High Durability Series

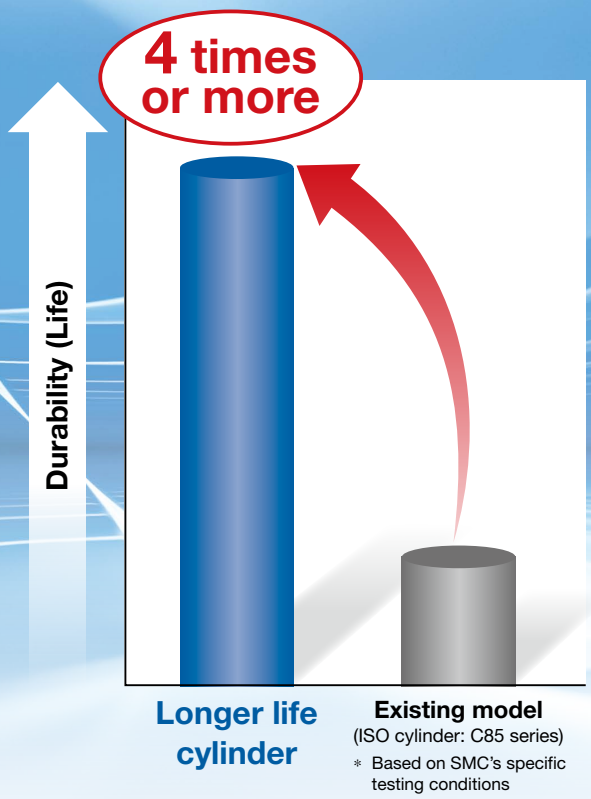
Longer Life Cylinder

New

RoHS

New technology offers at least 4 times better durability

- The maintenance intervals will be extended



ISO Standards (6432)

ISO cylinder
C85-XB24

Air cylinder
C75-XB24

- Employs the same specification and dimensions as the existing models, C85 ISO Cylinder series and C75 Air Cylinder series.

High Durability Series

High Durability Series is the series name for the "special specification" that offers superior durability and environmental resistance compared to standard products.

Series Variations

Series	Action	Model	Bore size [mm]								Cushion	Stroke range
			8	10	12	16	20	25	32	40		
ISO Standards (6432) ISO cylinder C85 series 	Double acting, Single rod	**C85-XB24**	●	●	●	●	●	●			Rubber bumper	ø8 : 5 to 200 ø10 to ø16 : 5 to 400 ø20, ø25 : 5 to 1000
Air cylinder C75 series 	Double acting, Single rod	**C75-XB24**							●	●	Rubber bumper	5 to 1000

C85/C75-XB24

SMC

CAT.ES20-306A

High Durability Series **ISO Standards (6432)**

Longer Life Cylinder
Double Acting, Single Rod
C85-XB24

ø8, ø10, ø12, ø16, ø20, ø25

RoHS

How to Order

Double acting, Single rod C D 85 N 20 – 40 L V – B – M9BW S – XB24

Built-in magnet

Nil	None
D	Built-in magnet

Head cover type

N	Basic (Integrated clevis)
E	Double end boss-cut
F	Boss-cut/Basic
Y	Head cover axial port

Bore size

8	8 mm
10	10 mm
12	12 mm
16	16 mm
20	20 mm
25	25 mm

Cylinder stroke [mm]
Refer to the next page for standard strokes.

Mounting bracket∗1

Nil	None
L	Single foot
M	Double foot
G	Flange
U	Trunnion
N	Clevis

Accessory∗2

Nil	None
V	Rod end
W	Double knuckle joint

∗2 Refer to Mounting Brackets/Accessories for details of accessories.
∗ Accessory is shipped together with the product.

Auto switch mounting type∗3

A	Rail mounting
B	Band mounting

∗3 The symbol is "Nil" for no magnet.

Number of auto switches

Nil	2
S	1
n	n

Auto switch

Nil	Without auto switch

∗ For applicable auto switches, refer to the table below.
∗ Auto switches are shipped together with the product.

Longer life cylinder

Applicable mounting bracket

Head cover type	Mounting bracket L	M	G	U	N
N	●	●	●	●	●
E	●	●	●	●	–
F	●	–	●	●	–
Y	●	–	●	●	–

∗1 Refer to Mounting Brackets/Accessories for details of mounting brackets.
∗ Mounting bracket is shipped together with the product.

Applicable Auto Switches/Refer to the **Web Catalog** for further information on auto switches.

Type	Special function	Electrical entry	Indicator light	Wiring (Output)	Load voltage DC		Load voltage AC	Auto switch model: Band mounting Perpendicular	Band mounting In-line	Rail mounting Perpendicular	Rail mounting In-line	Lead wire length [m] 0.5 (Nil)	1 (M)	3 (L)	5 (Z)	None (N)	Pre-wired connector	Applicable load	
Solid state auto switch	—	Grommet	Yes	3-wire (NPN)	24 V	5 V, 12 V	–	M9NV	M9N	M9NV	M9N	●	●	●	○	–	○	IC circuit	Relay, PLC
				3-wire (PNP)				M9PV	M9P	M9PV	M9P	●	●	●	○	–	○		
				2-wire		12 V		M9BV	M9B	M9BV	M9B	●	●	●	○	–	○	–	
		Connector						–	H7C	J79C	–	●	–	●	●	●	–		
	Diagnostic indication (2-color indicator)	Grommet		3-wire (NPN)		5 V, 12 V		M9NWV	M9NW	M9NWV	M9NW	●	●	●	○	–	○	IC circuit	
				3-wire (PNP)				M9PWV	M9PW	M9PWV	M9PW	●	●	●	○	–	○		
				2-wire		12 V		M9BWV	M9BW	M9BWV	M9BW	●	●	●	○	–	○	–	
	Water-resistant (2-color indicator)			3-wire (NPN)		5 V, 12 V		M9NAV∗1	M9NA∗1	M9NAV∗1	M9NA∗1	○	○	●	○	–	○	IC circuit	
				3-wire (PNP)				M9PAV∗1	M9PA∗1	M9PAV∗1	M9PA∗1	○	○	●	○	–	○		
				2-wire		12 V		M9BAV∗1	M9BA∗1	M9BAV∗1	M9BA∗1	○	○	●	○	–	○	–	
	With diagnostic output (2-color indicator)			4-wire (NPN)		5 V, 12 V		–	H7NF	–	F79F	●	–	●	○	–	○	IC circuit	
Reed auto switch	—	Grommet	Yes	3-wire (NPN equivalent)	–	5 V	–	A96V	A96	A96V	A96	●	●	●	●	–	○	IC circuit	–
				2-wire		–	200 V	–	–	A72	A72H	●	–	●	–	–	–	–	Relay, PLC
					24 V	12 V	100 V	A93V	A93	A93V	A93	●	●	●	●	–	○∗2		
			No				100 V or less	A90V	A90	A90V	A90	●	●	●	●	–	○∗2	IC circuit	
			Yes				–	–	C73C	A73C	–	●	–	●	●	●	–	–	
		Connector	No				24 V or less	–	C80C	A80C	–	●	–	●	●	●	–	IC circuit	
	Diagnostic indication (2-color indicator)	Grommet	Yes		–	–	–	–	–	A79W	–	●	–	●	–	–	–	–	

∗1 Water-resistant type auto switches can be mounted on the above models, but SMC cannot guarantee water resistance.
∗2 The load voltage used is 24 VDC.
∗ 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
None····· N (Example) H7CN

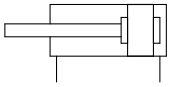
∗ Since there are other applicable auto switches than listed above, refer to the **Web Catalog** for details.
∗ Auto switches marked with "○" are produced upon receipt of order.
∗ D-A9□/M9□/A7□/A80□/F7□/J7□ auto switches are shipped together, but not assembled. (For band mounting, only the auto switch mounting brackets are assembled before shipment.)
∗ When mounting a band on bore size ø8, ø10, or ø12, the D-A9□(V) cannot be mounted.
∗ When mounting a rail on bore size ø8, ø10, or ø12, the D-A9□(V) and A79W cannot be mounted.
∗ When mounting a rail on bore size ø20 or ø25, the D-M9□(V), M9□W(V), and M9□A(V) cannot be mounted.

