DOCUMENTATION

Technical data

Specifications, variants and scope of delivery of the Smart Meter Adapter.

Variants

Which variant you need depends solely on the meter. The meter finder makes the decision for you.

VARIANT	PART NUMBER	SUPPORTED INTERFACES	EDITIONS
SMA MBUS variant	`SMA-MBUS`	M-Bus, Wireless M-Bus	Secured, Open CPU
SMA UART variant	`SMA-UART`	DSMR (P1), Infrared (IEC 62056-21), HAN	Secured, Open CPU
IR reading head (IEC 62056-21)	`SMA-IRH`	Infrared (IEC 62056-21)	Accessory

Specifications

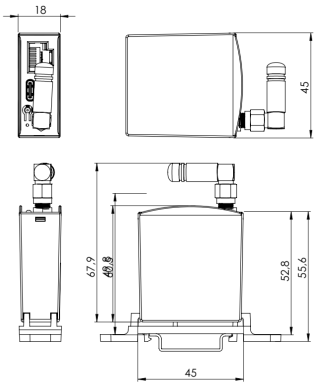
Power supply	USB-C, or from the meter where it feeds the interface
Power consumption	typ. 1 W, depending on WiFi signal strength
Protection class	IP20 — indoor use only
Ambient temperature	-25 °C to +75 °C
Humidity	≤ 95 % relative humidity, non-condensing
Adapter dimensions	18 × 45 × 52.8 mm (W × D × H); 55.6 mm with the DIN rail clip, 67.9 mm including the angled antenna connector
Width	18 mm — 1 module unit of a standard DIN rail
IR reading head dimensions	Ø 32 mm, 24 mm deep; magnetic mount to IEC
WiFi operating mode	Access point and infrastructure
WiFi encryption	IEEE 802.11 open, WEP, WPA, WPA2
Antenna	Detachable WiFi antenna with SMA connector; internal antenna for Wireless M-Bus
Meter interfaces	M-Bus, Wireless M-Bus, DSMR (P1), infrared to IEC 62056-21
Optical interface	IEC 62056-21 IR reading head, magnetic, connected over RJ12 to the UART variant
Data interfaces	Web dashboard (HTTPS/HTTP), JSON REST API, MQTT client, Modbus TCP
Concurrent connections	maximum 3

	62056-21
Mounting	DIN rail, wall mounting or adhesive mounting; IR reading head magnetically on the meter
Connection cables	RJ12 and RJ45 included; third-party cables must have mirrored pinout, max. 3 m
Decryption	On the device, using the meter key from the grid operator
Data storage	No consumption values are stored on the device

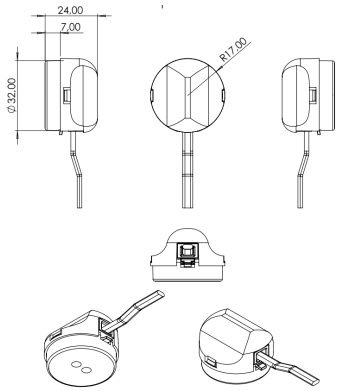
Figures as per the datasheet. Which readings are actually available depends on the meter type and the grid operator.

Dimensioned drawings

All measurements in millimetres. The adapter is 18 mm wide and therefore occupies one module unit on the DIN rail; the IR reading head follows IEC 62056-21.



Smart Meter Adapter: front, side and DIN rail views with dimensions.



IEC 62056-21 IR reading head: Ø 32 mm, 24 mm deep, magnetic mount.

Status LED

The LED on the front shows the operating state at a glance.

Button

A single button covers both access and factory reset.

DURATION	MEANING
up to 3 seconds	Activates the access point — direct access from a phone or laptop becomes possible.
10 seconds or more	Factory reset. All meter data and settings are erased.

COLOUR	STATE	MEANING
🟠	Steady	The device is booting. This can take up to 30 seconds.
🟢	Steady	Connected to WiFi, the device is ready.
🔵	Steady	Access point active — a direct connection to the device is possible.
🔴	Steady	Error receiving meter data, or a WiFi connection problem.
🔴	2 seconds	The device is being reset to factory settings.
🔵🟢🔴	Blinking	A data packet was received from the meter; the LED then returns to its previous state. With Wireless M-Bus the LED does not blink but stays steady green.
🩵	Steady	The device is in recovery mode.

What's in the box

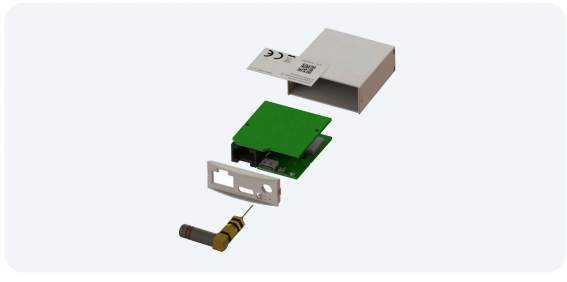
Adapter

- ✔ Smart Meter Adapter in the chosen variant
- ✔ RJ12 and RJ45 connection cables
- ✔ USB-C cable for power
- ✔ Detachable WiFi antenna (SMA connector)
- ✔ DIN rail clip
- ✔ Double-sided adhesive pad

IR reading head (IEC 62056-21)

- ✔ IEC 62056-21 IR reading head with magnetic mount
- ✔ RJ12 connection cable

RJ12 and RJ45 are both included — you do not have to choose a connector type when ordering.



Construction: enclosure, main board with ESP32-S2, plug-on interface board, front panel with antenna socket and rating label.