

# Air Cylinder: Standard Type Double Acting, Single Rod

## CJ2 Series

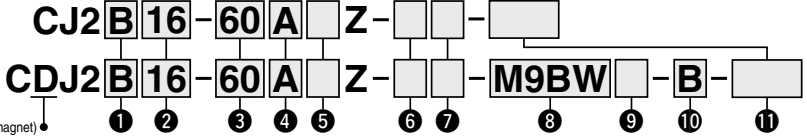
ø6, ø10, ø16

RoHS



### How to Order

With auto switch



With auto switch (Built-in magnet)

#### 1 Mounting

<b>B</b>	Basic
<b>E</b>	Double-side bossed
<b>D**</b>	Double clevis
<b>L</b>	Single foot
<b>M</b>	Double foot
<b>F</b>	Rod flange
<b>G</b>	Head flange

\*: Foot/Flange brackets are shipped together with the product, but not assembled.

\*\*: Double clevis is only available for ø10 and ø16.

\*\*\*: Refer to page 182 for the double clevis (with one-touch connecting pin).

#### 8 Auto switch

<b>Nil</b>	Without auto switch
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\*: For applicable auto switches, refer to the table below.

★ Enter the auto switch mounting type (A or B) even when a built-in magnet cylinder without an auto switch is required.

#### 2 Bore size

<b>6</b>	6 mm
<b>10</b>	10 mm
<b>16</b>	16 mm

#### 5 Head cover port location

<b>Nil</b>	Perpendicular to axis	
<b>R</b>	Axial	

\*: For double clevis, the product is perpendicular to the cylinder axis.

\*\*: For double-side bossed, the product is perpendicular to the cylinder axis.

#### 9 Number of auto switches

<b>Nil</b>	2 pcs.
<b>S</b>	1 pc.
<b>n</b>	"n" pcs.

#### 3 Cylinder standard stroke [mm]

Refer to "Standard Strokes" on page 75.

#### 6 Pivot bracket

<b>Nil</b>	None
<b>N</b>	Pivot bracket is shipped together with the product.

\*: Only for the double clevis type (ø10 and ø16)

\*\*: Pivot bracket is shipped together with the product, but not assembled.

#### 10 Auto switch mounting type

<b>A</b>	Rail mounting
<b>B</b>	Band mounting

\*: For rail mounting, screws and nuts for 2 auto switches come with the rail.

\*\*: Refer to page 178 for auto switch mounting brackets.

\*\*\*: ø6: Band mounting only

#### 4 Cushion

<b>Nil</b>	Rubber bumper
<b>A</b>	Air cushion

\*\*\*: ø6: Rubber bumper only

#### 7 Rod end bracket

<b>Nil</b>	None
<b>V</b>	Single knuckle joint
<b>W**</b>	Double knuckle joint
<b>T</b>	Rod end cap (Flat type)
<b>U</b>	Rod end cap (Round type)

\*: Rod end bracket is shipped together with the product, but not assembled.

\*\*: Single/Double knuckle joint: ø10 and ø16 only

\*\*\*: Refer to page 91 for the double knuckle joint (with one-touch connecting pin).

#### 11 Made to Order

Refer to page 75 for details.

\*: Refer to "Ordering Example of Cylinder Assembly" on page 75.

### 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	Band mounting		Rail mounting		0.5 (Nil)	1 (M)	3 (L)	5 (Z)	None (N)			
							Perpendicular	In-line	Perpendicular	In-line								
Solid state auto switch	—	Grommet	—	3-wire (NPN)	5 V, 12 V	—	M9NV	M9N	M9NV	M9N	●	●	●	○	○	○	IC circuit	
				3-wire (PNP)			M9PV	M9P	M9PV	M9P	●	●	●	○	○	○		
		Connector	—	2-wire	12 V	—	M9BV	M9B	M9BV	M9B	●	●	●	○	○	○	○	—
							—	H7C	J79C	—	●	●	●	●	—	—	—	—
	Diagnostic indication (2-color indicator)	Grommet	Yes	—	3-wire (NPN)	5 V, 12 V	—	M9NVV	M9NW	M9NVV	M9NW	●	●	●	○	○	○	IC circuit
					3-wire (PNP)			M9PWW	M9PW	M9PWW	M9PW	●	●	●	○	○	○	
		Connector	—	2-wire	12 V	—	M9BWW	M9BW	M9BWW	M9BW	●	●	●	○	○	○	○	—
							3-wire (NPN)	M9NAV <sup>*1</sup>	M9NA <sup>*1</sup>	M9NAV <sup>*1</sup>	M9NA <sup>*1</sup>	○	○	○	○	○	○	○
Grommet	—	—	3-wire (PNP)	5 V, 12 V	—	M9PAV <sup>*1</sup>	M9PA <sup>*1</sup>	M9PAV <sup>*1</sup>	M9PA <sup>*1</sup>	○	○	○	○	○	○	IC circuit		
						2-wire	12 V	—	M9BAV <sup>*1</sup>	M9BA <sup>*1</sup>	M9BAV <sup>*1</sup>	M9BA <sup>*1</sup>	○	○	○		○	○
Reed auto switch	—	Grommet	—	3-wire (NPN equivalent)	5 V	—	A96V	A96	A96V	A96	●	—	●	—	—	—	IC circuit	
							—	200 V	—	A72	A72H	●	—	●	—	—		—
		Connector	—	2-wire	24 V	12 V	—	100 V	A93V <sup>*2</sup>	A93	A93V <sup>*2</sup>	A93	●	●	●	●	—	IC circuit
								100 V or less	A90V	A90	A90V	A90	●	—	●	—	—	
	Diagnostic indication (2-color indicator)	Grommet	Yes	—	—	—	—	—	C73C	A73C	—	●	—	●	●	●	IC circuit	
								—	C80C	A80C	—	●	—	●	●	●		●
		Connector	—	—	—	—	—	—	—	A79W	—	—	●	—	●	—	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 5 m..... Z (Example) M9NWZ  
1 m..... M (Example) M9NWM None..... N (Example) H7CN  
3 m..... L (Example) M9NWL

\*\*: Since there are other applicable auto switches than listed above, refer to page 179 for details.

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

\*\*\*\*: The D-A93/M93/A73/A80C/F73/J73 auto switches are shipped together, but not assembled. (For band mounting, only the auto switch mounting brackets are assembled before shipment.)

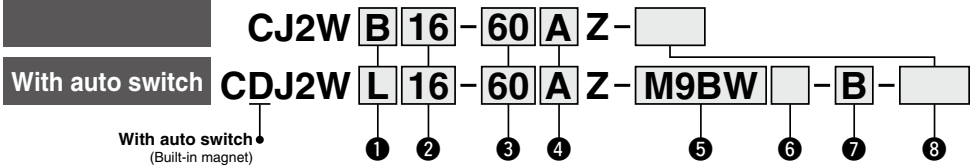
# Air Cylinder: Standard Type Double Acting, Double Rod

## CJ2W Series

ø6, ø10, ø16



### How to Order



#### 1 Mounting

B	Basic
L	Foot
F	Flange

\*: Foot/Flange brackets are shipped together with the product, but not assembled.

#### 5 Auto switch

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

\* Enter the auto switch mounting type (A or B) even when a built-in magnet cylinder without an auto switch is required.

#### 2 Bore size

6	6 mm
10	10 mm
16	16 mm

#### 6 Number of auto switches

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

#### 3 Cylinder standard stroke [mm]

Refer to "Standard Strokes" on page 95.

#### 4 Cushion

Nil	Rubber bumper
A	Air cushion

\*: ø6: Rubber bumper only

#### 7 Auto switch mounting type

A	Rail mounting
B	Band mounting

\*: For rail mounting, screws and nuts for 2 auto switches come with the rail.