Specifications

Bore size [mm]	8	10	12	16	20	25
Type	Pneumatic					
Action	Double acting, Single rod					
Fluid	Air					
Proof pressure	1.5 MPa					
Max. operating pressure	1.0 MPa					
Min. operating pressure	0.1 MPa	0.08 MPa		0.05 MPa		
Ambient and fluid temperature	Without auto switch: –20°C to 80°C (No freezing)					
	With auto switch: –10°C to 60°C (No freezing)					
Lubricant	Not required (Non-lube)					
Stroke length tolerance	$^{+1.0}_{0}$ mm				$^{+1.4}_{0}$ mm	
Piston speed	50 to 1500 mm/s					
Cushion	Rubber bumper					
Allowable kinetic energy	0.02 J	0.03 J	0.04 J	0.09 J	0.27 J	0.4 J

Symbol

Double acting, Single rod



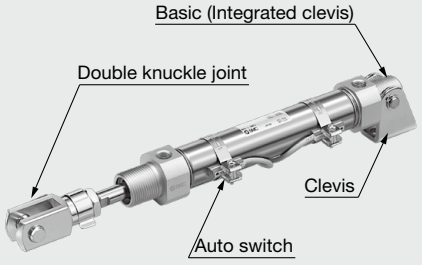
Strokes

Bore size [mm]	Standard stroke [mm]*1, *2, *3	Stroke range [mm]
8	10, 25, 40, 50, 80, 100	5 to 200
10		5 to 400
12	10, 25, 40, 50, 80, 100, 125, 160, 200	
16		
20	10, 25, 40, 50, 80, 100, 125, 160, 200, 250, 300	5 to 1000
25		

*1 The manufacturing of strokes in 1 mm increments is possible. (Spacers are not used.) Produced upon receipt of order.
*2 Applicable strokes differ depending on the usage conditions and mounting brackets. For details, refer to the “Stroke Selection” section of the C85 series in the **Web Catalog**. In addition, the products that exceed the standard stroke might not be able to fulfill the specifications due to deflection, etc.
*3 The min. stroke of the type with a magnet varies depending on the switch.

Option: Ordering Example of Cylinder Assembly

Cylinder model: CD85N20-50NW-B-M9BW-XB24



Head cover N: Basic (Integrated clevis)
Mounting bracket N: Clevis
Rod end bracket W: Double knuckle joint
Auto switch D-M9BW: Band mounting, 2 pcs.

* Mounting bracket, double knuckle joint, and auto switch are shipped together with the product.

The allowable kinetic energy, allowable lateral loads at the rod end, theoretical output, weight, mounting bracket/parts numbers, and specifications with an auto switch, are equivalent to those of the ISO Cylinder C75 series. For details, refer to the Web Catalog.

⚠Caution

Durability of The Cylinder

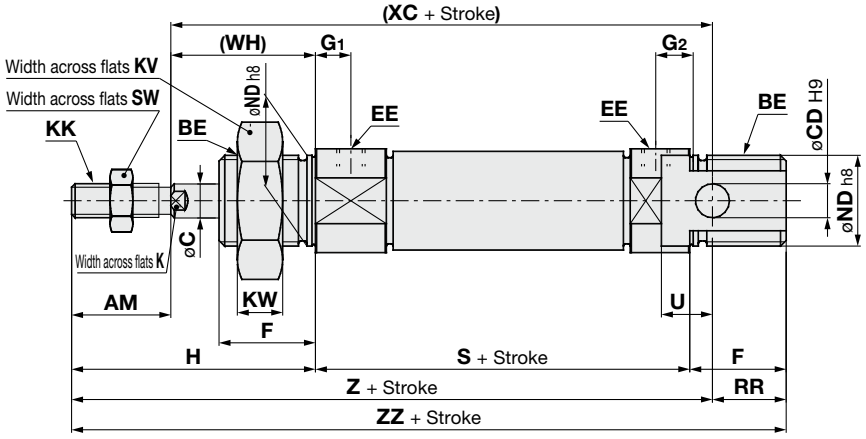
The durability of a longer life cylinder has been evaluated by comparison with the existing cylinders under SMC’s test conditions.
The durability of a cylinder depends on the customer’s operating conditions and operating environment.
Therefore, durability of four times or longer will not be guaranteed under all conditions.

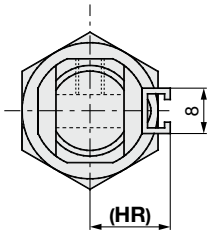
For details on accessories (rod end, double knuckle joint, and floating joint), refer to the **Web Catalog**.

Dimensions

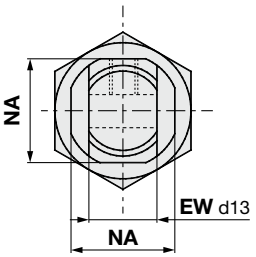
Basic (Integrated clevis)

Rubber bumper: C□85N Bore size – Stroke – □ – XB24





Rail mounting (A)



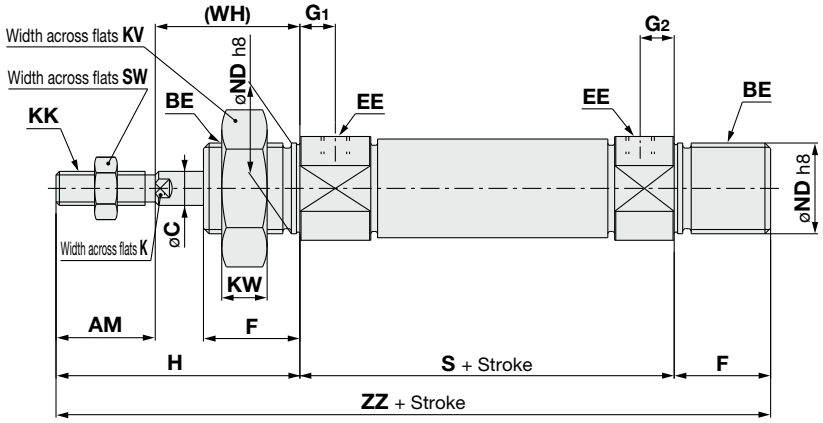
Band mounting (B)
Without magnet

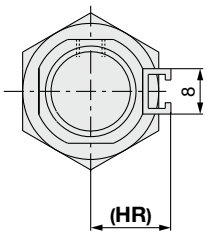
[mm]

