

# Solid State Auto Switch: Short Type

Produced upon receipt of order

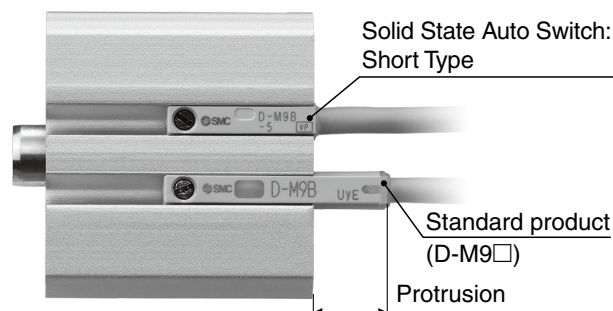


Overall length reduced by 32%

22 mm → 15 mm

Protrusion from the actuator end surface has been reduced.

Specifications are the same as those of the standard product (D-M9□).



## How to Order

D-M9 **B** **L** -5

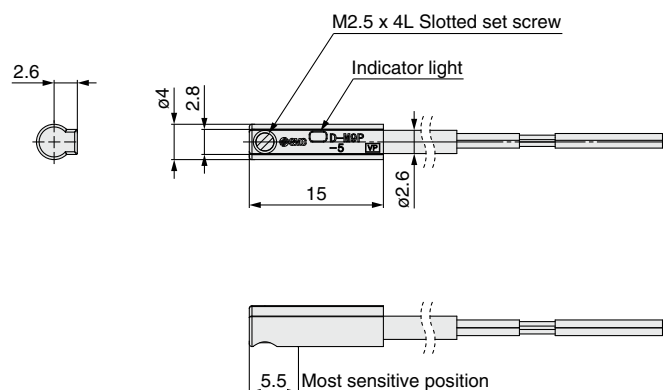
Wiring/Output type

<b>B</b>	2-wire
<b>N</b>	3-wire, NPN
<b>P</b>	3-wire, PNP

Lead wire length

<b>Nil</b>	0.5 m
<b>M</b>	1 m
<b>L</b>	3 m
<b>Z</b>	5 m

## Dimensions



## Specifications

Auto switch model	D-M9N□-5	D-M9P□-5	D-M9B□-5
Wiring type	3-wire		2-wire
Output type	NPN	PNP	—
Applicable load	IC circuit, Relay, PLC		24 VDC relay, PLC
Power supply voltage	5, 12, 24 VDC (4.5 to 28 V)		—
Current consumption	10 mA or less		—
Load voltage	28 VDC or less	—	24 VDC (10 to 28 VDC)
Load current	40 mA or less		2.5 to 40 mA
Internal voltage drop	0.8 V or less at 10 mA (2 V or less at 40 mA)		4 V or less
Leakage current	100 μA or less at 24 VDC		0.8 mA or less
Indicator light	Red LED lights up when turned ON.		
Standards	CE/UKCA marking		

## Oilproof Heavy-duty Lead Wire Specifications

Auto switch model	D-M9N□-5	D-M9P□-5	D-M9B□-5
Sheath	Outside diameter [mm]	ø2.6	
	Number of cores	3 cores (Brown/Blue/Black)	2 cores (Brown/Blue)
Insulator	Outside diameter [mm]	ø0.88	
	Effective area [mm <sup>2</sup> ]	0.15	
Conductor	Strand diameter [mm]	ø0.05	
	Min. bending radius [mm] (Reference value)	17	

## Weight

Auto switch model	D-M9N□-5	D-M9P□-5	D-M9B□-5
Lead wire length	0.5 m (Nil)	7	6
	1 m (M)	13	11
	3 m (L)	35	31
	5 m (Z)	57	51

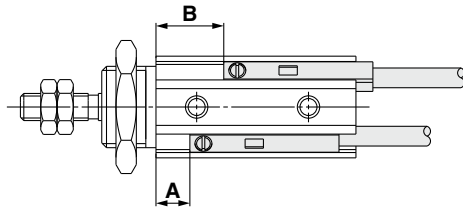
D-M9□-5



# D-M9□-5

## Auto Switch Proper Mounting Position (Detection at stroke end)

■ The A and B dimensions are equivalent to the dimensions of the standard product (D-M9□) + 0.5 mm.