\*: Refer to page 178 for auto switch mounting brackets.

\*: ø6: Band mounting only

#### 8 Made to Order

Refer to page 95 for details.

### 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	Band mounting		Rail mounting		0.5 (Nil)	1 (M)	3 (L)	5 (Z)			None (N)	
							Perpendicular	In-line	Perpendicular	In-line								
Solid state auto switch	—	Grommet	—	3-wire (NPN)	5 V, 12 V	—	M9NV	M9N	M9NV	M9N	●	●	○	○	IC circuit	Relay, PLC		
				3-wire (PNP)			M9PV	M9P	M9PV	M9P	●	●	○	○				
		Connector	2-wire	M9BV	M9B	M9BV	M9B	●	●	○	○							
			—	H7C	J79C	●	—	●	●	—	—							
	Diagnostic indication (2-color indicator)	Grommet	Yes	3-wire (NPN)	5 V, 12 V	—	M9NWV	M9NW	M9NWV	M9NW	●	●	○	○	IC circuit			
				3-wire (PNP)			M9PWV	M9PW	M9PWV	M9PW	●	●	○	○				
	Water resistant (2-color indicator)	Grommet	—	2-wire	12 V	—	M9BWV	M9BW	M9BWV	M9BW	●	●	○	○	IC circuit			
				3-wire (NPN)			M9NAV <sup>*1</sup>	M9NA <sup>*1</sup>	M9NAV <sup>*1</sup>	M9NA <sup>*1</sup>	○	○	○	○				
	With diagnostic output (2-color indicator)	Grommet	—	3-wire (PNP)	5 V, 12 V	—	M9PAV <sup>*1</sup>	M9PA <sup>*1</sup>	M9PAV <sup>*1</sup>	M9PA <sup>*1</sup>	○	○	●	○	IC circuit			
				2-wire			M9BAV <sup>*1</sup>	M9BA <sup>*1</sup>	M9BAV <sup>*1</sup>	M9BA <sup>*1</sup>	○	○	○	○				
Reed auto switch	—	Grommet	Yes	4-wire (NPN)	5 V, 12 V	—	—	H7NF	—	F79F	●	—	●	○	IC circuit			
				3-wire (NPN equivalent)			A96V	A96	A96V	A96	●	—	●	—		—		
		Connector	No	No	2-wire	24 V	12 V	—	200 V	—	A72	A72H	●	—	●	—	IC circuit	
								—	100 V	A93V <sup>*2</sup>	A93	A93V <sup>*2</sup>	A93	●	●	●		—
								—	100 V or less	A90V	A90	A90V	A90	●	—	●		—
								—	24 V or less	C73C	A73C	—	—	●	—	●		—
Diagnostic indication (2-color indicator)	Grommet	Yes	—	—	—	—	C80C	A80C	—	—	●	—	●	IC circuit				
						—	A79W	—	—	—	—	—	—		—			

\*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) M9NZZ  
 None..... N (Example) H7CN

\*: Since there are other applicable auto switches than listed above, refer to page 179 for details.

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

\*: The D-A9C/M9C/A7C/A80C/F7C/J7C auto switches are shipped together, but not assembled. (For band mounting, only the auto switch mounting brackets are assembled before shipment.)

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

## CJ2 Series

ø6, ø10, ø16

RoHS

### How to Order



CJ2 **B** **16** - **45** **S** **Z** - **1** **1** - **1**

With auto switch

CDJ2 **B** **16** - **45** **S** **Z** - **1** **1** - **M9BW** **1** - **B** - **1**

With auto switch (Built-in magnet)

### 1 Mounting

<b>B</b>	Basic
<b>E</b>	Double-side bossed
<b>D**</b>	Double clevis
<b>L</b>	Single foot
<b>M</b>	Double foot
<b>F</b>	Rod flange
<b>G</b>	Head flange

\*: Foot/Flange brackets are shipped together with the product, but not assembled.

\*: Double clevis is only available for ø10 and ø16.

\*\*: Refer to page 182 for the double clevis (with one-touch connecting pin).

### 8 Auto switch

<b>Nil</b>	Without auto switch
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\*: For applicable auto switches, refer to the table below.

\* Enter the auto switch mounting type (A or B) even when a built-in magnet cylinder without an auto switch is required.

### 2 Bore size

<b>6</b>	6 mm
<b>10</b>	10 mm
<b>16</b>	16 mm

### 5 Head cover port location

<b>Nil</b>	Perpendicular to axis	
<b>R</b>	Axial	

\*: For double clevis, the product is perpendicular to the cylinder axis.

\*: For double-side bossed, the product is perpendicular to the cylinder axis.

\*: Not applicable to single acting, spring extend (T).

### 9 Number of auto switches

<b>Nil</b>	2 pcs.
<b>S</b>	1 pc.
<b>n</b>	"n" pcs.

### 3 Cylinder standard stroke [mm]

Refer to "Standard Strokes" on page 102.

### 6 Pivot bracket

<b>Nil</b>	None
<b>N</b>	Pivot bracket is shipped together with the product.

\*: Only for the double clevis type (ø10 and ø16)

\*: Pivot bracket is shipped together with the product, but not assembled.

### 10 Auto switch mounting type

<b>A</b>	Rail mounting
<b>B</b>	Band mounting

\*: For rail mounting, screws and nuts for 2 auto switches come with the rail.

\*: Refer to page 178 for auto switch mounting brackets.

\*: ø6: Band mounting only

### 4 Action

<b>S</b>	Single acting, Spring return
<b>T</b>	Single acting, Spring extend

### 7 Rod end bracket

<b>Nil</b>	None
<b>V</b>	Single knuckle joint
<b>W**</b>	Double knuckle joint
<b>T</b>	Rod end cap (Flat type)
<b>U</b>	Rod end cap (Round type)

\*: Rod end bracket is shipped together with the product, but not assembled.

\*\*: Single/Double knuckle joint: ø10 and ø16 only

\*\*\*: Refer to page 91 for the double knuckle joint (with one-touch connecting pin).

### 11 Made to Order

Refer to page 102 for details.

\*: Refer to "Ordering Example of Cylinder Assembly" on page 102.

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

Type	Special function	Electrical entry	Indicating light	Wiring (Output)	Load voltage		Auto switch model				Lead wire length [m]					Pre-wired connector	Applicable load
					DC	AC	Band mounting		Rail mounting		0.5 (Nil)	1 (M)	3 (L)	5 (Z)	None (N)		
							Perpendicular	In-line	Perpendicular	In-line							
Solid state auto switch	—	Grommet	No	3-wire (NPN)	5 V, 12 V	—	M9NV	M9N	M9NV	M9N	●	●	○	○	○	IC circuit	Relay, PLC
				3-wire (PNP)			M9PV	M9P	M9PV	M9P	●	●	○	○	○		
		Connector	No	2-wire	12 V	—	M9BV	M9B	M9BV	M9B	●	●	○	○	○	—	
				3-wire (NPN)	5 V, 12 V	—	M9NWV	M9NV	M9NWV	M9NV	●	●	○	○	○		
	Diagnostic indication (2-color indicator)	Grommet	Yes	3-wire (PNP)	5 V, 12 V	—	M9PWV	M9PW	M9PWV	M9PW	●	●	○	○	○	IC circuit	
				2-wire			12 V	—	M9BWW	M9WB	M9BWW	M9WB	●	●	○	○	
		Grommet	No	3-wire (NPN)	5 V, 12 V	—	M9NAV <sup>*1</sup>	M9NA <sup>*1</sup>	M9NAV <sup>*1</sup>	M9NA <sup>*1</sup>	○	○	○	○	○	IC circuit	
				3-wire (PNP)			M9PAV <sup>*1</sup>	M9PA <sup>*1</sup>	M9PAV <sup>*1</sup>	M9PA <sup>*1</sup>	○	○	○	○	○		
With diagnostic output (2-color indicator)	Grommet	No	2-wire	12 V	—	M9BAV <sup>*1</sup>	M9BA <sup>*1</sup>	M9BAV <sup>*1</sup>	M9BA <sup>*1</sup>	○	○	○	○	○	—		
			4-wire (NPN)	5 V, 12 V	—	H7NF	—	H7NF	—	●	●	○	○	IC circuit			
	Grommet	Yes	3-wire (NPN equivalent)	—	5 V	—	A96V	A96	A96V	A96	●	—	●	—	—	IC circuit	
							—	200 V	—	A72	A72H	●	—	●	—	—	—
Read auto switch	—	Grommet	No	2-wire	24 V	12 V	100 V	A93V <sup>*2</sup>	A93	A93V <sup>*2</sup>	A93	●	●	●	—	—	
							100 V or less	A90V	A90	A90V	A90	●	—	●	—	—	IC circuit
	Connector	No	No	—	—	24 V or less	—	C73C	A73C	—	●	—	●	—	—	—	
							—	C80C	A80C	—	●	—	●	—	—	IC circuit	
Diagnostic indication (2-color indicator)	Grommet	Yes	No	—	—	—	—	A79W	—	—	●	—	●	—	—	—	
							—	—	—	—	—	—	—	—	—	—	—