Bore size	AM	BE	C	CD	EE	EW	F	G1	G2	H	(HR)	K	KK	KV	KW	NA	ND	RR	S	SW	U	WA	(WH)	(XC)	Z	ZZ
8	12	M12 x 1.25	4	4	M5 x 0.8	8	12	7	5	28	13.4	—	M4 x 0.7	19	6	15	12	10	46	7	6	—	16	64	76	86
10	12	M12 x 1.25	4	4	M5 x 0.8	8	12	7	5	28	14.2	—	M4 x 0.7	19	6	15	12	10	46	7	6	10.5	16	64	76	86
12	16	M16 x 1.5	6	6	M5 x 0.8	12	17	8	6	38	14.2	5	M6 x 1	24	8	18.3	16	14	50	10	9	9.5	22	75	91	105
16	16	M16 x 1.5	6	6	M5 x 0.8	12	17	8	6	38	14.2	5	M6 x 1	24	8	18.3	16	13	56	10	9	9.5	22	82	98	111
20	20	M22 x 1.5	8	8	G 1/8	16	20	8	8	44	17	6	M8 x 1.25	32	11	24	22	11	62	13	12	13	24	95	115	126
25	22	M22 x 1.5	10	8	G 1/8	16	22	8	8	50	20	8	M10 x 1.25	32	11	30	22	11	65	17	12	13	28	104	126	137

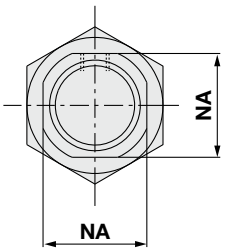
Double end boss-cut

Rubber bumper: C□85E Bore size – Stroke – □ – XB24





Rail mounting (A)



Band mounting (B)
Without magnet

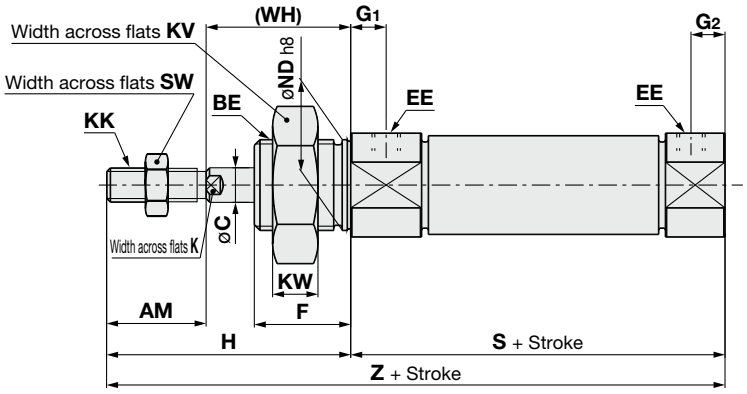
[mm]

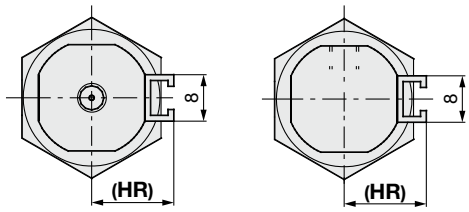
Bore size	AM	BE	C	EE	F	G1	G2	H	(HR)	K	KK	KV	KW	NA	ND	S	SW	(WH)	ZZ
8	12	M12 x 1.25	4	M5 x 0.8	12	7	5	28	13.4	—	M4 x 0.7	19	6	15	12	46	7	16	86
10	12	M12 x 1.25	4	M5 x 0.8	12	7	5	28	14.2	—	M4 x 0.7	19	6	15	12	46	7	16	86
12	16	M16 x 1.5	6	M5 x 0.8	17	8	6	38	14.2	5	M6 x 1	24	8	18.3	16	50	10	22	105
16	16	M16 x 1.5	6	M5 x 0.8	17	8	6	38	14.2	5	M6 x 1	24	8	18.3	16	56	10	22	111
20	20	M22 x 1.5	8	G 1/8	20	8	8	44	17	6	M8 x 1.25	32	11	24	22	62	13	24	126
25	22	M22 x 1.5	10	G 1/8	22	8	8	50	20	8	M10 x 1.25	32	11	30	22	65	17	28	137

For details on accessories (rod end, double knuckle joint, and floating joint), refer to the **Web Catalog**.

Dimensions

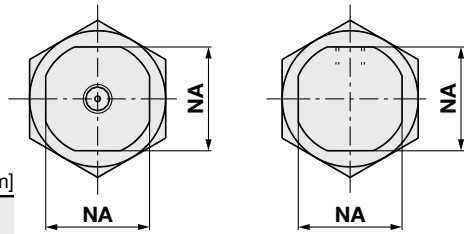
Boss-cut/Basic, Head cover axial port
Rubber bumper: C□85F/Y Bore size – Stroke – □ – XB24





Head cover axial port — Boss-cut/Basic

Rail mounting (A)



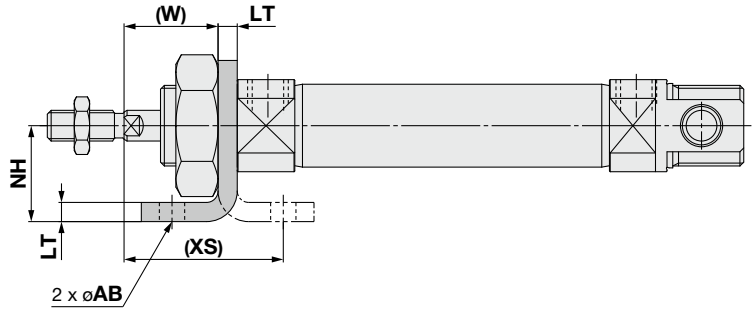
Head cover axial port — Boss-cut/Basic

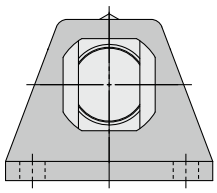
Band mounting (B)
Without magnet

[mm]

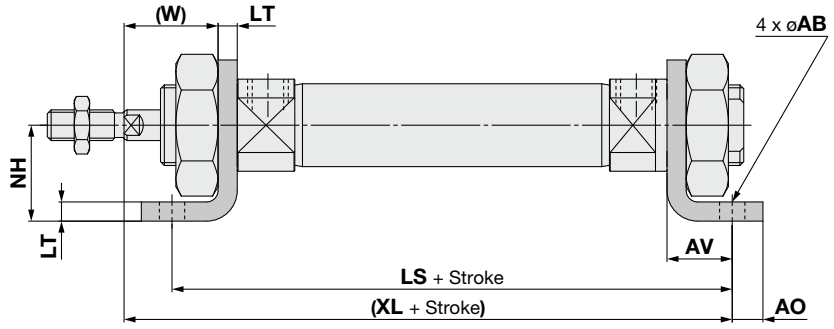
Bore size	AM	BE	C	EE	F	G1	G2	H	(HR)	K	KK	KV	KW	NA	ND	S	SW	(WH)	Z
8	12	M12 x 1.25	4	M5 x 0.8	12	7	5	28	13.4	–	M4 x 0.7	19	6	15	12	46	7	16	74
10	12	M12 x 1.25	4	M5 x 0.8	12	7	5	28	14.2	–	M4 x 0.7	19	6	15	12	46	7	16	74
12	16	M16 x 1.5	6	M5 x 0.8	17	8	6	38	14.2	5	M6 x 1	24	8	18.3	16	50	10	22	88
16	16	M16 x 1.5	6	M5 x 0.8	17	8	6	38	14.2	5	M6 x 1	24	8	18.3	16	50	10	22	88
20	20	M22 x 1.5	8	G 1/8	20	8	8	44	17	6	M8 x 1.25	32	11	24	22	62	13	24	106
25	22	M22 x 1.5	10	G 1/8	22	8	8	50	20	8	M10 x 1.25	32	11	30	22	65	17	28	115

