ConnectLinks
NEVER MISS A BEAT

LITE RANGE

MODBUS IOT GATEWAY LITE — ETHERNET

Modbus to MQTT over the network you already have.

It reads Modbus devices on two RS-485 buses and on your LAN, and publishes their values to your own MQTT broker over wired Ethernet. No SIM, no data plan, no open port.

Model **CL-G-M-S/E** 2 × RS-485 · Modbus TCP · MQTT

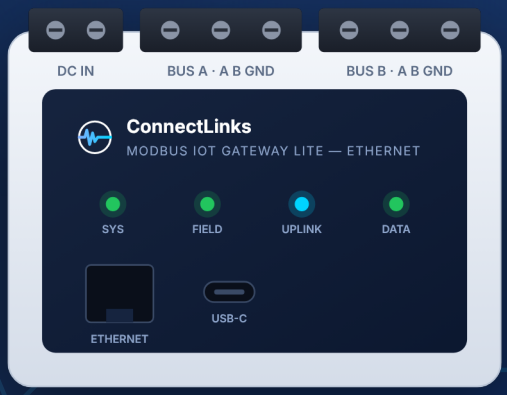

Illustration · front panel and connectors

32
Modbus devices, RS-485 and Modbus TCP together

500 tags
values published, up to 24 per device

2 + 6
RS-485 buses plus Modbus TCP devices on the LAN

25 days
of 500-tag readings kept at 15-minute publishing

From the panel to your platform

Over the site network you already run

YOUR FIELD
Meters, inverters, drives, PLCs
- 2 × RS-485 RTU
- Modbus TCP

polls each 5 s – 24 h

THE GATEWAY
Reads, time-stamps and publishes every value
- periodic or on change
- per device or per tag

Ethernet MQTT

YOUR BROKER
Your MQTT broker, on site or in your cloud
- JSON
- Sparkplug B †

Broker or network down? Readings wait in flash and are replayed in order once it returns.

Offline devices are announced on a status topic, once per change.

Why it earns its place in the panel

No SIM, no data plan
It uses the wired network you already run, so there is no carrier contract and no monthly bill per site.

Ethernet 10/100 · DHCP or static IP

Nothing listening on your LAN
The gateway only makes outgoing connections, so your IT team has no new inbound port to approve.

outbound only · no web server

Rides through outages
Readings wait on flash and are replayed in order, with live data first so dashboards stay current.

15.3 MB buffer · in-order replay

Two buses plus TCP
Each RS-485 bus has its own speed and format and both are polled at once, alongside up to six TCP devices.

2 × RS-485 · 6 Modbus TCP devices

Honest time stamps
Every reading carries its capture time. Data taken before the clock is set is flagged, never given an invented time.

capture time · sequence number · sync flag

Safe firmware updates
Every image is signed and fully checked before it runs. A failed update rolls back by itself.

HMAC-SHA256 · last-known-good rollback

BUILT FOR • Factory lines • Utilities • Solar plants • Water stations • Building metering

FIELD SIDE

RS-485	2 ports, Modbus RTU master, 2-wire · 1,200–115,200 bit/s · 8N1, 8E1, 8O1, 8N2 · ±15 kV ESD
Modbus TCP	Up to 6 devices on the LAN, port 502 or as set
Devices	Up to 32, RTU and TCP combined
Tags	500 in total, up to 24 per device
Functions	Read 01, 02, 03, 04 (read-only)
Polling	Per device, every 5 s to 24 h

CLOUD SIDE

Protocol	MQTT 3.1.1, QoS 0 and 1 · user name and password
Encryption	TLS 1.2 †
Payload	JSON · Sparkplug B †
Publishing	Every 30 s to 24 h · periodic or on change · one topic per device or per tag
Network	Ethernet 10/100, DHCP or static, DNS · outbound connections only

STORE AND FORWARD

Buffer	15.3 MB of flash for readings
100 tags	≈8 days at 1 min · ≈41 days at 5 min · ≈4 months at 15 min
500 tags	≈1.7 days at 1 min · ≈8.5 days at 5 min · ≈25 days at 15 min
Recovery	Replayed oldest first, live data first by default · 50 % and 90 % fill warnings

SET-UP AND SERVICE

Configurator	Windows application over USB-C, no driver needed
Export	Buffered data exported over USB
Log	Activity log kept across power cycles
Firmware	Signed update with automatic rollback

SECURITY

Field	Read-only Modbus master; nothing from the network writes to your devices
Network	No listening port, no web server
Firmware	HMAC-SHA256 signature and CRC-32
Access	Admin password stored hashed

HARDWARE

Power	24 V DC · reverse-polarity, surge and fuse protection
Ethernet	10/100 Mbit/s, RJ45, factory-unique MAC address
Indicators	4 LEDs: system, field, uplink, data
Watchdog	Independent hardware watchdog

Find the right Lite product for your site

No network on site: send over 4G instead
Modbus IoT Gateway Lite — 4G
CL-G-M-S/C

One meter far from mains power and cables
Modbus IoT Gateway Lite — Battery 4G
CL-L-M-S/C

Your SCADA reads RS-485 devices over the LAN
Modbus RTU-to-TCP Bridge Lite
CL-B-M-S-2

Modbus devices in your building management system
Modbus-to-BACnet Bridge Lite
CL-B-D-S-2

ORDER CODE
CL-G-M-S/E
Gateway with two RS-485 buses, Ethernet, 24 V DC, Configurator software

EVALUATION UNIT
Full function for 30 days of running time. Make it permanent with a per-unit key, in the Configurator, without a reflash.

LICENSED UNIT
Permanent from delivery.

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Tell us about your site
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† Coming with the customer release; not yet built and measured. Preliminary, for evaluation; specifications may change without notice. Full specification and user manual on request. ConnectLinks Systems · Brochure 1.0 draft · November 2026