\*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 5 m..... Z (Example) M9NWZ  
1 m..... M (Example) M9NWM None..... N (Example) H7CN  
3 m..... L (Example) M9NWL

\*: Since there are other applicable auto switches than listed, refer to page 179 for details.

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

\*: The D-A9□/M9□/A7□/A80□/F7□/□ auto switches are shipped together, but not assembled. (For band mounting, only auto switch mounting brackets are assembled before being shipped.)

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

## CJ2K Series

ø10, ø16

RoHS

### How to Order



CJ2K **B** **16** - **60** **Z** - **10** - **16** - **10** - **16**

With auto switch

CDJ2K **B** **16** - **60** **Z** - **10** - **16** - **10** - **16** - **M9BW** - **B** - **10** - **16**

With auto switch (Built-in magnet)

#### 1 Mounting

<b>B</b>	Basic
<b>E</b>	Double-side bossed
<b>D**</b>	Double clevis
<b>L</b>	Single foot
<b>M</b>	Double foot
<b>F</b>	Rod flange
<b>G</b>	Head flange

\*: Foot/Flange brackets are shipped together with the product, but not assembled.

\*\*: Refer to page 182 for the double clevis (with one-touch connecting pin).

#### 7 Auto switch

<b>Nil</b>	Without auto switch
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\*: For applicable auto switches, refer to the table below.

★ Enter the auto switch mounting type (A or B) even when a built-in magnet cylinder without an auto switch is required.

#### 2 Bore size

<b>10</b>	10 mm
<b>16</b>	16 mm

#### 4 Head cover port location

<b>Nil</b>	Perpendicular to axis	
<b>R</b>	Axial	

\*: For double clevis, the product is perpendicular to the cylinder axis.

\*: For double-side bossed, the product is perpendicular to the cylinder axis.

#### 8 Number of auto switches

<b>Nil</b>	2 pcs.
<b>S</b>	1 pc.
<b>n</b>	"n" pcs.

#### 3 Cylinder standard stroke [mm]

Refer to "Standard Strokes" on page 119.

#### 5 Pivot bracket

<b>Nil</b>	None
<b>N</b>	Pivot bracket is shipped together with the product.

\*: Only for the double clevis type

\*: Pivot bracket is shipped together with the product, but not assembled.

#### 6 Rod end bracket

<b>Nil</b>	None
<b>V</b>	Single knuckle joint
<b>W**</b>	Double knuckle joint
<b>T</b>	Rod end cap (Flat type)
<b>U</b>	Rod end cap (Round type)

\*: Rod end bracket is shipped together with the product, but not assembled.

\*\*: Refer to page 91 for the double knuckle joint (with one-touch connecting pin).

#### 9 Auto switch mounting type

<b>A</b>	Rail mounting
<b>B</b>	Band mounting

\*: For rail mounting, screws and nuts for 2 auto switches come with the rail.

\*: Refer to page 178 for auto switch mounting brackets.

#### 10 Made to Order

Refer to page 119 for details.

\*: Refer to "Ordering Example of Cylinder Assembly" on page 119.

### 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	Band mounting		Rail mounting		0.5 (Nil)	1 (M)	3 (L)	5 (Z)			None (N)	
							Perpendicular	In-line	Perpendicular	In-line								
Solid state auto switch	—	Grommet	—	3-wire (NPN)	5 V, 12 V	—	M9NV	M9N	M9NV	M9N	●	●	●	—	—	○	IC circuit	
				3-wire (PNP)			M9PV	M9P	M9PV	M9P	●	●	●	—	—	○		
		Connector	2-wire	M9BV	M9B	M9BV	M9B	●	—	●	●	—	—	—	—			
			—	H7C	J79C	—	—	●	—	●	●	—	—	—	—			
	Diagnostic indication (2-color indicator)	Grommet	Yes	24 V	3-wire (NPN)	5 V, 12 V	—	M9NVV	M9NW	M9NVV	M9NW	●	●	●	—	—	○	IC circuit
					3-wire (PNP)			M9PVV	M9PW	M9PVV	M9PW	●	●	●	—	—	○	
		Connector	2-wire	M9BWW	M9BW	M9BWW	M9BW	●	●	●	—	—	—	—				
			—	M9NAV <sup>*1</sup>	M9NA <sup>*1</sup>	M9NAV <sup>*1</sup>	M9NA <sup>*1</sup>	○	○	○	○	—	—	—	—			
Water resistant (2-color indicator)	Grommet	—	—	3-wire (NPN)	5 V, 12 V	—	M9PAV <sup>*1</sup>	M9PA <sup>*1</sup>	M9PAV <sup>*1</sup>	M9PA <sup>*1</sup>	○	○	○	○	—	—	IC circuit	
				3-wire (PNP)			M9BAV <sup>*1</sup>	M9BA <sup>*1</sup>	M9BAV <sup>*1</sup>	M9BA <sup>*1</sup>	○	○	○	○	—	—		
	Connector	2-wire	—	H7NF	—	F79F	●	—	●	○	—	—	○	—				
		—	—	—	—	—	—	—	—	—	—	—	—	—				
Reed auto switch	—	Grommet	Yes	3-wire (NPN equivalent)	—	—	A96V	A96	A96V	A96	●	—	●	—	—	—	IC circuit	
							—	200 V	—	A72	A72H	●	—	●	—	—		—
	Diagnostic indication (2-color indicator)	Grommet	No	24 V	2-wire	12 V	—	A93V <sup>*2</sup>	A93	A93V <sup>*2</sup>	A93	●	●	●	—	—	IC circuit	
								100 V or less	A90V	A90	A90V	A90	●	—	●	—		—
		Connector	Yes	—	C73C	A73C	—	●	—	●	—	—	—					
			No	24 V or less	C80C	A80C	—	●	—	●	—	—	—					
Diagnostic indication (2-color indicator)	Grommet	Yes	—	—	—	—	A79W	—	A79W	—	●	—	●	—	—	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 5 m..... Z (Example) M9NWZ  
1 m..... M (Example) M9NWM None..... N (Example) H7CN  
3 m..... L (Example) M9NWL

\*: Since there are other applicable auto switches than listed, refer to page 179 for details.

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

\*: The D-A9□/M9□/A7□/A8□/F7□/J7□ auto switches are shipped together, but not assembled. (For band mounting, only auto switch mounting brackets are assembled before being shipped.)

