

Solid State Switch Direct Mounting Style D-M9N(V)/D-M9P(V)/D-M9B(V)



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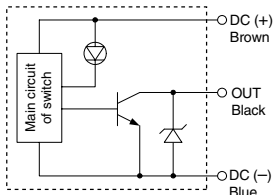
Grommet

- Lower load current
- Lead free solder
- Using UL certified (style 2844) lead wire

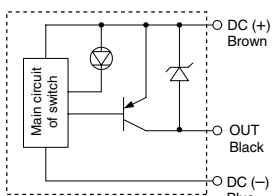


Auto Switch Internal Circuit

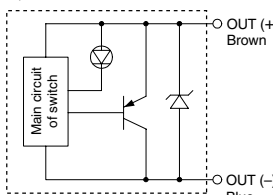
D-M9N, D-M9NV



D-M9P, D-M9PV



D-M9B, D-M9BV



Operating range shortened, compared to conventional types.

When replacing conventional types, dependant upon application, the shortened operating range may cause auto switch imperceptive.

- When the range of stroke is wider than the operating range. Example) Stamping, press-fitting, clamping, etc.
- When used to detect intermediate position. (Detection output time is shortened.)

Note) Please consult with SMC regarding details of operation range by each actuator.

Since short circuit protection circuit is not built-in, the auto switch will be immediately damaged when the load is short-circuited. Be careful not to exchange the power cable (brown) with the output cable (black).

8-30-28

Auto Switch Specifications

PLC: Abbreviation of Programmable Logic Controller

D-M9□, D-M9□V (With indicator light)						
Auto switch model	D-M9N	D-M9NV	D-M9P	D-M9PV	D-M9B	D-M9BV
Electrical entry direction	In-line	Perpendicular	In-line	Perpendicular	In-line	Perpendicular
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				4 V or less	
Leakage current	100 μA or less at 24 VDC				0.8 mA or less	
Indicator light	Red LED lights when ON.					

- Lead wire — Oil resistant vinyl heavy-duty cord, $\varnothing 2.7 \times 3.2$ ellipse 0.15 mm², 2 cores (D-M9B), 3 cores (D-M9N, D-M9P)

Note 1) Regarding the common specifications of the solid state switches, refer to page 8-30-7.

Note 2) Regarding the lead wire length, refer to page 8-30-7.

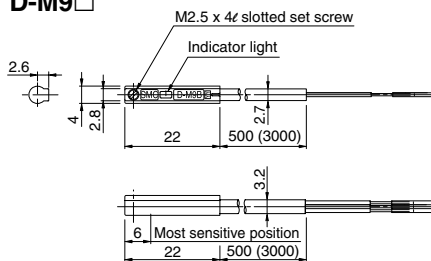
Weight

(g)

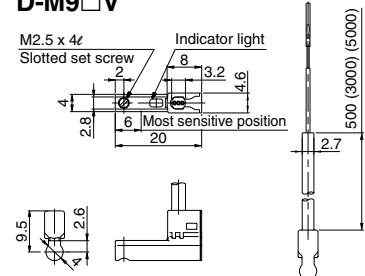
Auto switch model	D-M9N(V)	D-M9P(V)	D-M9B(V)
Lead wire length (m)	0.5	8	8
	3	41	41
	5	68	68

Dimensions

D-M9□



D-M9□V



⚠ Precautions

Be sure to read before handling. Please contact SMC when using beyond specifications.

Caution on Handling

⚠ Caution

- Over-current protection is not equipped with this product series. When it is wired incorrectly or a load is short-circuited, a switch may be damaged or burned.
- In the event of stripping cable sheath, use caution for the stripping direction. Its insulation may be torn or damaged, depending on the direction.
- Below is given as the recommended tool.

Maker	Product's name	Part no.
VESSEL Co., Inc.	Wirestripper	No 3000G
Tokyo Ideal Co., Ltd.	Stripmaster	45-089

* As for 2-wire, a stripper for round shape cord ($\varnothing 2.0$) is usable.

- Fix the switch with appropriate screw installed on the switch body. If using other screws, switch may be damaged.

