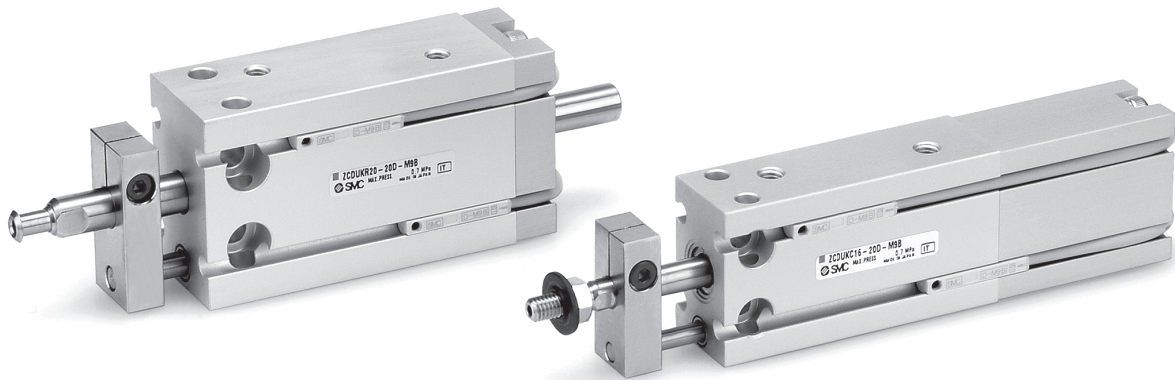


Free Mount Cylinder for Vacuum **ZCUK Series**

A free mount cylinder with a vacuum passage in the rod to meet the requirements for **Air cylinder** + **Vacuum pad**.

A vacuum passage has been provided in the rod of the CUK cylinder to enable a vacuum pad to be installed on the end of the rod.



Not necessary to provide vacuum tubing space at the end of the rod.

The area around the vacuum pad is uncluttered.

● Non-rotating rod ●

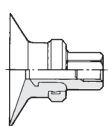
A guide is provided as standard equipment

Non-rotating rod accuracy
(no load: when the rod is retracted on the detent plate side):
 $\varnothing 10, \varnothing 16$ ————— $\pm 0.8^\circ$
 $\varnothing 20, \varnothing 25, \varnothing 32$ ————— $\pm 0.5^\circ$

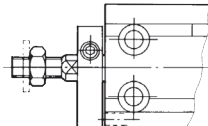
Do not apply a lateral load to the piston rod. Because the piston rod is a hollow rod, a lateral load can cause the piston rod to bend or break.

● Vacuum pad (Pad diameter: $\varnothing 2$ to $\varnothing 50$) ●

<Perpendicular female thread>



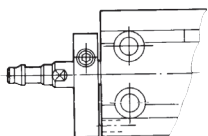
<Male thread>



<Direct mounting>



<Barb fitting>



● Auto switch

Reed auto switch:

D-A9□ (Heavy-duty cord, in-line entry)

D-A9□V (Heavy-duty cord, perpendicular entry)

Solid state auto switch:

D-M9□, D-M9□W (Heavy-duty cord, in-line entry)

D-M9□V, D-M9□WV (Heavy-duty cord, perpendicular entry)

● How to provide piping to the vacuum side

Cap piping

The piston rod of the vacuum side does not protrude.

Also, the vacuum outlet tube does not move when the piston is operating.

Vacuum port pressure range: -101 kPa to 0.6 MPa

Pressurise only when releasing the vacuum. At that time, use it under the cylinder operating pressure.

Rod piping

Lighter weight than the cap piping.

Can also be used for air blowing.

Vacuum port pressure range: -101 kPa to 0.6 MPa



Free Mount Cylinder for Vacuum

ZCUK Series

How to Order

With auto switch ZCDUK C 16 — 20 D — M9BW

Built-in magnet
Style (Tubing method in vacuum side)/(Rod end shape)

C	Cap piping/Male thread
D	Cap piping/Pad direct mounting
Q	Rod piping/Male thread
R	Rod piping/Pad direct mounting

Bore size

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

Port thread type

Symbol	Type	Bore size
—	M5 x 0.8	Ø 10, Ø 16, Ø 20, Ø 25
—	Rc1/8	Ø 32
TN	NPT1/8	Ø 32
TF ^{Note)}	G1/8	Ø 32

Note) In the case of rod piping (Q, R), TF (G1/8) is not available.

Acting
D Double acting

Auto switch
— Without auto switch
* Refer to the table below for applicable auto switches.

Number of auto switches

—	2 pcs.
S	1 pc.

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) ZCDUKC20-20D

Cylinder standard stroke [mm]

10, 16	5, 10, 15, 20, 25, 30
20, 25, 32	5, 10, 15, 20, 25, 30, 40, 50

Applicable Auto Switches/Refer to Auto Switch guide for the detailed specifications 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 (—)	1 (M)	3 (L)		5 (Z)		
Solid state auto switch	—	Grommet	Yes	3-wire (NPN)	5 V, 12 V	—	M9NV	M9N	●	●	●	○	○	IC circuit	Relay, PLC	
				3-wire (PNP)			M9PV	M9P	●	●	●	○	○			
				2-wire			M9BV	M9B	●	●	●	○	○			
	Diagnostic indication (2-colour indication)			3-wire (NPN)	5 V, 12 V		M9NWV	M9NW	●	●	●	○	○	IC circuit		
				3-wire (PNP)			M9PWV	M9PW	●	●	●	○	○			
				2-wire			M9BWV	M9BW	●	●	●	○	○			
	Water resistant (2-colour indication)			3-wire (NPN)	5V, 12V		M9NAV**	M9NA**	○	○	●	○	○	IC circuit		
				3-wire (PNP)			M9PAV**	M9PA**	○	○	●	○	○			
				2-wire			12V	M9BAV**	M9BA**	○	○	●	○			○
Reed auto 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	

** Water resistant type auto switches can be mounted on the above models, but in such case SMC cannot guarantee water resistance. Consult with SMC regarding water resistant types with the above model numbers.
* Lead wire length symbols: 0.5 m..... — (Example) M9NW
1 m..... M (Example) M9NWM
3 m..... L (Example) M9NWL
5 m..... Z (Example) M9NZW
* Solid state auto switches marked with "O" are produced upon receipt of order.
* Refer to "Best Pneumatics" for the details on auto switches with a pre-wired connector.
* Auto switches are shipped together but not assembled.

How to Order Vacuum Pad

Note) Refer to page 4 for combination of cylinder and pad.

• In the case of rod end male

ZPT 02 U N - B4

Pad dia. [mm]

02	Ø 2
04	Ø 4
06	Ø 6
08	Ø 8
10	Ø 10
13	Ø 13
16	Ø 16
20	Ø 20
25	Ø 25
32	Ø 32
40	Ø 40
50	Ø 50

Pad type

Application:

U	Flat
C	Flat with ribs
D	Deep
B	Bellows

Vacuum entry (Mounting thread diameter)

Symbol	Thread dia.	Ø 2 to Ø 8	Ø 10 to Ø 16	Ø 20 to Ø 32	Ø 40, Ø 50
B4	M4 x 0.7	●	—	—	—
B5	M5 x 0.8	●	●	—	—
B6	M6 x 1	—	●	●	—
B8	M8 x 1.25	—	—	●	●
B10	M10 x 1.25	—	—	●	●

Material

N	NBR
S	Silicone rubber
U	Urethane rubber
F	FKM
GN	Conductive NBR (Ø 2 to Ø 16 only)
GS	Conductive silicone rubber (Ø 2 to Ø 16 only)

Table (1) Pad Dia./Pad Type

Type	Dia. [mm]	2	4	6	8	10	13	16	20	25	32	40	50
Flat		●	●	●	●	●	●	●	●	●	●	●	●
Flat with ribs		—	—	—	—	●	●	●	●	●	●	●	●
Deep		—	—	—	—	●	—	—	—	—	—	—	—
Bellows		—	—	●	●	●	●	●	●	●	●	●	●

