

— CUSTOMER INTERFACE UNIT

Meterlynk CIU



The Meterlynk CIU provides the customer-facing interface within the Senapt smart metering ecosystem, working alongside compatible meters to support convenient interaction with prepaid metering services. Senapt meters can communicate with a Customer Interface Unit through RF or PLC connections, enabling STS-compliant token functionality without requiring direct physical access to the meter. The Meterlynk CIU is part of the same Senapt AMI ecosystem as the meter portfolio, connecting into the broader HES, MDMS, vending and MyWatts environment.

Customer-facing meter interface

RF/PLC connectivity

STS-compatible prepayment support

Designed to complement the Senapt smart meter range

Technical specification

/ ELECTRICAL CHARACTERISTICS

Rated nominal voltage	Micro-USB supply or two sections of battery supply (2 batteries)
Operating voltage range	DC 5 V $\pm$ 0.5 V (USB) or DC 3 V (battery)
Rated & starting current	Not applicable - customer interface unit (CIU), no current/voltage metering
Rated frequency	Not applicable - customer interface unit (CIU)
Accuracy class	Not applicable - customer interface unit (CIU), no metering accuracy class
Pulse constant (configurable)	Not applicable - customer interface unit (CIU), no energy pulse output
Power consumption	Voltage circuit (active) $\leq$ 2 W · (apparent) $\leq$ 5 VA

/ MEASUREMENT & DATA

Measurement	Displays DLMS energy and water parameters and alarm statuses received from the paired meter (no direct metering in the CIU)
Multi-TOU tariff	Displays tariff/consumption and credit data read from the meter over DLMS/COSEM
Load profile	Not applicable - load profile is stored in the meter; the CIU displays queried data
Billing records	Displays billing/register and credit information queried from the meter
Event logs	Multiple alarm statuses displayed on LCD · LED and buzzer indication · buzzer interruptible by keypad

/ PREPAYMENT & LOAD CONTROL

Prepayment	STS/CTS-compliant prepayment - keypad entry of 20-digit token; supports active overdraft and short-code functions
Load control	Relay test and active-overdraft short-code functions relayed to the meter (CIU has no internal disconnect relay)

/ COMMUNICATIONS & SECURITY

WAN	Not applicable - the CIU links to the meter locally; WAN is provided by the meter
HAN / CIU & local ports	RF or PLC module link to the meter MCU · communication distance more than 150 metres
I/O ports (optional)	Keypad input (20-digit token entry) · LED and buzzer status indication · Micro-USB port
Protocols & firmware	DLMS/COSEM · STS/CTS token standard · remote firmware upgrade support
Security & anti-tamper	STS/CTS-compliant secure token handling · multiple alarm indications via LED and buzzer · buzzer interruptible by keypad

/ MECHANICAL & ENVIRONMENTAL

Operating temperature	Normal -25 to +55 °C · limit -35 to +65 °C · storage/transport -40 to +70 °C
EMC performance	ESD contact 8 kV, air 15 kV · fast transient burst (USB power-cord coupling) 1 kV
Protection & battery	IP51 · Micro-USB or 2-battery powered · lifetime $\geq$ 10 years
Housing & dimensions	Slim, lightweight and durable handheld housing · large-digit LCD with backlight, readable without main power

/ STANDARDS & COMPLIANCE

Standards	DLMS/COSEM · STS / CTS standards
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