

Solid State Auto Switch Direct Mounting Type D-M5N/D-M5P/D-M5B



Refer to SMC website for the details of the products conforming to the international standards.

Grommet



Auto Switch Specifications

PLC: Programmable Logic Controller

D-M5□ (With indicator light)			
Auto switch model	D-M5N	D-M5P	D-M5B
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 VDC)		—
Current consumption	10 mA or less		—
Load voltage	28 VDC or less	—	24 VDC (10 to 28 VDC)
Load current	40 mA or less	80 mA or less	5 to 40 mA
Internal voltage drop	1.5 V or less (0.8 V or less at 10 mA load current)	0.8 V or less	4 V or less
Leakage current	100 μA or less at 24 VDC		0.8 mA or less at 24 VDC
Indicator light	Red LED illuminates when turned ON.		
Standard	CE marking, RoHS		

Oilproof Heavy-duty Lead Wire Specifications

Auto switch model		D-M5N	D-M5P	D-M5B
Sheath	Outside diameter [mm]	ø3.4		
Insulator	Number of cores	3 cores (Brown/Blue/Black)		2 cores (Brown/Blue)
	Outside diameter [mm]	ø1.1		
Conductor	Effective area [mm ²]	0.2		
	Strand diameter [mm]	ø0.08		
Minimum bending radius [mm] (Reference values)		21		

Note 1) Refer to page 1584 for solid state auto switch common specifications.

Note 2) Refer to page 1584 for lead wire lengths.

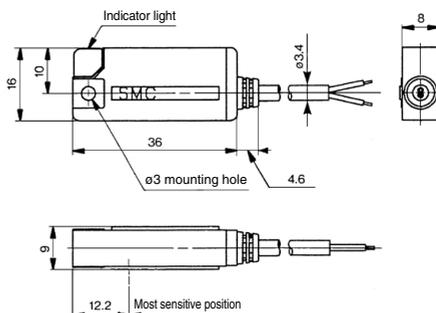
Weight

(g)

Auto switch model		D-M5N	D-M5P	D-M5B
Lead wire length	0.5 m (NII)	16		14
	3 m (L)	60		53
	5 m (Z)	95		84

Dimensions

(mm)



2-Color Indicator Solid State Auto Switch Direct Mounting Type

D-M5NW/D-M5PW/D-M5BW



Refer to SMC website for the details of the products conforming to the international standards.

Grommet

The proper operating range can be determined by the color of the light.

(Red → Green ← Red)



Auto Switch Specifications

PLC: Programmable Logic Controller

D-M5□W (With indicator light)			
Auto switch model	D-M5NW	D-M5PW	D-M5BW
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 VDC)		—
Current consumption	10 mA or less		—
Load voltage	28 VDC or less	—	24 VDC (10 to 28 VDC)
Load current	40 mA or less	80 mA or less	5 to 40 mA
Internal voltage drop	1.5 V or less (0.8 V or less at 10 mA load current)	0.8 V or less	4 V or less
Leakage current	100 μA or less at 24 VDC		0.8 mA or less at 24 VDC
Indicator light	Operating range Red LED illuminates. Proper operating range Green LED illuminates.		
Standard	CE marking, RoHS		

Oilproof Heavy-duty Lead Wire Specifications

Auto switch model		D-M5NW	D-M5PW	D-M5BW
Sheath	Outside diameter (mm)	ø3.4		
	Number of cores	3 cores (Brown/Blue/Black)		2 cores (Brown/Blue)
Insulator	Outside diameter (mm)	ø1.1		
	Effective area [mm ²]	0.2		
Conductor	Strand diameter (mm)	ø0.08		
	Minimum bending radius (mm) (Reference values)	21		

Note 1) Refer to page 1584 for solid state auto switch common specifications.

Note 2) Refer to page 1584 for lead wire lengths.

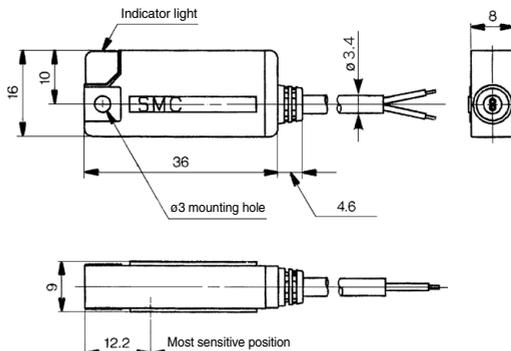
Weight

(g)

Auto switch model		D-M5NW	D-M5PW	D-M5BW
Lead wire length	0.5 m (NII)	16		14
	3 m (L)	60		53
	5 m (Z)	95		84

Dimensions

(mm)



Solid State Auto Switch with Timer Direct Mounting Type D-M5NT/D-M5PT



Refer to SMC website for the details of the products conforming to the international standards.

Grommet

- With built-in OFF-delay timer (approx. 200 ms)
- Easy intermediate detection



Auto Switch Specifications

PLC: Programmable Logic Controller

D-M5□T (With indicator light)		
Auto switch model	D-M5NT	D-M5PT
Wiring type	3-wire	
Output type	NPN	PNP
Output operation	Off-delay	
Operating time	1 ms or less	
Off-delay time	200 ± 50 ms	
Applicable load	IC circuit, Relay, PLC	
Power supply voltage	5, 12, 24 VDC (4.5 to 28 VDC)	
Current consumption	10 mA or less	12 mA or less
Load voltage	28 VDC or less	—
Load current	80 mA or less	
Internal voltage drop	2 V or less (0.8 V or less at 10 mA load current)	0.8 V or less
Leakage current	100 μA or less at 24 VDC	
Indicator light	Red LED illuminates when turned ON.	
Standard	CE marking, RoHS	

Oilproof Heavy-duty Lead Wire Specifications

Auto switch model		D-M5NT	D-M5PT
Sheath	Outside diameter [mm]	ø3.4	
Insulator	Number of cores	3 cores (Brown/Blue/Black)	
	Outside diameter [mm]	ø1.1	
Conductor	Effective area [mm ²]	0.2	
	Strand diameter [mm]	ø0.08	
Minimum bending radius [mm] (Reference values)		21	

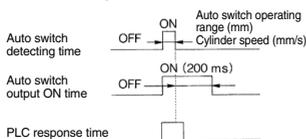
Note 1) Refer to page 1584 for solid state auto switch common specifications.
Note 2) Refer to page 1584 for lead wire lengths.

Timer Operation

Detection of intermediate positioning of high-speed cylinder

Detecting point dispersion occurs due to response time of PLC (sequencer); e.g. scanning.

Ex.) Cylinder speed — 1000 mm/sec.
PLC response time — 0.1 sec.
Detecting point dispersion — Within 100 mm (= 1000 mm/sec. x 0.1 sec.)
Take PLC response time into consideration when using.



Weight

(g)

Auto switch model		D-M5NT	D-M5PT
Lead wire length	3 m (L)	60	
	5 m (Z)	95	

Dimensions

(mm)