• In the case of pad direct mounting

ZP 04 U N - X11

Pad dia. [mm]

02	Ø 2
04	Ø 4
06	Ø 6
08	Ø 8
10	Ø 10
13	Ø 13
16	Ø 16
20	Ø 20
25	Ø 25
32	Ø 32
40	Ø 40
50	Ø 50

Pad type

U	Flat
C	Flat with ribs
D	Deep
B	Bellows (Except "X11")

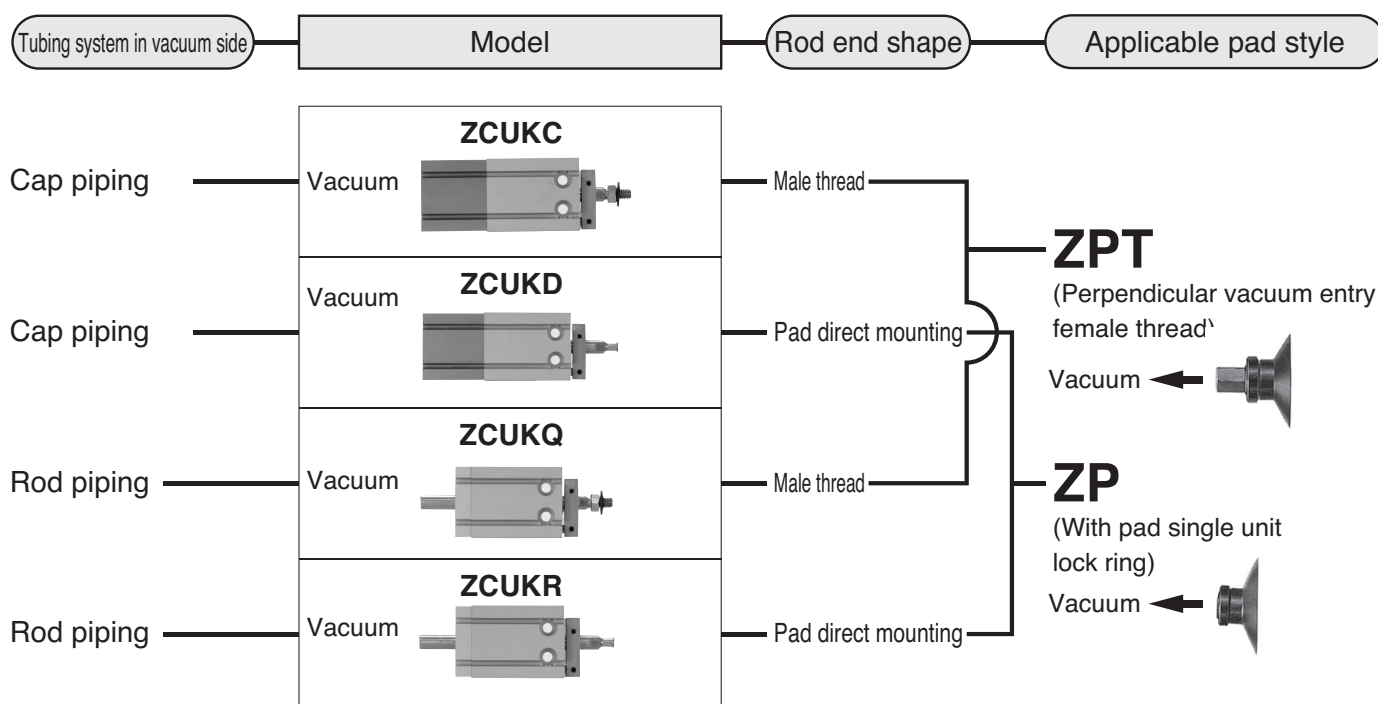
Suffix

Symbol	Applicable cylinder model
X11	ZC(D)UK _R 10
—	ZC(D)UK _R 16 to 32

Note) -X11 pad: Ø 2 to Ø 8 diameter and flat style only.

Material

N	NBR
S	Silicone rubber
U	Urethane rubber
F	FKM
GN	Conductive NBR (Ø 2 to Ø 16 only)
GS	Conductive silicone rubber (Ø 2 to Ø 16 only)



⚠ Precautions

⚠ Caution

- ① Do not place your finger in the clearance between the detent plate and the cylinder tube. Never insert your finger between the non-rotating plate and the cylinder tube to prevent it from being pinched when the piston rod retracts. If your finger is caught, it could injure your finger because the cylinder outputs a considerable amount of force.
- ② Make sure that rotational torque is not applied to the piston rod. If this is unavoidable, operate the cylinder within the allowable rotational torque listed in the table below.

Allowable Rotational Torque

Bore size [mm]	Ø 10	Ø 16	Ø 20	Ø 25	Ø 32
Allowable rotational torque [N·m]	0.02	0.04	0.10	0.15	0.20

- ③ To secure a workpiece to the end of the piston rod, tighten the workpiece onto the piston rod with the piston rod fully retracted so that torque is not applied to the piston rod.
- ④ To install a cylinder, tighten it within the torque values indicated in the table below.

Proper Tightening Torque

Bore size [mm]	Hexagon socket head bolt diameter [mm]	Proper tightening torque [N·m]
Ø 10	M3	1.08 ±10 %
Ø 16	M4	2.45 ±10 %
Ø 20, Ø 25	M5	5.10 ±10 %
Ø 32	M6	8.04 ±10 %

Specifications

Bore size [mm]	Ø 10	Ø 16	Ø 20	Ø 25	Ø 32
Fluid	Air				
Proof pressure	1.05 MPa				
Maximum operating pressure	0.7 MPa				
Minimum operating pressure	0.13 MPa		0.11 MPa		
Vacuum port pressure	-101 kPa to 0.6 MPa (At vacuum release 0 to 0.6 MPa) ^{Note}				
Ambient and fluid temperature	Without auto switch: -10 to +70 °C (No freezing) With auto switch: -10 to +60 °C (No freezing)				
Lubrication	Not required				
Piston speed	50 to 500 mm/s				
Cushion	Rubber bumper on both sides				
Stroke allowance	+1.0 0				
Rod tip screw	With or without (Pad direct mounting)				
Mounting	Basic type				
Applicable pad	Refer to page 4 for details.				

Note) For a cap type, supply pressure only when vacuum is released. That pressure should be less than the cylinder pressure.

Non-rotating Rod Accuracy

(No load/At retraction of the rod at the locking plate side)

Tube bore size [mm]	Ø 10	Ø 16	Ø 20	Ø 25	Ø 32
Non-rotating piston rod accuracy	±0.8°		±0.5°		

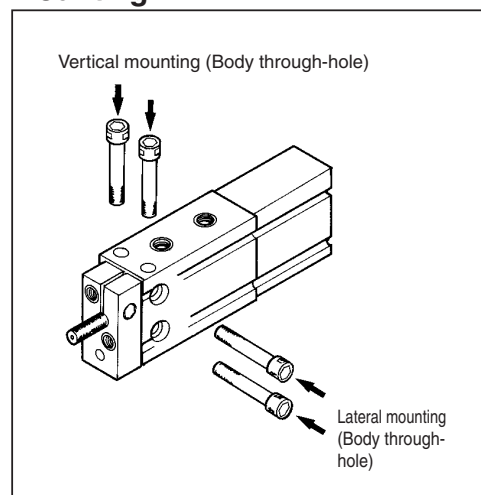
ZCUK Series

Applicable Auto Switch Model

Model		Electrical entry		Indicator light
Reed switch	D-A90	Grommet	2 wire/In line	Unavailable
	D-A93		3 wire/In line	Available
	D-A96		2 wire/Perpendicular	Unavailable
	D-A90V		3 wire/Perpendicular	Available
	D-A93V		2 wire/In line	Unavailable
	D-A96V		3 wire/In line	Available
Solid state switch	D-M9N	Grommet	3 wire/NPN/In line	Available
	D-M9P		3 wire/PNP/In line	
	D-M9B		2 wire/In line	
	D-M9NW		3 wire/NPN/In line (2 colour indicator)	
	D-M9PW		3 wire/PNP/In line (2 colour indicator)	
	D-M9BW		2 wire/In line (2 colour indicator)	
	D-M9NV		3 wire/NPN/Perpendicular	
	D-M9PV		3 wire/PNP/Perpendicular	
	D-M9BV		2 wire/Perpendicular	
	D-M9NWV		3 wire/NPN/Perpendicular (2 colour indicator)	
	D-M9PWV		3 wire/PNP/Perpendicular (2 colour indicator)	
	D-M9BWV		2 wire/Perpendicular (2 colour indicator)	

Note) "D-9□" auto switches are also mountable (D-90, D-90A, D-93A and D-97).

