


Application

ROBA®-switch 24V fast switching modules are used to operate DC consumers with overexcitation or power reduction, for example electromagnetic brakes and clutches (ROBA-stop®, ROBA®-quick, ROBATIC®), electromagnets, electrovalves, etc.

Fast acting rectifier ROBA®-switch 24V 018.100.2

- Consumer operation with overexcitation or power reduction
- Integrated DC-side disconnection (shorter connection time t_c)
- Input voltage: 24 VDC
- Max. output current I_{RMS} : 5 A
- UL-approved



The ROBA®-switch 24V with integrated DC-side disconnection is not suitable for being the only safety disconnection in applications!

Function

The ROBA®-switch 24V units are used for an input voltage of 24 VDC. They can switch internally, meaning that the output voltage switches to holding voltage from the input voltage (=overexcitation voltage) via pulse-width modulation using 20 kHz. The overexcitation time can be adjusted via a DIP switch to 150 ms, 450 ms, 1 s, 1,5 s and 2,15 s. The holding voltage can be adjusted via a further DIP switch to 1/4, 1/3, 1/2 and 2/3 of the input voltage (equals 6 V, 8 V, 12 V and 16 V at an input voltage of 24 V).

Apart from this, the ROBA®-switch 24V has an integrated DC-side disconnection. In contrast to the usual DC-side disconnection, no further protective measures or external components are required. The DC-side disconnection is activated in standard mode and causes short switching times on the electromagnetic consumer. This can, however, be deactivated by installing a bridge between terminals 7 and 8 in order to produce soft brakings and quieter switching noises. However, this substantially lengthens the switching times (approx. 6 - 10 x).

Electrical connection (Terminals)

- 2 + 3 Input voltage, ground
- 4 Control input
- 5 – 7 Input voltage +24 VDC
- 8 + 9 Output voltage +
- 10 Output voltage -

Technical Data

Input voltage U_i	24 VDC + 20 % / - 10 % SELV/PELV
Output voltage U_{over}	Input voltage U_i
Output voltage U_{hold}	1/4, 1/3, 1/2, 2/3 x U_i ± 20 %
Output current I_{RMS} at ≤ 45 °C	5,0 A
Output current I_{RMS} at max 70 °C	2,5 A
Protection	IP00
Terminal nominal cross-section	1,5 mm ² (AWG 22-14)
Ambient temperature	-25 °C up to +70 °C
Storage temperature	-40 °C up to +105 °C

Order Number

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▲
Size
1



Dimensions (mm)

