Heavy Duty Stopper Cylinder

RS2H Series

ø50, ø63, ø80

RoHS

How to Order

RS2H 50 □ □ – 30 D L – □ □ – M9BW □ – □

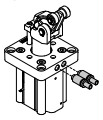
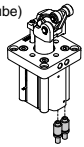
Bore size

50	50 mm
63	63 mm
80	80 mm

Port thread type

Nil	Rc
TN	NPT
TF	G

Piping direction

Nil	Flange side 
A	Axial direction (tube) 

Cylinder stroke

30	30 mm (ø50, 63)
40	40 mm (ø80)

Action

D	Double acting
B	Double acting spring type
T	Single acting/spring extend

Roller material

L	Resin
M	Carbon steel

Option[Note 1)]

Nil	Without option
D	With lock mechanism
C	With cancel cap
S	With lever detection switch[Note 2)]

Note 1) Options can be combined. Indicate the option symbols according to the priority order of D,C,S.

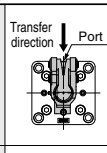
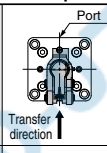
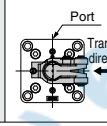
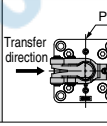
Note 2) For details of the lever detection switch alone, refer to page 595.

Auto switch

Nil	Without auto switch (Built-in magnet)

∗For applicable auto switches, refer to the table below.
∗Auto switches are shipped together, (but not assembled).

Positional relationship of lever and port

Nil		Q	
P		R	

Number of auto switches (auto switch number mounted)

Nil	2 pcs.
S	1 pc.

Made to Order Specifications
For details, refer to page 595.

Applicable Auto Switches/Refer to pages 941 to 1067 for further information on auto switches.

Type	Special function	Electrical entry	Indicator light	Wiring (Output)	Load voltage DC	Load voltage AC	Auto switch model: Perpendicular	Auto switch model: In-line	Lead wire length (m): 0.5 (Nil)	1 (M)	3 (L)	5 (Z)	Pre-wired connector	Applicable load	
Solid state auto switch	—	Grommet	Yes	3-wire (NPN)	24 V	5 V,12 V	—	M9NV	M9N	●	●	●	○	○	IC circuit	Relay, PLC
				3-wire (PNP)				M9PV	M9P	●	●	●	○	○		
				2-wire		12 V		M9BV	M9B	●	●	●	○	○	—	
	Diagnostic indication (2-color display)			3-wire (NPN)		5 V,12 V		M9NWV	M9NW	●	●	●	○	○	IC circuit	
				3-wire (PNP)				M9PWV	M9PW	●	●	●	○	○		
				2-wire		12 V		M9BWV	M9BW	●	●	●	○	○	—	
	Water-resistant (2-color display)			3-wire (NPN)		5 V,12 V		M9NAV∗1	M9NA∗1	○	○	●	○	○	IC circuit	
				3-wire (PNP)				M9PAV∗1	M9PA∗1	○	○	●	○	○		
				2-wire		12 V		M9BAV∗1	M9BA∗1	○	○	●	○	○	—	
	Magnetic field resistant (2-color display)			2-wire (Non-polar)		—		—	P3DWA	●	—	●	●	○		
Reed auto switch	—	Grommet	Yes	3-wire (NPN equivalent)	—	5 V	—	A96V	A96	●	—	●	—	—	IC circuit	—
			No	2-wire	24 V	12 V	100 V	A93V∗2	A93	●	●	●	●	—	—	Relay, PLC
						5 V,12 V	100 V or less	A90V	A90	●	—	●	—	—	IC circuit	

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

∗Solid state auto switches marked with a "○" symbol are produced upon receipt of order.

∗Since there are other applicable auto switches than listed, refer to page 599 for details.
∗For details about auto switches with pre-wired connector, refer to pages 1014 and 1015.
∗Auto switches are shipped together, (but not assembled).



Made to Order

Made to Order: Individual Specifications
(For details, refer to pages 601 and 602.)

Symbol	Specifications
-X2464	Built-in low resistive force shock absorber
-X2541	Built-in shock absorber with scraper

Specifications

Bore size (mm)	50	63	80
Action	Double acting, Double acting spring type, Single acting/spring extend		
Rod end configuration	Lever with built-in shock absorber		
Fluid	Air		
Proof pressure	1.5 MPa		
Max. operating pressure	1.0 MPa		
Ambient and fluid temperature	–10 to 60°C (No freezing)		
Lubrication	Not required (non-lube)		
Cushion	Rubber bumper		
Stroke length tolerance	$^{+1.4}_{0}$		
Mounting	Flange		
Port size (Rc, NPT, G)	1/8	1/4	1/4

Standard Strokes

(mm)

Bore size (mm)	Standard stroke
50	30
63	30
80	40

Weight

(kg)

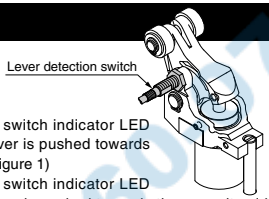
Action	Rod end configuration	Bore size (mm)	Weight
Double acting	Lever with built-in shock absorber	**50**	1.70
		63	2.78
		80	4.96

Lever Detection Switch (Proximity Switch)

Proximity Switch Specifications/ Maker: OMRON Corporation

Model	E2E-X2D1-N
Output type	Normally open
Power supply voltage (Operating voltage range)	12 to 24 VDC (10 to 30 VDC) Ripple 10% or less (P-P)
Current consumption (Leakage current)	0.8 mA or less
Response frequency	1.5 kHz
Control output (Chest)	3 to 100 mA
Indicator LED	Operation indication (Red LED), Set operation indication (Green LED)
Ambient temperature	–25 to 70°C (No freezing)
Operating ambient humidity	35 to 95%RH
Residual voltage Note 1)	3 V or less
Withstand voltage Note 2)	1000 VAC
Vibration	Endurance 10 to 55 Hz, Double amplitude 1.5 mm X, Y, Z direction each 2 h
Impact	Endurance 500 m/s^2 (approx. 50 G), X, Y, Z direction each 10 times
Enclosure	IEC standards IP67 (Immersion proof and oil proof by JEM standards IP67G)

Note 1) At load current 100 mA and cord length of 2 m
Note 2) Between case and whole live part



<Mounting position>
Confirm that the proximity switch indicator LED turns to green when the lever is pushed towards the proximity switch side. (Figure 1)
Confirm that the proximity switch indicator LED turns to green when the lever is pushed towards the opposite side from the proximity switch. (Figure 2)
Then, rotate the lever by 90° to confirm that the indicator LED of the proximity switch (red, green) does not turn on.
Fix the cylinder with screws included as accessories after confirming that there is no interference between the lever and the proximity switch.

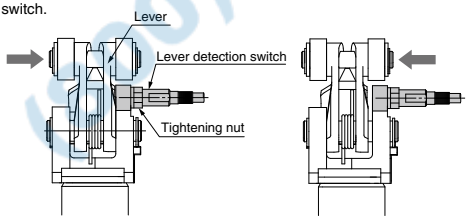
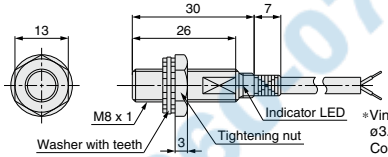


Figure 1 **Figure 2**

Dimensions

E2E-X2D1-N



∗Vinyl insulation round cord ø3.5 (18/ø0.12), 2-wire, Standard 2 m, Cord extension (Individual metal piping), Max. 200 m

Output Circuit

E2E-X2D1-N/2-wire

