□A63-100Y
CKA-K150	202	85	167	267	70	140	108° 55'	10	516 (526)	520.5	524	CLK2□A40-150Y, CLK2□A50-150Y, CLK2□A63-150Y

Note) ( ) denotes the dimensions for CLK2PA40.

## Foot



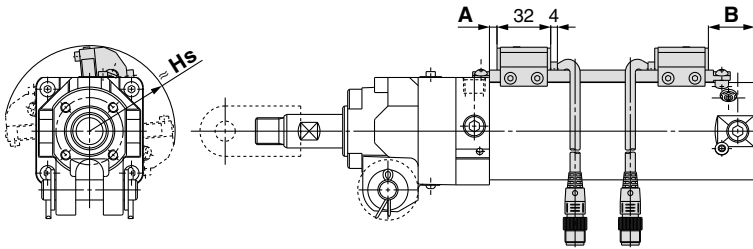
Part no.	Option symbol	Applicable clamp cylinder
CK-L04	L	CLK2□A40 to 63 series CLK2□B40 to 63 series

Note) Mounting bolts (hexagon socket head cap screws) and spring washers are attached to the foot as standard.



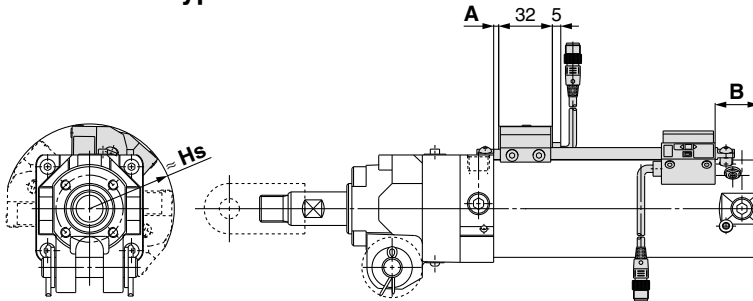
## Auto Switch Proper Mounting Position (for Stroke End Detection) and Its Mounting Height

### Rod mounting D-P4DW□□ type



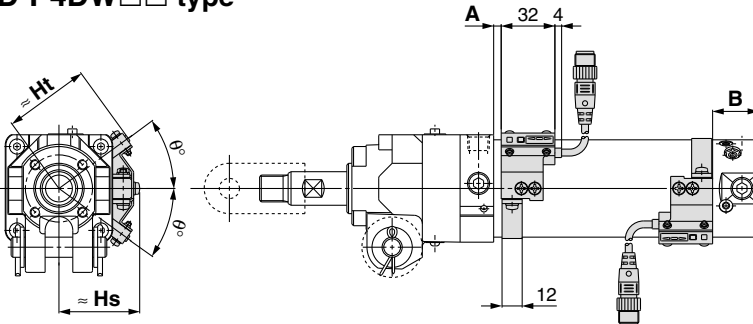
Note) The above drawing is the switch rod mounting example for the D-P4DWS□□ type.

### D-P7□□□□ type



Note) The above drawing is the switch rod mounting example for the D-P79WSE type.

### Band mounting D-P4DW□□ type



Note) The above drawing is the switch band mounting example for the D-P4DWS□□ type.

### Auto Switch Mounting Position and Its Height: Rod Mounting

Unit: mm

Auto switch model	Symbol	Auto switch set value and its height		
		40	50	63
D-P4DW□□	A	8	4.5	4.5
	B	20.5	27.5	27.5
	Hs	45.5	51	58.5
D-P79WSE D-P74□	A	5.5	0	0
	B	27.5	26	26
	Hs	46	51	58

Note 1) The mounting position should be referred for reference only for the auto switch mounting position at the stroke end detection. Adjust the auto switch after confirming the operation to set actually.

Note 2) A/B dimensions are the distance from the standard position (above drawing) to the end surface of the auto switch.

Note 3) The auto switch mounting position is temporarily set at the time of shipping from our factory. Change it to the desired position in accordance to your facility.

