SMC42 Compact Microstep Constant Current Driver

Technical Characteristics:

Operating voltage:	*DC 21 V to 37 V*
max. Phase Current:	*2A / phase*
Current setting:	via fixed resistors (Rsens)
Mode:	Bipolar-Chopper-Driver
Operating Mode:	Full- (1/1), half-, quarter-, 1/8-step
Step frequency:	0 to 50 kHz
Current down:	automatically to 65%
Input signals:	0 V active
LED:	error-message (overvoltage; cooling device temp. >80°C)
Temperature range:	0 bis +40°C
Type of Connection:	via screw-type terminals, alternatively via screw type plug-in terminals
Kind of mounting:	via DIN-rail EN 50 022 35 x 7.5
Weight:	130 g

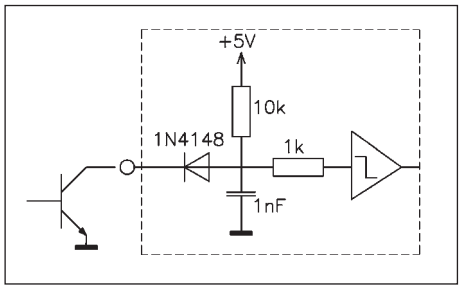
Attention: A charging capacitor of at least 4.700 µF has to be provided in the supply voltage so that the permissible voltage is not exceeded during the braking process.

Pin-Assignment: (AWG 26-16)

1 = GND (Signal Ground)
2 = + 5V (Measuring Point)
3 = Direction (DIR)
4 = Clock
5 = Enable (H or. open=Enable / L=Disable)
6 = VSS Operating Voltage
7 = GND (Power Ground)
8 = not used

If phase current is set lower than 1.5 A, the resistor Ri has to be 2,7kOhm, otherwise the red LED will display an error message
(Ri standard=12 kOhm); position Ri - see drawing

Input Circuit



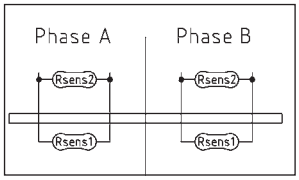
Phase Current A	Rsens1 Ohm	Rsens2 Ohm
0.3	nc	2.2
0.5	nc	1.5
0.8	nc	1.0
1.0	0.82	nc
1.3	0.82	2.2
1.5	0.82	1.5
1.7	0.82	1.0
2.0	0.82	0.82

Step setting

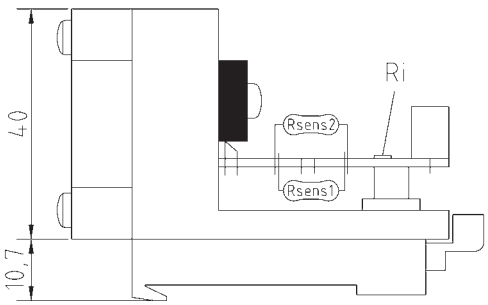
Configuration:
The module is set to full step on delivery

Motor	Br.1	Br. 2
1/1 step	X	X
1/2 step	X	
1/4 step		X
1/8 step		

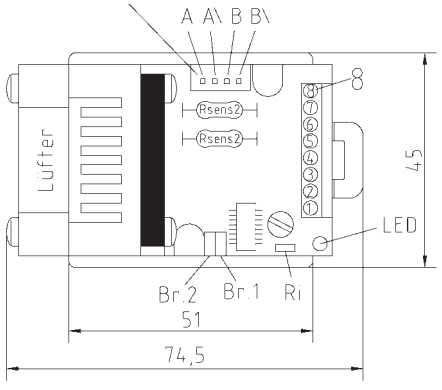
Current Setting



Order Code: SMC 42-☐-☐
Phase Current e.g. 0.8 = 0.8 A/phase
Type of connection terminals 1-8:
1 = screw -type (standard)
2 = screw-type plug-in



Motor Connection:
Standard for JST-Plug 04NR-E4K



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