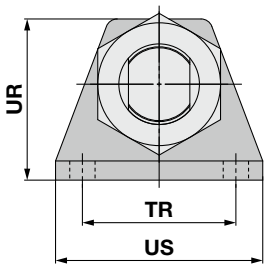
Single foot: C□85N□ – □L – XB24
(With mounting bracket)





Double foot: C□85N□ – □M – XB24
(With mounting bracket)





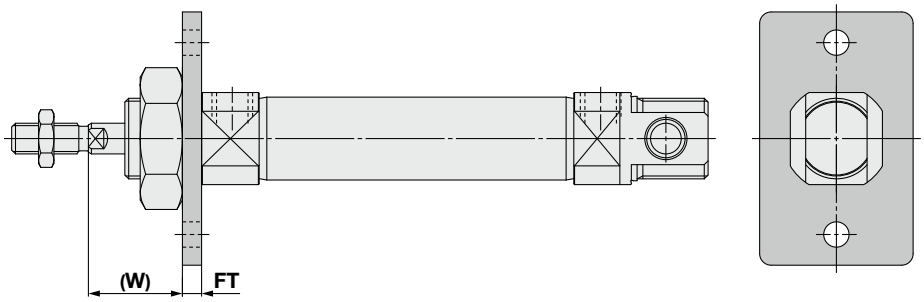
[mm]

Bore size	AB	AO	AV	LS	LT	NH	TR JS14	UR	US	(W)	(XL)	(XS)
8	4.5	5	11	68	3.2	16	25	26	35	12.8	73	23.8
10	4.5	5	11	68	3.2	16	25	26	35	12.8	73	23.8
12	5.5	6	14	78	4	20	32	33	42	18	86	32
16	5.5	6	14	84	4	20	32	33	42	18	92	32
20	6.6	8	17	96	5	25	40	42	54	19	103	36
25	6.6	8	17	99	5	25	40	42	54	23	110	40

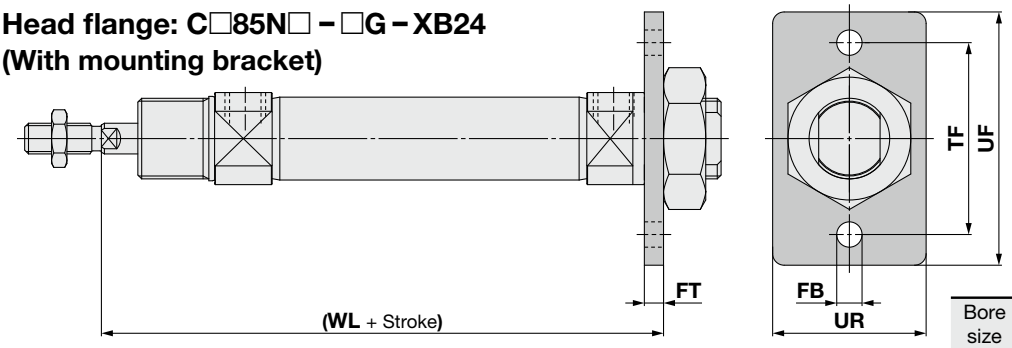
For details on accessories (rod end, double knuckle joint, and floating joint), refer to the **Web Catalog**.

Dimensions

Rod flange: C□85N□ – □G – XB24
(With mounting bracket)



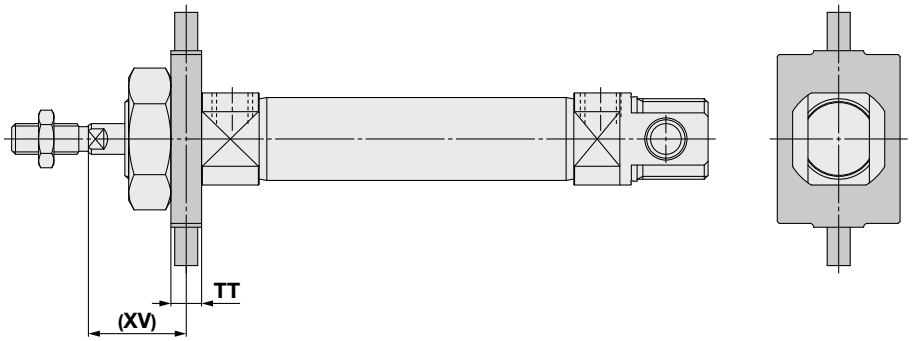
Head flange: C□85N□ – □G – XB24
(With mounting bracket)



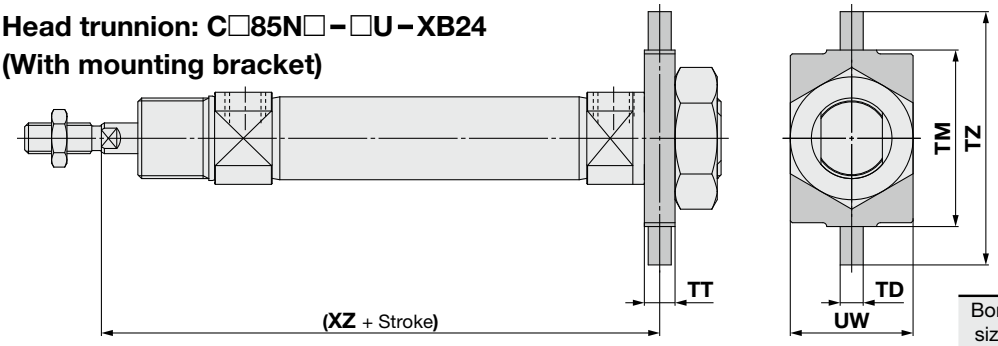
[mm]

Bore size	FB_{H13}	FT	TF	UF	UR	(W)	(WL)
8	4.5	3.2	30	40	22	12.8	65.2
10	4.5	3.2	30	40	22	12.8	65.2
12	5.5	4	40	52	30	18	76
16	5.5	4	40	52	30	18	82
20	6.6	5	50	66	40	19	91
25	6.6	5	50	66	40	23	98

Rod trunnion: C□85N□ – □U – XB24
(With mounting bracket)



Head trunnion: C□85N□ – □U – XB24
(With mounting bracket)



