

Air Cylinder: Standard Type Double Acting, Single Rod

CM2 Series

∅20, ∅25, ∅32, ∅40

RoHS



How to Order

Cylinder stroke (mm)
(Refer to "Standard Strokes" on page 237.)

Type

Nil	Pneumatic
H	Air-hydro

Bore size

20	20 mm
25	25 mm
32	32 mm
40	40 mm

Cushion

Nil	Rubber bumper
A	Air cushion

* Air-hydro cylinder: Rubber bumper only

Pivot bracket

Nil	None
N	Pivot bracket is shipped together with the product, but not assembled.

* Only for C, T, U, E, V, UZ mounting types.
* Pivot bracket is shipped together with the product, but not assembled.
* Not applicable to XB12.

Rod end thread

Nil	Male rod end
F	Female rod end

Made to Order
Refer to page 237 for details.
(Refer to "Air-hydro type" on page 240.)

With auto switch (Built-in magnet)

Mounting

B	Basic (Double-side bossed)
L	Axial foot
F	Rod flange
G	Head flange
C	Single clevis
D	Double clevis
U	Rod trunnion

Head trunnion

T	Head trunnion
E	Integrated clevis
V	Integrated clevis (90°)
BZ	Boss-cut/Basic
FZ	Boss-cut/Rod flange
UZ	Boss-cut/Rod trunnion

Port thread type

Nil	Rc
TN	NPT
TF	G

* Air-hydro type: Rc only

Rod boot

Nil	None
J	Nylon tarpaulin
K	Heat resistant tarpaulin

* For female rod end, no rod boot is provided.

Rod end bracket

Nil	None
V	Single knuckle joint
W	Double knuckle joint

* No bracket is provided for the female rod end.
* A knuckle joint pin is not provided with the single knuckle joint.
* Rod end bracket is shipped together with the product, but not assembled.
* Not applicable to XB12.

Number of auto switches

Nil	2 pcs.
S	1 pc.
n	n pcs.

Auto switch

Nil	Without auto switch
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* For applicable auto switches, refer to the table below.

Ordering Example: CM2 B 40 - 150 A Z - M9BW

With auto switch: CDM2 B 40 - 150 A Z - M9BW

* Refer to "Ordering Example of Cylinder Assembly" on page 237.

Applicable Auto Switches/Refer to pages 1271 to 1365 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)			None (N)					
Solid state auto switch	—	Grommet	Yes	3-wire (NPN)	24 V	5 V, 12 V	—	M9NV	M9N	●	●	●	○	○	IC circuit					
				3-wire (PNP)				M9PV	M9P	●	●	●	○	○						
		2-wire		M9BV				M9B	●	●	●	○	○							
		Terminal conduit		—				H7C	●	●	●	○	○							
		3-wire (NPN)		—				K39A	—	—	●	—	—	—						
		2-wire		—				K39A	—	—	●	—	—	—						
	Diagnostic indication (2-color indicator)	Grommet	Yes	3-wire (NPN)	24 V	5 V, 12 V	—	M9NVV	M9NW	●	●	●	○	○	IC circuit					
				3-wire (PNP)				M9PVV	M9PW	●	●	●	○	○						
				2-wire				M9BVV	M9BW	●	●	●	○	○						
				Water resistant (2-color indicator)				3-wire (NPN)	M9NAV*1	M9NA*1	○	○	○	○		○	IC circuit			
3-wire (PNP)	M9PAV*1	M9PA*1	○	○	○	○	○													
Reed auto switch	—	Grommet	Yes	3-wire (NPN equivalent)	24 V	12 V	—	A96V	A96	●	●	—	—	—	IC circuit					
				100 V				A93V*2	A93	●	●	—	—	—						
				100 V or less				A90V	A90	●	●	—	—	—						
				100 V, 200 V				—	B54	●	●	●	—	—						
		Connector		Yes				2-wire	No/Yes/No/Yes/No	24 V or less	—	—	—	B64	●	●	●	—	—	IC circuit
											—	—	—	C73C	●	●	●	●		
											—	—	—	C80C	●	●	●	●		
											—	—	—	A33A	—	—	—	●	—	
Terminal conduit	Yes	24 V or less	No/Yes/No/Yes/No	100 V, 200 V	—	—	—	A34A	—	—	—	●	—	PLC						
					—	—	—	A44A	—	—	—	●	—							
					—	—	—	A44A	—	—	—	●	—							
					—	—	—	B59W	●	●	—	—	—							

*1 Water resistant type auto switches can be mounted on the above models, but in such case SMC cannot guarantee water resistance.

*2 A water-resistant type cylinder is recommended for use in an environment which requires water resistance.

*2 1 m type lead wire is only applicable to D-A93.

* Lead wire length symbols: 0.5 m Nil (Example) M9NW
1 m M (Example) M9NW
3 m L (Example) M9WL
5 m Z (Example) M9NZ
None N (Example) H7CN

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

* Do not indicate suffix "N" for no lead wire on the D-A3□□/A44□/G39□/K39□ models.

* Since there are other applicable auto switches than listed above, refer to page 331 for details.

* For details about auto switches with pre-wired connector, refer to pages 1340 and 1341.

* The D-A9□□/M9□□ auto switches are shipped together, (but not assembled). (However, only the auto switch mounting brackets are assembled before shipment.)

Air Cylinder: Standard Type Single Acting, Spring Return/Extend

CM2 Series

ø20, ø25, ø32, ø40

RoHS

How to Order

B Basic (Double-side bossed)	T Head trunnion
L Axial foot	E Integrated clevis
F Rod flange	V Integrated clevis (90°)
G Head flange	BZ Boss-cut/Basic
C Single clevis	FZ Boss-cut/Rod flange
D Double clevis	UZ Boss-cut/Rod trunnion
U Rod trunnion	

Mounting

Cylinder stroke (mm)
Refer to "Standard Strokes" on page 268.

S Single acting, Spring return
T Single acting, Spring extend

Action

Nil Male rod end	F Female rod end
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Rod end thread

Nil None	N Without auto switch
V Single knuckle joint	W Double knuckle joint

Rod end bracket

Auto switch

Nil None	S 2 pcs.
N 1 pc.	n "n" pcs.

