

**Kemo Electronic GmbH**

Mato Vukovic  
 Leher Landstr. 20  
 27607 Geestland  
 Germany

Phone: +49 4743 9338-0  
 Fax: +49 4743 9338-22

<http://www.kemo-electronic.de>  
 email: [info@kemo-electronic.de](mailto:info@kemo-electronic.de)

HR.Nr. HRB 111 486  
 UstNr: DE 814 380 369

## M180 - Anti marten device splash proof IP 65\*



To repel martens in cars, houses, etc. Produces aggressive ultrasonic sounds inaudible to men, which martens find very annoying and try to avoid if possible. May be mounted at the entrance holes of the cars. Through the water and dirt resistance, this Marten Device can be mounted on the cars initial openings directly.

Available accessory: M038N - DC-Converter

This clip only shows that the module is waterproof, it is not suitable for permanent use under water.

### Technical Data:

Features: splash-proof | 2-fold effectiveness ultrasound + pulsating light

Operating voltage: 11 - 15 V/DC (car battery)

Sealing: splash-proof case, according to IP 65\* (can be mounted at the entrance holes of the motor vehicle)

Switch-on function: soft start so that the vehicle computer will not be disturbed

Average power consumption: < 2 mA

Ultrasonic frequency: approx. 23 kHz  $\pm$  15%

Angle of radiation ultrasound: approx. 160°

Acoustic pressure: approx. 105 dB ( $\pm$  20%) (Ultrasonic devices should have a sound pressure level exceeding 100 dB (C) to avoid habituation (ADAC test results). (Source <a href="http://de.wikipedia.org/wiki/Marderabwehr" style="color:#845;">de.wikipedia.org/wiki/Marderabwehr</a>)

Sound: Sine, aggressively pulsating

Loudspeaker: impact sound generator, which makes the upper side oscillate (splash-proof)

Optical deterrent: pulsating LED (serves as functional display at the same time)

Temperature range: approx. -25°C to +80°C

Voltage peaks: secured against voltage peaks in the vehicle power supply up to 40 V (< 20 ms)

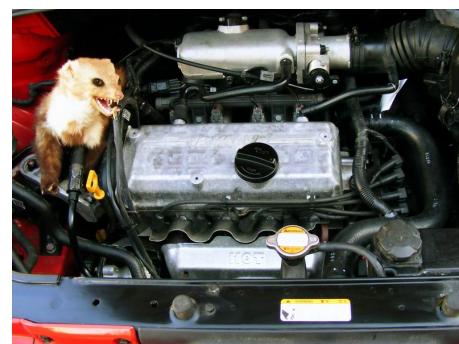
Fuse in the fuse holder: 1 A

Dimensions: approx. 58 x 38 x 31 mm (without fastening straps)

CAN data bus: suitable for vehicles with CAN data bus.

Why does the device have no frequency change? Martens and other small predators emit short and intense warning cries, no siren sounds! Our anti-marten device imitates these tones very naturally and is, therefore, optimal to scare away martens.

\*IP 65: No penetration of dust at a low pressure of 20 mbar in the case, protected against hose-water from every direction against the case (corresponds to 12.5 ltr./minute e.g. garden hose, test period: approx. 5 minutes, information without engagement).



**M180**