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

## CJ2K Series

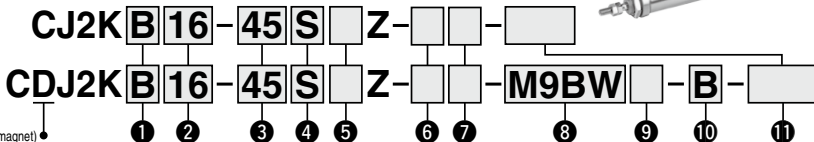
ø10, ø16

RoHS

### How to Order



With auto switch



With auto switch (Built-in magnet)

#### 1 Mounting

B	Basic
E	Double-side bossed
D**	Double clevis
L	Single foot
M	Double foot
F	Rod flange
G	Head flange

\*\*: Foot/Flange brackets are shipped together with the product, but not assembled.

\*\* : Refer to page 182 for the double clevis (with one-touch connecting pin).

#### 8 Auto switch

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

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

★ Enter the auto switch mounting type (A or B) even when a built-in magnet cylinder without an auto switch is required.

#### 2 Bore size

10	10 mm
16	16 mm

#### 5 Head cover port location

Nil	Perpendicular to axis	
R	Axial	

\*\*: For double clevis, the product is perpendicular to the cylinder axis.  
 \*\*: For double-side bossed, the product is perpendicular to the cylinder axis.  
 \*: Not applicable to single acting, spring extend (T).

#### 9 Number of auto switches

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

#### 3 Cylinder standard stroke [mm]

Refer to "Standard Strokes" on page 126.

#### 6 Pivot bracket

Nil	None
N	Pivot bracket is shipped together with the product.

\*\*: Only for the double clevis type  
 \*: Pivot bracket is shipped together with the product, but not assembled.

#### 10 Auto switch mounting type

A	Rail mounting
B	Band mounting

\*\*: For rail mounting, screws and nuts for 2 auto switches come with the rail.

\*: Refer to page 178 for auto switch mounting brackets.

#### 4 Action

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

#### 7 Rod end bracket

Nil	None
V	Single knuckle joint
W**	Double knuckle joint
T	Rod end cap (Flat type)
U	Rod end cap (Round type)

\*\*: Rod end bracket is shipped together with the product, but not assembled.  
 \*\*: Refer to page 91 for the double knuckle joint (with one-touch connecting pin).

#### 11 Made to Order

Refer to page 119 for details.

\*: Refer to "Ordering Example of Cylinder Assembly" on page 126.

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

Type	Special function	Electrical entry	Indicating light	Wiring (Output)	Load voltage		Auto switch model				Lead wire length [m]				Pre-wired connector	Applicable load	
					DC	AC	Band mounting		Rail mounting		0.5 (Nil)	1 (M)	3 (L)	5 (Z)			None (N)
							Perpendicular	In-line	Perpendicular	In-line							
Solid state auto switch	—	Grommet	No	3-wire (NPN)	5 V, 12 V	—	M9NV	M9N	M9NV	M9N	●	●	●	○	○	IC circuit	
				3-wire (PNP)			M9PV	M9P	M9PV	M9P	●	●	●	○	○		
		Connector	No	2-wire	12 V	—	M9BV	M9B	M9BV	M9B	●	●	●	○	○		
				—	—	H7C	J79C	—	—	●	●	●	●	—	—		
	Diagnostic indication (2-color indicator)	Grommet	Yes	No	3-wire (NPN)	5 V, 12 V	—	M9NWV	M9NW	M9NWV	M9NW	●	●	●	○	○	IC circuit
					3-wire (PNP)			M9PWV	M9PW	M9PWV	M9PW	●	●	●	○	○	
		Connector	No	No	2-wire	12 V	—	M9BWW	M9BW	M9BWW	M9BW	●	●	●	○	○	
					—	—	—	—	—	—	—	—	—	—	—	—	
Water resistant (2-color indicator)	Grommet	No	No	3-wire (NPN)	5 V, 12 V	—	M9NAV <sup>*1</sup>	M9NA <sup>*1</sup>	M9NAV <sup>*1</sup>	M9NA <sup>*1</sup>	○	○	○	○	○	IC circuit	
				3-wire (PNP)			M9PAV <sup>*1</sup>	M9PA <sup>*1</sup>	M9PAV <sup>*1</sup>	M9PA <sup>*1</sup>	○	○	○	○	○		
	Connector	No	No	2-wire	12 V	—	M9BAV <sup>*1</sup>	M9BA <sup>*1</sup>	M9BAV <sup>*1</sup>	M9BA <sup>*1</sup>	○	○	○	○	○		
				—	—	—	—	—	—	—	—	—	—	—	—		
With diagnostic output (2-color indicator)	Grommet	Yes	No	4-wire (NPN)	5 V, 12 V	—	M9BAV <sup>*1</sup>	M9BA <sup>*1</sup>	M9BAV <sup>*1</sup>	M9BA <sup>*1</sup>	○	○	○	○	○	IC circuit	
				—			—	—	—	—	—	—	—	—	—		—
	Connector	No	No	2-wire	12 V	—	H7NF	—	F79F	—	●	●	●	○	○		
				—	—	—	—	—	—	—	—	—	—	—	—		
Reed auto switch	—	Grommet	Yes	3-wire (NPN equivalent)	5 V	—	A96V	A96	A96V	A96	●	—	●	—	—	IC circuit	
				—			—	—	—	—	—	—	—	—	—		—
		Connector	No	No	2-wire	12 V	—	A93V <sup>*2</sup>	A93	A93V <sup>*2</sup>	A93	●	●	●	●	—	
					—	—	—	—	—	—	—	—	—	—	—	—	
	Diagnostic indication (2-color indicator)	Grommet	Yes	No	2-wire	12 V	100 V or less	A90V	A90	A90V	A90	●	●	●	●	—	IC circuit
					—	—	—	—	—	—	—	—	—	—	—	—	
		Connector	No	No	2-wire	24 V or less	—	C73C	A73C	—	—	●	—	●	—	—	
					—	—	—	—	—	—	—	—	—	—	—	—	—
Grommet	Yes	No	2-wire	—	—	C80C	A80C	—	—	●	—	●	—	—			
			—	—	—	—	—	—	—	—	—	—	—	—	—		

\*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 5 m..... Z (Example) M9NWZ  
 1 m..... M (Example) M9NWM None..... N (Example) H7CN  
 3 m..... L (Example) M9NWL

\*\*: Since there are other applicable auto switches than listed, refer to page 179 for details.

\*\*: Solid state auto switches marked with "O" are produced upon receipt of order.

\*\*: The D-A9□/M9□/A7□/A8□/F7□/□ auto switches are shipped together, but not assembled. (For band mounting, only auto switch mounting brackets are assembled before being shipped.)

# Air Cylinder: Built-in Speed Controller Type Double Acting, Single Rod

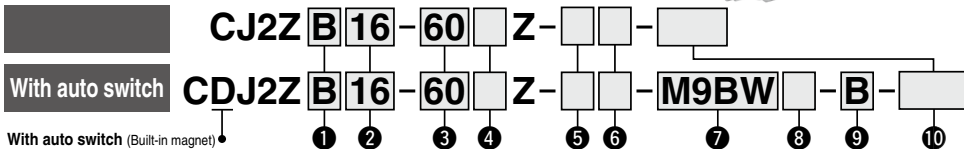
## CJ2Z Series

ø10, ø16

RoHS



### How to Order



With auto switch (Built-in magnet)

#### 1 Mounting

B	Basic
E	Double-side bossed
D	Double clevis
L	Single foot
M	Double foot
F	Rod flange
G	Head flange

\*: Foot/Flange brackets are shipped together with the product, but not assembled.