Number of auto switches

Made to Order
Refer to page 268 for details.

Ordering Example: CM2 B 32-150 S [] Z- [] - []

With auto switch: CDM2 B 32-150 S [] Z- [] - M9BW [] - []

With auto switch (Built-in magnet): CDM2 B 32-150 S [] Z- [] - M9BW [] - []

* Refer to "Ordering Example of Cylinder Assembly" on page 268.

Applicable Auto Switches/Refer to pages 1271 to 1365 for further information on auto switches.

Type	Special function	Electrical entry	Indicator light	Wiring (Output)	Lead voltage		Auto switch model					Pre-wired connector	Applicable load		
					DC	AC	Lead wire length (m)								
							0.5 (Nil)	1 (M)	3 (L)	5 (Z)	None (N)				
Solid state auto switch	—	Grommet	Yes	3-wire (NPN)	5 V, 12 V	—	M9NV	M9N	●	●	○	○	IC circuit	Relay, PLC	
				3-wire (PNP)			M9PV	M9P	●	●	○	○			
		Connector		2-wire			M9BV	M9B	●	●	○	○			
				3-wire (NPN)			—	H7C	●	●	○	○			
		Terminal conduit		2-wire			—	G39A	—	—	●	—			IC circuit
				3-wire (PNP)			—	K39A	—	—	●	—			IC circuit
	Diagnostic indication (2-color indicator)	Grommet	Yes	3-wire (NPN)	5 V, 12 V	—	M9NVV	M9NV	●	●	○	○	IC circuit		
				3-wire (PNP)			M9PVV	M9PV	●	●	○	○			
				2-wire			M9BWW	M9BW	●	●	○	○			
				3-wire (NPN)			M9NAV ^{*1}	M9NA ^{*1}	○	○	○	○			IC circuit
				3-wire (PNP)			M9PAV ^{*1}	M9PA ^{*1}	○	○	○	○			
				2-wire			M9BAV ^{*1}	M9BA ^{*1}	○	○	○	○			IC circuit
4-wire (NPN)	—	H7NF	●	●	○	○									
Reed auto switch	—	Grommet	Yes/No/Yes/No	3-wire (NPN equivalent)	24 V	12 V	A96V	A96	●	●	—	—	IC circuit	Relay, PLC	
				100 V			A93V ^{*2}	A93	●	●	●	—			
							A90V	A90	●	●	—	—			
							100 V or less	B54	●	●	●	—			
				200 V or less			—	B64	●	●	—	—			
							—	C73C	●	●	●	—			
		24 V or less			C80C	●	●	●	—	IC circuit					
		Connector		No/Yes/No/Yes/No	2-wire	—	A33A	—	—	—	●	—	—		PLC
						—	A34A	—	—	—	—				
						100 V	A44A	—	—	—	●	—			
						200 V	B59W	●	●	—	—				
						—	—	—	—	—	—	—			
—	—		—			—	—	—	—						
Terminal conduit	Yes	2-wire	—	—	—	—	—	—	—	—	Relay, PLC				
			—	—	—	—	—	—	—						
DIN terminal	Yes	2-wire	—	—	—	—	—	—	—	—	Relay, PLC				
			—	—	—	—	—	—	—						
Grommet	Yes	2-wire	—	—	—	—	—	—	—	—	Relay, PLC				
			—	—	—	—	—	—	—						

*1 Water resistant type auto switches can be mounted on the above models, but in such case SMC cannot guarantee water resistance. Please contact SMC regarding water resistant types with the above model numbers.

*2 1 m type lead wire is only applicable to D-A93.

* Lead wire length symbols: 0.5 m.....Nil (Example) M9NW
1 m.....M (Example) M9NWM
3 m.....L (Example) M9NWL
5 m.....Z (Example) M9NZ
None.....N (Example) H7CN

* Solid state auto switches marked with "○" are produced upon receipt of order.
* Do not indicate suffix "N" for no lead wire on D-A3□A/A44A/G39A/K39A models.

* Since there are other applicable auto switches than listed above, refer to page 331 for details.

* For details about auto switches with pre-wired connector, refer to pages 1340 and 1341.

* The D-A9□□/M9□□ auto switches are shipped together, (but not assembled). (However, only the auto switch mounting brackets are assembled before shipment.)

Air Cylinder: Non-rotating Rod Type

Double Acting, Single Rod

CM2K Series

ø20, ø25, ø32, ø40



How to Order

B Basic (Double-side bossed)	T Head trunnion	Cylinder stroke (mm) Refer to "Standard Strokes" on page 283.	Pivot bracket	
L Axial foot	E Integrated clevis			Nil None
F Rod flange	V Integrated clevis (90°)			N Pivot bracket is shipped together with the product, but not assembled.
G Head flange	BZ Boss-cut/Basic			* Only for C, T, U, E, V, UZ mounting types.
C Single clevis	FZ Boss-cut/Rod flange	Bore size	* Pivot bracket is shipped together with the product, but not assembled.	
D Double clevis	UZ Boss-cut/Rod trunnion			20 20 mm
U Rod trunnion				25 25 mm
				32 32 mm
		40 40 mm		
		Cushion	Made to Order Refer to page 283 for details.	
				Nil Rubber bumper
				A Air cushion

CM2K B 40 - 150 A [] [] Z - [] [] - []

With auto switch CDM2K B 40 - 150 A [] [] Z - [] [] - M9BW [] - []

With auto switch (Built-in magnet)

Rod end thread

Nil	Male rod end
F	Female rod end

Rod boot

Nil	None
J	Nylon tarpaulin
K	Heat resistant tarpaulin

* For female rod end, no rod boot is provided.

Rod end bracket

Nil	None
V	Single knuckle joint
W	Double knuckle joint

* No bracket is provided for the female rod end.
* A knuckle joint pin is not provided with the single knuckle joint.
* Rod end bracket is shipped together with the product, but not assembled.
* Not applicable to XB12.

Auto switch

Nil	Without auto switch
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* For applicable auto switches, refer to the table below.

Number of auto switches

Nil	2 pcs.
S	1 pc.
n	"n" pcs.

* Refer to "Ordering Example of Cylinder Assembly" on page 283.