### Auto Switch Mounting Position and Its Height: Band Mounting / D-P4DW□□ Type

Unit: mm

Auto switch model	Symbol	Auto switch set value and its height			
		32	40	50	63
D-P4DW□□	A	0	8	4.5	4.5
	B	27.5	20.5	27.5	27.5
	Hs	38	43	48	55
	Ht	41.5	46	51.5	58.5
	θ	45°	45°	36°	33°

Note 1) The mounting position should be referred for reference only for the auto switch mounting position at the stroke end detection. Adjust the auto switch after confirming the operation to set actually.

Note 2) A/B dimensions are the distance from the standard position (above drawing) to the end surface of the auto switch.

Note 3) As for the D-P4DW□□ type, band mounting style, the switch mounting bracket and the auto switch have to be ordered separately. For details, refer to page 7.

## Operating Range

Unit: mm

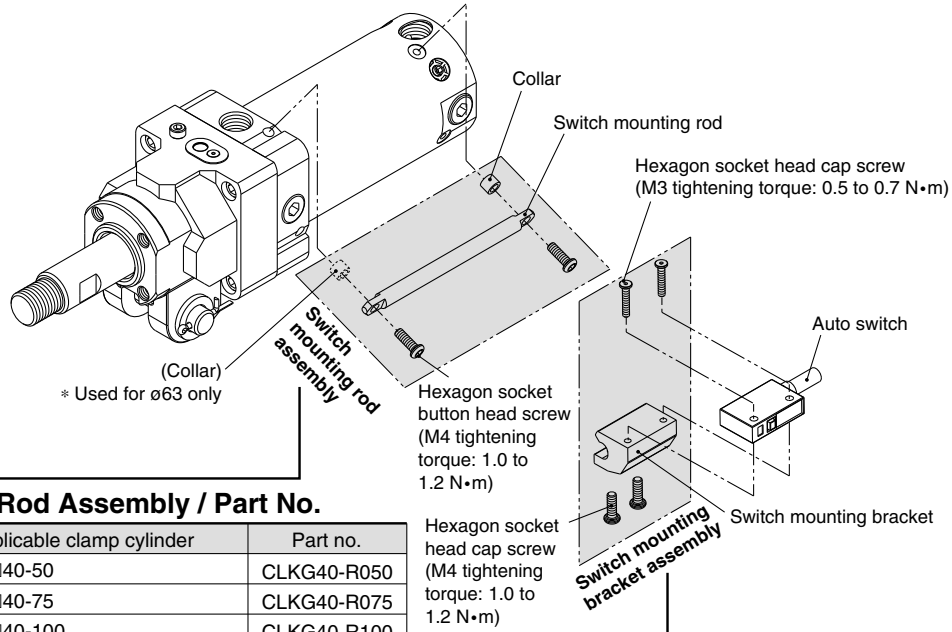
Auto switch model		Bore size			
		32	40	50	63
D-P4DW□□	Rod mounting	—	4	4	4.5
	Band mounting	4.5	5	5	5.5
D-P79WSE	Rod mounting	—	8	9	9.5
D-P74□		—	8	9	9.5

\* Since this is a guideline including hysteresis, not meant to be guaranteed. (Assuming approximately ±30% dispersion.)  
There may be the case it will vary substantially depending on an ambient environment.

# Series CLK2

## Auto Switch Mounting Bracket / Part No.

### Switch mounting rod assembly / Switch mounting bracket assembly



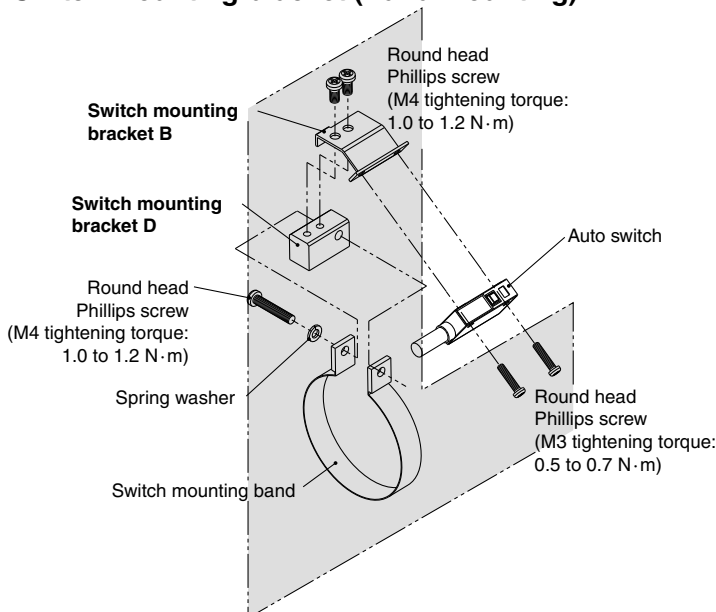
### Switch Mounting Rod Assembly / Part No.