Mounting



Standard Stroke

Cylinder bore [mm]	Double acting/Single rod, Non-rotating piston rod							
	Stroke [mm]							
	5	10	15	20	25	30	40	50
10	●	●	●	●	●	●	—	—
16	●	●	●	●	●	●	—	—
20	●	●	●	●	●	●	●	●
25	●	●	●	●	●	●	●	●
32	●	●	●	●	●	●	●	●

Min. Stroke for Mounting Auto switch

Applicable auto switch	No. of switches	
	1 pc.	2 pcs.
D-M9□ D-M9□V	5	5
D-M9□W D-M9□WV	5	10
D-A9□ D-A9□V	5	10

Theoretical Force/Double Acting Style

Unit: N

Cylinder bore [mm]	Rod dia. [mm]	Effective area [cm ²]	Operating pressure [MPa]		
			0.3	0.5	0.7
10	4	66.0	19.8	33	46.2
16	6	172	51.6	86	121
20	8	264	79.2	132	185
25	10	412	124	206	289
32	12	691	207	346	484

Cylinder/Applicable Pad

•In case of rod end male thread

Use series ZPT pad (vertical vacuum entry/female thread mounting).

Cylinder		Pad(ZPT02 to 50□□-B4 to 10)												
Model	Bore [mm]	Pad dia. [mm]												Thread dia.
		2	4	6	8	10	13	16	20	25	32	40	50	
ZCUKC	10	●	●	●	●	—	—	—	—	—	—	—	M4	
ZCUKQ	16	●	●	●	●	●	●	—	—	—	—	—	M5	
ZCDUKC	20	—	—	—	—	●	●	●	—	●	●	—	M6	
ZCDUKQ	25	—	—	—	—	—	—	—	●	●	●	●	M8	
	32	—	—	—	—	—	—	—	●	●	●	●	M10 X 1.25	

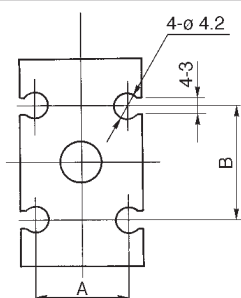
•In case of pad direct mounting

Use series ZP pad (single unit).

Cylinder		Pad (ZP02 to 50□□)											
Model	Bore [mm]	Pad dia. [mm]											
		2	4	6	8	10	13	16	20	25	32	40	50
ZCUKD	10 ^{Note 1)}	●	●	●	●	—	—	—	—	—	—	—	—
ZCUKR	16	●	●	●	●	—	—	—	—	—	—	—	—
ZCDUKD	20	—	—	—	—	●	●	●	—	—	—	—	—
ZCDUKR	25	—	—	—	—	—	—	—	●	●	●	—	—
	32	—	—	—	—	—	—	—	—	—	—	●	●

Note 1) When using "ZC(D) UK^U_R10", use ZP02 to 08U* -X11. Pad shape is flat only.

Switch Groove Location

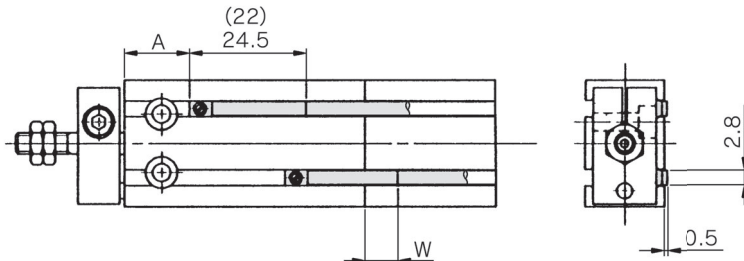


Bore size	A	B
10	10.3	13
16	15	18
20	21	23
25	27	25
32	35	27

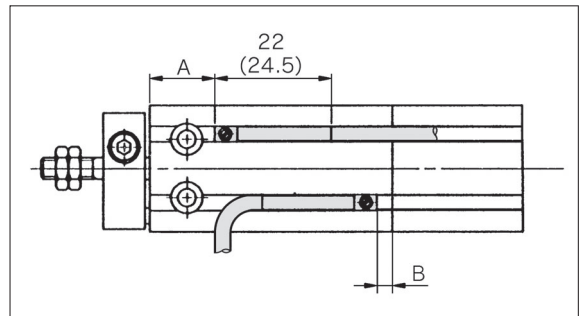
Montaje del detector magnético 1

Posición adecuada de montaje de los detectores magnéticos (detección a final de carrera) y altura de montaje

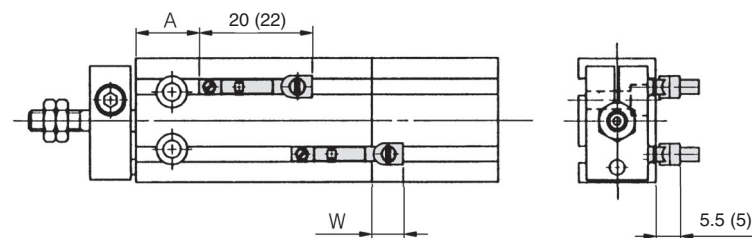
D-M9□
D-M9□W
D-M9□A
D-A9□



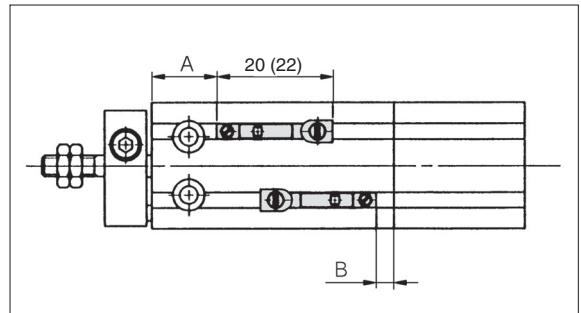
(): Indica los valores de D-A96.



D-M9□V
D-M9□WV
D-M9□AV
D-A9□V



(): Indica los valores de D-A9□V.



Diámetro [mm]	D-A9□, D-A9□V			D-M9□, D-M9□W			D-M9□V, D-M9□WV			D-M9□A			D-M9□AV		
	A	B	W	A	B	W	A	B	W	A	B	W	A	B	W
10	12.5	3	-1.5 (1)	16.5	7.5	2.5	16.5	7.5	0.5	16.5	7.5	4.5	16.5	7.5	2.5
16	16	4	-2 (0.5)	20	8	1.5	20	8	0	20	8	3.5	20	8	2
20	20	6	-4 (-1.5)	24	10	0	24	10	-2	24	10	2	24	10	0
25	22.5	7	-5.5 (-3)	26.5	11.5	-1.5	26.5	11.5	-3.5	26.5	11.5	0.5	26.5	11.5	-1.5
32	23.5	8	-6.5 (-4)	27.5	12.5	-2.5	27.5	12.5	-4.5	27.5	12.5	-0.5	27.5	12.5	-2.5

Nota 1) Las cifras de la tabla anterior se utilizan como referencia durante el montaje de los detectores magnéticos para detección a final de carrera. En el caso de la configuración actual de los detectores magnéticos, ajústelos tras confirmar su funcionamiento.

Nota 2) Los valores negativos en la tabla indican dimensiones cuando está montado en el interior del cuerpo del cilindro.