Applicable Auto Switches/Refer to pages 1271 to 1365 for further information on auto switches.

Type	Special function	Electrical entry	Indicator	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)	None (N)							
Solid state auto switch	—	Grommet	No	3-wire (NPN)	5 V, 12 V	—	M9NV	M9N	●	●	●	○	—	○	IC circuit					
				3-wire (PNP)			M9PV	M9P	●	●	●	○	—	○						
		Connector		2-wire	12 V	M9BV	M9B	●	●	●	○	—	○	—						
				Terminal conduit		3-wire (NPN)	5 V, 12 V	—	G39A**	—	—	●	●			—	—	IC circuit		
	Diagnostic indication (2-color indicator)	Grommet	Yes	2-wire	5 V, 12 V	—	—	K39A**	—	—	—	●	●	—	—	Relay, PLC				
				3-wire (NPN)	12 V		M9NVV	M9NV	●	●	●	○	—	○	IC circuit					
				3-wire (PNP)	5 V, 12 V		M9PVV	M9PV	●	●	●	○	—	○			—			
				2-wire	12 V		M9BVV	M9BV	●	●	●	○	—	○	—					
				3-wire (NPN)	5 V, 12 V		M9NAV*1	M9NA*1	○	○	○	○	—	○			IC circuit			
				3-wire (PNP)	12 V		M9PAV*1	M9PA*1	○	○	○	○	—	○	—					
Water resistant (2-color indicator)	Grommet	No	2-wire	5 V, 12 V	—	M9BAV*1	M9BA*1	○	○	○	○	—	○	IC circuit						
			3-wire (NPN)	5 V, 12 V		—	H7NF	●	●	●	○	—	○							
			2-wire	12 V		—	—	—	—	—	—	—	—		—					
			4-wire (NPN)	5 V, 12 V		—	—	—	—	—	—	—	—							
Reed auto switch	—	Grommet	No	3-wire (NPN equivalent)	—	5 V	—	A96V	A96	●	●	●	—	—	—	IC circuit				
								Connector	100 V	A93V*2	A93	●	●	●	—		—	—	IC circuit	
									100 V or less	A90V	A90	●	●	●	—		—	—		—
									100 V, 200 V	—	B54**	●	●	●	—		—	—		
									200 V or less	—	B64**	●	●	●	—		—	—		
		Terminal conduit		Yes	2-wire	24 V	12 V	—	—	—	C73C	●	●	●	●	—	—	IC circuit		
										—	C80C	●	●	●	●	—	—		—	
										—	A33A**	—	—	—	—	—	—			—
										—	A34A**	—	—	—	—	—	—		—	—
										DIN terminal	100 V, 200 V	—	A44A**	—	—	—	—		—	
Grommet	—	—	B59W	●	●	●	—	—	—											

*1 Water resistant type auto switches can be mounted on the above models, but in such case SMC cannot guarantee water resistance. Please contact SMC regarding water resistant types with the above model numbers.

*2 2 m type lead wire is only applicable to D-A93.

* Lead wire length symbols: 0.5 m Nil (Example) M9NW
 1 m M (Example) M9MWM
 3 m L (Example) M9NWL
 5 m Z (Example) M9NZ
 None N (Example) H7CN

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

* Do not indicate suffix "N" for no lead wire on the D-A3C/A/A44A/G39A/K39A models.

** D-A3C/A/A44A/G39A/K39A/B54/B64 cannot be mounted on bore sizes ø20 and ø25 cylinder with air cushion.

* Since there are other applicable auto switches than listed above, refer to page 331 for details.

* For details about auto switches with pre-wired connector, refer to pages 1340 and 1341.

* The D-A93□/M9□□ auto switches are shipped together, (but not assembled). (However, only the auto switch mounting brackets are assembled before shipment.)

Air Cylinder: Non-rotating Rod Type

Double Acting, Double Rod

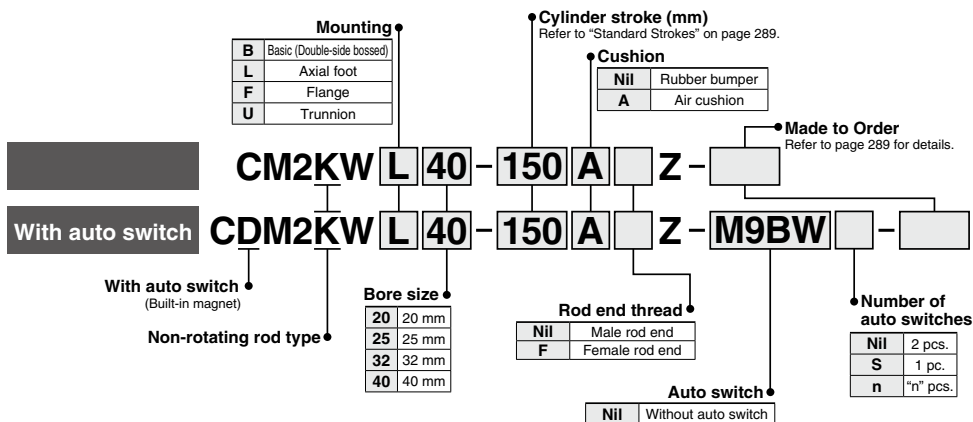
CM2KW Series

RoHS

ø20, ø25, ø32, ø40



How to Order



* For applicable auto switches, refer to the table below.