Applicable series	Applicable clamp cylinder	Part no.
Dedicated to CLK2G□40 series	CLK2G□40-50	CLKG40-R050
	CLK2G□40-75	CLKG40-R075
	CLK2G□40-100	CLKG40-R100
	CLK2G□40-125	CLKG40-R125
Dedicated to CLK2P□40 series	CLK2P□40-50	CLKP40-R050
	CLK2P□40-75	CLKP40-R075
	CLK2P□40-100	CLKP40-R100
	CLK2P□40-125	CLKP40-R125
CLK2G□50 series CLK2P□50 series Common	CLK2G□50-50/CLK2P□50-50	CLKG50-R050
	CLK2G□50-75/CLK2P□50-75	CLKG50-R075
	CLK2G□50-100/CLK2P□50-100	CLKG50-R100
	CLK2G□50-125/CLK2P□50-125	CLKG50-R125
CLK2G□63 series CLK2P□63 series Common	CLK2G□63-50/CLK2P□63-50	CKG40-R050
	CLK2G□63-75/CLK2P□63-75	CKG40-R075
	CLK2G□63-100/CLK2P□63-100	CKG40-R100
	CLK2G□63-125/CLK2P□63-125	CKG40-R125
	CLK2G□63-150/CLK2P□63-150	CKG40-R150

### Switch Mounting Bracket Assembly / Part No.

Applicable cylinder series	Applicable auto switch	Mounting bracket part no.		
		40	50	63
CLK2G series	D-P4DWSC	BK1T-040		
	D-P4DWSE			
	D-P4DWL/Z			
CLK2P series	D-P79WSE	BAP1T-040		
	D-P74L/Z			

### Switch mounting bracket (Band mounting)



### Switch Mounting Bracket (Band Mounting) / Part No.

Mounting bracket part no.	Applicable auto switch	Clamp cylinder with applicable lock
BA8-032	D-P4DWSC D-P4DWSE D-P4DWL/Z	CLK2G□32
BA8-040		CLK2G□40
BA8-050		CLK2G□50
BA8-063		CLK2G□63

# Magnetic Field Resistant 2-Color Indication Solid State Switch

## D-P4DWSC/D-P4DWSE

(Electrical entry: Pre-wired connector)



For details about certified products conforming to international standards, visit us at [www.smcworld.com](http://www.smcworld.com).

- It is possible to use in an environment which generates a magnetic field disturbance (AC magnetic field).
- The optimum operating position can be determined by the color of the light. (Red → Green ← Red)



### ⚠ Caution

#### Precautions

For single-phase AC welding machines  
Not applicable for DC inverter welding machines (including rectifying type) and or condenser type welding.

### Auto Switch Specifications

PLC: Programmable Logic Controller

D-P4DWS□ (With indicator light)		
Auto switch model	D-P4DWSC	D-P4DWSE
Applicable load	24 VDC relay, PLC	
Load voltage	24 VDC (20 to 28 VDC)	
Load current	6 to 40 mA or less	
Internal voltage drop	5 V or less	
Leakage current	1 mA or less at 24 VDC	
Operating time	40 ms or less	
Indicator light	Operating position ..... Red LED illuminates. Optimum operating position ..... Green LED illuminates.	
Standard	Conforming to CE Standards	

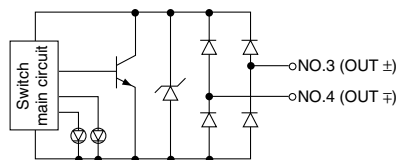
- Lead wire — Oilproof heavy-duty vinyl cable,  $\phi 6$ , 0.5 mm<sup>2</sup>, 2 cores, 300 mm
- Impact resistance — Switch: 1000 m/s<sup>2</sup>, Connector: 300 m/s<sup>2</sup>
- Insulation resistance — 50 M $\Omega$  or more at 500 VDC Mega (between lead wire and case)
- Withstand voltage — 1000 VAC for 1 minute (between lead wire and case)
- Ambient temperature — -10 to 60°C
- Enclosure — IEC529 standard IP67, JIS 0920 waterproof structure