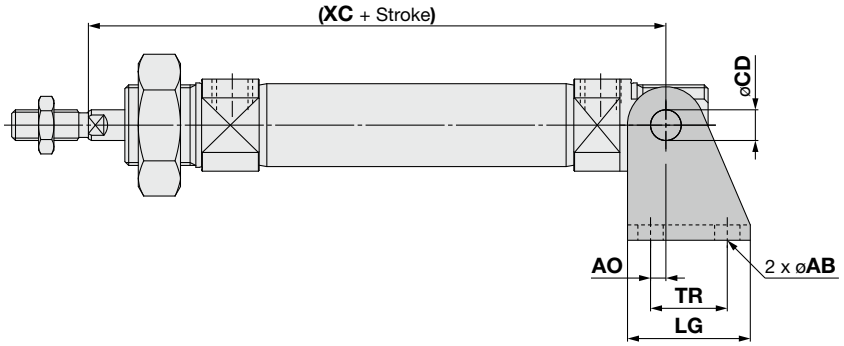
[mm]

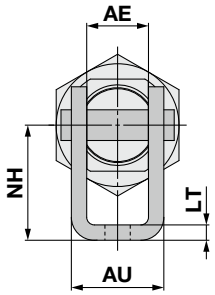
Bore size	TD_{e8}	TM	TT	TZ	UW	(XV)	(XZ)
8	4	26	6	38	20	13	65
10	4	26	6	38	20	13	65
12	6	38	8	58	25	18	76
16	6	38	8	58	25	18	82
20	6	46	8	66	32	20	90
25	6	46	8	66	32	24	97

For details on accessories (rod end, double knuckle joint, and floating joint), refer to the **Web Catalog**.

Dimensions

Clevis: C□85N□−□N−XB24
(With mounting bracket)





[mm]

Bore size	AB	AE	AO	AU	CD_{H9}	LG	LT	NH	TR	(XC)
8	4.5	8.1	1.5	13.1	4	20	2.5	24	12.5	64
10	4.5	8.1	1.5	13.1	4	20	2.5	24	12.5	64
12	5.5	12.1	2	18.5	6	25	3.2	27	15	75
16	5.5	12.1	2	18.5	6	25	3.2	27	15	82
20	6.6	16.1	4	24.1	8	32	4	30	20	95
25	6.6	16.1	4	24.1	8	32	4	30	20	104

High Durability Series

Longer Life Cylinder
Double Acting, Single Rod
C75-XB24
ø32, ø40

RoHS

How to Order

Double acting, Single rod **C D 75 E 32 – 100 L V – B – M9BW – XB24**

Built-in magnet

Nil	None
D	Built-in magnet

Head cover type

E	Double end boss-cut
F	Boss-cut/Basic
Y	Head cover axial port

Bore size

32	32 mm
40	40 mm

Cylinder stroke [mm]
Refer to the next page for standard strokes.

Mounting bracket∗1

Nil	None
L	Single foot
M	Double foot
G	Flange
U	Trunnion
N	Clevis

∗1 Refer to Mounting Brackets/ Accessories for details of mounting brackets.
∗ Mounting bracket is shipped together with the product.

Applicable mounting bracket

Head cover type	Mounting bracket L	M	G	U	N
E	●	●	●	●	●
F	●	–	●	●	●
Y	●	–	●	●	●

Auto switch mounting type∗3

A	Rail mounting
B	Band mounting

∗3 The symbol is "Nil" for no magnet.

Accessory∗2

Nil	None
V	Rod end

∗2 Refer to Mounting Brackets/ Accessories for details of accessories.
∗ Accessory is shipped together with the product.

Auto switch

Nil	Without auto switch

∗ For applicable auto switches, refer to the table below.
∗ Auto switches are shipped together with the product.

Number of auto switches

Nil	2
S	1
n	n

Longer life cylinder

Applicable Auto Switches/Refer to the **Web Catalog** for further information on auto switches.

Type	Special function	Electrical entry	Indicator light	Wiring (Output)	Load voltage DC	Load voltage AC	Auto switch model: Band mounting Perpendicular	Band mounting In-line	Rail mounting Perpendicular	Rail mounting In-line	Lead wire length [m] 0.5 (Nil)	1 (M)	3 (L)	5 (Z)	None (N)	Pre-wired connector	Applicable load	
Solid state auto switch	—	Grommet	Yes	3-wire (NPN)	5 V, 12 V	—	**M9NV**	**M9N**	**F7NV**	**F79**	●	●	●	○	–	○	IC circuit	Relay, PLC
				3-wire (PNP)			**M9PV**	**M9P**	**F7PV**	**F7P**	●	●	●	○	–	○		
				2-wire	12 V		**M9BV**	**M9B**	**F7BV**	**J79**	●	●	●	○	–	○	–	
		Connector					–	**H7C**	**J79C**	–	●	–	●	●	●	–		
	Diagnostic indication (2-color indicator)	Grommet		3-wire (NPN)	5 V, 12 V		**M9NWV**	**M9NW**	**F7NWV**	**F79W**	●	●	●	○	–	○	IC circuit	
				3-wire (PNP)			**M9PWV**	**M9PW**	–	**F7PW**	●	●	●	○	–	○		
				2-wire	12 V		**M9BWV**	**M9BW**	**F7BWV**	**J79W**	●	●	●	○	–	○	–	
	Water-resistant (2-color indicator)			3-wire (NPN)	5 V, 12 V		**M9NAV**∗1	**M9NA**∗1	–	–	○	○	●	○	–	○	IC circuit	
				3-wire (PNP)			**M9PAV**∗1	**M9PA**∗1	–	–	○	○	●	○	–	○		
				2-wire	12 V		**M9BAV**∗1	**M9BA**∗1	**F7BAV**∗1	**F7BA**∗1	○	○	●	○	–	○	–	
	With diagnostic output (2-color indicator)			4-wire (NPN)	5 V, 12 V		–	**H7NF**	–	**F79F**	●	–	●	○	–	○	IC circuit	
Reed auto switch	—	Grommet	Yes	3-wire (NPN equivalent)	—	5 V	—	**A96V**	**A96**	–	**A76H**∗2	●	●	●	●	–	○	IC circuit	—
				2-wire		–	200 V	–	–	**A72**	**A72H**	●	–	●	–	–	–	–	Relay, PLC
					24 V	12 V	100 V	**A93V**	**A93**	**A73**∗2	**A73H**∗2	●	●	●	●	–	○∗3		
			No				100 V or less	**A90V**	**A90**	**A80**∗2	**A80H**∗2	●	●	●	●	–	○∗3	IC circuit	
			Yes				–	–	**C73C**	**A73C**	–	●	–	●	●	●	–	–	
		Connector	No				24 V or less	–	**C80C**	**A80C**	–	●	–	●	●	●	–	IC circuit	
	Diagnostic indication (2-color indicator)	Grommet	Yes		—	–	–	–	**A79W**	–	●	–	●	–	–	–	–	

∗1 Water-resistant type auto switches can be mounted on the above models, but SMC cannot guarantee water resistance.
∗2 The type with a 1 m or 5 m lead wire is only compatible with the D-A9□(V).
∗3 The load voltage used is 24 VDC.
∗ 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
None····· N (Example) H7CN

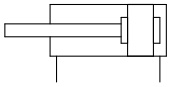
∗ Since there are other applicable auto switches than listed above, refer to the **Web Catalog** for details.
∗ Auto switches marked with "○" are produced upon receipt of order.
∗ D-A9□/M9□/A7□/A80□/F7□/J7□ auto switches are shipped together, but not assembled. (For band mounting, only the auto switch mounting brackets are assembled before shipment.)

