

Clamp Cylinder with Magnetic Field Resistant Auto Switch (Rod Mounting Style)

Series **CKG1/CKP1** ø40, ø50, ø63

Series CKG1/CKP1 clamp cylinder with magnetic field resistant auto switch (Rod mounting style) has been remodeled to shorten the overall length. When selecting this model, please consider the new CK□1 series.

How to Order

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

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

CKG1 **A** **50** **-** **100** **Y** **-** **P3DWSC**

CKP1 **A** **50** **-** **100** **Y** **-** **P79WSE**

Bore size		Clevis width		Thread type		Number of auto switches	
40	40 mm	A	16.5 mm	Nil	Rc1/4	Nil	2 pcs.
50	50 mm	B	19.5 mm	TN	NPT1/4	S	1 pc.
63	63 mm					n	"n" pcs.

End bracket

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

Note 1) IA and YA are equivalent to the conventional models.
Note 2) Knuckle pin, cotter pin and flat washer are provided as a standard for Y and YA.

Option

Nil	None
B	Limit switch mounting base
D	Dog fitting ^{Note 1)}
L	Foot
K ^{Note 2)}	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 (19.5 mm) is not available with mounting base K.

Auto switch

Nil	Without auto switch (built-in magnet) Without switch mounting rod
P	Without auto switch (built-in magnet) With switch mounting rod

* Select applicable auto switch models from the table below.

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.
CKG1: (Example) CKG1A50-50Y
CKP1: (Example) CKP1A50-50Y
- 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.
CKG1: (Example) CKG1A50-50Y-P
CKP1: (Example) CKP1A50-50Y-P

Applicable Magnetic Field Resistant Auto Switches (Refer to pages 1719 to 1827 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	
Series CKG1	Solid state auto switch	D-P3DWSC	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 <small>Note 1)</small>	
		D-P4DWSC				2-wire (1-4)				
		D-P3DWSE								
		D-P4DWSE		Grommet		2-wire		0.5 m		
		D-P3DW								
		D-P3DWL								3 m
		D-P4DWL								
		D-P3DWZ								
D-P4DWZ										
Series CKP1	Reed auto switch	D-P79WSE	DC / AC magnetic field	Pre-wired connector	2-color display	2-wire (1-4)	24 VDC	0.3 m		
		Grommet		1-color display	2-wire	24 VDC 100 VAC	3 m			
							5 m			

Note 1) PLC: Programmable Logic Controller

Note 2) There are other applicable auto switches other than the listed above. For details, refer to page 1329.

Note 3) Refer to page 1330 when ordering the auto switch mounting bracket assembly or switch mounting rod assembly.

Note 4) For D-P3DW□, auto switches and auto switch mounting brackets are shipped together (not assembled).

MK

CKQ
CLKQ

CK□1

CLK2

D-□

-X□

Individual
-X□

Series CK□1



Specifications

Bore size (mm)	40	50	63
Fluid	Air		
Proof pressure	1.5 MPa		
Maximum operating pressure	1.0 MPa		
Minimum operating pressure	0.05 MPa		
Ambient and fluid temperature	-10°C to +60°C		
Piston speed	50 to 500 mm/s		
Cushion ^{Note 1)}	Unclamped side (head end): With air cushion		
Speed controller	Equipped on both ends		
Lubrication	Non-lube		
Stroke length tolerance	+1.0 0		
Mounting ^{Note 2)}	Double clevis		

Note 1) With cushion on both ends are available as Made to Order.

For details, refer to page 1336, Made to Order [\[4\]](#).

Ordering example **CKG1A50-100Y-P4DWSC -X1515**

↑ With cushion on both ends

Note 2) Clevis pin, Cotter pin, Flat washer are equipped as a standard.

Clevis width	16.5 mm	CKG1A/CKP1A series
	19.5 mm	CKG1B/CKP1B series

Standard Stroke

Bore size (mm)	Standard stroke (mm)
40, 50, 63	50, 75, 100, 125, 150

End Bracket / Options

Symbol	Description		Parts no.	
			Series CKG1A/CKP1A	Series CKG1B/CKP1B
I	Single knuckle joint	M6 without tap	CKB-I04	
IA		M6 with tap	CKB-IA04	
Y	Double knuckle joint (Knuckle pin, Cotter pin, Flat washer are equipped as a standard.)	M6 without tap	CKA-Y04	CKB-Y04
YA		M6 with tap	CKA-YA04	CKB-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	—

Theoretical Output

Unit: N

Bore size (mm)	Rod size (mm)	Operating direction	Piston area (mm ²)	Operating pressure (MPa)			
				0.3	0.4	0.5	0.6
40	20	OUT	1260	378	504	630	756
		IN	943	283	377	472	566
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

Mass (Basic mass includes the switch mounting rod. At 0 stroke)

Unit: kg

Bore size (mm)		40	50	63
CKG1□ cylinder	Basic mass	0.75	0.97	1.18
	Additional mass per 25 mm stroke	0.11	0.12	0.14
CKP1□ cylinder	Basic mass	0.77	1.03	1.34
	Additional mass per 25 mm stroke	0.11	0.12	0.14
Single knuckle joint		0.20		
Double knuckle joint (Knuckle pin, Cotter pin, Flat washer are equipped as a standard.)		0.34		
Limit switch mounting base		0.22		
Dog fitting		0.12		
Foot		0.24		
Pedestal		2.2		

Calculation

Example) **CKG1□50-100Y-P**

• Basic mass 0.97 (ø50) • Double knuckle joint...0.34 (Y)

• Additional mass 0.12/25 mm

• Cylinder stroke 100 mm 0.97 + 0.12 x 100/25 + 0.34 = 1.79 kg