

Reed Switch/Direct Mounting D-Z73/D-Z76/D-Z80

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Applicable Actuator Series

Series	Bore size (mm)
MGQ, MVGQ, MGP	ø12, ø16, ø20, ø25, ø32, ø40, ø50, ø63, ø80, ø100
CXS	ø6, ø10, ø15, ø20, ø25, ø32
RSH	ø20, ø32, ø50, ø63, ø80
MY1B	ø25, ø32, ø40, ø50, ø63, ø80, ø100
MY1M, MY1C, CY1R	ø25, ø32, ø40, ø50, ø63
MY1H, ML2B	ø25, ø32, ø40
MGF	ø40, ø63, ø100
CY1H	ø10, ø15, ø20, ø25, ø32

Specifications

D-Z7 (With indicator light)

Auto switch model number	D-Z73	D-Z76
Application	Relay/PLC	IC circuit
Load voltage	24V DC	100V AC
Max. load current and load current range	5 to 40mA	5 to 20mA
Contact protection circuit	None	
Internal voltage drop	c 2.4V (up to 20mA)/c 3V (up to 30mA)	c 0.8V
Indicator light	ON: When red light emitting diode	

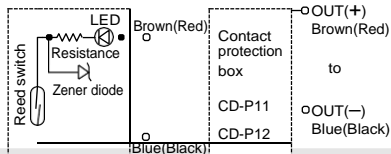
D-Z8 (Without indicator light)

Auto switch model number	D-Z80
Application	Relay/PLC/IC circuit
Load voltage	24V AC or less
Max. load current	50mA
Contact protection circuit	None
Internal resistance	1Ω or less (Including 3m lead wire)

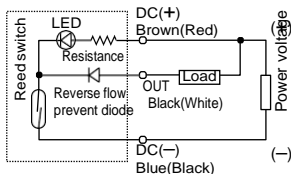
Internal Circuit

If not applicable for IEC Standard

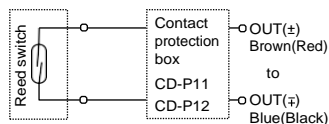
D-Z73



D-Z76



D-Z80



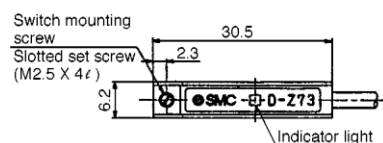
Note) ① In the case operation load is an inductive load.
② In the case the wiring length to ">" 5m.

③ In the case the load voltage is 100V AC.

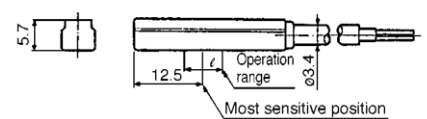
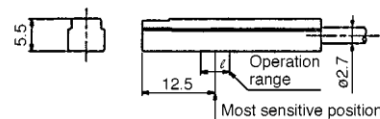
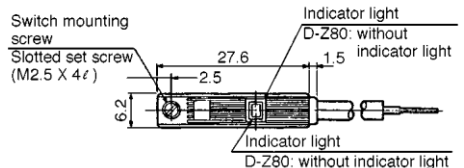
Be sure to use the auto switch with the contact protection box in any case mentioned above. Refer to the p.5.3-6 for the details of contact protection box.

Dimensions

D-Z73



D-Z76, Z80



Operation Range

Actuator series	Bore size (mm)												
	6	10	12	15	16	20	25	32	40	50	63	80	100
MGQ, MVGQ	—	—	7.5	—	8.5	9.5	9.5	11	11	11	13	13	14
CXS	9	7	—	9	—	9	9	11	—	—	—	—	—
MGP	—	—	7.5	—	10	10	10	10.5	10.5	10.5	11.5	11.5	12
RSH	—	—	—	—	—	8.5	—	7	—	9.5	10.5	11.5	—
MY1B	—	—	—	—	—	—	12	12	12	12	12	12	12
MY1M, MY1C	—	—	—	—	—	—	12	12	12	12	12	—	—
MY1H, ML2B	—	—	—	—	—	—	12	12	12	—	—	—	—
MGF	—	—	—	—	—	—	—	—	13.5	—	12	—	13
CY1H	—	8	—	6	—	6	6	9	—	—	—	—	—
CY1R	—	—	—	—	—	—	9	9	11	11	11	—	—

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Reed Switch Direct Mounting Style D-A90(V)/D-A93(V)/D-A96(V)

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For details about certified products conforming to international standards, visit us at www.smcworld.com.

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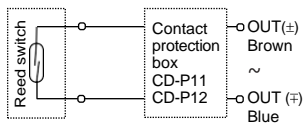
⚠ Caution

Precautions

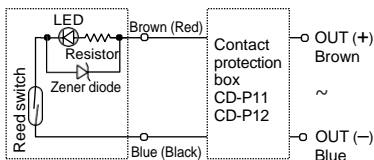
1. Fix the switch with appropriate screw installed on the switch body. If using other screws, switch may be damaged.

Auto Switch Internal Circuit
Colors of lead wire inside () are the ones before conformed to IEC standard.

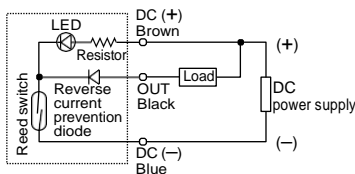
D-A90V



D-A93V



D-A96V



Note 1) Operating load is an induction load.

Note 2) Wiring to the load is 5 m or longer.

Note 3) Load voltage is 100 VAC.

Use the contact protection box in any of the above listed situations. The contact point life may decrease. (Refer to page 6-16-7 for contact protection box.)