Specifications

Bore size [mm]	32	40
Type	Pneumatic	
Action	Double acting, Single rod	
Fluid	Air	
Proof pressure	1.5 MPa	
Max. operating pressure	1.0 MPa	
Min. operating pressure	0.05 MPa	
Ambient and fluid temperature	Without auto switch: –20°C to 80°C (No freezing)	
	With auto switch: –10°C to 60°C (No freezing)	
Lubricant	Not required (Non-lube)	
Stroke length tolerance	$^{+1.4}_{0}$ mm	
Piston speed	50 to 1500 mm/s	
Cushion	Rubber bumper	
Allowable kinetic energy	0.65 J	1.2 J

Symbol

Double acting, Single rod



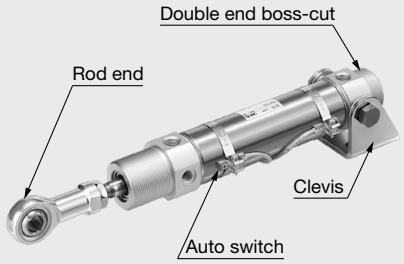
Strokes

Bore size [mm]	Standard stroke [mm]∗1, ∗2	Stroke range [mm]
32	10, 25, 40, 50, 80, 100, 125, 160, 200, 250, 300	5 to 1000
40		

∗1 The manufacturing of strokes in 1 mm increments is possible. (Spacers are not used.) Produced upon receipt of order.
∗2 The min. stroke of the type with a magnet varies depending on the switch.

Option: Ordering Example of Cylinder Assembly

Cylinder model: CD75E40-50NV-B-M9BW-XB24



Head cover E: Double end boss-cut
Mounting bracket N: Clevis
Rod end bracket V: Rod end
Auto switch D-M9BW: Band mounting, 2 pcs.

∗ Mounting bracket, rod end, and auto switch are shipped together with the product.

⚠Caution

Durability of The Cylinder

The durability of a longer life cylinder has been evaluated by comparison with the existing cylinders under SMC's test conditions.
The durability of a cylinder depends on the customer's operating conditions and operating environment.
Therefore, durability of four times or longer will not be guaranteed under all conditions.

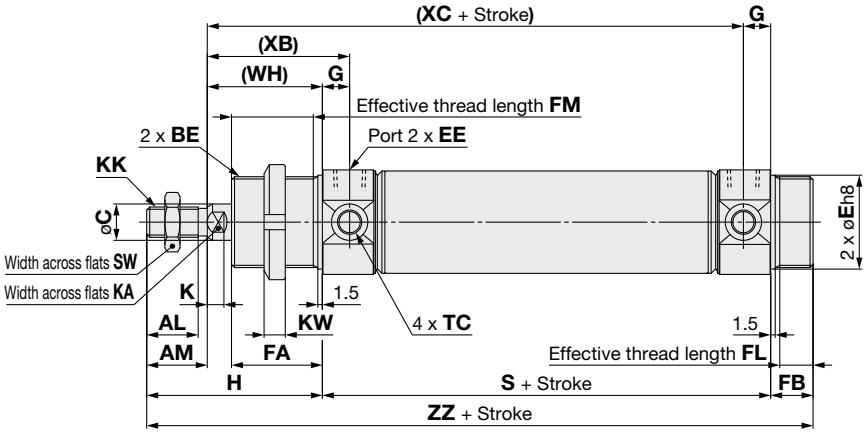
The allowable kinetic energy, allowable lateral loads at the rod end, theoretical output, weight, mounting bracket/parts numbers, and specifications with an auto switch, are equivalent to those of the ISO Cylinder C75 series. For details, refer to the Web Catalog.

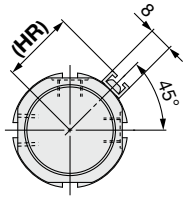
For details on accessories (rod end and floating joint), refer to the **Web Catalog**.

Dimensions

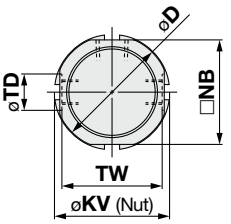
Double end boss-cut

Rubber bumper: C□75E Bore size – Stroke – □ – XB24





Rail mounting (A)



Band mounting (B)
Without magnet

[mm]

Bore size	AL	AM	BE	C	D	E	EE	FA	FB	FM	FL	G	H	(HR)	K	KA	KK	KV
32	17	20	M30 x 1.5	12	37.5	30	G1/8	30	14	27	11	9	58	23.8	5.5	10	M10 x 1.5	38
40	21	24	M38 x 1.5	14	46.5	38	G1/4	35	16	32	13	12	69	28.3	7	12	M12 x 1.75	50

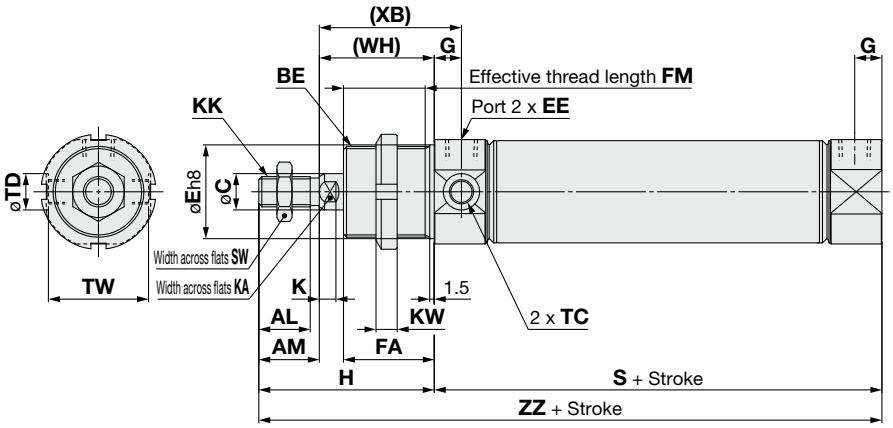
Bore size	KW	NB	S	SW	TC	TD	TW	WA	WH	XB	XC	ZZ
32	7	34.5	68	17	M8 x 1	$12^{+0.08}_{0}$	33.1	14	38	47	97	140
40	8	42.5	89	19	M10 x 1	$14^{+0.08}_{0}$	39.5	20	45	57	122	174

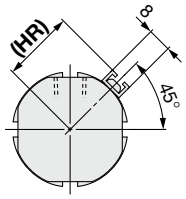
For details on accessories (rod end and floating joint), refer to the **Web Catalog**.