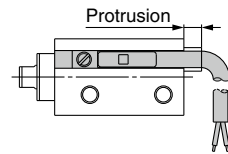
■ Actuators in which the protrusion from the body end surface can be eliminated by mounting the D-M9□-5

Description	Series	Note
Air Cylinder	<b>CJP2</b>	
Mini Free Mount Cylinder	<b>CUJ</b>	Excludes ø6, ø8, ø10, and ø12 (See right side.)
Free Mount Cylinder	<b>CU</b>	
Compact Cylinder	<b>CQS</b>	
Compact Cylinder: Guide Rod Type	<b>CQM</b>	
Compact Slide	<b>MXH</b>	Excludes ø6 (See right side.)
Air Slide Table	<b>MXJ</b>	
Platform Cylinder	<b>CXT</b>	
Dual Rod Cylinder	<b>CXSJ</b>	Excludes ø6 and ø10 (See right side.)
Rotary Clamp Cylinder	<b>MK</b>	
Escapements	<b>MI□</b>	
Compact Type Parallel Style Air Gripper	<b>JMHZ2</b>	Excludes ø8 and ø12 (See right side.)
Parallel Type Air Gripper	<b>MHZ2</b>	Excludes ø6 (See right side.)
Parallel Type Air Gripper	<b>MHZJ2</b>	Excludes ø6 and ø10 (See right side.)
Parallel Type Air Gripper	<b>MHZL2</b>	Excludes ø10 (See right side.)
Low Profile Air Gripper	<b>MHF2</b>	
Parallel Type Air Gripper	<b>MHS□</b>	Excludes the center pusher (cylinder type) (See right side.)
Angular Type Air Gripper	<b>MHC2</b>	Excludes ø6 and ø10 (See right side.)
180° Angular Type Air Gripper: Cam Type	<b>MHY2</b>	
180° Angular Type Air Gripper: Rack & Pinion Type	<b>MHW2</b>	Excludes ø20 and ø25 (See right side.)

■ Protrusion from the body end surface

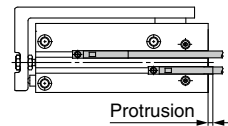
### Mini Free Mount Cylinder [mm]

Model	Bore size	Protrusion
<b>CUJ</b>	6	0.5
	8	0.5
	10	0.5
	12	0.5



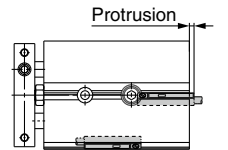
### Compact Slide [mm]

Model	Bore size	Protrusion
<b>MXH</b>	6	1



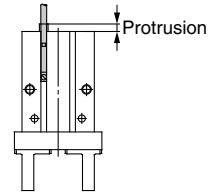
### Dual Rod Cylinder [mm]

Model	Bore size	Protrusion
<b>CXSJ</b>	6	3
	10	0.5



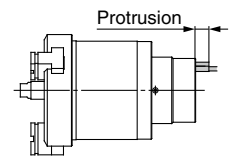
### Parallel Type Air Gripper [mm]

Model	Bore size	Finger position	Protrusion
<b>JMHZ2</b>	8	Closed	1
	12	Closed	1
<b>MHZ2</b>	6	Open	4.5
		Closed	6.5
<b>MHZL2</b>	10	Closed	1.5
<b>MHZJ2</b>	6	Open	4.5
		Closed	6.5
	10	Closed	0.5



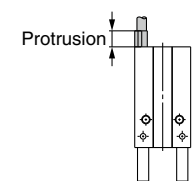
### Parallel Type Air Gripper: MHS Center Pusher (Cylinder Type) [mm]

Model	Bore size	Rod position	Protrusion
<b>MHSH3</b>	32	Retracted	2.5
	40	Retracted	1.5
	50	Retracted	1
	60	Retracted	0.5



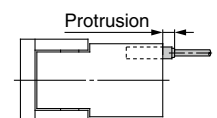
### Angular Type Air Gripper [mm]

Model	Bore size	Finger position	Protrusion
<b>MHC2</b>	6	Closed	2.5
	10	Closed	1



### 180° Angular Type Air Gripper: Rack & Pinion Type [mm]

Model	Bore size	Finger position	Protrusion
<b>MHW2</b>	20	Closed	0.5
	25	Closed	0.5



\* Adjust the auto switch after confirming the operating conditions in the actual setting.

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