Nota 3) En el caso de las carreras de 5 y 10 mm, hay ocasiones en las que los detectores magnéticos no se desactivarán o en las que dos detectores se activarán simultáneamente debido al rango de movimiento. Por tanto, fija la posición aproximadamente entre 1 y 4 mm más que los valores en la tabla anterior. A continuación, realiza una inspección de funcionamiento para comprobar que los detectores magnéticos funcionan normalmente (si utilizas un detector magnético, asegúrate de que se activa y desactiva correctamente; si utilizas 2 detectores, asegúrate de que ambos se activan).

Nota 4) Las cifras entre () en la tabla W corresponden a los modelos D-A90 y A93.

Rango de trabajo

Modelo de detector magnético	Diámetro				
	10	16	20	25	32
D-A9□, A9□V	6	9	11	12.5	14
D-M9□, M9□V D-M9□W, M9□WV D-M9□A, M9□AV	4	5	7	7	7

* El valor no está garantizado, ya que se trata de un valor promedio a temperatura normal incluyendo la histéresis (tolerancia $\pm 30\%$).

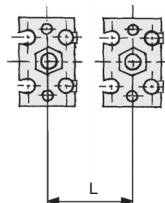
Por ello, puede variar sustancialmente dependiendo del entorno.

Montaje del detector magnético 2

Montaje del detector magnético

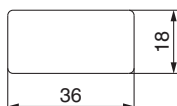
Precauciones sobre la instalación en proximidad

Si se usan cilindros de montaje libre equipados con detectores magnéticos, éstos se podrían activar de manera no intencionada si la distancia de instalación es inferior a las dimensiones indicadas en la tabla. Por tanto, asegúrate de dejar una distancia mayor. A causa de circunstancias inevitables, si tiene que usarlos a una distancia menor de la que muestra la tabla, deberás proteger los cilindros. Así pues, fija una superficie de acero o una protección magnética (MU-S025) en la parte del cilindro que corresponde al detector magnético. (Contacta con SMC para obtener más información.) En caso de que no se utilicen placas protectoras, los detectores magnéticos podrían no funcionar adecuadamente.



Diámetro [mm]	Paso de montaje L [mm]
10	20
16	33
20	40
25	46
32	56

Dimensiones de la placa protectora (MU-S025)



Material: acero inoxidable con ferrita, Grosor: 0.3 mm
El producto está acoplado al cilindro, ya que el lado inferior está pretratado con pegamento.

Peso

Modelo básico / Con detector magnético (): Indica los valores de D-A93.

Unidad: g

Modelo	Diámetro [mm]	Carrera del cilindro [mm]							
		5	10	15	20	25	30	40	50
ZC(D)UKC	10	63 (68)	69 (79)	75 (85)	81 (91)	87 (97)	93 (103)	—	—
	16	103 (128)	115 (145)	127 (157)	139 (169)	151 (181)	163 (193)	—	—
	20	180 (214)	204 (244)	228 (267)	252 (292)	276 (316)	300 (340)	348 (388)	396 (436)
	25	304 (358)	343 (402)	382 (441)	421 (480)	460 (519)	499 (558)	577 (636)	655 (714)
	32	514 (587)	574 (652)	634 (712)	694 (772)	754 (832)	814 (892)	934 (1012)	1054 (1132)
ZC(D)UKQ	10	49 (54)	53 (63)	57 (67)	61 (71)	65 (75)	69 (79)	—	—
	16	79 (104)	86 (116)	93 (123)	100 (130)	107 (137)	114 (144)	—	—
	20	145 (179)	159 (198)	173 (212)	187 (226)	201 (240)	215 (254)	243 (282)	271 (310)
	25	259 (313)	279 (338)	299 (358)	319 (378)	339 (398)	359 (418)	399 (458)	439 (498)
	32	421 (494)	451 (529)	481 (559)	511 (589)	541 (619)	571 (649)	631 (709)	691 (769)

Además de los modelos enumerados en «Forma de pedido», también son compatibles los siguientes detectores magnéticos.

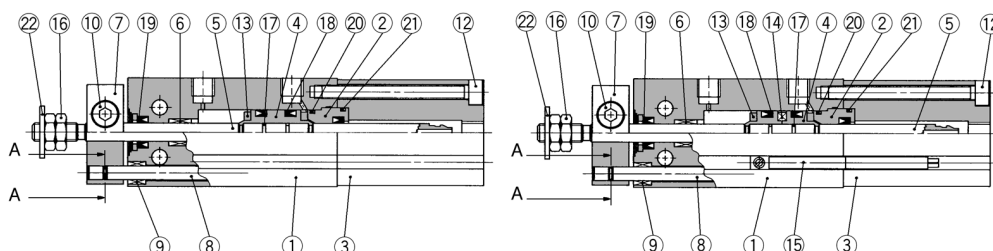
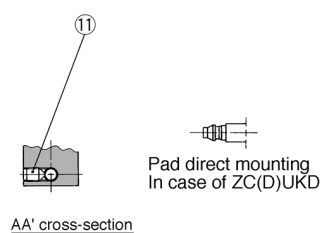
- * Para los detectores de estado sólido, también están disponibles detectores magnéticos con un conector precableado. Consulta la **Guía de detectores magnéticos** en www.smc.eu.
- * También se encuentran disponibles detectores de estado sólido (D-F9G/F9H) normalmente cerrados (NC = contacto b). Consulta la **Guía de detectores magnéticos** en www.smc.eu.

Construction

Cap piping/Male thread: ZC(D)UKC

Ø 10

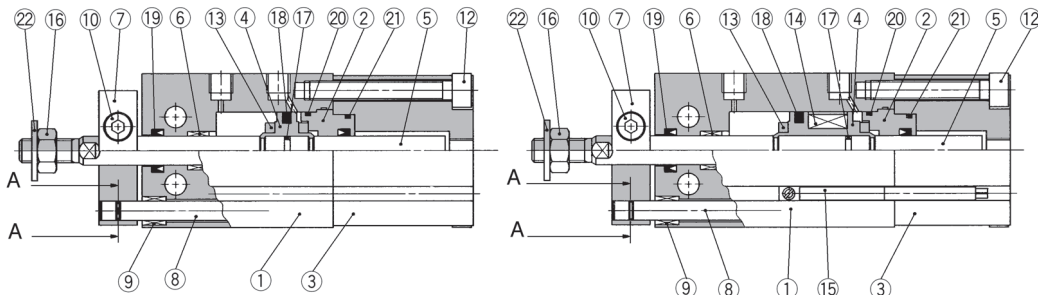
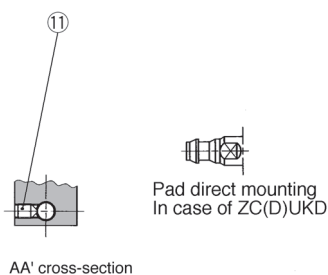
With auto switch



Refer to CUK series for outside colour of the piston rod, tube and cap.

Ø 16 to Ø 32

With auto switch



Refer to CUK series for outside color of the piston rod, tube and cap.

Component Parts

No.	Description	Material	Notes
①	Cylinder tube	Aluminium alloy	Hard anodised
②	Rod cover B	Aluminium bearing alloy	Chromated
③	Cap	Aluminium alloy	Hard anodised
④	Piston	Aluminium alloy	Chromated
⑤	Piston rod	Stainless steel	
⑥	Bush	Oil impregnated sintered metal	
⑦	Plate	Aluminium alloy	Nickel plated
⑧	Guide rod	Stainless steel	
⑨	Bush	Oil impregnated sintered metal	
⑩	Hexagon set screw	Carbon steel	Black zinc chromated
⑪	Hexagon socket head cap screw	Carbon steel	Black zinc chromated
⑫	Hexagon set screw	Carbon steel	Nickel plated

Component Parts

No.	Description	Material	Notes
⑬	Damper	Urethane	
⑭	Magnet	Magnetic material	
⑮	Auto switch	—	
⑯	Rod end nut	Carbon steel	Nickel plated
⑰	Piston gasket	NBR	
⑱	Piston seal	NBR	
⑲	Rod seal		
⑳	Gasket		
㉑	Gasket for cap		
㉒	Seal washer	Rolled steel/NBR	

Replacement Parts: Seal Kit

Kit no.	Bore size / Part no.				
	ø10	ø16	ø20	ø25	ø32
	ZCU10-PS	ZCU16-PS	ZCU20-PS	ZCU25-PS	ZCU32-PS

* Seal kit includes ⑱, ⑲, ⑳ and 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.