Dimensions

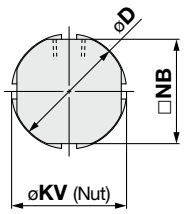
Boss-cut/Basic

Rubber bumper: C□75F Bore size – Stroke – □ – XB24





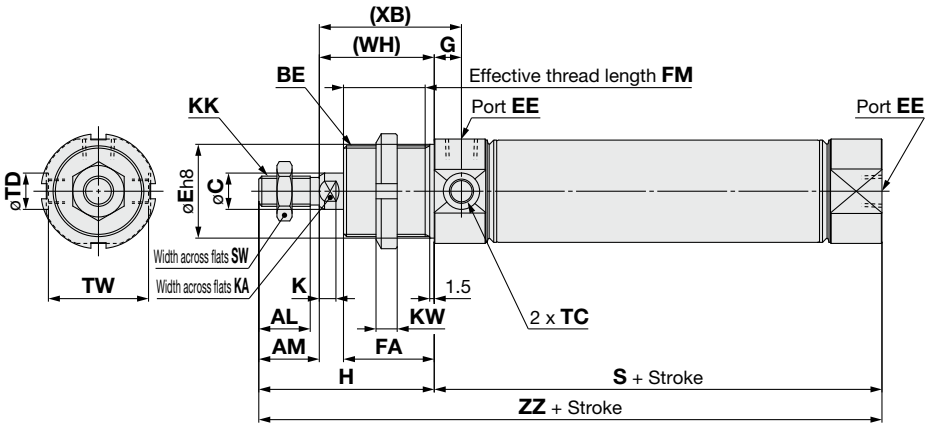
Rail mounting (A)

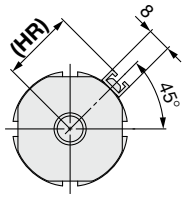


Band mounting (B)
Without magnet

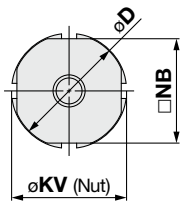
Head cover axial port

Rubber bumper: C□75Y Bore size – Stroke – □ – XB24





Rail mounting (A)



Band mounting (B)
Without magnet

Dimensions [mm]

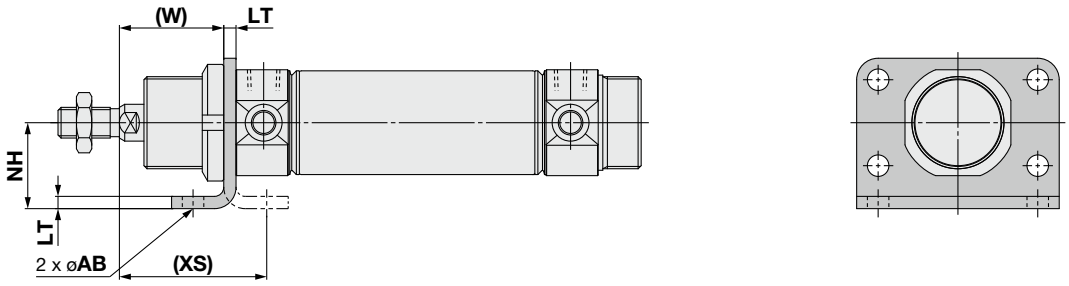
Bore size	AL	AM	BE	C	D	E	EE	FA	FM	G	H	(HR)	K	KA	KK	KV	KW
32	17	20	M30 x 1.5	12	37.5	30	G1/8	30	27	9	58	23.8	5.5	10	M10 x 1.5	38	7
40	21	24	M38 x 1.5	14	46.5	38	G1/4	35	32	12	69	28.3	7	12	M12 x 1.75	50	8

Bore size	NB	S	SW	TC	TD	TW	(WH)	(XB)	ZZ
32	34.5	68	17	M8 x 1	$12^{+0.08}_{0}$	33.1	38	47	126
40	42.5	89	19	M10 x 1	$14^{+0.08}_{0}$	39.5	45	57	158

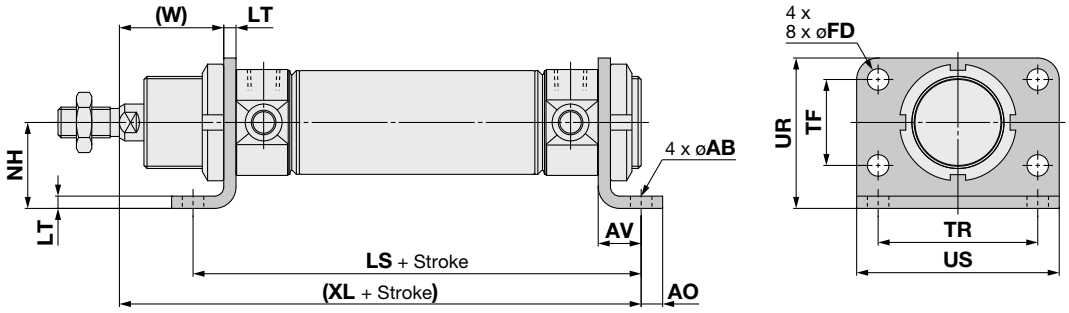
Dimensions

For details on accessories (rod end and floating joint), refer to the **Web Catalog**.

Single foot: C□75E□ – □L/Flange: C□75E□ – □G (With mounting bracket) – XB24



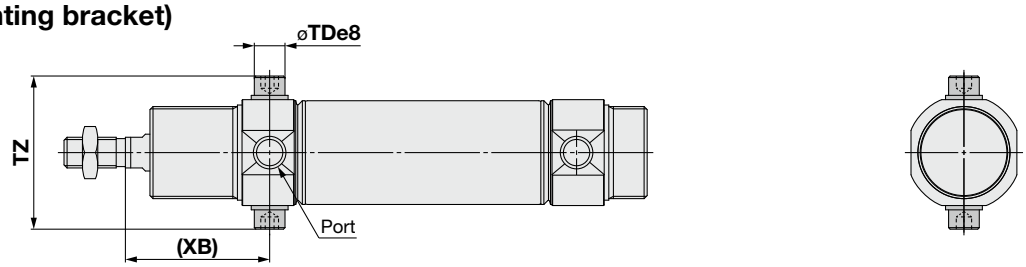
Double foot: C□75E□ – □M (With mounting bracket)



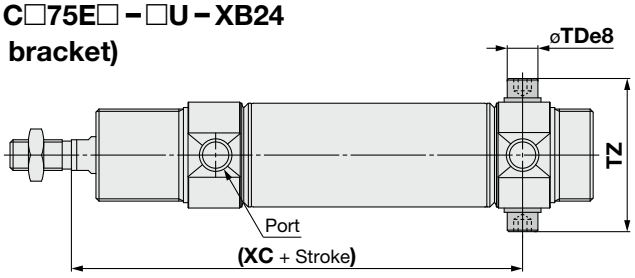
[mm]

Bore size	AB	AO	AV	FD	LS	LT	NH	TF	TR	UR	US	(W)	(XL)	(XS)
32	7	7	14	7	96	4	28	28	52	49	66	34	120	48
40	9	10	20	9	129	5	33	30	60	58	80	40	154	60

Rod trunnion: C□75E□ – □U – XB24 (With mounting bracket)



Head trunnion: C□75E□ – □U – XB24 (With mounting bracket)



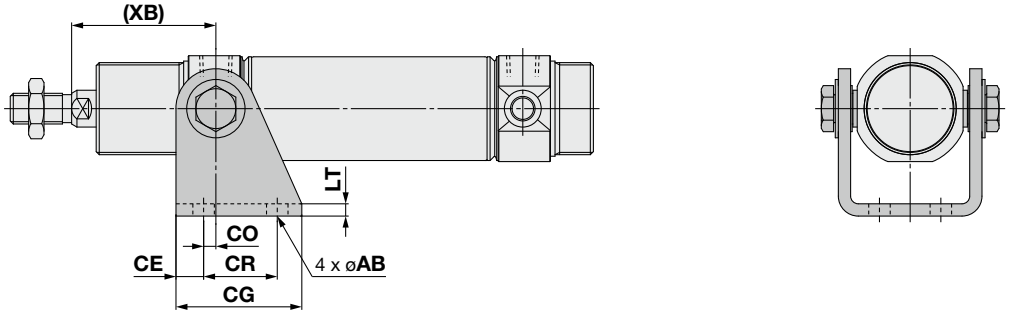
[mm]

