

## E-872

### Q-Motion® Piezomotor Driver Electronics, OEM Board

Easy and Inexpensive Integration into OEM Applications



- Easy to integrate
- Compact design
- Versatile and inexpensive
- Can be used for all Q-Motion® stages

#### Compact driver module for piezo inertia drives

1 channel. Compatible with all Q-Motion® stages. Easy control via TTL signals for step and direction. 20 kHz step frequency for the highest dynamics.

#### Full and microstep variants

Microstep variants with 8-bit resolution for the highest precision or full step variant for particularly easy integration and low voltage drop. External temperature monitoring by integrated sensor via SMBus. Low current consumption at rest.

### Related and Compatible Products

#### Compatible stages

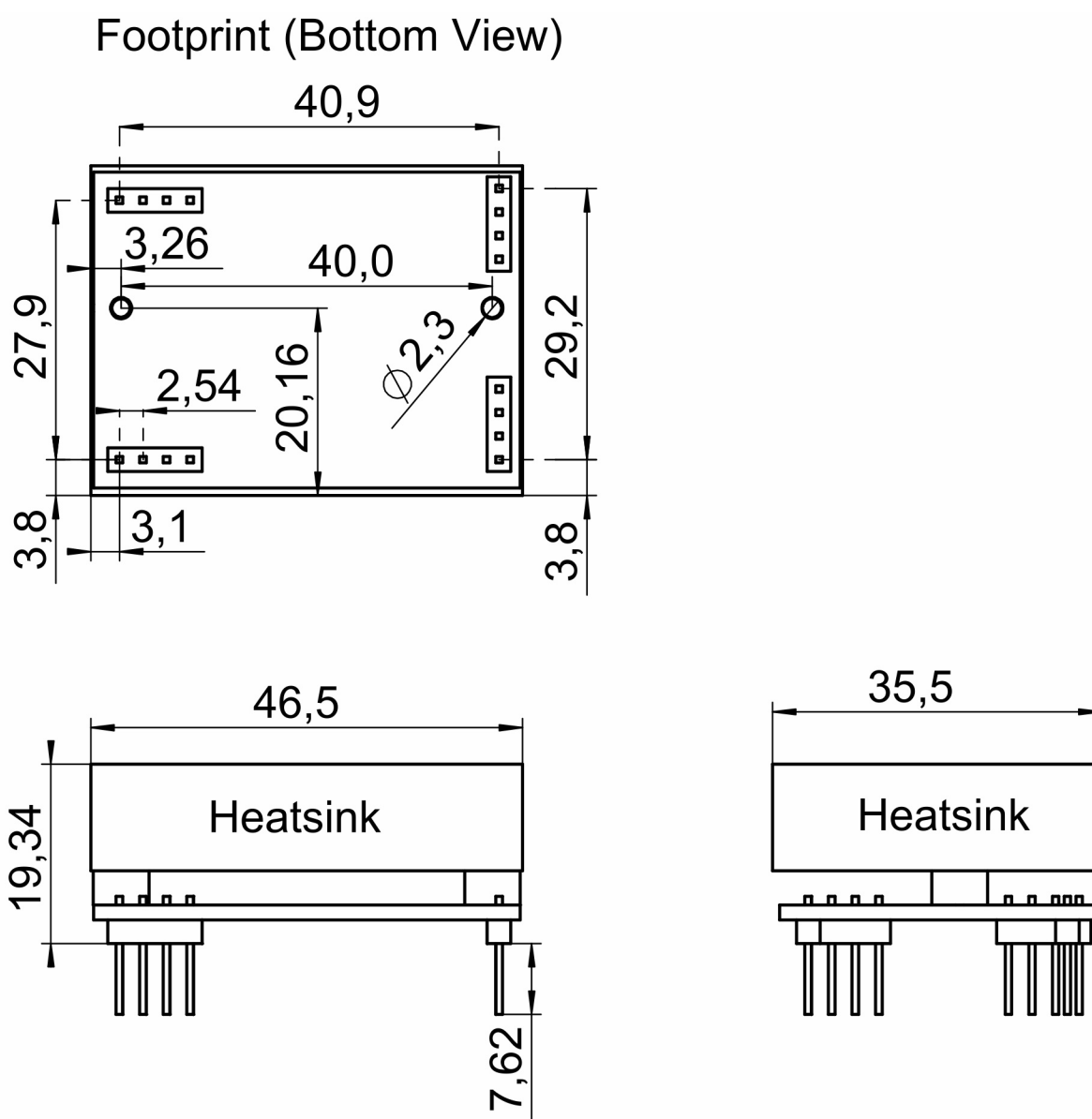
- Q-521 Q-Motion® Miniature Linear Stage
- Q-522 Q-Motion® Miniature Linear Stage
- Q-545 Q-Motion® Precision Linear Stage
- Q-614 Q-Motion® Miniature Rotation Stage
- Q-622 Q-Motion® Miniature Rotation Stage
- Q-632 Q-Motion® Rotation Stage

## Specifications

	<b>E-872.01</b>	<b>E-872.02</b>
Function	Driver module for Q-Motion® piezo inertia drives, OEM card with solder pins, for full step operation	Driver module for Q-Motion® piezo inertia drives, OEM card with solder pins, for microstep operation
Drive type	Piezo inertia drive	Piezo inertia drive
Channels	1	1
<b>Amplifier</b>		
Control in	TTL signals for steps and motion direction	TTL signals for steps and motion direction
Maximum full step frequency	20 kHz	20 kHz (corresponds to 5.1 MHz microstep frequency)
Microsteps per full step	–	256
<b>Electrical properties</b>		
Max. output current (<8 ms)	600 mA	600 mA
Current limitation	Short-circuit proof	Short-circuit proof
Output voltage	0 to 48 V	0 to 48 V
<b>Interfaces and operation</b>		
Control connection	Pin header, 4-pin	Pin header, 4-pin
Motor connector	Pin header, 4-pin	Pin header, 4-pin
Temperature sensor connection	Pin header, 4-pin	Pin header, 4-pin
Voltage connection	Pin header, 4-pin	Pin header, 4-pin
Supported functions	Temperature monitoring via SMBus	Temperature monitoring via SMBus
<b>Environment</b>		
Operating voltage	48 V DC	48 VDC
Max. current consumption	0.62 A	0.62 A
Operating temperature range	5 to 50 °C	5 to 50 °C
Mass	39 g	39 g
Dimensions	46.5 mm × 35.5 mm × 24.84 mm (with pin headers)	46.5 mm × 35.5 mm × 24.84 mm (with pin headers)

Ask about custom designs!

## Drawings and Images



*E-872, dimensions in mm*

## Ordering Information

### **E-872.01**

Q-Motion® Piezomotor-Drive Electronics for complete motion cycles, 1 Channel, 48 V, OEM Board

### **E-872.02**

Q-Motion® Piezomotor-Drive Electronics for microstep operation with 8-bit resolution, 1 Channel, 48 V, OEM Board