

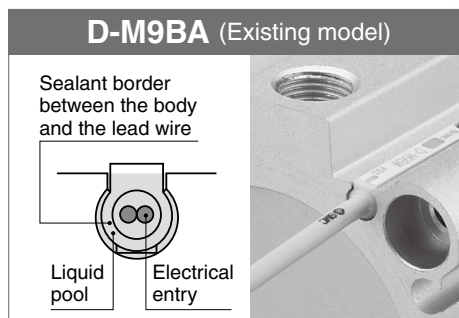
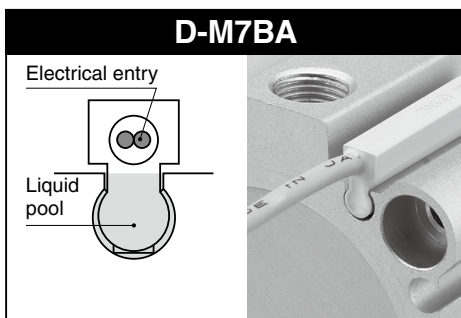
# Water Resistant 2-Color Indicator Solid State Auto Switch/ Direct Mounting Type



## Improved water (coolant) resistance

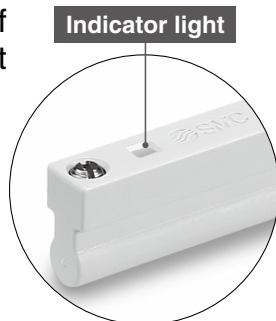
- Features a liquid pool-free electrical entry construction (The electrical entry is located on the top of the switch body.)

\* Prevents the entry of liquid from the sealant border between the body and the lead wire and from the lead wire





- Blocks the entry of liquid from the indicator light

The thin construction of the body allows for light from the light source to shine through.



- Comparison with the D-M9BA (Existing model)

Auto switch model	Water (Coolant) resistance	Compactness
D-M7BA 	◎	○
D-M9BA 	○	◎

### How to Order

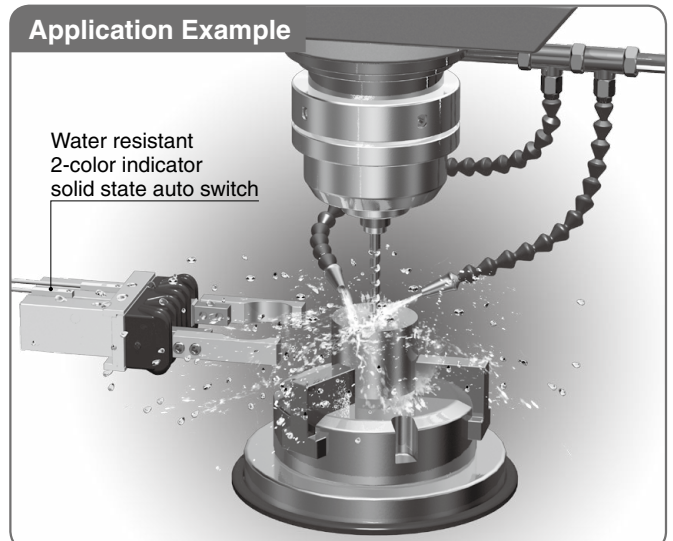
**D-M7BA** L

2-wire type

#### Lead wire length and termination

Symbol	Specifications
<b>L</b>	3000 mm (Half-stripped)
<b>Z</b>	5000 mm (Half-stripped)
<b>SAPC</b>	500 mm (M8 3-pin pre-wired)
<b>SBPC</b>	500 mm (M8 4-pin pre-wired)
<b>SDPC</b>	500 mm (M12 4-pin pre-wired)
<b>MAPC</b>	1000 mm (M8 3-pin pre-wired)
<b>MBPC</b>	1000 mm (M8 4-pin pre-wired)
<b>MDPC</b>	1000 mm (M12 4-pin pre-wired)

### Application Example



**D-M7BA**



# D-M7BA□

## Specifications

Auto switch model	D-M7BA
Wiring type	2-wire
Load voltage	24 VDC (10 to 28 VDC)
Load current	2.5 to 40 mA
Internal voltage drop	4 V or less
Leakage current	0.8 mA or less
Operating time	1 ms or less
Indicator light	Operating range: Red LED lights up. Optimum operating range: Green LED lights up.
Electrical entry	Grommet
Impact resistance	1000 m/s <sup>2</sup>
Insulation resistance	50 MΩ or more (500 VDC measured via megohmmeter) (Between the lead wire and case)
Withstand voltage	1000 VAC for 1 min. (Between the lead wire and case)
Ambient temperature	-10 to 60°C
Standards	CE/UKCA marking

\* When using cutting oils, grinding oils, detergents, etc., generally no problems will occur if using a single solution. However, if a workpiece is transferred to the next process with solutions from the previous process adhering to it, multiple solutions may mix and reactions may occur, resulting in reduced product life. In addition, do not use with liquids or in environments that have explosion-proof requirements.