Applicable Auto Switches/Refer to pages 1271 to 1365 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		0.5 (Nil)	1 (M)	3 (L)	5 (Z)	None (N)							
															Perpendicular	In-line	0.5 (Nil)	1 (M)	3 (L)
Solid state auto switch	—	Grommet	Yes	3-wire (NPN)	5 V, 12 V	—	M9NV	M9N	●	●	○	—	○	IC circuit	Relay, PLC				
				3-wire (PNP)			M9PV	M9P	●	●	○	—	○						
		Connector		2-wire	M9BV		M9B	●	●	○	—	○	—						
				Terminal conduit	3-wire (NPN)		—	H7C	●	—	●	—	—			—			
		Grommet			2-wire		5 V, 12 V	—	G39A**	—	—	●	—			—	—	IC circuit	
				Diagnostic indication (2-color indicator)	Grommet		Yes	3-wire (NPN)	5 V, 12 V	—	M9NVV	M9NV	●			●	○	—	○
	3-wire (PNP)	M9PVV	M9PV			●		●			○	—	○						
	2-wire	M9BWW	M9BW			●		●	○		—	○	—						
	3-wire (NPN)	M9NAV*1	M9NA*1			○		○	○		○	○	○	○		IC circuit			
	3-wire (PNP)	M9PAV*1	M9PA*1			○		○	○		○	○	○	○					
	2-wire	M9BAV*1	M9BA*1			○		○	○		○	○	○	○		○			
	4-wire (NPN)	—	H7NF	●	●	○	—	—	—	—	—	IC circuit							
Reed auto switch	—	Grommet	Yes	3-wire (NPN equivalent)	5 V	—	A96V	A96	●	—	●	—	—	—	IC circuit	Relay, PLC			
				100 V			A93V*2	A93	●	●	●	—	—	—					
				100 V or less	A90V		A90	●	●	●	—	—	—	—			IC circuit		
				100 V, 200 V	—		B54**	●	—	●	—	—	—	—			—		
				200 V or less	—		B64**	●	—	●	—	—	—	—			—		
				—	—		C73C	●	—	●	—	—	—	—			—	—	
		Connector		2-wire	24 V	12 V	24 V or less	—	—	C80C	●	—	●	—	—		—	IC circuit	
							—	—	A33A**	—	—	—	—	—	—		—	—	
							100 V	—	A34A**	—	—	—	—	—	—		—	—	
							200 V	—	A44A**	—	—	—	—	—	—		—	—	
							—	—	B59W	●	—	●	—	—	—		—	—	—
							—	—	—	—	—	—	—	—	—		—	—	—
Terminal conduit	Grommet	Yes	100 V	—	—	A34A**	—	—	—	—	—	—	—	Relay, PLC					
			200 V	—	—	A44A**	—	—	—	—	—	—							
DIN terminal	Grommet	Yes	100 V	—	—	A34A**	—	—	—	—	—	—	—	Relay, PLC					
			200 V	—	—	A44A**	—	—	—	—	—	—							

*1 Water resistant type auto switches can be mounted on the above models, but in such case SMC cannot guarantee water resistance.

Please contact SMC regarding water resistant types with the above model numbers.

*2 1 m type lead wire is only applicable to D-A93.

* Lead wire length symbols: 0.5 m Nil (Example) M9NW
 1 m M (Example) M9NWW
 3 m L (Example) M9NWL
 5 m Z (Example) M9NZ
 None N (Example) H7CN

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

* Do not indicate suffix "N" for no lead wire on the D-A3□A/A44A/G39A/K39A models.

** D-A3□A/A44A/G39A/K39A/B54/B64 cannot be mounted on bore sizes ø20 and ø25 cylinder with air cushion.

* Since there are other applicable auto switches than listed above, refer to page 331 for details.

* For details about auto switches with pre-wired connector, refer to pages 1340 and 1341.

* The D-A9□□/M9□□ auto switches are shipped together, (but not assembled). (However, only the auto switch mounting brackets are assembled before shipment.)

Air Cylinder: Non-rotating Rod Type Single Acting, Spring Return/Extend

CM2K Series

∅20, ∅25, ∅32, ∅40

RoHS

How to Order



Mounting

B	Basic (Double-side bossed)
L	Axial foot
F	Rod flange
G	Head flange
C	Single clevis
D	Double clevis
U	Rod trunnion

Cylinder stroke (mm)
Refer to "Standard Strokes" on page 294.

Action

S	Single acting, Spring return
T	Single acting, Spring extend

Rod end thread

Nil	Male rod end
F	Female rod end

Pivot bracket

Nil	None
N	Pivot bracket is shipped together with the product, but not assembled.

* Only for C, T, U, E, V, UZ mounting types.
* Pivot bracket is shipped together with the product, but not assembled.

CM2K L 32 - 150 S [] Z - [] - []

With auto switch CDM2K L 32 - 150 S [] Z - [] - [] M9BW [] - []

With auto switch (Built-in magnet)

Bore size

20	20 mm
25	25 mm
32	32 mm
40	40 mm

Rod end bracket

Nil	None
V	Single knuckle joint
W	Double knuckle joint

* No bracket is provided for the female rod end.
* A knuckle joint pin is not provided with the single knuckle joint.
* Rod end bracket is shipped together with the product, but not assembled.
* Not applicable to XB12.

Auto switch

Nil	Without auto switch
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* For applicable auto switches, refer to the table below.

Number of auto switches

Nil	2 pcs.
S	1 pc.
n	"n" pcs.

Made to Order
Refer to page 294 for details.

* Refer to "Ordering Example of Cylinder Assembly" on page 294.