#### 2 Bore size

10	10 mm
16	16 mm

#### 4 Head cover port location

Nil	Perpendicular to axis	
R	Axial	

\*: For double clevis, the product is perpendicular to the cylinder axis.  
\*: For double-side bossed, the product is perpendicular to the cylinder axis.

#### 3 Cylinder standard stroke [mm]

Refer to "Standard Strokes" on page 138.

#### 5 Pivot bracket

Nil	None
N	Pivot bracket is shipped together with the product.

\*: Only for the double clevis type  
\*: Pivot bracket is shipped together with the product, but not assembled.

#### 6 Rod end bracket

Nil	None
V	Single knuckle joint
W**	Double knuckle joint
T	Rod end cap (Flat type)
U	Rod end cap (Round type)

\*: Rod end bracket is shipped together with the product, but not assembled.  
\*\*: Refer to page 91 for the double knuckle joint (with one-touch connecting pin).

#### 7 Auto switch

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

\*: For applicable auto switches, refer to the table below.  
\* Enter the auto switch mounting type (A or B) even when a built-in magnet cylinder without an auto switch is required.

#### 8 Number of auto switches

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

#### 9 Auto switch mounting type

A	Rail mounting
B	Band mounting

\*: For rail mounting, screws and nuts for 2 auto switches come with the rail.  
\*: Refer to page 178 for auto switch mounting brackets.

#### 10 Made to Order

Refer to page 138 for details.

\*: Refer to "Ordering Example of Cylinder Assembly" on page 138.

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

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

\*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 5 m..... Z (Example) M9NWZ  
1 m..... M (Example) M9NWM None..... N (Example) H7CN  
3 m..... L (Example) M9NWL

\*: Since there are other applicable auto switches than listed, refer to page 179 for details.

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

\*: The D-A9□/M9□/A7□/A8□/F7□/□ auto switches are shipped together, but not assembled. (For band mounting, only auto switch mounting brackets are assembled before being shipped.)

# Air Cylinder: Built-in Speed Controller Type Double Acting, Double Rod

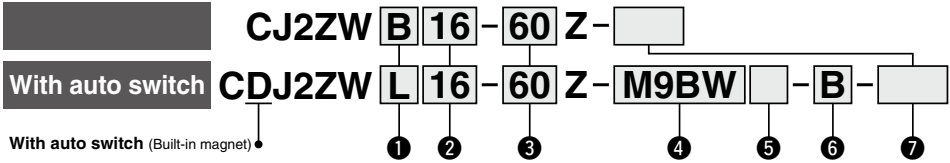
# CJ2ZW Series



ø10, ø16



## How to Order



### ① Mounting

<b>B</b>	Basic
<b>L</b>	Foot
<b>F</b>	Flange

\*: Foot/Flange brackets are shipped together with the product, but not assembled.

### ④ Auto switch

<b>Nil</b>	Without auto switch
------------	---------------------

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

★ Enter the auto switch mounting type (A or B) even when a built-in magnet cylinder without an auto switch is required.

### ② Bore size

<b>10</b>	10 mm
<b>16</b>	16 mm

### ③ Cylinder standard stroke [mm]

Refer to "Standard Strokes" on page 145.

### ⑤ Number of auto switches

<b>Nil</b>	2 pcs.
<b>S</b>	1 pc.
<b>n</b>	"n" pcs.

### ⑥ Auto switch mounting type

<b>A</b>	Rail mounting
<b>B</b>	Band mounting

\*: For rail mounting, screws and nuts for 2 auto switches come with the rail.

\*: Refer to page 178 for auto switch mounting brackets.

### ⑦ Made to Order

Refer to page 145 for details.

## 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	Band mounting		Rail mounting		0.5 (Nil)	1 (M)	3 (L)	5 (Z)	None (N)		
							Perpendicular	In-line	Perpendicular	In-line							
Solid state auto switch	—	Grommet	No	3-wire (NPN)	5 V, 12 V	—	M9NV	M9N	M9NV	M9N	●	●	○	—	○	IC circuit	Relay, PLC
				3-wire (PNP)			M9PV	M9P	M9PV	M9P	●	●	○	—	○		
		Connector	2-wire	M9BV	M9B	M9BV	M9B	●	●	○	—	○					
			—	H7C	J79C	—	—	●	—	●	●	—	—				
	Diagnostic indication (2-color indicator)	Grommet	Yes	3-wire (NPN)	5 V, 12 V	—	M9NWV	M9NW	M9NWV	M9NW	●	●	○	—	○	IC circuit	
				3-wire (PNP)			M9PWV	M9PW	M9PWV	M9PW	●	●	○	—	○		
	Water resistant (2-color indicator)	Grommet	No	2-wire	12 V	—	M9BWV	M9BW	M9BWV	M9BW	●	●	○	—	○	—	
				3-wire (NPN)			M9NAV <sup>*1</sup>	M9NA <sup>*1</sup>	M9NAV <sup>*1</sup>	M9NA <sup>*1</sup>	○	○	○	—	○		
	With diagnostic output (2-color indicator)	Grommet	Yes	3-wire (PNP)	5 V, 12 V	—	M9PAV <sup>*1</sup>	M9PA <sup>*1</sup>	M9PAV <sup>*1</sup>	M9PA <sup>*1</sup>	○	○	●	○	○	IC circuit	
				2-wire			M9BAV <sup>*1</sup>	M9BA <sup>*1</sup>	M9BAV <sup>*1</sup>	M9BA <sup>*1</sup>	○	○	●	○	○		
Reed auto switch	—	Grommet	Yes	3-wire (NPN equivalent)	5 V	—	A96V	A96	A96V	A96	●	—	●	—	—	IC circuit	
				—			—	—	A72	A72H	●	—	●	—	—		
		Connector	No	2-wire	100 V	A93V <sup>*2</sup>	A93	A93V <sup>*2</sup>	A93	●	●	●	—	—	—		
					100 V or less	A90V	A90	A90V	A90	●	—	●	—	—			
	Grommet	Yes	2-wire	24 V	—	C73C	A73C	—	—	●	—	●	●	—	IC circuit		
				24 V or less	—	C80C	A80C	—	—	●	—	●	●	—			
	Diagnostic indication (2-color indicator)	Grommet	Yes	—	—	—	A79W	—	—	●	—	—	—	—	—		
				—	—	—	—	—	—	●	—	—	—	—			

\*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

\*: Since there are other applicable auto switches than listed, refer to page 179 for details.

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

\*: The D-A9C/M9/A7C/A80C/F7C/J7C auto switches are shipped together, but not assembled. (For band mounting, only auto switch mounting brackets are assembled before being shipped.)



# Air Cylinder: Direct Mount Type Double Acting, Single Rod

## CJ2R Series

ø10, ø16



### How to Order

CJ2RA 16 - 60 □ Z - □ - □

With auto switch

CDJ2RA 16 - 60 □ Z - □ - M9BW □ - B - □

With auto switch (Built-in magnet)

#### 1 Mounting

A	Bottom mounting
---	-----------------

#### 2 Bore size

10	10 mm
16	16 mm

#### 3 Cylinder standard stroke [mm]

Refer to "Standard Strokes" on page 150.

#### 4 Head cover port location

Nil	Perpendicular to axis	
	R	Axial

#### 5 Rod end bracket

Nil	None
V	Single knuckle joint
W**	Double knuckle joint
T	Rod end cap (Flat type)
U	Rod end cap (Round type)

\*: Rod end bracket is shipped together with the product, but not assembled.

\*\* : Refer to page 91 for the double knuckle joint (with one-touch connecting pin).

#### 6 Auto switch

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

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

\* Enter the auto switch mounting type (A or B) even when a built-in magnet cylinder without an auto switch is required.

