



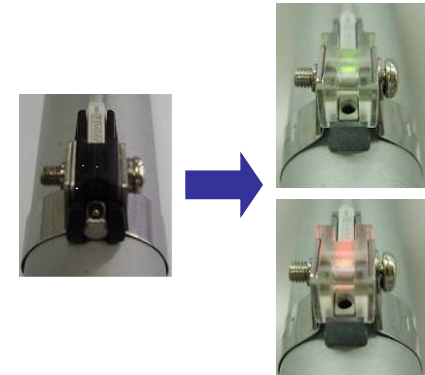
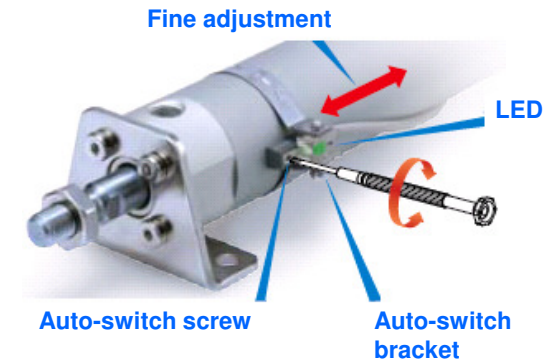
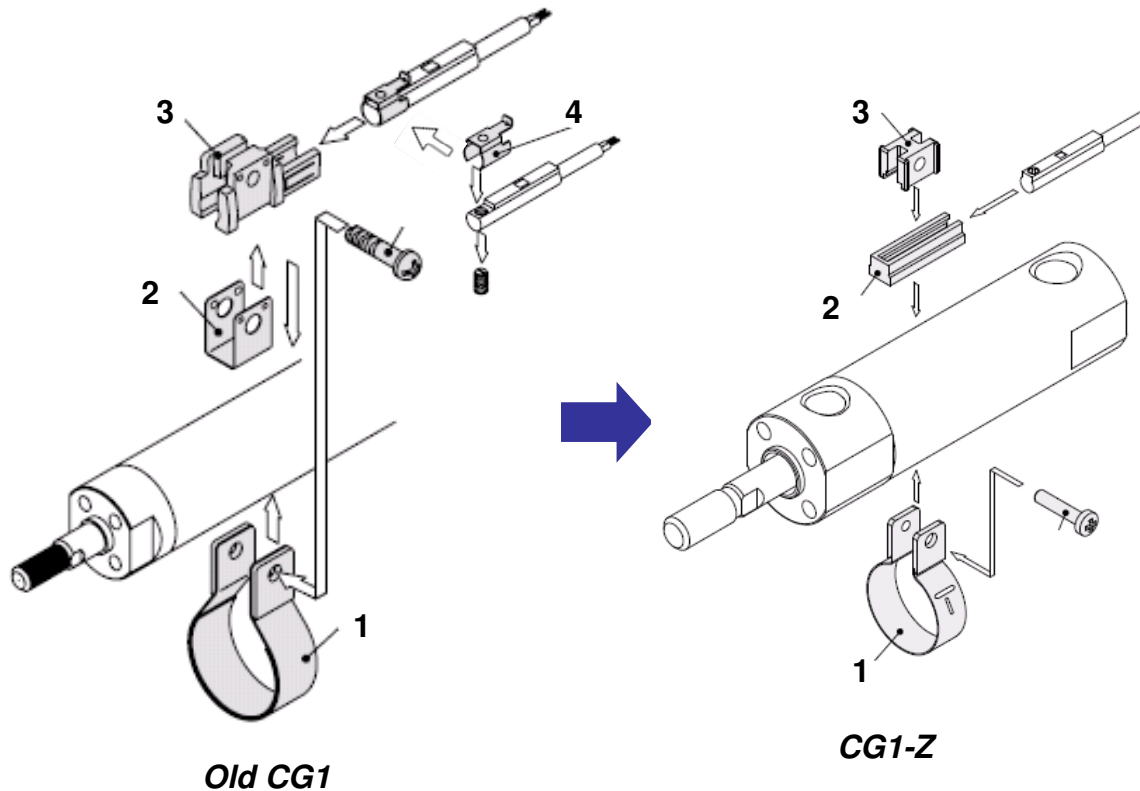
CG1-Z series
Air cylinder

Improved features and related benefits

FEATURE: Improved auto-switch mounting:

- Number of required elements reduced from four to three elements.
- Fine adjustment of the auto-switch position can be done by just loosening one screw.
- Transparent bracket improves visibility of the auto-switch status.

CUSTOMER BENEFIT: Reduced assembly and maintenance costs.