Applicable Auto Switches/Refer to pages 1271 to 1365 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)	None (N)											
									Yes	No	Yes	No	Yes			No	Yes	No						
Solid state auto switch	—	Grommet	Yes	3-wire (NPN)	5 V, 12 V	—	M9NV	M9N	●	●	○	—	—	○	IC circuit	Relay, PLC								
				3-wire (PNP)			M9PV	M9P	●	●	○	—	—											
		Connector		2-wire	12 V	—	M9BV	M9B	●	●	○	—	—	—			—							
				Terminal conduit			3-wire (NPN)	5 V, 12 V	—	G39A	—	—	●	—			—	IC circuit						
		Diagnostic indication (2-color indicator)		Grommet	Yes	2-wire	5 V, 12 V	—	—	K39A	—	—	●	—			—	—						
						3-wire (NPN)	5 V, 12 V	—	M9NVV	M9NW	●	●	○	—			—	○	IC circuit					
	3-wire (PNP)		5 V, 12 V			—	M9PVV	M9PV	●	●	○	—	—	—										
	2-wire		12 V			—	M9BVV	M9BV	●	●	○	—	—	—										
	3-wire (NPN)		5 V, 12 V			—	M9NAV*1	M9NA*1	○	○	○	○	—	—	○		IC circuit							
	3-wire (PNP)		5 V, 12 V			—	M9PAV*1	M9PA*1	○	○	○	○	—	—	○									
	Water resistant (2-color indicator)	Grommet	Yes	2-wire	12 V	—	—	M9BAV*1	M9BA*1	○	○	○	○	—	—		○							
				3-wire (NPN)	5 V, 12 V	—	—	H7NF	—	●	●	○	—	—	○		IC circuit							
3-wire (PNP)				5 V, 12 V	—	—	—	—	—	—	—	—	—	—	—									
2-wire				12 V	—	—	—	—	—	—	—	—	—	—	—									
3-wire (NPN equivalent)				5 V	—	A96V	A96	●	●	—	—	—	—	—	—	IC circuit								
4-wire (NPN)				5 V, 12 V	—	—	—	—	—	—	—	—	—	—	—	—								
Reed auto switch	—	Grommet	Yes	3-wire (NPN equivalent)	24 V	12 V	—	—	100 V	A93V*2	A93	●	●	●	—	—	—	—						
									100 V or less	A90V	A90	●	●	●	—	—	—	—	—	IC circuit				
									100 V, 200 V	—	B54	●	●	●	—	—	—	—	—	—				
									200 V or less	—	B64	●	●	●	—	—	—	—	—	—				
									—	—	C73C	●	●	●	●	—	—	—	—	—				
									24 V or less	—	C80C	●	●	●	●	—	—	—	—	—	IC circuit			
		Connector		No	Yes	2-wire	24 V	12 V	—	—	—	—	A33A	—	—	—	●	—	—	—				
												—	A34A	—	—	—	●	—	—	—	—	—		
												100 V, 200 V	A44A	—	—	—	●	—	—	—	—	—	—	
												—	B59W	●	●	—	—	—	—	—	—	—	—	
												—	—	—	—	—	—	—	—	—	—	—	—	—
												—	—	—	—	—	—	—	—	—	—	—	—	—
Terminal conduit	No	Yes	2-wire	24 V	12 V	—	—	—	100 V, 200 V	A44A	—	—	—	●	—	—	—							
									—	—	—	—	—	—	—	—	—	—	—					
									—	—	—	—	—	—	—	—	—	—	—	—				
									—	—	—	—	—	—	—	—	—	—	—	—				
									—	—	—	—	—	—	—	—	—	—	—	—				
									—	—	—	—	—	—	—	—	—	—	—	—				
DIN terminal Grommet	Yes	Yes	2-wire	24 V	12 V	—	—	—	100 V, 200 V	A44A	—	—	—	●	—	—	—							
									—	—	—	—	—	—	—	—	—	—	—					
									—	—	—	—	—	—	—	—	—	—	—	—				
									—	—	—	—	—	—	—	—	—	—	—	—				
									—	—	—	—	—	—	—	—	—	—	—	—				
									—	—	—	—	—	—	—	—	—	—	—	—				

*1 Water resistant type auto switches can be mounted on the above models, but in such case SMC cannot guarantee water resistance.

Please contact SMC regarding water resistant types with the above model numbers.

*2 1 m type lead wire is only applicable to D-A93.

* 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

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

* Do not indicate suffix "N" for no lead wire on the D-A3□□A/A44A/G39A/K39A models.

* Since there are other applicable auto switches than listed above, refer to page 331 for details.

* For details about auto switches with pre-wired connector, refer to pages 1340 and 1341.

* The D-A9□□/M9□□ auto switches are shipped together, (but not assembled). (However, only the auto switch mounting brackets are assembled before shipment.)

Air Cylinder: Direct Mount Type

Double Acting, Single Rod

CM2R Series

∅20, ∅25, ∅32, ∅40



How to Order

Type

Nil	Pneumatic
H	Air-hydro

Bore size

20	20 mm
25	25 mm
32	32 mm
40	40 mm

Cylinder stroke (mm)
Refer to "Standard Strokes" on page 300.

Cushion

Nil	Rubber bumper
A	Air cushion

* Air-hydro cylinder: Rubber bumper only

Made to Order
Refer to page 300 for details.
(Refer to "Air-hydro type" on page 302.)

CM2 **R** **A** **20** - **100** **A** **Z** - -

With auto switch **CDM2** **R** **A** **20** - **100** **A** **Z** - - **M9BW** -

With auto switch
(Built-in magnet)

Mounting

A	Bottom mounting type
B	Front mounting type

Rod end thread

Nil	Male rod end
F	Female rod end

Rod end bracket

Nil	None
V	Single knuckle joint
W	Double knuckle joint

Number of auto switches

Nil	2 pcs.
S	1 pc.
n	"n" pcs.

Auto switch

Nil	Without auto switch
-----	---------------------

* No bracket is provided for the female rod end.
* A knuckle joint pin is not provided with the single knuckle joint.
* Rod end bracket is shipped together with the product, but not assembled.

* Refer to "Ordering Example of Cylinder Assembly" on page 300.

Applicable Auto Switches/Refer to pages 1271 to 1365 for further information on auto switches.