Bore size	TDe8	TZ	(XB)	(XC)
32	$10^{-0.025}_{-0.047}$	49.9	47	97
40	$12^{-0.032}_{-0.059}$	62.3	57	122

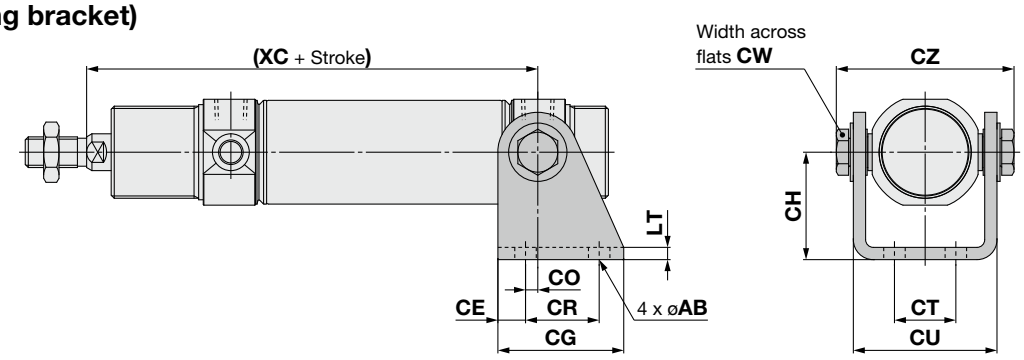
Refer to the **Web Catalog** for details of accessories (rod end, floating joint).

Dimensions

Rod clevis: C□75E□ – □N – XB24
(With mounting bracket)



Head clevis: C□75E□ – □N – XB24
(With mounting bracket)



[mm]

Bore size	AB	CE	CG	CH	CO	CR	CT	CU	CW	CZ	LT	(XB)	(XC)
32	7	9	41	35	4	24	20	46.8	13	57.9	4	47	97
40	9	12	52	40	3	30	28	58.2	17	72.3	5	57	122

⚠ Safety Instructions

These safety instructions are intended to prevent hazardous situations and/or equipment damage. These instructions indicate the level of potential hazard with the labels of **"Caution," "Warning"** or **"Danger."** They are all important notes for safety and must be followed in addition to International Standards (ISO/IEC)*1), and other safety regulations.

⚠ Danger : **Danger** indicates a hazard with a high level of risk which, if not avoided, will result in death or serious injury.

⚠ Warning: **Warning** indicates a hazard with a medium level of risk which, if not avoided, could result in death or serious injury.

⚠ Caution: **Caution** indicates a hazard with a low level of risk which, if not avoided, could result in minor or moderate injury.

*1) ISO 4414: Pneumatic fluid power - General rules and safety requirements for systems and their components
ISO 4413: Hydraulic fluid power - General rules and safety requirements for systems and their components
IEC 60204-1: Safety of machinery - Electrical equipment of machines - Part 1: General requirements
ISO 10218-1: Robots and robotic devices - Safety requirements for industrial robots - Part 1:Robots
etc.

⚠ Warning

1. The compatibility of the product is the responsibility of the person who designs the equipment or decides its specifications.

Since the product specified here is used under various operating conditions, its compatibility with specific equipment must be decided by the person who designs the equipment or decides its specifications based on necessary analysis and test results. The expected performance and safety assurance of the equipment will be the responsibility of the person who has determined its compatibility with the product. This person should also continuously review all specifications of the product referring to its latest catalog information, with a view to giving due consideration to any possibility of equipment failure when configuring the equipment.

2. Only personnel with appropriate training should operate machinery and equipment.

The product specified here may become unsafe if handled incorrectly. The assembly, operation and maintenance of machines or equipment including our products must be performed by an operator who is appropriately trained and experienced.

3. Do not service or attempt to remove product and machinery/ equipment until safety is confirmed.

1. The inspection and maintenance of machinery/equipment should only be performed after measures to prevent falling or runaway of the driven objects have been confirmed.
2. When the product is to be removed, confirm that the safety measures as mentioned above are implemented and the power from any appropriate source is cut, and read and understand the specific product precautions of all relevant products carefully.
3. Before machinery/equipment is restarted, take measures to prevent unexpected operation and malfunction.

4. Our products cannot be used beyond their specifications. Our products are not developed, designed, and manufactured to be used under the following conditions or environments. Use under such conditions or environments is not covered.

1. Conditions and environments outside of the given specifications, or use outdoors or in a place exposed to direct sunlight.
2. Use for nuclear power, railways, aviation, space equipment, ships, vehicles, military application, equipment affecting human life, body, and property, fuel equipment, entertainment equipment, emergency shut-off circuits, press clutches, brake circuits, safety equipment, etc., and use for applications that do not conform to standard specifications such as catalogs and operation manuals.
3. Use for interlock circuits, except for use with double interlock such as installing a mechanical protection function in case of failure. Please periodically inspect the product to confirm that the product is operating properly.

⚠ Caution

We develop, design, and manufacture our products to be used for automatic control equipment, and provide them for peaceful use in manufacturing industries.

Use in non-manufacturing industries is not covered.

Products we manufacture and sell cannot be used for the purpose of transactions or certification specified in the Measurement Act.
The new Measurement Act prohibits use of any unit other than SI units in Japan.

Limited warranty and Disclaimer/ Compliance Requirements

The product used is subject to the following "Limited warranty and Disclaimer" and "Compliance Requirements".
Read and accept them before using the product.

Limited warranty and Disclaimer

1. The warranty period of the product is 1 year in service or 1.5 years after the product is delivered, whichever is first.*2)
   Also, the product may have specified durability, running distance or replacement parts. Please consult your nearest sales branch.
2. For any failure or damage reported within the warranty period which is clearly our responsibility, a replacement product or necessary parts will be provided.
   This limited warranty applies only to our product independently, and not to any other damage incurred due to the failure of the product.
3. Prior to using SMC products, please read and understand the warranty terms and disclaimers noted in the specified catalog for the particular products.

*2) **Vacuum pads are excluded from this 1 year warranty.**
A vacuum pad is a consumable part, so it is warranted for a year after it is delivered.
Also, even within the warranty period, the wear of a product due to the use of the vacuum pad or failure due to the deterioration of rubber material are not covered by the limited warranty.

Compliance Requirements

1. The use of SMC products with production equipment for the manufacture of weapons of mass destruction (WMD) or any other weapon is strictly prohibited.
2. The exports of SMC products or technology from one country to another are governed by the relevant security laws and regulations of the countries involved in the transaction. Prior to the shipment of a SMC product to another country, assure that all local rules governing that export are known and followed.

⚠ Safety Instructions	Be sure to read the "Handling Precautions for SMC Products" (M-E03-3) and "Operation Manual" before use.

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https://www.smcworld.com