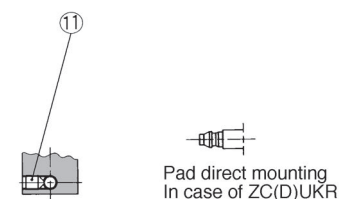
Grease pack part no.: GR-S-010 (10 g)

ZCUK Series

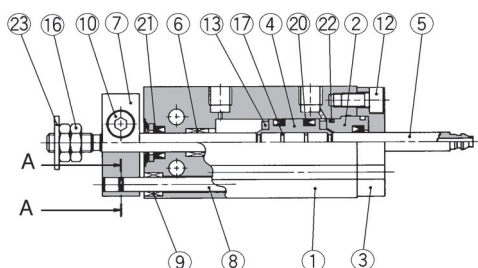
Construction

Rod piping/Male thread: ZC(D)UKQ

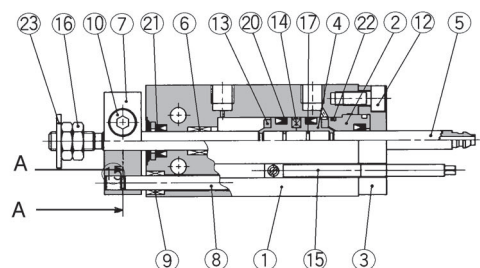
Ø 10



AA' cross-section

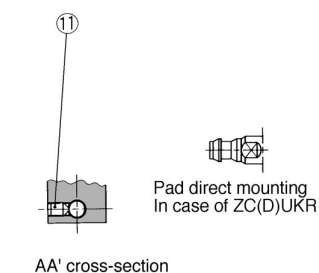


With auto switch

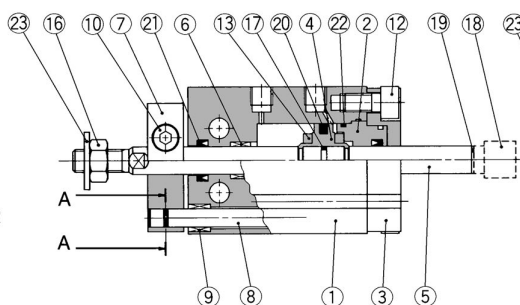


Refer to CUK series for outside colour of the piston rod, tube and cap.

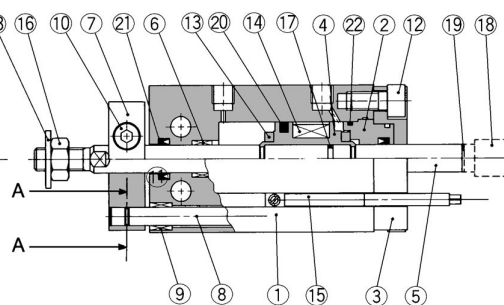
Ø 16 to Ø 32



AA' cross-section



With auto switch



Refer to CUK series for outside colour of the piston rod, tube and cap.

Component Parts

No.	Description	Material	Notes
①	Cylinder tube	Aluminium alloy	Hard anodised
②	Rod cover B	Aluminium bearing alloy	Chromated
③	Rod cover retainer plate	Aluminium alloy	Hard anodised
④	Piston	Aluminium alloy	Chromated
⑤	Piston rod	Stainless steel	
⑥	Bush	Oil impregnated sintered metal	
⑦	Plate	Aluminium alloy	Nickel plated
⑧	Guide rod	Stainless steel	
⑨	Bush	Oil impregnated sintered metal	
⑩	Hexagon set screw	Carbon steel	Black zinc chromated
⑪	Hexagon socket head cap screw	Carbon steel	Black zinc chromated
⑫	Hexagon set screw	Carbon steel	Nickel plated

Component Parts

No.	Description	Material	Notes
⑬	Damper	Urethane	
⑭	Magnet	Magnetic material	
⑮	Auto switch	—	
⑯	Rod end nut	Carbon steel	Nickel plated
⑰	Piston gasket	NBR	
⑱	Socket	Carbon steel	Ø 16 only
⑲	Gasket	NBR	Ø 16 only
⑳	Piston seal		
㉑	Rod seal		
㉒	Gasket		
㉓	Seal washer	Roller steel/NBR	

Replacement Parts: Seal Kit

Rod piping

Kit no.	Bore size / Part no.				
	ø10	ø16	ø20	ø25	ø32
	CUW10D-PS	CUW16D-PS	CUW20D-PS	CUW25D-PS	CUW32D-PS

* Seal kit includes ⑳, ㉑ and ㉒. Order the seal kit based on each bore size.

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

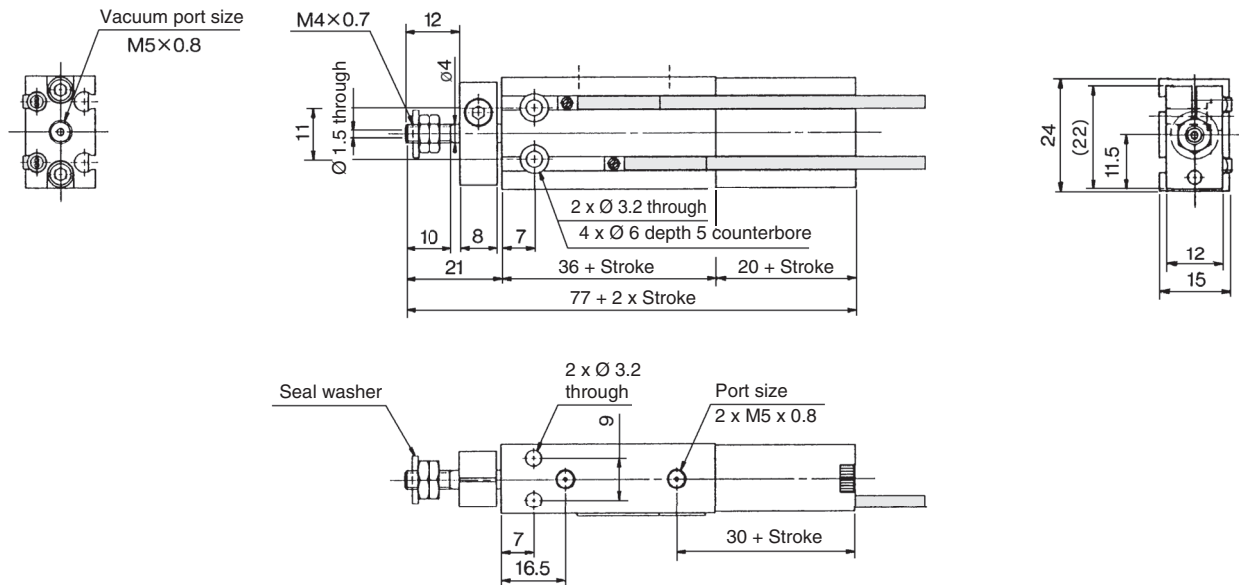
Order with the following part number when only the grease pack is needed.