Auto Switch Specifications

PLC: Abbreviation of Programmable Logic Controller

D-A90, D-A90V (Without indicator light)			
Auto switch model	D-A90, D-A90V		
Applicable load	IC circuit, Relay, PLC		
Load voltage	24 V ^{AC} _{DC} or less	48 V ^{AC} _{DC} or less	100 V ^{AC} _{DC} or less
Maximum load current	50 mA	40 mA	20 mA
Contact protection circuit	None		
Internal resistance	1 Ω or less (Including lead wire length of 3 m)		
D-A93, D-A93V, D-A96, D-A96V (With indicator light)			
Auto switch model	D-A93, D-A93V		D-A96, D-A96V
Applicable load	Relay, PLC		IC circuit
Load voltage	24 VDC	100 VAC	4 to 8 VDC
Load current range ⁽³⁾ and Maximum load current	5 to 40 mA	5 to 20 mA	20 mA
Contact protection circuit	None		
Internal voltage drop	D-A93 — 2.4 V or less (up to 20 mA)/3 V or less (up to 40 mA) D-A93V — 2.7 V or less		0.8 V or less
Indicator light	Red LED lights when ON.		

• Lead wire

D-A90(V)/D-A93(V)—Oil resistant vinyl heavy-duty cord, ø2.7, 0.18 mm² x 2 cores (Brown, Blue), 0.5 m

D-A96(V)—Oil resistant vinyl heavy-duty cord, ø2.7, 0.15 mm² x 3 cores (Brown, Black, Blue), 0.5 m

Note 1) Regarding the common specifications of the reed switches, refer to page 6-16-7.

Note 2) Regarding the lead wire length, refer to page 6-16-7.

Note 3) Under 5 mA, the strength of the indicator light is poor. In some cases, visibility of the indicator light will not be possible where the output signal is less than 2.5 mA. However, there is no problem in terms of contact output, when an output signal exceeds 1 mA or more.

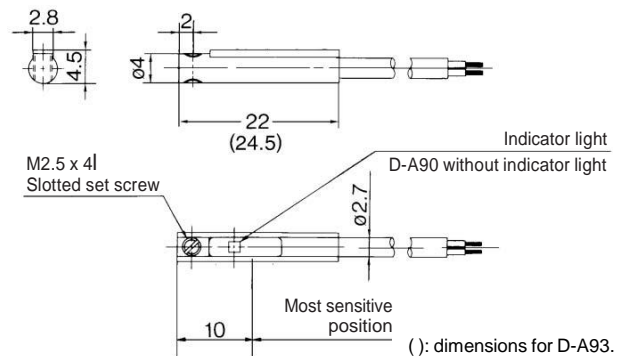
Weight

(g)

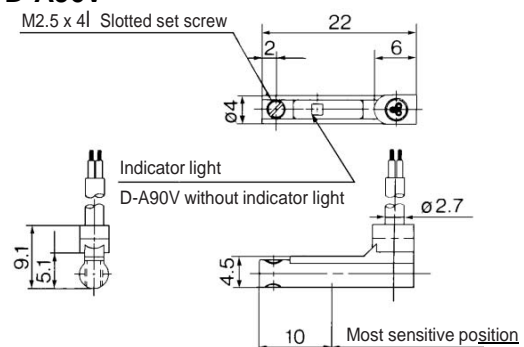
Model	D-A90	D-A90V	D-A93	D-A93V	D-A96	D-A96V
Lead wire length: 0.5 m	6	6	6	6	8	8
Lead wire length: 3 m	30	30	30	30	41	41

Dimensions

D-A90, D-A93, D-A96



D-A90V, D-A93V, D-A96V



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Reed Auto Switch Band Mounting Type D-C73/D-C76/D-C80

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Auto Switch Specifications

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

PLC: Programmable Logic Controller

D-C7 (With indicator light)			
Auto switch model	D-C73		D-C76
Applicable load	Relay, PLC		IC circuit
Load voltage	24 VDC ⁽⁴⁾	100 VAC	4 to 8 VDC
Max. load current and range ⁽³⁾	5 to 40 mA	5 to 20 mA	20 mA
Circuit diagram [*]	③		⑤
Contact protection circuit	None		
Internal voltage drop	2.4 V or less		0.8 V or less
Indicator light	Red LED illuminates when turned ON.		
Standard	CE marking		
D-C8 (Without indicator light)			
Auto switch model	D-C80		
Applicable load	Relay, PLC, IC circuit		
Load voltage	24 V ^{AC} _{DC} or less	48 V ^{AC} _{DC}	100 V ^{AC} _{DC}
Max. load current	50 mA	40 mA	20 mA
Circuit diagram [*]	④		
Contact protection circuit	None		
Internal resistance	1 Ω or less (Including lead wire length of 3 m)		

Oilproof Heavy-duty Lead Wire Specifications

Auto switch model		D-C73	D-C76	D-C80
Sheath	Outside diameter [mm]	ø3.4		
	Number of cores	2 cores (Brown/Blue)	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		
	Lead wire minimum bending radius [mm] (Reference values)	21		

* Refer to the circuit diagram no. on page 1587.

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

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

Note 3) Under 5 mA, the strength of the indicator light is poor. In some cases, visibility of the indicator light will not be possible where the output signal is less than 2.5 mA. However, there is no problem in terms of contact output, when an output signal exceeds 1 mA or more.

Note 4) The auto switches can operate at 12 VDC, but consider the internal voltage drop of the auto switch described in Reed Auto Switch Precautions on page 12.

Weight

(g)

Auto switch model		D-C73	D-C76	D-C80
Lead wire length	0.5 m (Nil)	9	10	9
	3 m (L)	46	50	46
	5 m (Z)	76	—	—

Dimensions

(mm)

