

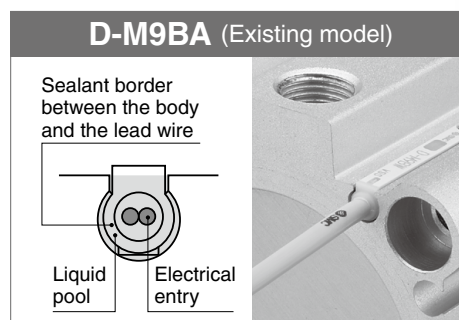
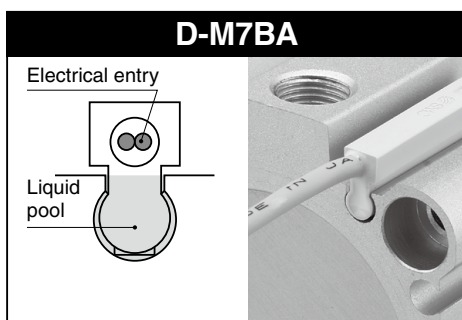
Water Resistant 2-Color Indicator Solid State Auto Switch/ Direct Mounting Type



Improved water (coolant) resistance

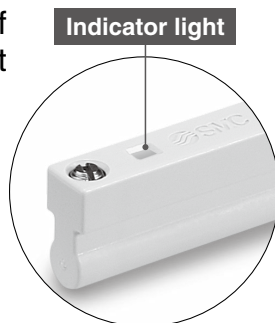
- Features a liquid pool-free electrical entry construction (The electrical entry is located on the top of the switch body.)

* 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
L	3000 mm (Half-stripped)
Z	5000 mm (Half-stripped)
SAPC	500 mm (M8 3-pin pre-wired)
SBPC	500 mm (M8 4-pin pre-wired)
SDPC	500 mm (M12 4-pin pre-wired)
MAPC	1000 mm (M8 3-pin pre-wired)
MBPC	1000 mm (M8 4-pin pre-wired)
MDPC	1000 mm (M12 4-pin pre-wired)

Application Example



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 ²
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.

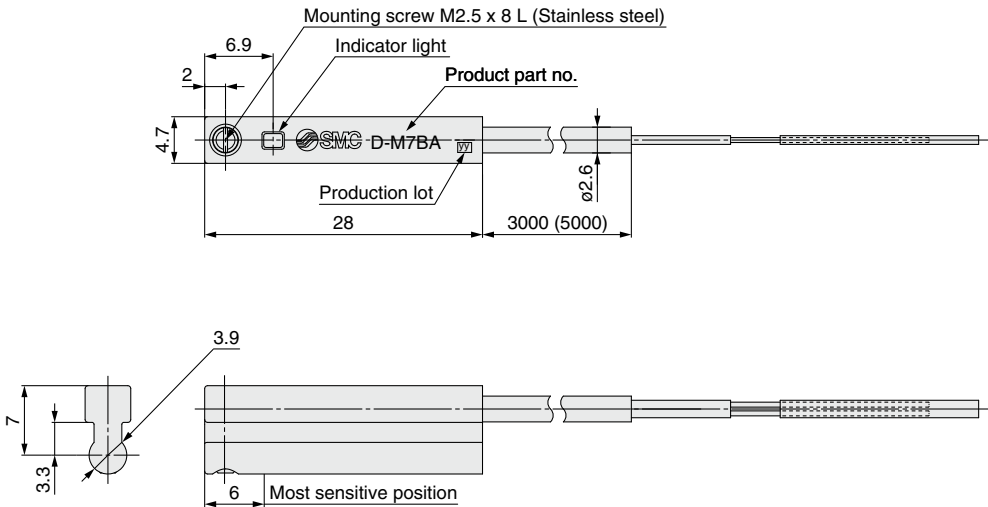
Oilproof Flexible Heavy-duty Lead Wire Specifications

Auto switch model	D-M7BA□
Sheath	Outside diameter ø2.6
Insulator	Number of cores 2 cores (Brown/Blue)
	Outside diameter ø0.88
Conductor	Effective area [mm ²] 0.15
	Strand diameter [mm] ø0.05
Min. bending radius [mm] (Reference value)	17

Weight

Auto switch model	D-M7BA□	[g]
Lead wire length	3 m (L)	32
	5 m (Z)	52

Dimensions

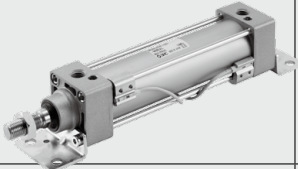
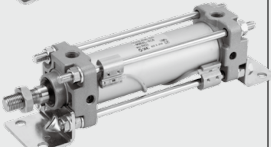


D-M7BA□ Series

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
Air cylinder 	MB-Z*1				●	●	●	●	●	●
Air cylinder 	CA2-Z*1					●	●	●	●	●
Compact cylinder 	CQ2-Z		●	●	●	●	●	●	●	●
Compact guide cylinder 	MGP-Z		●	●	●	●	●	●	●	●
Rotary clamp cylinder 	MK-Z	●	●	●	●	●	●	●		
Stopper cylinder 	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	CDJP2	ø4 to ø16
Air cylinder	JMDB	ø32 to ø100
Air cylinder	MDB-Z	ø32 to ø100
Air cylinder	CDA2-Z	ø40 to ø100
Air cylinder	CDS1	ø125 to ø200
Air cylinder	CDS2	ø125 to ø160
Mini free mount cylinder	CDUJ	ø6 to ø20
Free mount cylinder	CDU	ø6 to ø32
Compact cylinder	CDQS	ø12 to ø25
Compact cylinder	CDQ2-Z	ø12 to ø200
Compact cylinder with air cushion	RDQ	ø20 to ø50
Compact cylinder/Guide rod type	CDQM	ø12 to ø100
Compact cylinder/Plate type	CDQU	ø20 to ø40
Compact slide	MXH-Z	ø6 to ø20
Air slide table	MXS	ø6 to ø25
Air slide table	MXQ□	ø6 to ø25
Air slide table	MXQ	ø6 to ø25
Low profile slide table	MXF	ø8 to ø20
Air slide table	MXW	ø8 to ø25
Air slide table	MXJ	ø4, ø6, ø8
Air slide table	MXP	ø6 to ø16
Air slide table/Long stroke type	MXY	ø6 to ø16
Precision cylinder	MTS	ø8 to ø40
Compact guide cylinder	MGP-Z	ø12 to ø100
Compact guide cylinder/Wide type	MGPW	ø20 to ø63
Platform cylinder	CXT	ø12 to ø40
Dual rod cylinder	JMGP	ø12 to ø63
Dual rod cylinder	CXSJ	ø6 to ø32
Smooth cylinder	MBY-Z	ø32 to ø100
Smooth cylinder	CDA2Y-Z	ø40 to ø100
Smooth cylinder	CDS2Y	ø125 to ø160
Smooth cylinder	CDQSY	ø12 to ø25
Smooth cylinder	CDQ2Y-Z	ø32 to ø100
Low speed cylinder	CDQSX	ø12 to ø25
Low speed cylinder	CDQ2X-Z	ø32 to ø100
Low speed cylinder	CDUX	ø10 to ø32
3 position cylinder	RZQ	ø32 to ø63
Rotary clamp cylinder	MK-Z	ø12 to ø63
Rotary clamp cylinder	MK2T	ø20 to ø63

• Air Cylinders

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

• Rotary Actuators

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

• Air Grippers

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

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