

Free Mount Cylinder: Non-rotating Rod Type

Double Acting, Single Rod

Series CUK

ø6, ø10, ø16, ø20, ø25, ø32

How to Order

With auto switch

CUK 6 - 30 D - M9BW

Built-in magnet

Non-rotating rod type

Bore size

6	6 mm
10	10 mm
16	16 mm
20	20 mm
25	25 mm
32	32 mm

Port thread type

Symbol	Type	Bore size
Nil	M5 x 0.8	ø6, ø10, ø16, ø20, ø25
	Rc 1/8	ø32
TN	NPT 1/8	ø32
TF	G 1/8	ø32

Action

D Double acting

Standard stroke (mm)

ø6, ø10, ø16	5, 10, 15, 20, 25, 30
ø20, ø25, ø32	5, 10, 15, 20, 25, 30, 40, 50

Auto switch

Nil Without auto switch

* Refer to the table below for applicable auto switches.

Number of auto switches

Nil	2 pcs.
S	1 pc.

Made to order

* Refer to page 503 for the Made to Order specifications.

Built-in Magnet Cylinder Model

If a built-in magnet cylinder without an auto switch is required, there is no need to enter the symbol for the auto switch.
(Example): CDUK20-25D

Applicable Auto Switches/Refer to pages 1263 to 1371 for further information on auto switches.

Type	Special function	Electrical entry	Indicator light	Wiring (Output)	Load voltage			Auto switch model		Lead wire length (m)				Pre-wired connector	Applicable load	
					DC		AC	Perpendicular	In-line	0.5 (Nil)	1 (M)	3 (L)	5 (Z)			
Solid state switch	—	Grommet	Yes	3-wire (NPN)	24 V	5 V, 12 V	—	M9NV	M9N	●	●	●	○	○	IC circuit	Relay, PLC
	3-wire (PNP)			M9PV				M9P	●	●	●	○	○			
	2-wire			M9BV				M9B	●	●	●	○	○			
	3-wire (NPN)			M9NWV				M9NW	●	●	●	○	○			
	3-wire (PNP)			M9PWV	M9PW	●	●	●	○	○	IC circuit					
	2-wire			M9BWV	M9BW	●	●	●	○	○		—				
Reed switch	—	Grommet	Yes	3-wire (NPN equivalent)	—	5 V	—	A96V	A96	●	—	●	—	—	IC circuit	—
				No	2-wire	24 V	12 V	100 V	A93V	A93	●	—	●	—	—	—
			100 V or less					A90V	A90	●	—	●	—	—	IC circuit	

* Lead wire length symbols: 0.5 m Nil (Example) M9NW
1 m M (Example) M9NWM
3 m L (Example) M9NWL
5 m Z (Example) M9NWZ

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

* Since there are applicable auto switches other than the above, refer to page 538 for details.
* For detail about auto switches with pre-wired connector, refer to pages 1328 to 1329.
* Auto switches are shipped together but not assembled.

Series CUK

Copper and Fluorine-free

20-CUK Bore size — Stroke D

• Copper and Fluorine-free

This cylinder eliminates any influences of copper ions or fluoro resins on color CRTs. Copper materials have been nickel plated or replaced with non-copper materials to prevent the generation of copper ions.

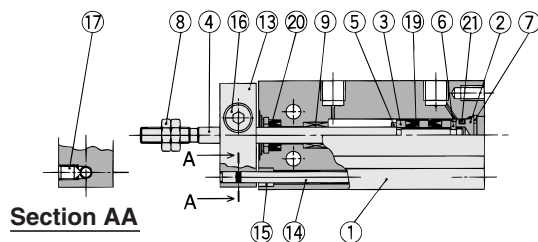
Minimum Operating Pressure

(MPa)

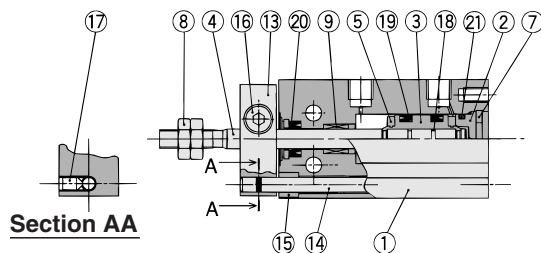
Bore size (mm)	6	10, 16	20, 25, 32
Minimum operating pressure	0.15	0.10	0.08

Construction

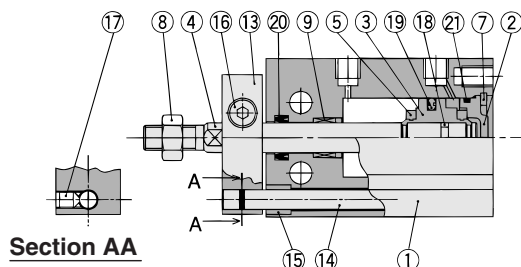
ø6



ø10



ø16 to ø32



Component Parts

No.	Description	Material	Note
1	Cylinder tube	Aluminum alloy	Hard anodized
2	Head cover	Brass	ø6 to ø10, Electroless nickel plated
		Aluminum alloy	ø16 to ø32, Chromated
3	Piston	Brass	ø6 to ø10
		Aluminum alloy	ø16 to ø32, Chromated
4	Piston rod	Stainless steel	
5	Bumper A	Urethane	
6	Bumper B	Urethane	
7	Retaining ring	Carbon tool steel	Phosphate coated
8	Rod end nut	Carbon steel	Nickel plated
9	Bushing	Oil-impregnated sintered alloy	
10	Magnet holder	Brass	ø6