Grease pack part no.: GR-S-010 (10 g)

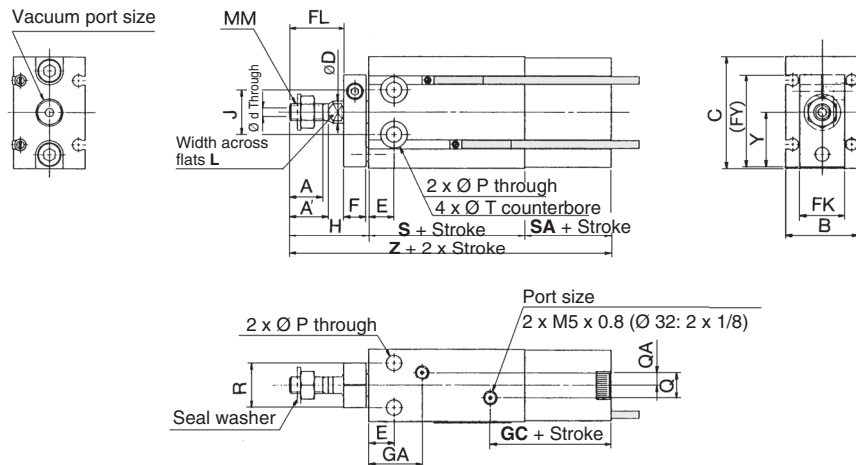
Vacuum Piping: Cap Piping/Rod End Shape: Male Thread

ZC(D)UKC Cylinder bore – Stroke D

Ø 10



Ø 16 to Ø 32



Model	Port size		Stroke range [mm]	A	A'	B	C	Ø d	Ø D	E	F	FK	FL	FY	GA	GC
	Air port	Vacuum port														
ZC(D)UKC16	M5 x 0.8	M5 x 0.8	5 to 30	11	12.5	20	32	2	6	7	8	13	17	28	16.5 ^{Note 1)}	31
ZC(D)UKC20	M5 x 0.8	1/8	5 to 50	12	14	26	40	3	8	9	8	16	20	33	19	33.5
ZC(D)UKC25	M5 x 0.8	1/8	5 to 50	15.5	18	32	50	4	10	10	10	20	22	43.5	21.5	34
ZC(D)UKC32	1/8	1/8	5 to 50	19.5	22	40	62	5	12	11	12	24	29	51.5	23	34.5

Model	H	J	L	MM	Ø P	Q	QA	R	S	SA	Ø T	Y	Z
ZC(D)UKC16	26	14	5	M5 x 0.8	4.5	4	2	12	30 (40)	19.5	7.6 depth 6.5	15.5	75.5 (85.5)
ZC(D)UKC20	29	16	6	M6 x 1.0	5.5	9	4.5	16	36 (46)	21	9.3 depth 9	19.5	86 (96)
ZC(D)UKC25	33	20	8	M8 x 1.25	5.5	9	4.5	20	40 (50)	21	9.3 depth 8	24.5	94 (104)
ZC(D)UKC32	42	24	10	M10 x 1.25	6.6	13.5	4.5	24	42 (52)	22	11 depth 11.5	30.5	106 (116)

(): In the case of a mounted auto switch.

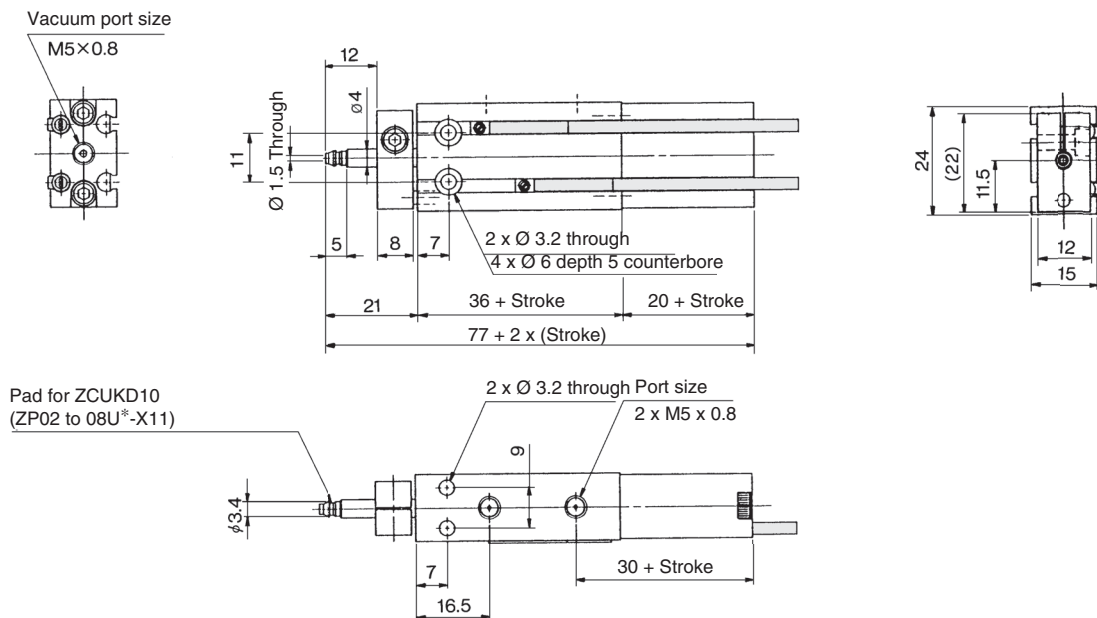
Note 1) In the case of ZCUK16-5D: 14.5 mm.

ZCUK Series

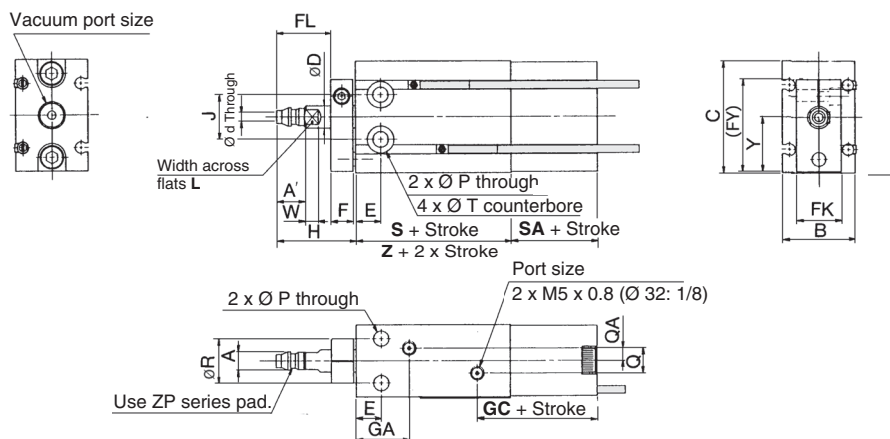
Vacuum Piping: Cap Piping/Rod End Shape: Pad Direct Mounting

ZC(D)UKD Cylinder bore — Stroke D

Ø 10



Ø 16 to Ø 32



Model	Port size		Stroke range [mm]	Ø A	A'	B	C	Ø d	Ø D	E	F	FK	FL	FY	GA	GC
	Air port	Vacuum port														
ZC(D)UKD16	M5 x 0.8	M5 x 0.8	5 to 30	5	7	20	32	2	6	7	8	13	17	28	16.5 ^{Note 1)}	31
ZC(D)UKD20	M5 x 0.8	1/8	5 to 50	6.6	8	26	40	3	8	9	8	16	20	33	19	33.5
ZC(D)UKD25	M5 x 0.8	1/8	5 to 50	8	9	32	50	4	10	10	10	20	22	43.5	21.5	34
ZC(D)UKD32	1/8	1/8	5 to 50	11.5	10.5	40	62	5	12	11	12	24	29	51.5	23	34.5

Model	H	J	L	Ø P	Q	QA	R	S	SA	Ø T	W	Y	Z
ZC(D)UKD16	26	14	5	4.5	4	2	12	30 (40)	19.5	7.6 depth 6.5	3.5	15.5	75.5 (85.5)
ZC(D)UKD20	29	16	6	5.5	9	4.5	16	36 (46)	21	9.3 depth 8	5	19.5	86 (96)
ZC(D)UKD25	33	20	8	5.5	9	4.5	20	40 (50)	21	9.3 depth 9	5	24.5	94 (104)
ZC(D)UKD32	42	24	10	6.6	13.5	4.5	24	42 (52)	22	11 depth 11.5	5	30.5	106 (116)