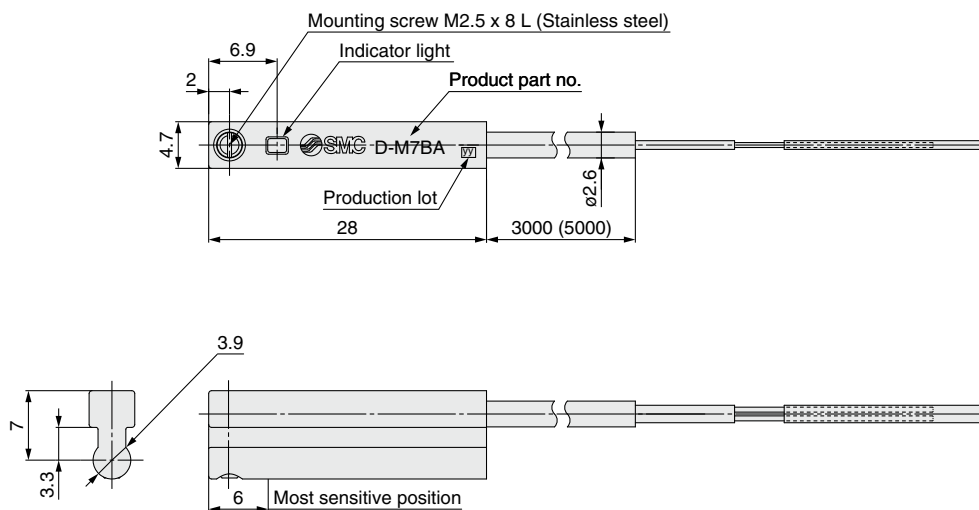
## Oilproof Flexible Heavy-duty Lead Wire Specifications

Auto switch model		D-M7BA□
Sheath	Outside diameter	ø2.6
	Number of cores	2 cores (Brown/Blue)
Insulator	Outside diameter	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-M7BA□
Lead wire length	3 m (L)	32
	5 m (Z)	52

## Dimensions

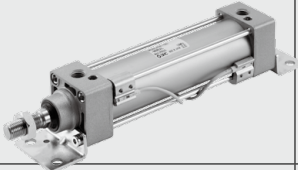
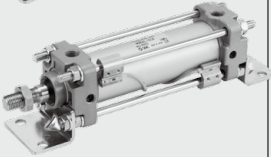






# D-M7BA□ Series

## Applicable Actuators

### Water Resistant Cylinders

The D-M7BA□ cannot be ordered with the cylinder. It must be ordered separately. The operating range and proper mounting position are the same as those of the D-M9 series.

Applicable actuator	Series	Bore size [mm]								
		16	20	25	32	40	50	63	80	100
<b>Air cylinder</b> 	MB-Z*1				●	●	●	●	●	●
<b>Air cylinder</b> 	CA2-Z*1					●	●	●	●	●
<b>Compact cylinder</b> 	CQ2-Z		●	●	●	●	●	●	●	●
<b>Compact guide cylinder</b> 	MGP-Z		●	●	●	●	●	●	●	●
<b>Rotary clamp cylinder</b> 	MK-Z	●	●	●	●	●	●	●		
<b>Stopper cylinder</b> 	RSQ-Z				●	●	●			

\*1 Mounting brackets are the same as those of the D-M9 series.

## Applicable Actuators: Standard Type

The water resistant 2-color indicator solid state auto switch (D-M7BA□) can be mounted on the following models, but SMC cannot guarantee water resistance. Please contact SMC for water-resistant products.

The D-M7BA□ cannot be ordered with the actuator. It must be ordered separately.

The operating range and proper mounting position are the same as those of the D-M9 series.