Improved features and related benefits

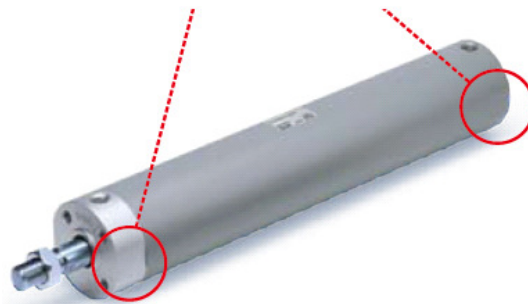
FEATURE: Improved design of the cushion valve that is now embedded into the cylinder covers to eliminate protrusions.

CUSTOMER BENEFIT: Cleaner cylinder profile and elimination of interference with protruding elements

FEATURE: New option “without trunnion mounting holes” on cylinder covers (option “Z”) provides a cleaner profile.

CUSTOMER BENEFIT: No accumulation of dust and improved cylinder appearance.

No trunnion mounting holes (option “Z”)



FEATURE: Female rod end thread is now available as standard.

CUSTOMER BENEFIT: Easier order process and shorter delivery time.



Female rod end thread



Male rod end thread

Technical details

Standard and made-to-order options

CG1-Z Option	Rubber bumper	Air cushion
Standard	•	•
Non-rotating rod	•	•
Long stroke	•	•
With rod boot	•	•
Double rod	•	•
Air-hydro	•	
Single acting	•	
Direct mount	•	•
Clean series	•	
Copper-free	•	•
Water resistant	•	•

CG1-Z Option	Rubber bumper	Air cushion
XA	•	•
XB6	•	•
XB7	•	
XB9	•	
XB13	•	
XC4	•	•
XC6	•	•
XC8	•	
XC9	•	
XC10	•	•
XC11	•	•
XC12	•	
XC13	•	•
XC20	•	
XC22	•	•
XC27	•	•
XC29	•	•
XC35	•	
XC37	•	
XC42	•	
XC85 <i>New</i>	•	•
X446 <i>New</i>	•	

• Released

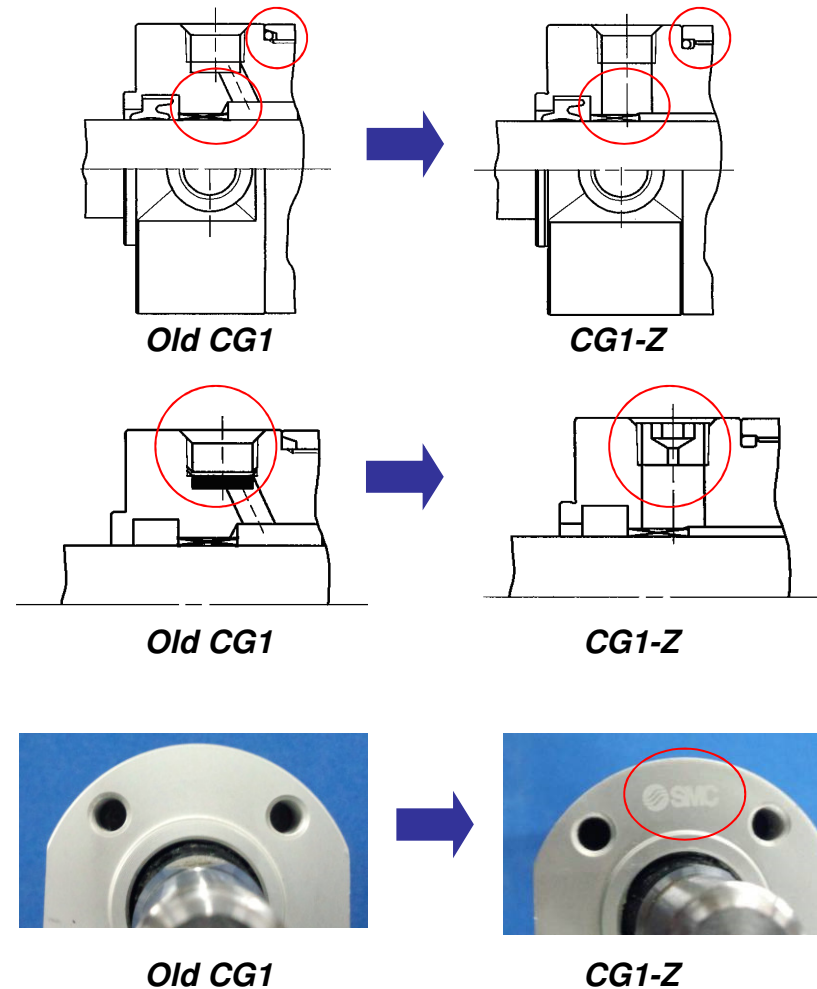
Technical details

Other design improvements

✓ Tube gasket and port orifice are modified. The new tube gasket is not interchangeable with the old model.

