Refer to SMC website for the details of

Auto Switch Specifications the products conforming to the international standards.

PLC: 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 | $24 \mathrm{~V}_{\mathrm{DC}}^{A C}$ or less | $48 \mathrm{~V}{ }_{\text {DC }}^{A C}$ or less | $100 \mathrm{~V}^{\text {AC }}$ ( or less |
| Maximum load current | 50 mA | 40 mA | 20 mA |
| Circuit diagram* | (4) |  |  |
| Contact protection circuit | None |  |  |
| Internal resistance | $1 \Omega$ or less (Including lead wire length of 3 m ) |  |  |
| Standard | CE marking |  |  |
| 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 | $24 \mathrm{VDC}^{(4)}$ | 100 VAC | 4 to 8 VDC |
| Load current range and Maximum load current | 5 to 40 mA | 5 to 20 mA | 20 mA |
| Circuit diagram* | (3) |  | (5) |
| Contact protection circuit | None |  |  |
| Internal voltage drop | D-A93: 2.4 V or less (up D-A93V: 2.7 V or les | $V$ or less (up to 40 mA ) | 0.8 V or less |
| Indicator light | Red LED illuminates when turned ON. |  |  |
| Standard | CE marking |  |  |

Oilproof Heavy-duty Lead Wire Specifications

| Auto switch model |  | D-A90(V) | D-A93(V) | D-A96(V) |
| :---: | :---: | :---: | :---: | :---: |
| Sheath | Outside diameter [mm] |  | $ø 2.7$ |  |
| Insulator | Number of cores | 2 cores (Brown/Blue) |  | 3 cores (Brown/Blue/Black) |
|  | Outside diameter [mm] | $\varnothing 0.96$ |  | $\varnothing 0.91$ |
| Conductor | Effective area [ $\mathrm{mm}^{2}$ ] | 0.18 |  | 0.15 |
|  | Strand diameter [ mm ] | $\varnothing 0.08$ |  |  |
| Lead wire minimum bending radius [mm] (Reference values) |  | 17 |  |  |

* Refer to the circuit diagram no. on page 1571.

Note 1) Refer to page 1568 for reed auto switch common specifications.
Note 2) Refer to page 1568 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

| Model |  | D-A90 | D-A90V | D-A93 | D-A93V | D-A96 | D-A96V |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lead wire length | $0.5 \mathrm{~m}(\mathrm{Nil})$ | 6 | 6 | 6 | 6 | 8 | 8 |
|  | $1 \mathrm{~m}(\mathbf{M})$ | - | - | 11 | - | - | - |
|  | $3 \mathrm{~m}(\mathbf{L})$ | 30 | 30 | 30 | 30 | 41 | 41 |
|  | $5 \mathrm{~m}(\mathbf{Z})$ | - | - | 47 | 47 | - | - |

D-A90/D-A93/D-A96


D-A90V/D-A93V/D-A96V