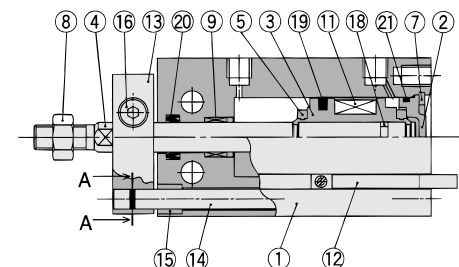
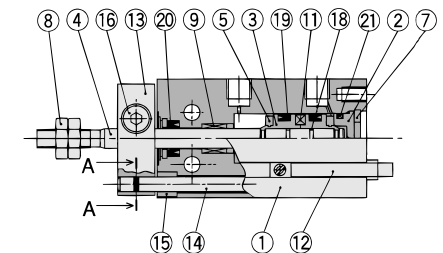
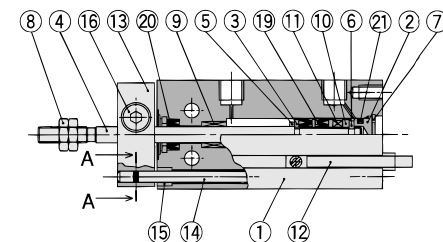
Replacement Parts: Seal Kit

Bore size (mm)	Kit no.	Contents
10	CU10D-PS	Set of nos. above 19, 20, 21.
16	CU16D-PS	
20	CU20D-PS	
25	CU25D-PS	
32	CU32D-PS	

Specifications

Action	Double acting, Single rod
Bore size (mm)	6, 10, 16, 20, 25, 32
Maximum operating pressure	1.05 MPa
Cushion	Rubber bumper
Stroke	Same as standard type (Refer to page 484.)
Auto switch	Mountable

With auto switch



Component Parts

No.	Description	Material	Note
11	Magnet	—	
12	Auto switch	—	
13	Non-rotating plate	Aluminum alloy	Nickel plated
14	Guide rod	Stainless steel	
15	Bushing	Oil-impregnated sintered alloy	
16	Hexagon socket head cap screw	Carbon steel	Black zinc chromated
17	Hexagon socket head set screw	Carbon steel	Black zinc chromated
18	Piston gasket	NBR	
19*	Piston seal		
20*	Rod seal		
21*	Gasket		



* Seal kit includes 19, 20, 21. Order the seal kit, based on each bore size.

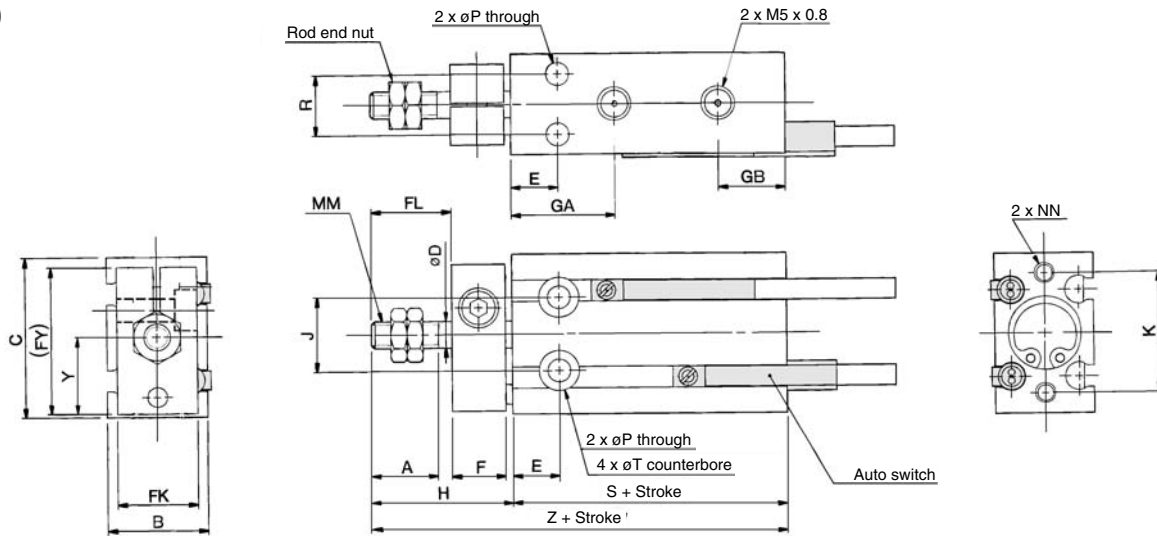
* Seal kit includes a grease pack (10 g).