Type	Special function	Electrical entry	Indicator light	Wiring (Output)	Load voltage		Auto switch model					Pre-wired connector	Applicable load							
					DC	AC	Lead wire length (m)													
							0.5 (Nil)	1 (M)	3 (L)	5 (Z)	None (N)									
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	●	●	○	○								
		Terminal conduit		3-wire (NPN)			—	G39A**	—	—	●	—	—			IC circuit				
		2-wire		—			K39A**	—	—	●	—	—	—			—				
		3-wire (NPN)		M9NVV			M9NV	●	●	○	○	○	○			IC circuit				
	Diagnostic indication (2-color indicator)	Grommet	Yes	3-wire (PNP)	5 V, 12 V	—	M9PVV	M9PV	●	●	○	○	○	IC circuit						
				2-wire			M9BVV	M9BV	●	●	○	○	○							
				Terminal conduit			3-wire (NPN)	M9NAV*1	M9NA*1	○	○	○	○			○	IC circuit			
		2-wire		M9PAV*1			M9PA*1	○	○	○	○	○	○			IC circuit				
		3-wire (PNP)		M9BAV*1			M9BA*1	○	○	○	○	○	○			IC circuit				
		4-wire (NPN)		—			H7NF	●	●	○	○	○	○			IC circuit				
Reed auto switch	—	Grommet	Yes	3-wire (NPN equivalent)	—	5 V	—	A96V	A96	●	—	●	—	—	IC circuit	Relay, PLC				
								100 V	A93V*2	A93	●	●	●	—	—		—			
								100 V or less	A90V	A90	●	●	●	—	—		—	IC circuit		
								100 V, 200 V	—	B54**	●	●	●	—	—		—	—		
								200 V or less	—	B64**	●	●	●	—	—		—	—		
								—	—	C73C	●	●	●	●	—		—	—		
		Connector		2-wire	24 V	12 V	—	—	—	24 V or less	C80C	●	●	●	●		—	IC circuit		
										—	A33A**	—	—	—	—		—	—	—	PLC
										100 V, 200 V	A34A**	—	—	—	—		—	—	—	—
										—	A44A**	—	—	—	—		—	—	—	—
										—	B59W	●	●	●	—		—	—	—	—
										—	—	—	—	—	—		—	—	—	—
Terminal conduit	2-wire	24 V	12 V	—	—	—	100 V, 200 V	A44A**	—	—	—	—	—	—	Relay, PLC					
							—	B59W	●	●	●	—	—	—	—					
							—	—	—	—	—	—	—	—	—	—				
							—	—	—	—	—	—	—	—	—	—				
							—	—	—	—	—	—	—	—	—	—				
							—	—	—	—	—	—	—	—	—	—				
DIN terminal Grommet	2-wire	24 V	12 V	—	—	—	—	—	—	—	—	—	—	—	—					
							—	—	—	—	—	—	—	—	—	—				
							—	—	—	—	—	—	—	—	—	—				
							—	—	—	—	—	—	—	—	—	—				
							—	—	—	—	—	—	—	—	—	—				
							—	—	—	—	—	—	—	—	—	—				

*1 Water resistant type auto switches can be mounted on the above models, but in such case SMC cannot guarantee water resistance.
Please contact SMC regarding water resistant types with the above model numbers.

*2 1 m type lead wire is only applicable to D-A93.

* 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

* Solid state auto switches marked with "○" are produced upon receipt of order.
* Do not indicate suffix "N" for no lead wire on the D-A3□A/A44A/G39A/K39A models.
* D-A3□A/A44A/G39A/K39A/B54/B64 cannot be mounted on bore sizes ø20 and ø25 cylinder with air cushion.

* Since there are other applicable auto switches than listed above, refer to page 331 for details.
* For details about auto switches with pre-wired connector, refer to pages 1340 and 1341.
* The D-A9□□/M9□□ auto switches are shipped together, (but not assembled). (However, only the auto switch mounting brackets are assembled before shipment.)

Air Cylinder: Direct Mount, Non-rotating Rod Type Double Acting, Single Rod

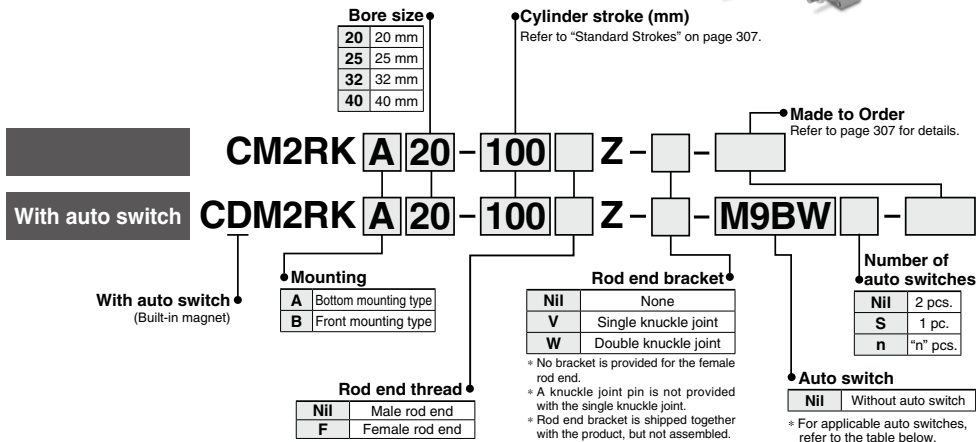
CM2RK Series



ø20, ø25, ø32, ø40



How to Order



* Refer to "Ordering Example of Cylinder Assembly" on page 307.

Applicable Auto Switches/Refer to pages 1271 to 1365 for further information on auto switches.

Type	Special function	Electrical entry	Indicator	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)	None (N)							
									●	●	●	●	○							
Solid state auto switch	—	Grommet	Yes	3-wire (NPN)	5 V, 12 V	—	M9NV	M9N	●	●	○	—	—	○	IC circuit	Relay, PLC				
				3-wire (PNP)			M9PV	M9P	●	●	○	—	○							
		Connector		2-wire	12 V		M9BV	M9B	●	●	○	—	○	—						
				Terminal conduit			3-wire (NPN)	—	H7C	●	—	●	—		○		IC circuit			
		Diagnostic indication (2-color indicator)		Grommet	Yes		2-wire	5 V, 12 V	—	—	G39A	—	—	—	●		—	—	IC circuit	
							3-wire (NPN)			—	K39A	—	—	—	●		—	—	IC circuit	
	Water resistant (2-color indicator)	Grommet	3-wire (PNP)	5 V, 12 V		M9NVV	M9NW	●		●	○	—	○	—	—		IC circuit			
			2-wire			M9PVV	M9PV	●		●	○	—	○	—	—					
	(With diagnostic output (2-color indicator))		Grommet	3-wire (NPN)		5 V, 12 V	M9BWW	M9BW		●	●	○	—	○	—		—	—		
				2-wire			M9NAV*1	M9NA*1		○	○	○	○	○	○		—	—	IC circuit	
	—			Grommet	3-wire (PNP)	5 V, 12 V	M9PAV*1	M9PA*1	○	○	○	○	○	○	○		○	—	—	
					2-wire		M9BAV*1	M9BA*1	○	○	○	○	○	○	○		○	○	○	—
—	Grommet	4-wire (NPN)			5 V, 12 V	—	H7NF	●	—	●	—	—	—	—	—	—	—	—		
		—				Grommet	3-wire (NPN equivalent)	—	5 V	—	A96V	A96	●	—	●	—	—	—	—	—
—			Grommet		2-wire						24 V	12 V	—	100 V	A93V*2	A93	●	●	●	—
		—					Grommet	2-wire	24 V	12 V				—	100 V or less	A90V	A90	●	●	●
—				Grommet	2-wire						24 V	12 V	—		100 V, 200 V	—	B54	●	●	●
		—						Grommet	2-wire	24 V				12 V	—	200 V or less	—	B64	●	●
—	Grommet				2-wire						24 V	12 V	—			—	—	C73C	●	●
		—				Grommet			2-wire	24 V				12 V	—	—	—	C80C	●	●
—			Grommet		2-wire						24 V	12 V	—			—	—	A33A	—	—
		—					Grommet		2-wire	24 V				12 V	—	—	—	A34A	—	—
—				Grommet	2-wire						24 V	12 V	—			—	—	A44A	—	—
		—						Grommet	2-wire	24 V				12 V	—	—	—	B59W	●	●

