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# Technical information

## General

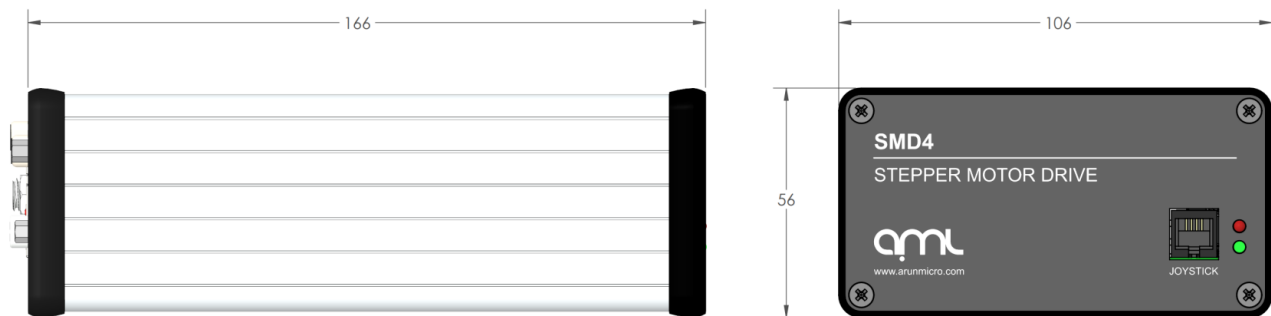
General	
Dimensions	166 mm x 106 mm x 56 mm (excluding connectors and feet)
Weight	0.5 kg
Protection class	IP 20
Temperature	Operation 10°C to 60°C, Storage -10°C to 85°C
Power supply	48 Vdc $\pm$ 5% power supply required. <u>Power supply included.</u>
Power consumption	48 W maximum
Safety compliance	EN 61010-1-2010
EMC compliance	Emissions EN61800-3:2018, EN55032 Class B, 3m (As 61800-3:2018, Table 17, Category C1, first environment) Immunities, EN55035, basic electromagnetic environment
Motor driver	
Type	2 phase bipolar stepper motor driver for 4-lead motors
Phase current	Up to 1 A RMS, adjustable in 30 mA steps
Source voltage	67 Vdc maximum 48 Vdc supply is boosted to 67 Vdc. Boost function can be disabled if required.
Resolution	Full, 8, 16, 32, 64, 128, 256 micro-stepping Stops on full step positions only, micro-stepping is used for control of resonance and smoother step transition.
Step frequency	1 Hz to 15 kHz
Protection	Short to ground and phase to phase

# Mechanical

## General

All dimensions are in millimetres.

Motor temperature measurement



Operating modes	
Scope of delivery	
Qty.	Item
1	SMD4
• Bake - Programmed cycle to heat the motor while stopped to drive off dust and grease	
1	Power supply
Accessories	
The following accessory items are available from AML	
USB	
USB 2.0 Full Speed via USB-C connector	
Virtual COM port and firmware update interface	
10/100 Base-T, auto MDI-X, RJ45	
Order Code	Item
SMD3JOY	Joystick (compatible with SMD4)
CAB-D15D9	Selectable RS485 or RS485 mode (shared pins) SMD4 Cable, 3m, D-Sub 15 Male to D-Sub 9 Female
Serial communication	
CAB-D15MLF	Dual RJ45 or PC connectors allow daisy chaining multiple devices in RS485 mode
CAB-3D15MLF	SMD4 Cable, 3m, D-Sub 15 Male to MLF18
	RS485 mode 115200 default and maximum baud rate
Software	
Compatibility	Windows 10 or later
API	C# API is available
SDE (step, direction enable) interface	
Type	Optocoupled, common cathode
Levels	