### Magnetic Field Resistance

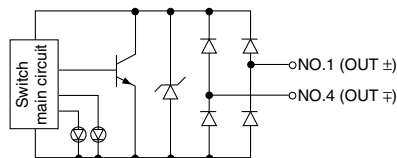
If the current of the AC welding machine is 16000 A or lower, the switch can be used, even if the distance between the welding conductor (gun cable) and the cylinder or switch is 0 mm. Please contact SMC when the AC welding current exceeds 16000 A.

### Auto Switch Internal Circuit

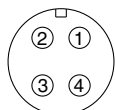
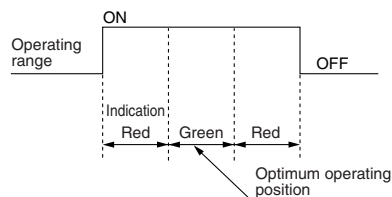
#### D-P4DWSC



#### D-P4DWSE



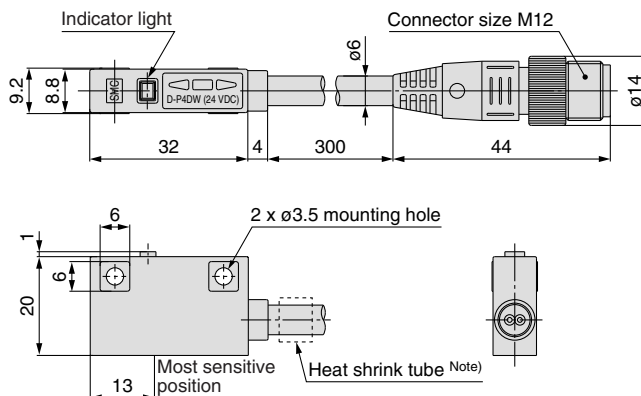
### Indicator light/Display method



Connector pin

### Dimensions

Unit: mm



Note) D-P4DWSC = "SC 3-4", D-P4DWSE = "SE 1-4"

# Magnetic Field Resistant 2-Color Indication Solid State Switch

## D-P4DWL/Z (Electrical entry: Grommet)



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- It is possible to use in an environment which generates a magnetic field disturbance (AC magnetic field).
- The optimum operating position can be determined by the color of the light. (Red → Green ← Red)



### Auto Switch Specifications

PLC: Programmable Logic Controller

D-P4DWL/Z (With indicator light)		
Auto switch model	D-P4DWL	D-P4DWZ
Applicable load	24 VDC relay, PLC	
Load voltage	24 VDC (20 to 28 VDC)	
Load current	6 to 40 mA or less	
Internal voltage drop	5 V or less	
Leakage current	1 mA or less at 24 VDC	
Operating time	40 ms or less	
Indicator light	Operating position ..... Red LED illuminates. Optimum operating position ..... Green LED illuminates.	
Standard	Conforming to CE Standards	

- Lead wire — Oilproof heavy-duty vinyl cable,  $\phi 6$ , 0.5 mm<sup>2</sup>, 2 cores, D-P4DWL: 3 m, D-P4DWZ: 5 m
- Impact resistance — Switch: 1000 m/s<sup>2</sup>
- Insulation resistance — 50 M $\Omega$  or more at 500 VDC Mega (between lead wire and case)
- Withstand voltage — 1000 VAC for 1 minute (between lead wire and case)
- Ambient temperature — -10 to 60°C
- Enclosure — IEC529 standard IP67, JIS 0920 waterproof structure

### Caution

#### Precautions

For single-phase AC welding machines  
Not applicable for DC inverter welding machines (including rectifying type) and or condenser type welding.

### Magnetic Field Resistance

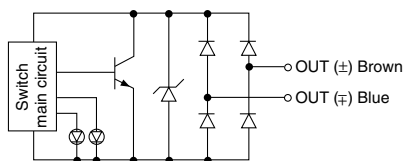
If the current of the AC welding machine is 16000 A or lower, the switch can be used, even if the distance between the welding conductor (gun cable) and the cylinder or switch is 0 mm. Please contact SMC when the AC welding current exceeds 16000 A.

