

Dimension Sheet for ROBA[®]-switch 24V Type 018.100.2

(M.0181002.GB)



Application

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

Fast switching module ROBA[®]-switch 018.100.2

- load operation with overexcitation or power reduction
- integrated DC-side switch-off (shorter connection time t_1)
- input voltage: 24 VDC
- max. output current I_{RMS} : 5A



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

Function

The ROBA[®]-switch 24V units are used for an input voltage of 24 VDC. It can switch internally automatically, 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, 450ms, 1s, 1.5s and 2.15s. The holding voltage can be adjusted via a further DIP switch to $\frac{1}{4}$, $\frac{1}{3}$, $\frac{1}{2}$ and $\frac{2}{3}$ of the input voltage (equals 6V, 8V, 12V and 16V at an input voltage of 24V).

Apart from this, the ROBA[®]-switch 24V has an integrated DC-side switch-off. In contrast to the usual DC-side switch-off, no further protective measures or external components are required. The DC-side switch-off 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 softer brakings and quieter switching noises. However, this substantially lengthens the switching times (c. 6 - 10x).

Electrical Connection (Terminals)

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

Technical Data

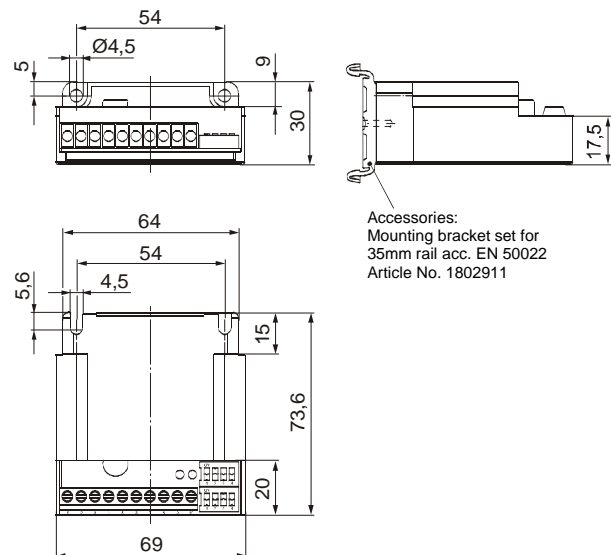
Input voltage U_i	24 VDC +20%/-10% SELV/PELV
Output voltage U_{over}	Input voltage U_i
Output voltage $U_{holding}$	$\frac{1}{4}$, $\frac{1}{3}$, $\frac{1}{2}$, $\frac{2}{3}$ x U_i $\pm 20\%$
Output current I_{RMS} at $\leq 45^\circ\text{C}$	5,0 A
Output current I_{RMS} at max 70°C	2,5 A
Protection	IP00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

Order Example

To be stated on order:	Size	Type
Order number	1	018.100.2



Dimensions (mm)



Accessories:
Mounting bracket set for
35mm rail acc. EN 50022
Article No. 1802911