#### 7 Number of auto switches

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

#### 8 Auto switch mounting type

A	Rail mounting
B	Band mounting

\*: For rail mounting, screws and nuts for 2 auto switches come with the rail.

\*\* : Refer to page 178 for auto switch mounting brackets.

#### 9 Made to Order

Refer to page 150 for details.

\*: Refer to "Ordering Example of Cylinder Assembly" on page 150.

### 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	Band mounting		Rail mounting		0.5 (Nil)	1 (M)	3 (L)	5 (Z)	None (N)		
							Perpendicular	In-line	Perpendicular	In-line							
Solid state auto switch	—	Grommet	No	3-wire (NPN)	5 V, 12 V	—	M9NV	M9N	M9NV	M9N	●	●	○	—	○	IC circuit	
				3-wire (PNP)			M9PV	M9P	M9PV	M9P	●	●	○	—	○		
		Connector	2-wire	M9BV	M9B	M9BV	M9B	●	●	○	—	○	—				
			—	—	H7C	J79C	—	●	●	●	●	—					
	Diagnostic indication (2-color indicator)	Grommet	Yes	3-wire (NPN)	5 V, 12 V	—	M9NWV	M9NW	M9NVV	M9NW	●	●	○	—	○	IC circuit	
				3-wire (PNP)			M9PWV	M9PW	M9PWW	M9PW	●	●	○	—	○		
		Connector	2-wire	M9BWW	M9BW	M9BWW	M9BW	●	●	○	—	○	—				
			—	—	—	—	—	—	—	—	—	—					
Water resistant (2-color indicator)	Grommet	No	3-wire (NPN)	5 V, 12 V	—	M9NAV <sup>*1</sup>	M9NA <sup>*1</sup>	M9NAV <sup>*1</sup>	M9NA <sup>*1</sup>	○	○	●	—	○	IC circuit		
			3-wire (PNP)			M9PAV <sup>*1</sup>	M9PA <sup>*1</sup>	M9PAV <sup>*1</sup>	M9PA <sup>*1</sup>	○	○	●	—	○			
	Connector	2-wire	M9BAV <sup>*1</sup>	M9BA <sup>*1</sup>	M9BAV <sup>*1</sup>	M9BA <sup>*1</sup>	○	○	●	—	○	—					
		—	—	—	—	—	—	—	—	—	—						
Reed auto switch	—	Grommet	Yes	3-wire (NPN equivalent)	5 V	—	A96V	A96	A96V	A96	●	—	●	—	—	IC circuit	
				—			—	A72	A72H	●	—	●	—	—			
		Connector	2-wire	100 V	A93V <sup>*2</sup>	A93	A93V <sup>*2</sup>	A93	●	●	●	—	—	—			
			—	100 V or less	A90V	A90	A90V	A90	●	—	●	—	—				
	Diagnostic indication (2-color indicator)	Grommet	No	Yes	24 V	12 V	24 V or less	—	C73C	A73C	—	●	—	●	—	IC circuit	
								—	C80C	A80C	—	●	—	●	—		—
		Connector	Yes	—	—	—	—	—	—	—	—	—	—	—			
			No	—	—	—	—	—	—	—	—	—	—				

\*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) M9NW  
3 m..... L (Example) M9NWL  
5 m..... Z (Example) M9NWZ

\*: Since there are other applicable auto switches than listed, refer to page 179 for details.

\*: Solid state auto switches marked with "O" are produced upon receipt of order.

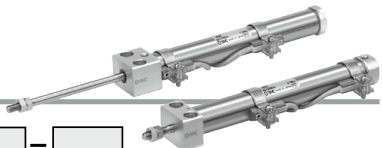
\*: The D-A9□/M9□/A7□/A80□/F7□/J7□ auto switches are shipped together, but not assembled. (For band mounting, only auto switch mounting brackets are assembled before being shipped.)



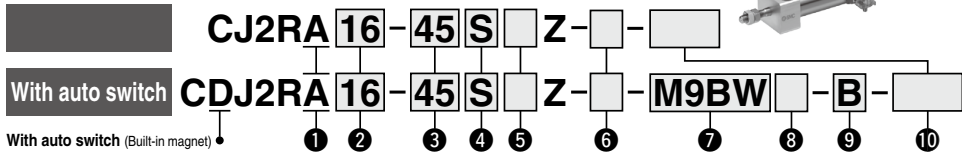
# Air Cylinder: Direct Mount Type Single Acting, Spring Return/Extend

## CJ2R Series

ø10, ø16



### How to Order



With auto switch (Built-in magnet)

#### 1 Mounting

<b>A</b>	Bottom mounting
----------	-----------------

#### 2 Bore size

<b>10</b>	10 mm
<b>16</b>	16 mm

#### 3 Cylinder standard stroke [mm]

Refer to "Standard Strokes" on page 154.

#### 4 Action

<b>S</b>	Single acting, Spring return
<b>T</b>	Single acting, Spring extend

#### 5 Head cover port location

<b>Nil</b>	Perpendicular to axis	
<b>R</b>	Axial	

\*: Not applicable to single acting, spring extend (T).

#### 6 Rod end bracket

<b>Nil</b>	None
<b>V</b>	Single knuckle joint
<b>W**</b>	Double knuckle joint
<b>T</b>	Rod end cap (Flat type)
<b>U</b>	Rod end cap (Round type)

\*: Rod end bracket is shipped together with the product, but not assembled.  
 \*\*: Refer to page 91 for the double knuckle joint (with one-touch connecting pin).

#### 7 Auto switch

<b>Nil</b>	Without auto switch
------------	---------------------

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

★ Enter the auto switch mounting type (A or B) even when a built-in magnet cylinder without an auto switch is required.

#### 8 Number of auto switches

<b>Nil</b>	2 pcs.
<b>S</b>	1 pc.
<b>n</b>	"n" pcs.

#### 9 Auto switch mounting type

<b>A</b>	Rail mounting
<b>B</b>	Band mounting

\*: For rail mounting, screws and nuts for 2 auto switches come with the rail.

\*: Refer to page 178 for auto switch mounting brackets.

#### 10 Made to Order

Refer to page 154 for details.

\*: Refer to "Ordering Example of Cylinder Assembly" on page 154.

### 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	Band mounting		Rail mounting		0.5 (Nil)	1 (M)	3 (L)	5 (Z)	None (N)			
							Perpendicular	In-line	Perpendicular	In-line								
Solid state auto switch	—	Grommet	No	3-wire (NPN)	5 V, 12 V	—	M9NV	M9N	M9NV	M9N	●	●	●	○	—	○	IC circuit	
				3-wire (PNP)			M9PV	M9P	M9PV	M9P	●	●	●	○	—	○		
		Connector	2-wire	M9BV	M9B	M9BV	M9B	●	●	●	○	—	○	—				
			—	H7C	J79C	—	—	●	—	●	●	—	—	—				
	Diagnostic indication (2-color indicator)	Grommet	Yes	3-wire (NPN)	5 V, 12 V	—	M9NVV	M9NW	M9NVV	M9NW	●	●	●	○	—	○	IC circuit	
				3-wire (PNP)			M9PWW	M9PW	M9PWW	M9PW	●	●	●	○	—	○		
	Water resistant (2-color indicator)	Grommet	No	2-wire	12 V	—	M9BWW	M9BW	M9BWW	M9BW	●	●	●	○	—	○	—	
				3-wire (NPN)			M9NAV* <sup>1</sup>	M9NA* <sup>1</sup>	M9NAV* <sup>1</sup>	M9NA* <sup>1</sup>	○	○	●	○	—	○		IC circuit
		3-wire (PNP)	M9PAV* <sup>1</sup>	M9PA* <sup>1</sup>	M9PAV* <sup>1</sup>	M9PA* <sup>1</sup>	○	○	●	○	—	○	—					
		2-wire	M9BAV* <sup>1</sup>	M9BA* <sup>1</sup>	M9BAV* <sup>1</sup>	M9BA* <sup>1</sup>	○	○	●	○	—	○		—				
With diagnostic output (2-color indicator)	Grommet	No	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	
				—			—	—	A72	A72H	●	—	—	—	—	—		
		Connector	No	2-wire	24 V	12 V	—	A93V* <sup>2</sup>	A93	A93V* <sup>2</sup>	A93	●	●	●	●	—	—	—
							100 V or less	A90V	A90	A90V	A90	●	—	●	—	—	—	
	Grommet	No	2-wire	24 V or less	—	—	C73C	A73C	—	—	●	—	●	●	—	—	—	
					—	—	C80C	A80C	—	—	●	—	●	●	—	—		IC circuit
	Diagnostic indication (2-color indicator)	Grommet	No	—	—	—	—	A79W	—	—	●	—	●	—	—	—	—	

\*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) M9NWX  
 None..... N (Example) H7CN

\*: Since there are other applicable auto switches than listed, refer to page 179 for details.