### Dimensions

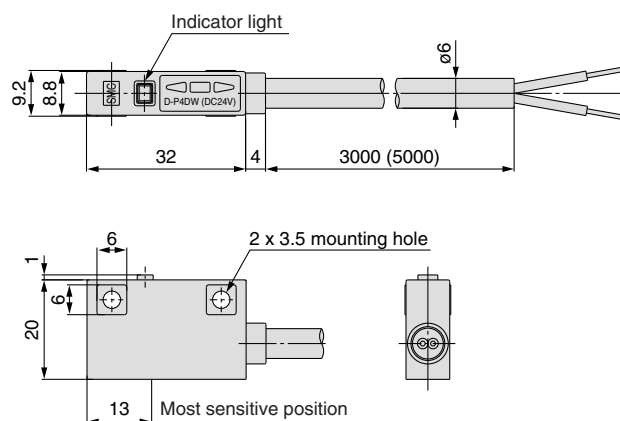
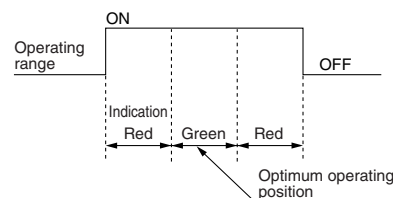
Unit: mm

### Auto Switch Internal Circuit

#### D-P4DWL/Z



### Indicator light/Display method



# Magnetic Field Resistant 2-Color Indication Reed Switch

## D-P79WSE (Electrical entry: Pre-wired connector)



For details about certified products conforming to international standards, visit us at [www.smcworld.com](http://www.smcworld.com).

- The optimum operating position can be determined by the color of the light. (Red → Green ← Red)



### Auto Switch Specifications

Auto switch model	D-P79WSE
Load voltage	24 VDC
Load current range	8 to 20 mA
Contact protection circuit	Yes
Internal voltage drop	6 V or less
Operating time	1.2 ms
Indicator light	Operating position ..... Red LED illuminates. Optimum operating position ..... Green LED illuminates.
Standard	Conforming to CE Standards

- Lead wire — Oilproof, fire resistant heavy-duty vinyl cord,  $\phi 6$ , 0.75 mm<sup>2</sup>, 2 cores (300 mm)
- Impact resistance — 300 m/s<sup>2</sup>
- Insulation resistance — 50 M $\Omega$  or more at 500 VDC Mega (between lead wire and case)
- Withstand voltage — 1000 VAC for 1 minute (between lead wire and case)
- Ambient temperature — -10 to 60°C
- Enclosure — IEC standard IP67, waterproof (JISC0920), oilproof construction

### Caution

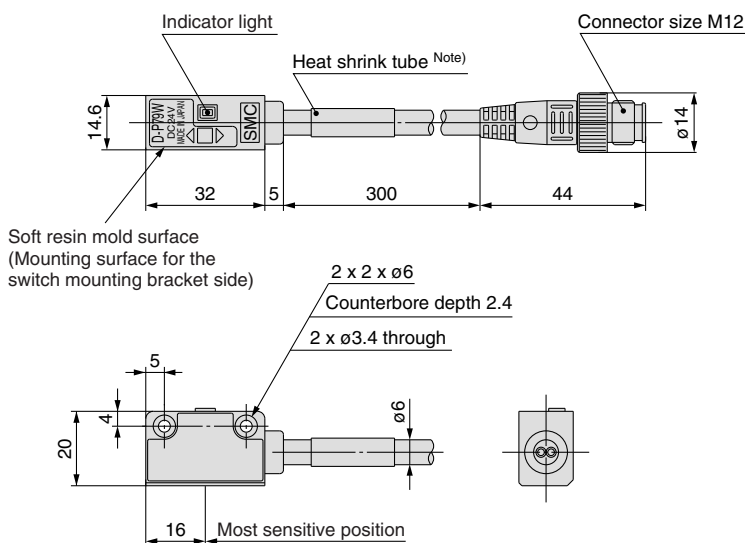
#### Precautions

Cylinder with a strong integrated magnet must be used.

