

M-Box

Gateway – Home Gateway Family

Description

Our Gateway is a highly secure router, which connects the end-user's tiko installation to the tiko datacenter (back-end private cloud system). It operates this WAN connection either through a mobile connection and/or by using an ethernet network over the internet. It provides a level of security that is compliant to TSO (Transmission System Operator).

On the end-user side, the Gateway communicates through the power lines of the household (Power Line Communication, PLC) with each of the installed tiko devices that measure the energy consumption of connected loads and control them. The Gateway features an ISM band radio antenna to communicate with wireless tiko accessories (e.g., the temperature sensor).

The product design can be adapted to a branding on request, including the company name and logos.

For M-Boxes REF. 01.1000 and GM-01.1003

This Gateway is mounted by replacing an existing wall socket.

For M-Box REF. GM-01.0013

This Gateway can be ordered with or without GSM module and is suited for worldwide installation. It features a generic C8 power inlet and can be shipped with country-specific power cord.



M-Box NG

Connectivity GSM / Ethernet

Plug / Socket Plug Type C or F

More Info um.tiko.energy/0005



M-Box NG2

Ethernet

Socket Type E, F, G

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No picture available for intellectual property reasons. It exists only as customer design.

M-Box NG3

Ethernet

Plug Type F
Socket Type E

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M-Box NG4

Ethernet, GSM opt.



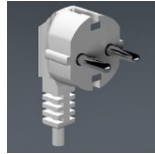


Country-specific power cord

um.tiko.energy/0013e
um.tiko.energy/0013m

Data Sheet M-Box – Home Gateway Family

| Characteristics | NG 1 | NG 2 | NG 3 | NG 4 |
|--------------------------|---|--|---------------------------|------------------------------------|
| Part Number (REF) | GM-01.0005R06 | 01.1000 | GM-01.1003 | GM-01.0013E GM-01.0013M |
| Weight | 250 g | 300 g <small>depends on socket standard</small> | 220 g | 220 g (E) 280 g (M) |
| Dimensions [mm] | 120 x 93 x 40 | 106 x 92 x 70 | 122 x 107 x 55 | 127 x 127 x 43 |
| Plug | Type C, F, I | built into wall | Type F | any |
| Socket | none | Type E, F, G | Type E | none |
| Power Supply | 100 – 240 V, 50 – 60 Hz, <0.5 A | | | |
| Connectivity | 2G – 3G | none | none | 2G – 3G (M) |
| | 10/100 Mb Ethernet PLC HomePlug GreenPHY radio antenna / ISM band / 868 MHz (short range device band Europe)* | | | |
| Communication / Security | TCP over TLS1.2 with RSA + AES-256, Diffie-Hellman key exchange, CA and CRL support. One key-pair per device, internally generated secret key never leaves the device. Key pair is generated using a TRNG (True Random Number Generator). | | | |
| UI | 1 button + 4 bi-color dimmable LEDs | | 1 button + 1 bi-color LED | (E): like NG 3 (M): like NG1, 2 |
| CPU / OS | 200 MHz 32bit RISC SoC / FreeRTOS – 4 to 32 GB SD based | | | |
| Energy Cons. | 2 W (average) / 6 W (peak) | | | |

* Radio antenna disabled for Australia/New Zealand, since 868 MHz is not permitted for ISM usage.

| Plug Types | Type C | Type E | Type F | Type G | Type I |
|-----------------|---|---|---|--|---|
| Pin Arrangement |  |  |  |  |  |

| | Operating Conditions | Storage Conditions |
|--------------------|--------------------------|--------------------------|
| Temperature (min.) | 0 °C | -20 °C |
| Temperature (max.) | +40 °C | +70 °C |
| Relative Humidity | 5% - 95%, not condensing | 5% - 95%, not condensing |

Product photos may differ from actual products; however, functionalities remain as stated above. Specifications are subject to change without notice.