### • Air Cylinders

Description	Series	Bore size [mm]
Pin cylinder	<b>CDJP2</b>	ø4 to ø16
Air cylinder	<b>JMDB</b>	ø32 to ø100
Air cylinder	<b>MDB-Z</b>	ø32 to ø100
Air cylinder	<b>CDA2-Z</b>	ø40 to ø100
Air cylinder	<b>CDS1</b>	ø125 to ø200
Air cylinder	<b>CDS2</b>	ø125 to ø160
Mini free mount cylinder	<b>CDUJ</b>	ø6 to ø20
Free mount cylinder	<b>CDU</b>	ø6 to ø32
Compact cylinder	<b>CDQS</b>	ø12 to ø25
Compact cylinder	<b>CDQ2-Z</b>	ø12 to ø200
Compact cylinder with air cushion	<b>RDQ</b>	ø20 to ø50
Compact cylinder/Guide rod type	<b>CDQM</b>	ø12 to ø100
Compact cylinder/Plate type	<b>CDQU</b>	ø20 to ø40
Compact slide	<b>MXH-Z</b>	ø6 to ø20
Air slide table	<b>MXS</b>	ø6 to ø25
Air slide table	<b>MXQ□</b>	ø6 to ø25
Air slide table	<b>MXQ</b>	ø6 to ø25
Low profile slide table	<b>MXF</b>	ø8 to ø20
Air slide table	<b>MXW</b>	ø8 to ø25
Air slide table	<b>MXJ</b>	ø4, ø6, ø8
Air slide table	<b>MXP</b>	ø6 to ø16
Air slide table/Long stroke type	<b>MXY</b>	ø6 to ø16
Precision cylinder	<b>MTS</b>	ø8 to ø40
Compact guide cylinder	<b>MGP-Z</b>	ø12 to ø100
Compact guide cylinder/Wide type	<b>MGPW</b>	ø20 to ø63
Platform cylinder	<b>CXT</b>	ø12 to ø40
Dual rod cylinder	<b>JMGP</b>	ø12 to ø63
Dual rod cylinder	<b>CXSJ</b>	ø6 to ø32
Smooth cylinder	<b>MBY-Z</b>	ø32 to ø100
Smooth cylinder	<b>CDA2Y-Z</b>	ø40 to ø100
Smooth cylinder	<b>CDS2Y</b>	ø125 to ø160
Smooth cylinder	<b>CDQSY</b>	ø12 to ø25
Smooth cylinder	<b>CDQ2Y-Z</b>	ø32 to ø100
Low speed cylinder	<b>CDQSX</b>	ø12 to ø25
Low speed cylinder	<b>CDQ2X-Z</b>	ø32 to ø100
Low speed cylinder	<b>CDUX</b>	ø10 to ø32
3 position cylinder	<b>RZQ</b>	ø32 to ø63
Rotary clamp cylinder	<b>MK-Z</b>	ø12 to ø63
Rotary clamp cylinder	<b>MK2T</b>	ø20 to ø63

### • Air Cylinders

Description	Series	Bore size [mm]
Stopper cylinder	<b>RSDQ(-Z)</b>	ø12 to ø50
Heavy duty stopper cylinder	<b>RS2H</b>	ø50 to ø80
Escapements	<b>MIS/MIW</b>	ø8 to ø32
Cylinder with lock	<b>MDNB</b>	ø32 to ø100
Cylinder with lock	<b>CDNA2</b>	ø40 to ø100
Cylinder with lock	<b>CDNS</b>	ø125 to ø160
Cylinder with lock	<b>CDLS</b>	ø125 to ø200
Compact cylinder with lock	<b>CDLQ</b>	ø20 to ø100
Compact cylinder with air cushion and lock	<b>RDLQ</b>	ø32 to ø63
Fine lock cylinder	<b>CDL1</b>	ø40 to ø160
High precision stroke reading cylinder	<b>CEP1</b>	ø12, ø20
Stroke reading cylinder	<b>CE1</b>	ø32 to ø63
Stroke reading cylinder with brake	<b>CE2</b>	ø40 to ø100

### • Rotary Actuators

Description	Series	Size
Compact rotary actuator	<b>CDRQ2</b>	10 to 40
Mini rotary actuator	<b>CRJ</b>	05, 1
Rotary table/Rack & pinion type	<b>MSQ</b>	1 to 200
3-position rotary table	<b>MSZ</b>	10 to 50
Low-speed rotary actuator	<b>CDRQ2X</b>	10 to 40
Low-speed rotary actuator	<b>MSQX</b>	10 to 50

### • Air Grippers

Description	Series	Bore size [mm]
Parallel type air gripper	<b>MHZ2</b> *1	6 to 40
Parallel type air gripper/Long stroke type	<b>MHZ(L)2</b>	16 to 40
Parallel type air gripper with dust cover	<b>MHZJ2</b>	6 to 25
Low profile air gripper	<b>MHF2</b>	8 to 20
Wide type parallel style air gripper	<b>MHL2-Z</b>	10 to 40
Rotary actuated air gripper	<b>MDHR</b>	10 to 30
Wedge cam operation slide guide	<b>MHK(L)2</b>	12 to 25
Parallel type air gripper	<b>MHS(L)</b>	16 to 25
Parallel type air gripper	<b>MHSH/MHSJ</b>	16 to 80
Toggle type air gripper	<b>MHT2</b>	32 to 63
180° angular type air gripper	<b>MHY2</b>	10 to 25

\*1 Not applicable for bore size 10

\* Mounting brackets are the same as those of the D-M9 series.

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