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

\*: The D-A90□/M9□/A7□/A80□/F7□/J7□ auto switches are shipped together, but not assembled. (For band mounting, only auto switch mounting brackets are assembled before being shipped.)

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

# CJ2RK Series

ø10, ø16



## How to Order

CJ2RKA 16 - 60 [ ] Z - [ ] - [ ]

With auto switch

CDJ2RKA 16 - 60 [ ] Z - [ ] - M9BW [ ] - B - [ ]

With auto switch (Built-in magnet)

1 2 3 4 5 6 7 8 9

### 1 Mounting

A	Bottom mounting
---	-----------------

### 2 Bore size

10	10 mm
16	16 mm

### 3 Cylinder standard stroke [mm]

Refer to "Standard Strokes" on page 158.

### 4 Head cover port location

Nil	Perpendicular to axis	
	Axis	
R	Axis	

### 5 Rod end bracket

Nil	None
V	Single knuckle joint
W**	Double knuckle joint
T	Rod end cap (Flat type)
U	Rod end cap (Round type)

\*: Rod end bracket is shipped together with the product, but not assembled.  
\*\*: Refer to page 91 for the double knuckle joint (with one-touch connecting pin).

### 6 Auto switch

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

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

★ Enter the auto switch mounting type (A or B) even when a built-in magnet cylinder without an auto switch is required.

### 7 Number of auto switches

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

### 8 Auto switch mounting type

A	Rail mounting
B	Band mounting

\*: For rail mounting, screws and nuts for 2 auto switches come with the rail.

\*: Refer to page 178 for auto switch mounting brackets.

### 9 Made to Order

Refer to page 158 for details.

\*: Refer to "Ordering Example of Cylinder Assembly" on page 158.

## 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	Band mounting		Rail mounting		0.5 (Nil)	1 (M)	3 (L)	5 (Z)	None (N)		
							Perpendicular	In-line	Perpendicular	In-line							
Solid state auto switch	—	Grommet	3-wire (NPN)	3-wire (PNP)	5 V, 12 V	—	M9NV	M9N	M9NV	M9N	●	●	●	○	○	IC circuit	Relay, PLC
							M9PV	M9P	M9PV	M9P	●	●	●	○	○		
		Connector	2-wire	—	H7C	J79C	—	●	●	●	●	—	—	—	—		
				M9NVV	M9NW	M9NVV	M9NW	●	●	●	○	○	IC circuit				
	Diagnostic indication (2-color indicator)	Yes	3-wire (NPN)	2-wire	24 V	—	M9PWV	M9PW	M9PWV	M9PW	●	●	●	○	○	IC circuit	
							M9BWW	M9BW	M9BWW	M9BW	●	●	●	○	○	—	
	Water resistant (2-color indicator)	Grommet	3-wire (NPN)	3-wire (PNP)	5 V, 12 V	—	M9NAV <sup>*1</sup>	M9NA <sup>*1</sup>	M9NAV <sup>*1</sup>	M9NA <sup>*1</sup>	○	○	●	○	○	IC circuit	
							M9PAV <sup>*1</sup>	M9PA <sup>*1</sup>	M9PAV <sup>*1</sup>	M9PA <sup>*1</sup>	○	○	●	○	○	—	
	With diagnostic output (2-color indicator)	Grommet	4-wire (NPN)	—	5 V, 12 V	—	M9BAV <sup>*1</sup>	M9BA <sup>*1</sup>	M9BAV <sup>*1</sup>	M9BA <sup>*1</sup>	○	○	●	○	○	IC circuit	
							—	H7NF	—	F79F	—	●	●	●	○	○	
Reed auto switch	—	Grommet	Yes	3-wire (NPN equivalent)	—	5 V	A96V	A96	A96V	A96	●	—	—	—	—	IC circuit	
							—	200 V	—	A72	A72H	●	—	—	—	—	—
		Connector	No	2-wire	24 V	12 V	100 V	A93V <sup>*2</sup>	A93	A93V <sup>*2</sup>	A93	●	●	●	—	—	—
							100 V or less	A90V	A90	A90V	A90	●	—	—	—	—	IC circuit
	Grommet	Yes	2-wire	24 V	12 V	24 V or less	—	C73C	A73C	—	●	—	●	●	—	—	
						—	—	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 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) M9NWX  
None..... N (Example) H7CN

\*: Since there are other applicable auto switches than listed, refer to page 179 for details.

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

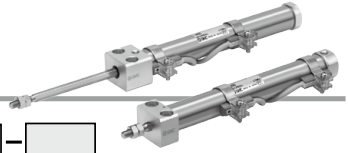
\*: The D-A9□/M9□/A7□/A8□/F7□/J7□ auto switches are shipped together, but not assembled. (For band mounting, only auto switch mounting brackets are assembled before being shipped.)

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

## CJ2RK Series

RoHS

ø10, ø16



### How to Order

CJ2RKA 16 - 45 S □ Z - □ - □

With auto switch CDJ2RKA 16 - 45 S □ Z - □ - M9BW □ - B - □

With auto switch (Built-in magnet)

#### 1 Mounting

A	Bottom mounting
---	-----------------

#### 2 Bore size

10	10 mm
16	16 mm

#### 3 Cylinder standard stroke [mm]

Refer to "Standard Strokes" on page 161.

#### 4 Action

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

#### 5 Head cover port location

Nil	Perpendicular to axis	
R	Axial	

\*: Not applicable to single acting, spring extend (T).

#### 6 Rod end bracket

Nil	None
V	Single knuckle joint
W**	Double knuckle joint
T	Rod end cap (Flat type)
U	Rod end cap (Round type)

\*: Rod end bracket is shipped together with the product, but not assembled.  
\*\*: Refer to page 91 for the double knuckle joint (with one-touch connecting pin).

#### 7 Auto switch

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

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

★ Enter the auto switch mounting type (A or B) even when a built-in magnet cylinder without an auto switch is required.

#### 8 Number of auto switches

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

#### 9 Auto switch mounting type

A	Rail mounting
B	Band mounting

\*: For rail mounting, screws and nuts for 2 auto switches come with the rail.

\*: Refer to page 178 for auto switch mounting brackets.

#### 10 Made to Order

Refer to page 161 for details.

\*: Refer to "Ordering Example of Cylinder Assembly" on page 161.