### Dimensions

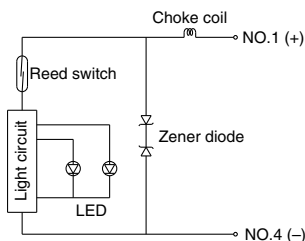
Unit: mm

#### D-P79WSE

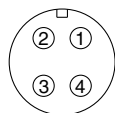
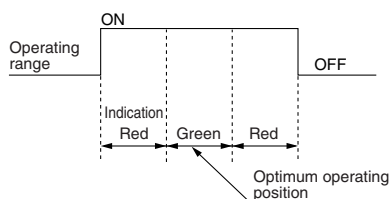


### Auto Switch Internal Circuit

#### D-P79WSE



### Indicator light/Display method



Connector pin

Note) D-P79WSE = "SE 1 4-"

### Caution

Please be careful of the mounting direction. The soft resin mold surface must be directed to the switch mounting bracket side.

# Magnetic Field Resistant Reed Switch

## D-P74L/D-P74Z (Electrical entry: Grommet)



For details about certified products conforming to international standards, visit us at [www.smcworld.com](http://www.smcworld.com).

### Auto Switch Specifications



D-P74L/Z (With indicator light)		
Auto switch model	D-P74L	D-P74Z
Electrical entry	Grommet	
Application	Relay, PLC	
Load voltage	24 VDC	100 VDC
Max. load current/Load current range	5 to 40 mA	5 to 20 mA
Contact protection circuit	Yes	
Internal voltage drop (internal resistance)	2.4 V or less	
Leakage current	0	
Operating time	1.2 ms	
Indicator light	Red LED illuminates when turned ON.	
Standard	Conforming to CE Standards	

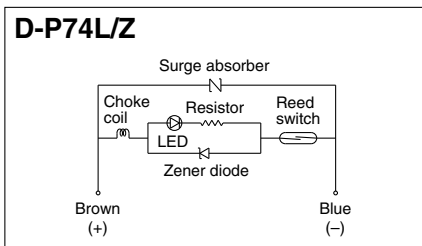
### Caution

#### Precautions

Cylinder with a strong integrated magnet must be used.

### Auto Switch Internal Circuit

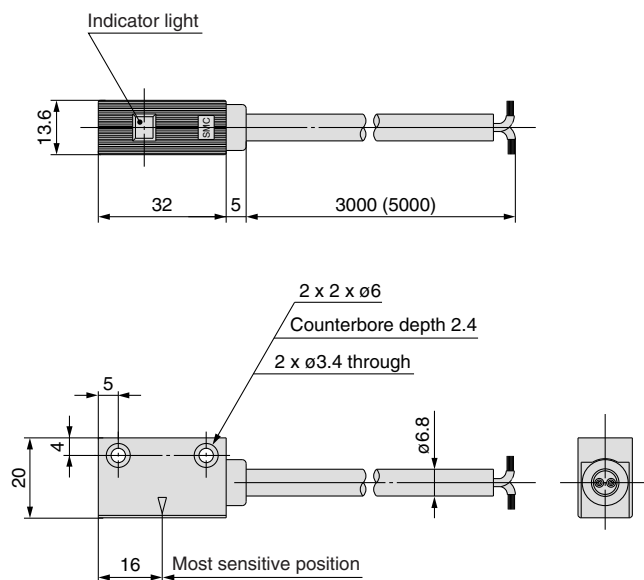
#### D-P74L/Z



- Lead wire — Oilproof, fire resistant heavy-duty vinyl cord,  $\phi 6.8$ , 0.75 mm<sup>2</sup>, 2 cores (Brown, Blue), D-P74L: 3 m, D-P74Z: 5 m
  - Impact resistance — 300 m/s<sup>2</sup>
  - Insulation resistance — 50 M $\Omega$  or more at 500 VDC Mega (between lead wire and case)
  - Withstand voltage — 1000 VAC for 1 minute (between lead wire and case)
  - Ambient temperature — -10 to 60°C
  - Enclosure — IEC standard IP67, waterproof (JISC0920), oilproof construction
- \* Indicate "L" for 3 m lead wire and "Z" for 5 m lead wire at the end of an auto switch part number.

### Dimensions

Unit: mm



Note: ( ) denotes the value of D-P74Z.