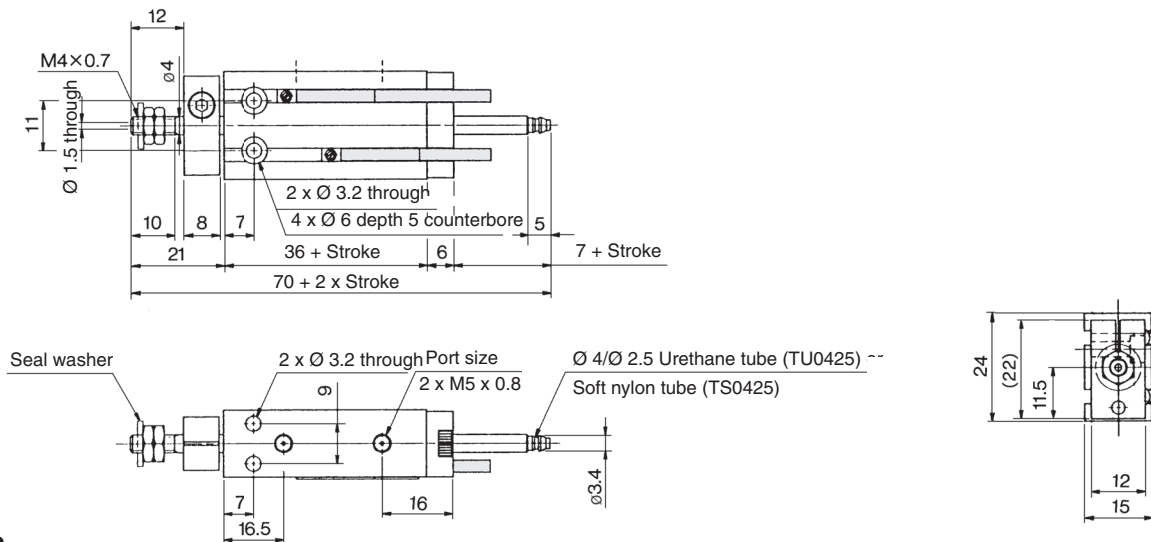
(): In the case of a mounted auto switch.

Note 1) In the case of ZCUK16-5D: 14.5 mm.

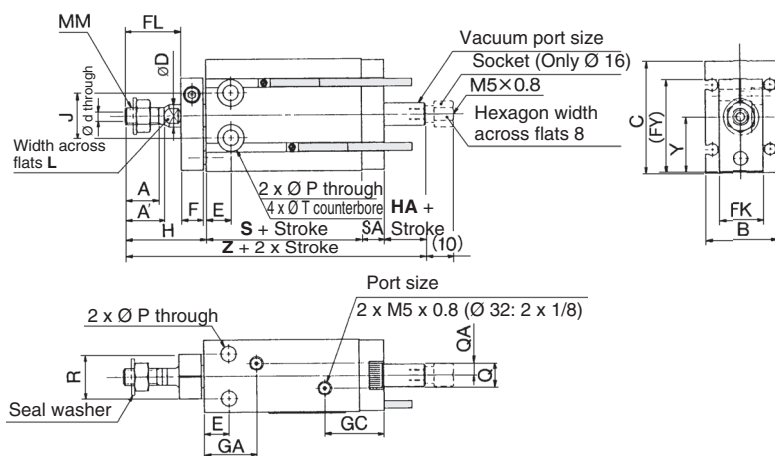
Vacuum Piping: Rod Piping/Rod End Shape: Male Thread

ZC(D)UKQ Cylinder bore — Stroke **D**

Ø 10



Ø 16 to Ø 32



Model	Port size		Stroke range [mm]	A	A'	B	C	Ø d	Ø D	E	F	FK	FL	FY	GA	GC
	Air port	Vacuum port														
ZC(D)UKQ16	M5 x 0.8	M5 x 0.8 ^{Note 2)}	5 to 30	11	12.5	20	32	2	6	7	8	13	17	28	16.5 ^{Note 1)}	19
ZC(D)UKQ20	M5 x 0.8	M5 x 0.8	5 to 50	12	14	26	40	3	8	9	8	16	20	33	19	21.5
ZC(D)UKQ25	M5 x 0.8	M5 x 0.8	5 to 50	15.5	18	32	50	4	10	10	10	20	22	43.5	21.5	22
ZC(D)UKQ32	1/8	1/8	5 to 50	19.5	22	40	62	5	12	11	12	24	29	51.5	23	22.5

Model	H	HA	J	L	MM	Ø P	Q	QA	R	S	SA	Ø T	Y	Z
ZC(D)UKQ16	26	5	14	5	M5 x 0.8	4.5	4	2	12	30 (40)	7.5	7.6 depth 6.5	15.5	68.5 (78.5)
ZC(D)UKQ20	29	5	16	6	M6 x 1.0	5.5	9	4.5	16	36 (46)	9	9.3 depth 8	19.5	79 (89)
ZC(D)UKQ25	33	5	20	8	M8 x 1.25	5.5	9	4.5	20	40 (50)	9	9.3 depth 9	24.5	87 (97)
ZC(D)UKQ32	42	5	24	10	M10 x 1.25	6.6	13.5	4.5	24	42 (52)	10	11 depth 11.5	30.5	99 (109)

(): In the case of a mounted auto switch.

Note 1) In the case of ZCUK16-5D: 14.5 mm.

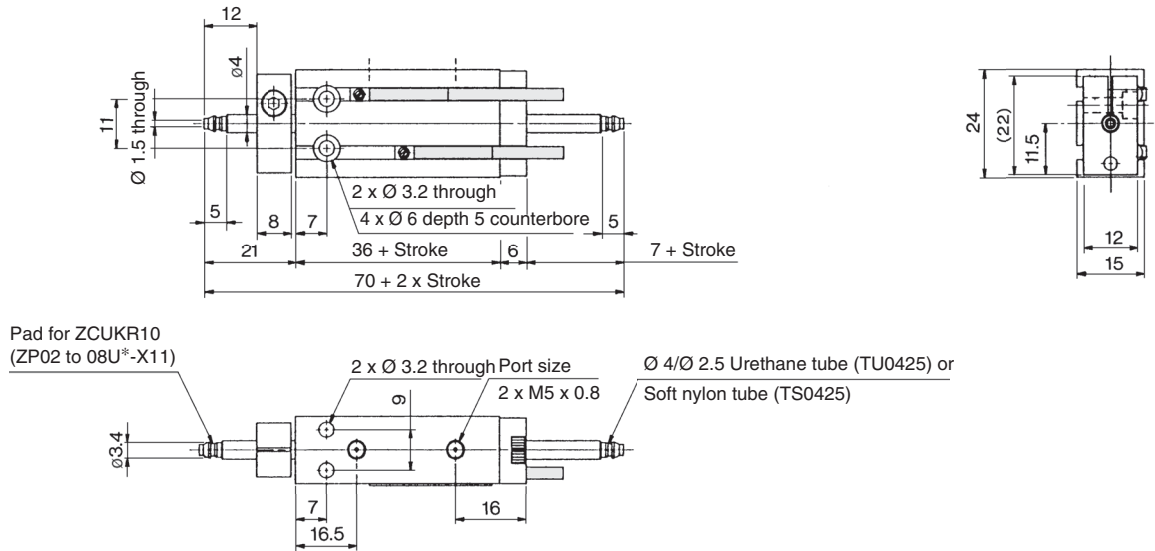
Note 2) In the case of socket equipped type.