✓ The element of the exhaust port for the single acting and XC11 option is changed to a plug with a fixed orifice

✓ The SMC trademark is printed on the cylinder front cover



Technical details

▪ Spare parts and accessories

Seals kit (not interchangeable)

Bore size	Model	Old CG1	CG1-Z
20	CG1N	CG1N20-PS	CG1N20Z-PS
	CG1A	CG1A20-PS	
25	CG1N	CG1N25-PS	CG1N25Z-PS
	CG1A	CG1A25-PS	
32	CG1N	CG1N32-PS	CG1N32Z-PS
	CG1A	CG1A32-PS	
40	CG1N	CG1N40-PS	CG1N40Z-PS
	CG1A	CG1A40-PS	

Mounting accessories for D-M9/D-A9 auto-switches

D-A9# / D-M9# / D-M9W# Note 1)

Bore size	Old CG1	CG1-Z
20	BMA2-020 BJ3-1	BMA3-020
25	BMA2-025 BJ3-1	BMA3-025
32	BMA2-032 BJ3-1	BMA3-032
40	BMA2-040 BJ3-1	BMA3-040
50	BMA2-050 BJ3-1	BMA3-050
63	BMA2-063 BJ3-1	BMA3-063
80	-	-
100	-	-

D-M9A# Note 2)

Bore size	Old CG1	CG1-Z
20	BMA2-020AS BJ3-1	BMA3-020S
25	BMA2-025AS BJ3-1	BMA3-025S
32	BMA2-032AS BJ3-1	BMA3-032S
40	BMA2-040AS BJ3-1	BMA3-040S
50	BMA2-050AS BJ3-1	BMA3-050S
63	BMA2-063AS BJ3-1	BMA3-063S
80	-	-
100	-	-

Note1)

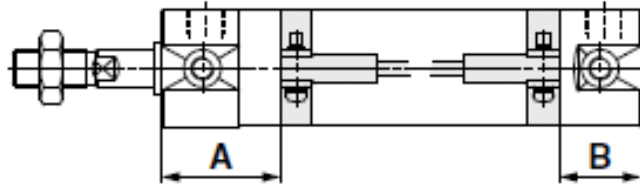
BMA3-### includes mounting band BMA2-###A and holder kit BJ5-1 (transparent bracket).

Note2)

BMA3-###S includes stainless mounting band BMA2-###AS and holder kit BJ4-1 (white bracket)

Technical details

- Auto-switch proper mounting location (except single acting)



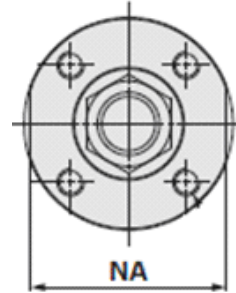
 Different dimensions

Series	Bore Size	D-M9#		D-A9#		D-C7/C8#		D-B5/B6		D-B59W		D-G5#/K5#		D-H7#	
		A	B	A	B	A	B	A	B	A	B	A	B	A	B
Old CG1	20	33	24	29	20	29,5	20,5	23,5	14,5	26,5	17,5	25	16	28,5	19,5
	25	33	24	29	20	29,5	20,5	23,5	14,5	26,5	17,5	25	16	28,5	19,5
	32	34	25	30	21	30,5	21,5	24,5	15,5	27,5	18,5	26	17	29,5	20,5
	40	39	27	35	23	35,5	23,5	29,5	17,5	32	20,5	31	19	34,5	22,5
	50	46	32	42	28	42,5	28,5	36,5	22,5	39,5	25,5	38	24	41,5	27,5
	63	46	32	42	28	42,5	28,5	36,5	22,5	39,5	25,5	38	24	41,5	27,5
	80	-	-	-	-	-	-	46,5	30,5	49,5	33,5	48	32	-	-
	100	-	-	-	-	-	-	46,5	30,5	49,5	33,5	48	32	-	-
CG1-Z	20	33	24	29	20	29,5	20,5	23,5	14,5	26,5	17,5	25	16	28,5	19,5
	25	32,5	24,5	28,5	20,5	29	21	23	15	26	18	24,5	16,5	28	20
	32	34	25	30	21	30,5	21,5	25	15,5	27,5	18,5	26	17	29,5	20,5
	40	39	27	35	23	35,5	23,5	29,5	17,5	32,5	20,5	31	19	34,5	22,5
	50	46	32	42	28	42,5	28,5	36,5	22,5	39,5	26	38	24	41,5	27,5
	63	44,5	33,5	40,5	29,5	41	30	35	24	38	27	36,5	25,5	40	29
	80	-	-	-	-	-	-	48	29	51	32	50	30,5	53	34
	100	-	-	-	-	-	-	47	30	50	32,5	48,5	31,5	52	35