### 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	Band mounting		Rail mounting		0.5 (Nil)	1 (M)	3 (L)	5 (Z)	None (N)				
							Perpendicular	In-line	Perpendicular	In-line									
Solid state auto switch	—	Grommet	—	3-wire (NPN)	5 V, 12 V	—	M9NV	M9N	M9NV	M9N	●	●	●	○	○	C circuit	Relay, PLC		
				3-wire (PNP)			M9PV	M9P	M9PV	M9P	●	●	●	○	○				
		Connector	2-wire	—	H7C	J79C	—	●	●	●	●	○	○						
			3-wire (NPN)	M9NVV	M9NW	M9NVV	M9NW	●	●	●	○	○							
	Diagnostic indication (2-color indicator)	Yes	—	3-wire (PNP)	5 V, 12 V	—	M9PWV	M9PW	M9PWV	M9PW	●	●	●	○	○	C circuit			
				2-wire	12 V	M9BWW	M9BW	M9BWW	M9BW	●	●	●	○	○	—				
	Water resistant (2-color indicator)	Grommet	—	3-wire (NPN)	5 V, 12 V	—	M9NAV <sup>*1</sup>	M9NA <sup>*1</sup>	M9NAV <sup>*1</sup>	M9NA <sup>*1</sup>	○	○	○	○	○	C circuit			
				3-wire (PNP)			M9PAV <sup>*1</sup>	M9PA <sup>*1</sup>	M9PAV <sup>*1</sup>	M9PA <sup>*1</sup>	○	○	○	○	○	—			
	With diagnostic output (2-color indicator)	—	—	2-wire	12 V	—	M9BAV <sup>*1</sup>	M9BA <sup>*1</sup>	M9BAV <sup>*1</sup>	M9BA <sup>*1</sup>	○	○	●	○	○	—			
				4-wire (NPN)			5 V, 12 V	—	H7NF	—	F79F	●	—	●	○	○		C circuit	
Reed auto switch	—	Grommet	Yes	3-wire (NPN equivalent)	5 V	—	A96V	A96	A96V	A96	●	—	—	—	—	C circuit			
				—			200 V	—	—	A72	A72H	●	—	—	—	—			
				—			100 V	A93V <sup>*2</sup>	A93	A93V <sup>*2</sup>	A93	●	●	●	—	—			
				—			100 V or less	A90V	A90	A90V	A90	●	—	●	—	—	C circuit		
		Connector	No	—	2-wire	24 V	12 V	—	—	C73C	A73C	—	●	—	●	●	—	C circuit	
								—	—	C80C	A80C	—	●	—	●	●	—	C circuit	
								—	24 V or less	—	—	A79C	—	●	—	●	●	—	—
								—	—	—	—	A79W	—	●	—	●	●	—	—

\*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) M9NWX  
None..... N (Example) H7CN

\*: Since there are other applicable auto switches than listed, refer to page 179 for details.

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

\*: The D-A9□/M9□/A7□/A8□/F7□/□ auto switches are shipped together, but not assembled. (For band mounting, only auto switch mounting brackets are assembled before being shipped.)

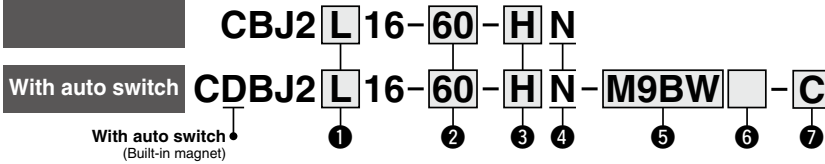
# Air Cylinder: With End Lock

# CBJ2 Series

ø16



## How to Order



### 1 Mounting

B	Basic
L	Axial foot
F	Rod flange
D	Double clevis**

\*: Foot/Flange brackets are shipped together with the product, but not assembled.  
 \*\*: Rod end lock only.

### 2 Cylinder standard stroke [mm]

Refer to "Standard Strokes" on page 165.

### 3 Lock position

H	Head end lock
R	Rod end lock

### 4 Manual release

N	Non-locking type
---	------------------

### 5 Auto switch

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

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

★ Enter the auto switch mounting type (A or B) even when a built-in magnet cylinder without an auto switch is required.

### 6 Number of auto switches

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

### 7 Auto switch mounting bracket

\*: 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.).

### Built-in Magnet Cylinder Model

Suffix the symbol "A" (Rail mounting) or "B" (Band mounting) to the end of part number for cylinder with auto switch.

Example	Rail mounting	CDBJ2B16-45-HN-A
	Band mounting	CDBJ2B16-60-HN-B

\*: For rail mounting, screws and nuts for 2 auto switches come with the rail.  
 \*: Refer to page 178 for auto switch mounting brackets.

## 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	Band mounting		Rail mounting		0.5 (Nil)	1 (M)	3 (L)	5 (Z)	None (N)				
							Perpendicular	In-line	Perpendicular	In-line									
Solid state auto switch	—	Grommet	—	3-wire (NPN)	5 V, 12 V	—	M9NV	M9N	M9NV	M9N	●	●	○	—	○	IC circuit	Relay, PLC		
				3-wire (PNP)			M9PV	M9P	M9PV	M9P	●	●	○	—	○				
		Connector	2-wire	M9BV			M9B	M9BV	M9B	●	●	○	—	○					
			—	H7C			J79C	—	●	●	○	—	○						
	Diagnostic indication (2-color indicator)	Grommet	Yes	3-wire (NPN)	24 V	—	M9NWV	M9NW	M9NWV	M9NW	●	●	○	—	○	IC circuit			
				3-wire (PNP)			M9PWV	M9PW	M9PWV	M9PW	●	●	○	—	○				
		Grommet	2-wire	M9BWV			M9BW	M9BWV	M9BW	●	●	○	—	○	IC circuit				
			3-wire (NPN)	M9NAV <sup>*1</sup>			M9NA <sup>*1</sup>	M9NAV <sup>*1</sup>	M9NA <sup>*1</sup>	○	○	●	—	○					
			3-wire (PNP)	M9PAV <sup>*1</sup>			M9PA <sup>*1</sup>	M9PAV <sup>*1</sup>	M9PA <sup>*1</sup>	○	○	●	—	○					
			2-wire	M9BAV <sup>*1</sup>			M9BA <sup>*1</sup>	M9BAV <sup>*1</sup>	M9BA <sup>*1</sup>	○	○	●	—	○					
Water resistant (2-color indicator)	Grommet	—	4-wire (NPN)	—	H7NF	—	F79F	●	●	○	—	○	IC circuit						
			With diagnostic output (2-color indicator)	—	—	—	—	—	—	—	—	—	—	—					
Reed auto switch	—	Grommet	Yes	3-wire (NPN equivalent)	24 V	—	A96V	A96	A96V	A96	●	●	—	—	○	IC circuit	Relay, PLC		
				—			—	—	A72	A72H	●	●	—	—	—				
				—			—	—	—	—	—	—	—	—	—				
		Connector	No	2-wire			100 V or less	A93V <sup>*2</sup>	A93	A93V <sup>*2</sup>	A93	●	●	●	—	—		—	IC circuit
							100 V or less	A90V	A90	A90V	A90	●	—	●	—	—			
							24 V or less	—	C73C	A73C	—	●	—	●	●	—		—	
							24 V or less	—	C80C	A80C	—	●	—	●	●	—		—	
Diagnostic indication (2-color indicator)	Grommet	Yes	—	—	—	A79W	—	—	—	●	●	—	—	—					

\*1: Water resistant type auto switches can be mounted on the above models, but in such case SMC cannot guarantee 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) M9NWM  
 3 m..... L (Example) M9NWL  
 5 m..... Z (Example) M9NWZ  
 None..... N (Example) H7CN

\*: Since there are other applicable auto switches than listed, refer to page 179 for details.

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

\*: The D-A9□/M9□/A7□/A80□/F7□/J7□ auto switches are shipped together, (but not assembled). (However, when the D-A9□/M9□ types are selected, only auto switch mounting brackets are assembled before being shipped.)

\*: When the D-A9□/M9□ types are mounted on a rail, order auto switch mounting brackets separately. Refer to page 178 for details.