*1 Water resistant type auto switches can be mounted on the above models, but in such case SMC cannot guarantee water resistance.
Please contact SMC regarding water resistant types with the above model numbers.

*2 1 m type lead wire is only applicable to D-A93.

* Lead wire length symbols: 0.5 m Nil (Example) M9NW
1 m M (Example) M9NWM
3 m L (Example) M9NWL
5 m Z (Example) M9NZ
None N (Example) H7CN

* Solid state auto switches marked with "○" are produced upon receipt of order.
* Do not indicate suffix "N" for no lead wire on D-A3□A/A44A/G39A/K39A models.

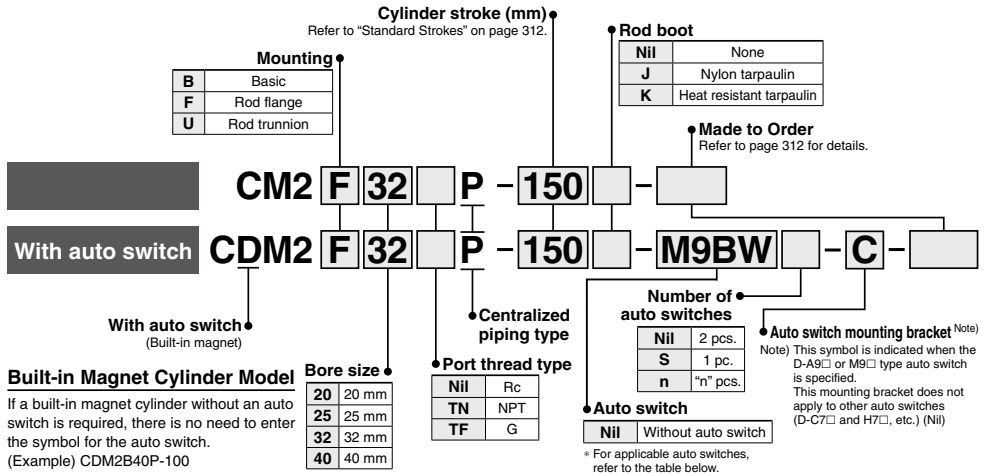
* Since there are other applicable auto switches than listed above, refer to page 331 for details.
* For details about auto switches with pre-wired connector, refer to pages 1340 and 1341.
* The D-A9□□/M9□□ auto switches are shipped together, (but not assembled). (However, only the auto switch mounting brackets are assembled before shipment.)

Air Cylinder: Centralized Piping Type Double Acting, Single Rod

CM2□P Series

∅20, ∅25, ∅32, ∅40

How to Order



Applicable Auto Switches/Refer to pages 1271 to 1365 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		0.5 (Nil)	1 (M)	3 (L)	5 (Z)	None (N)								
															Perpendicular	In-line	○	●	○	○
Solid state auto switch	—	Grommet	Yes	3-wire (NPN)	5 V, 12 V	—	M9NV	M9N	●	●	○	—	○	Relay, PLC						
				3-wire (PNP)			M9PV	M9P	●	●	○	—	○							
		Connector		2-wire	12 V	—	M9BV	M9B	●	●	○	—	○							
				Terminal conduit			3-wire (NPN)	5 V, 12 V	—	H7C	●	—	●		—	○				
	Diagnostic indication (2-color indicator)	Grommet	Yes	2-wire	12 V	—	—	G39A	—	—	●	—	—		○					
				3-wire (NPN)			5 V, 12 V	—	K39A	—	—	●	—		—					
	Water resistant (2-color indicator)	Grommet	Yes	3-wire (PNP)	12 V	—	M9NVV	M9NV	●	●	○	—	○		—					
				3-wire (NPN)			5 V, 12 V	—	M9PVV	M9PV	●	●	○		—	○				
				2-wire	12 V	—	M9BVV	M9BV	●	●	○	—	○							
				3-wire (NPN)			5 V, 12 V	—	M9NAV ^{*1}	M9NA ^{*1}	○	○	○		—	○				
3-wire (PNP)				12 V	—	M9PAV ^{*1}	M9PA ^{*1}	○	○	○	—	○								
2-wire						5 V, 12 V	—	M9BAV ^{*1}	M9BA ^{*1}	○	○	○	—	○						
4-wire (NPN)	5 V, 12 V	—	—	H7NF	●	—	●	—	○	—	○									
Reed auto switch	—	Grommet	Yes	3-wire (NPN equivalent)	—	5 V	—	A96V	A96	●	—	●	—	—	IC circuit	Relay, PLC				
								100 V	A93V ^{*2}	A93	●	●	●	—	—		—			
								100 V or less	A90V	A90	●	—	●	—	—		—	IC circuit		
								100 V, 200 V	—	B54	●	—	●	—	—		—	—		
								200 V or less	—	B64	●	—	●	—	—		—	—		
		Connector		2-wire	24 V	12 V	—	—	—	—	C73C	●	—	●	—		—	—		
										—	C80C	●	—	●	—		—	—	IC circuit	
										24 V or less	—	A33A	—	—	—		—	—	—	—
										—	—	A34A	—	—	—		—	—	—	—
										—	—	A44A	—	—	—		—	—	—	—
Terminal conduit	DIN terminal	Grommet	Yes	—	—	—	100 V, 200 V	—	—	—	—	—	—	—	Relay, PLC					
							—	—	B59W	●	—	●	—	—	—	—				

*1 Water resistant type auto switches can be mounted on the above models, but in such case SMC cannot guarantee water resistance.
Please contact SMC regarding water resistant types with the above model numbers.