ZCUK Series

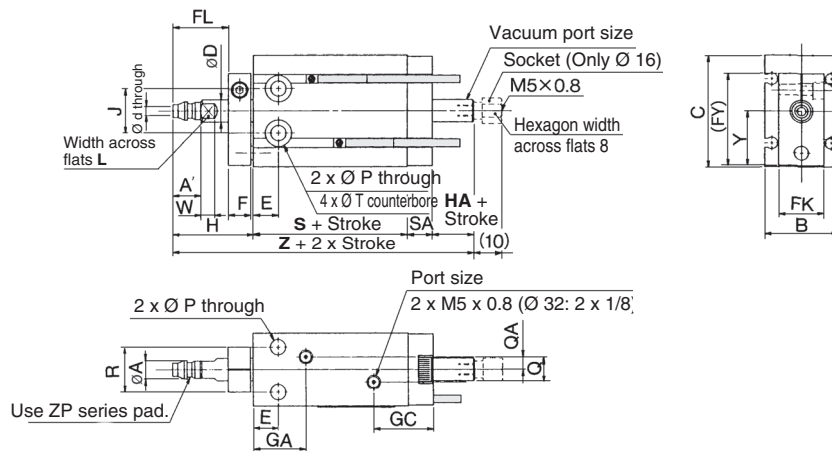
Vacuum Piping: Rod Piping/Rod End Shape: Pad Direct Mounting

ZC(D)UKR Cylinder bore — Stroke **D**

Ø 10



Ø 16 to Ø 32



Model	Port size		Stroke range [mm]	Ø A	A	B	C	Ø d	Ø D	E	F	FK	FL	FY	GA	GC
	Air port	Vacuum port														
ZC(D)UKR16	M5 x 0.8	M5 x 0.8 ^{Note 2)}	5 to 30	5	7	20	32	2	6	7	8	13	17	28	16.5 ^{Note 1)}	19
ZC(D)UKR20	M5 x 0.8	M5 x 0.8	5 to 50	6.6	8	26	40	3	8	9	8	16	20	33	19	21.5
ZC(D)UKR25	M5 x 0.8	M5 x 0.8	5 to 50	8	9	32	50	4	10	10	10	20	22	43.5	21.5	22
ZC(D)UKR32	1/8	1/8	5 to 50	11.5	10.5	40	62	5	12	11	12	24	29	51.5	23	22.5

Model	H	HA	J	L	Ø P	Q	QA	R	S	SA	Ø T	W	Y	Z
ZC(D)UKR16	26	5	14	5	4.5	4	2	12	30 (40)	7.5	7.6 depth 6.5	3.5	15.5	68.5 (78.5)
ZC(D)UKR20	29	5	16	6	5.5	9	4.5	16	36 (46)	9	9.3 depth 8	5	19.5	79 (89)
ZC(D)UKR25	33	5	20	8	5.5	9	4.5	20	40 (50)	9	9.3 depth 9	5	24.5	87 (97)
ZC(D)UKR32	42	5	24	10	6.6	13.5	4.5	24	42 (52)	10	11 depth 11.5	5	30.5	99 (109)

(): In the case of a mounted auto switch.

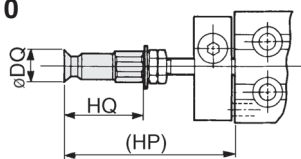
Note 1) In the case of ZCUKQ16-5D: 14.5 mm.

Note 2) In the case of socket equipped type.

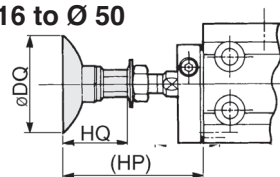
Dimensions of Pad Mounted Model

Rod end shape: Male thread

Tube bore: Ø 10



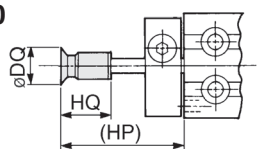
Tube bore: Ø 16 to Ø 50



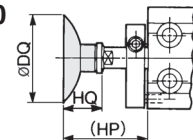
Model	Flat/Flat with ribs														Deep				Bellows												Applicable pad model
	Dia.[mm]	2	4	6	8	10	13	16	20	25	32	40	50	10	16	25	40	6	8	10	13	16	20	25	32	40	50				
ZC(D)UKC10 ZC(D)UKQ10	Ø DQ	2.6	4.8	7	9	—	—	—	—	—	—	—	—	—	—	—	—	7	9	—	—	—	—	—	—	—	—	ZPT□□□-B4			
	HQ	19.5	19.5	19.5	19.5	—	—	—	—	—	—	—	—	—	—	—	—	20.5	20.5	—	—	—	—	—	—	—	—				
	HP	36.5	36.5	36.5	36.5	—	—	—	—	—	—	—	—	—	—	—	—	—	37.5	37.5	—	—	—	—	—	—	—		—		
ZC(D)UKC16 ZC(D)UKQ16	Ø DQ	2.6	4.8	7	9	12	15	18	—	—	—	—	—	12	18	—	—	7	9	12	15	18	—	—	—	—	—	ZPT□□□-B5			
	HQ	19.5	19.5	19.5	19.5	21	21	21.5	—	—	—	—	—	24	25	—	—	20.5	20.5	25	27.5	29	—	—	—	—	—				
	HP	41.5	41.5	41.5	41.5	44	42	42.5	—	—	—	—	—	45	46	—	—	42.5	42.5	46	48.5	50	—	—	—	—	—		—		
ZC(D)UKC20 ZC(D)UKQ20	Ø DQ	—	—	—	—	12	15	18	23	28	35	—	—	12	18	28	—	—	—	12	15	18	22	27	34	—	—	ZPT□□□-B6			
	HQ	—	—	—	—	21	21	21.5	23	23	23.5	—	—	24	25	29	—	—	—	25	27.5	29	32.5	33	38	—	—				
	HP	—	—	—	—	44	44	44.5	46	46	46.5	—	—	47	48	52	—	—	—	48	50.5	52	55.5	56	61	—	—		—		
ZC(D)UKC25 ZC(D)UKQ25	Ø DQ	—	—	—	—	—	—	—	23	28	35	43	53	—	—	28	43	—	—	—	—	—	—	22	27	34	43	53	ZPT□□□-B8		
	HQ	—	—	—	—	—	—	—	29	29	29.5	32	33	—	—	35	42.5	—	—	—	—	—	38.5	39	44	47.5	51.5				
	HP	—	—	—	—	—	—	—	54	54	54.5	57	58	—	—	60	67.5	—	—	—	—	—	63.5	64	69	72.5	76.5	—			
ZC(D)UKC32 ZC(D)UKQ32	Ø DQ	—	—	—	—	—	—	—	23	28	35	43	53	—	—	28	43	—	—	—	—	—	—	22	27	34	43	53	ZPT□□□-B10		
	HQ	—	—	—	—	—	—	—	32	32	32.5	35	36	—	—	38	45.5	—	—	—	—	—	41.5	42	47	50.5	54.5				
	HP	—	—	—	—	—	—	—	64	64	64.5	67	68	—	—	70	77.5	—	—	—	—	—	73.5	74	79	82.5	86.5	—			

Rod end shape: Pad Direct mounting

Tube bore: Ø 10



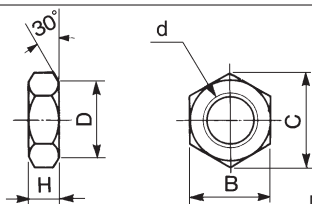
Tube bore: Ø 16 to Ø 50

[illegible]

Note) ZP□U□-X11: Flat style only.

Accessory Dimensions (Attached only to a rod end male thread type.)

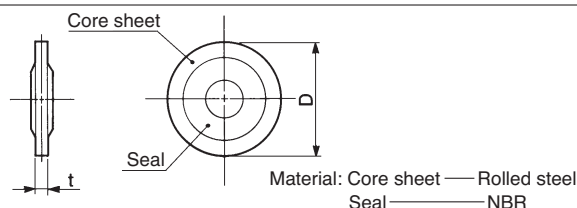
Rod end nut



Material: Carbon steel

Parts No.	Applicable cylinder bore [mm]	d	H	B	C	D
NTP-010	10	M4	2.4	7	8.1	6.8
NTJ-015A	16	M5	4	8	9.2	7.8
NT-015A	20	M6	5	10	11.5	9.8
NT-02	25	M8	5	13	15.0	12.5
NT-03	32	M10 X 1.25	6	17	19.6	16.5

Seal washer



Parts No.	Applicable cylinder bore [mm]	t	D
WCS4 X 0.7	10	1.2	11.5
WCS5 X 0.8	16	1.2	12.5
WCS6 X 1	20	1.2	14.0
WCS8 X 1	25	1.6	15.5
WCS10 X 1	32	1.6	18.0