Technical details

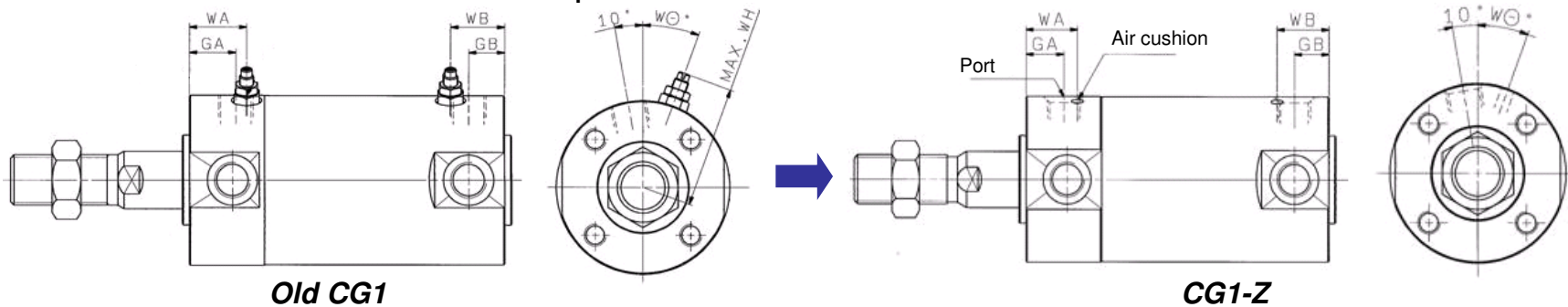
Dimensional changes

Distance between flat faces on covers



Bore size	Old CG1	CG1-Z
20	24	24
25	29	29
32	35,5	35,5
40	44	44
50	55	55
63	69	69
80	80	86
100	100	106

Port and air cushion needle position



Bore size	GA		GB		WA		WB		WΘ	
	Old CG1	CG1-Z	Old CG1	CG1-Z	Old CG1	CG1-Z	Old CG1	CG1-Z	Old CG1	CG1-Z
20	12	12	10(12)	10(12)	16	16	15(16)	15(16)	30°	25°
25	12	12,5	10(12)	10(12,5)	16	16	15(16)	14,5(16)	30°	25°
32	12	12	10(12)	10(12)	16	16	15(16)	14(16)	25°	25°
40	13	13	10(13)	10(13)	16	17	15(16)	15(17)	20°	20°
50	14	14	12(14)	12(14)	16	16	17(18)	16(18)	20°	20°
63	14	14	12(14)	12(14)	16	16	17(18)	17(18)	20°	20°
80	20	20	16(20)	16(20)	22	24	22	20(24)	20°	20°
100	20	20	16(20)	16(20)	22	24	22	20(24)	20°	20°

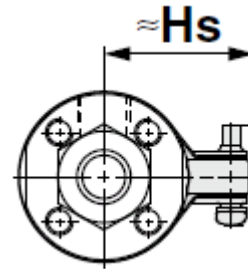
() denotes the dimensions for long stroke type

Different dimensions



Technical details

Auto-switch mounting height



Series	Bore Size	D-M9#V D-M9#WV D-M9A#V D-A9#V	D-M9# D-M9#W D-M9A# D-A9#	D-H7# D-H7#W D-H7#NF D-H7#BA D-C7#/C8#	D-C73C D-C80C	D-G5/K5 D-G5#W D-K59W D-B5/B6 D-B59W	D-G5NT D-G59F D-H7C D-G5BA
		Hs	Hs	Hs	Hs	Hs	
Old CG1	20		24	24,5	27		27,5
	25		26,5	27	29,5		30
	32		30	30,5	33		33,5
	40		34,5	35	37,5		38
	50		40	40,5	43		43,5
	63		47	47,5	50		50,5
	80		-	-	-		59
	100		-	-	-		69,5
CG1-Z	20	25,5	24,5	24,5	27		27,5
	25	28	27	27	29,5		30
	32	31,5	30,5	30,5	33		33,5
	40	36	35	35	37,5		38
	50	41,5	40,5	40,5	43		43,5
	63	48,5	47,5	47,5	50		50,5
	80	-	-	-	-		59
	100	-	-	-	-		69,5

Different dimensions