*2 1 m type lead wire is only applicable to D-A93.

* Lead wire length symbols: 0.5 m Nil (Example) M9NV
1 m M (Example) M9NVV
3 m L (Example) M9NWL
5 m Z (Example) M9NWX
None N (Example) H7CN

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

* Since there are other applicable auto switches than listed above, refer to page 331 for details.

* For details about auto switches with pre-wired connector, refer to pages 1340 and 1341.

* The D-A9□/M9□ auto switches are shipped together, (but not assembled). (However, only the auto switch mounting brackets are assembled before shipment.)

Air Cylinder: With End Lock

CBM2 Series

ø20, ø25, ø32, ø40

How to Order

CBM2 L 40 - 150 - H N -

With auto switch CDBM2 L 40 - 150 - H N - M9BW - C -

With auto switch
(Built-in magnet)

Mounting

B Basic	T Head trunnion
L Axial foot	E Integrated clevis
F Rod flange	BZ Boss-cut/Basic
G Head flange	FZ Boss-cut/Rod flange
C Single clevis	
D Double clevis	UZ Boss-cut/Rod trunnion
U Rod trunnion	

Bore size

20	20 mm
25	25 mm
32	32 mm
40	40 mm

Cylinder stroke (mm)

Refer to "Standard Strokes" on page 317.

Manual release

N	Non-locking type
L	Locking type

Lock position

H	Head end lock
R	Rod end lock
W	Double end lock

Auto switch mounting bracket (Note)
Note) This symbol is indicated when the D-A9□ or M9□ type auto switch is specified. This mounting bracket does not apply to other auto switches (D-C7□ and H7□, etc.) (Nil)

Number of auto switches

Nil	2 pcs.
S	1 pc.
n	"n" pcs.

Auto switch

Nil	Without auto switch
------------	---------------------

Auto switch
* For applicable auto switches, refer to the table below.

Lock cushion

Nil	Rubber bumper
A	Air cushion

Auto switch

Nil	None
J	Nylon tarpaulin
K	Heat resistant tarpaulin

Made to Order
Refer to page 317 for details.

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) CDBM2L40-100-HN

Applicable Auto Switches/Refer to pages 1271 to 1365 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)	None (N)							
Solid state auto switch	—	Grommet	Yes	3-wire (NPN)	24 V	—	M9NV	M9N	●	●	○	—	○	IC circuit	Relay, PLC					
				3-wire (PNP)			M9PV	M9P	●	●	○	—	○							
				2-wire			M9BV	M9B	●	●	○	—	○							
		Terminal conduit		3-wire (NPN)			—	H7C	●	●	●	●	—			—				
		2-wire		—			G39A**	—	—	●	—	—	—			—	—	IC circuit		
		3-wire (PNP)		—			K39A**	—	—	●	—	—	—			—	—	IC circuit		
	Diagnostic indication (2-color indicator)	Grommet	Yes	3-wire (NPN)	24 V	—	M9NVV	M9NV	●	●	○	—	○	IC circuit						
				3-wire (PNP)			M9PVV	M9PV	●	●	○	—	○							
				2-wire			M9BVV	M9BV	●	●	○	—	○							
				3-wire (NPN)			M9NAV*1	M9NA*1	○	○	○	○	○			○	IC circuit			
				3-wire (PNP)			M9PAV*1	M9PA*1	○	○	○	○	○			○				
				2-wire			M9BAV*1	M9BA*1	○	○	○	○	○			○				
4-wire (NPN)	—	H7NF	●	●	○	○	○	○	○	IC circuit										
Reed auto switch	—	Grommet	Yes/No	3-wire (NPN equivalent)	24 V	12 V	A96V	A96	●	●	—	—	—	—	IC circuit	Relay, PLC				
				100 V			A93V*2	A93	●	●	●	—	—	—	—					
				100 V or less			A90V	A90	●	●	●	—	—	—	—		IC circuit			
				100 V, 200 V			—	B54**	●	●	●	—	—	—	—		—			
				200 V or less			—	B64**	●	●	●	—	—	—	—		—			
				24 V or less			—	C73C	●	●	●	●	—	—	—		—	IC circuit		
		Connector		No/Yes/No/Yes/No			2-wire	24 V or less	—	C80C	●	●	●	●	—		—	—	—	—
								—	—	A33A**	—	—	—	—	—		—	—	—	PLC
								100 V, 200 V	—	A34A**	—	—	—	—	—		—	—	—	—
								—	—	A44A**	—	—	—	—	—		—	—	—	—
								—	—	B59W	●	●	●	—	—		—	—	—	—
								Terminal conduit	Yes	DIN terminal Grommet	3-wire (NPN equivalent)	24 V	12 V	A96V	A96		●	●	—	—
100 V	A93V*2	A93	●	●	●	—	—				—			—						
100 V or less	A90V	A90	●	●	●	—	—				—			—	IC circuit					
100 V, 200 V	—	B54**	●	●	●	—	—				—			—	—					
200 V or less	—	B64**	●	●	●	—	—				—			—	—					
24 V or less	—	C73C	●	●	●	●	—				—			—	—	IC circuit				

*1 Water resistant type auto switches can be mounted on the above models, but in such case SMC cannot guarantee water resistance.

Please contact SMC regarding water resistant types with the above model numbers.

*2 1 m type lead wire is only applicable to D-A93.

* 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

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

* Do not indicate suffix "N" for no lead wire on D-A3□/A44A/G39A/K39A models.

** The D-A3□/A44A/G39A/K39A/B54/B64 cannot be mounted on bore sizes ø20 and ø25 cylinder with air cushion.

* Since there are other applicable auto switches than listed above, refer to page 331 for details.

* For details about auto switches with pre-wired connector, refer to pages 1340 and 1341.

* The D-A9□/M9□ auto switches are shipped together, (but not assembled). (However, only the auto switch mounting brackets are assembled before shipment.)