Order with the following part number when only the grease pack is needed.

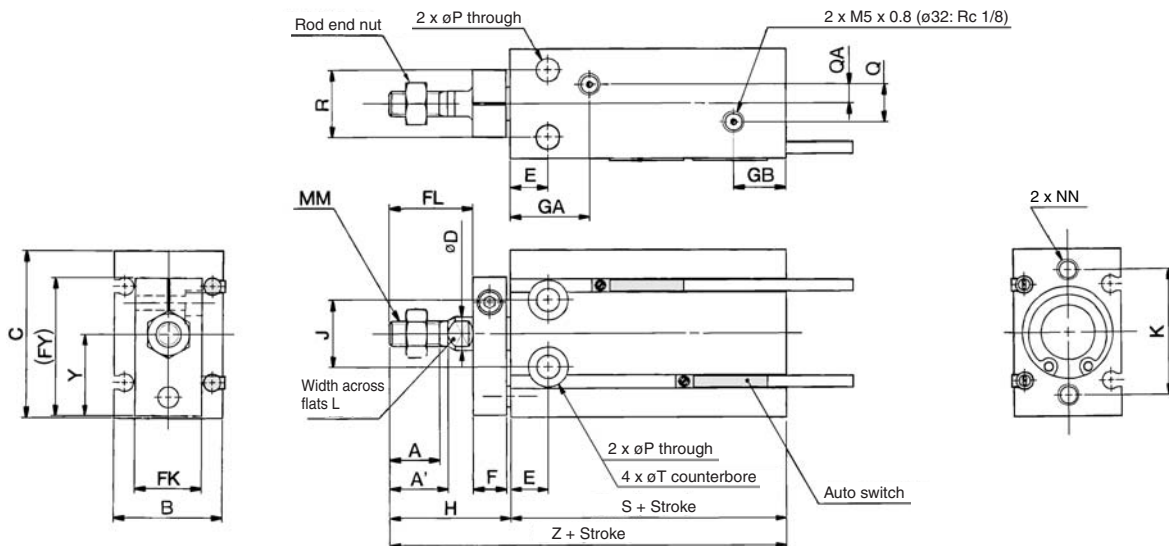
Grease pack part number: GR-S-010 (10 g)

Dimensions: Non-rotating Rod Type; Double Acting, Single Rod

ø6, ø10

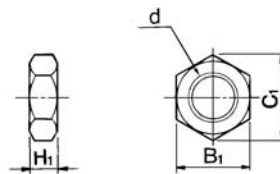


ø16 to ø32



Rod End Nut/Accessory Material: Carbon steel

Part no.	Applicable bore size (mm)	d	H ₁	B ₁	C ₁
NTP-006	6	M3 x 0.5	1.8	5.5	6.4
NTP-010	10	M4 x 0.7	2.4	7	8.1
NTJ-015A	16	M5 x 0.8	4	8	9.2
NT-015A	20	M6 x 1.0	5	10	11.5
NT-02	25	M8 x 1.25	5	13	15.0
NT-03	32	M10 x 1.25	6	17	19.6



(mm)

Bore size (mm)	A	A'	B	C	D	E	F	FL	FK	FY	GA	GB	H	J	K	L	MM
6	7	—	13	22	3	7	8	9	11	20.5	15	10	18	10	17	—	M3 x 0.5
10	10	—	15	24	4	7	8	12	12	22	16.5	10	21	11	18	—	M4 x 0.7
16	11	12.5	20	32	6	7	8	17	13	28	16.5 (Note)	11.5	26	14	25	5	M5 x 0.8
20	12	14	26	40	8	9	8	20	16	33	19	12.5	29	16	30	6	M6 x 1.0
25	15.5	18	32	50	10	10	10	22	20	43.5	21.5	13	33	20	38	8	M8 x 1.25
32	19.5	22	40	62	12	11	12	29	24	51.5	23	12.5	42	24	48	10	M10 x 1.25

Bore size (mm)	NN	P	Q	QA	R	T	Y	Without auto switch		With auto switch	
								S	Z	S	Z
6	M3 x 0.5 depth 5	3.2	—	—	7	6 depth 4.8	10.5	33	51	33	51
10	M3 x 0.5 depth 5	3.2	—	—	9	6 depth 5	11.5	36	57	36	57
16	M4 x 0.7 depth 6	4.5	4	2	12	7.6 depth 6.5	15.5	30	56	40	66
20	M5 x 0.8 depth 8	5.5	9	4.5	16	9.3 depth 8	19.5	36	65	46	75
25	M5 x 0.8 depth 8	5.5	9	4.5	20	9.3 depth 9	24.5	40	73	50	83
32	M6 x 1.0 depth 9	6.6	13.5	4.5	24	11 depth 11.5	30.5	42	84	52	94

Note) 5 stroke (CUK16-5D): GA = 14.5