SMART DATALOGGER



SENECA

www.seneca.it

100% Made & Designed in Italy

SMART DATALOGGER



SENECA **Smart Dataloggers** acquire plant measurements and states, log data and events, manage alarms and make them available to SCADA and IoT / Cloud platforms. The range includes four DIN-rail models: Z-LOGGER3 and Z-LOGGER4 with Ethernet interface, Z-LTE and Z-LTE4 with World Wide 4G/LTE modem, GNSS and voice alarms for remote control. All models integrate I/O, serial ports, a microSD slot and a UPS with up to 60 minutes of backup. The **Z-LOGGER4 and Z-LTE4** versions manage up to 500 variables with 1 s sampling, secure HTTPS / MQTT protocols with TLS and integration with VPN BOX 2, according to IEC 62443-4-2.

Scan for more information

500 Managed variables

1 s Minimum sampling

60 Minutes of UPS backup

4G LTE World Wide with GNSS

THE RANGE

Z-LOGGER3

Ethernet datalogger with I/O and alarm management · SEAL



Z-LOGGER4

Ethernet datalogger with I/O and alarms · 500 variables · IEC 62443-4-2



Z-LTE

4G/LTE WW datalogger with remote control and voice alarms · SEAL



Z-LTE4

4G/LTE WW datalogger, voice alarms · 500 variables · IEC 62443-4-2



HIGHLIGHTS

INTEGRATED I/O

4 DI with 32-bit counters, 2 AI 16 bit, 2 relay outputs; I/O expansion via ModBUS.

DATA AND EVENT LOGGING

Logging to Flash and microSD, synchronous sampling and trigger-based acquisition.

SERVICE CONTINUITY

Integrated UPS with up to 60 minutes of backup and emergency mode.

ETHERNET AND SERIAL

Ethernet 10/100, switchable RS232/ RS485 and ModBUS RS485 on all models.

IoT / CLOUD INTEGRATION

Data sent to IoT and Cloud platforms via HTTP(S) post and MQTT(S).

4G / LTE REMOTE CONTROL

Multiband WW modem, GNSS, voice alarms and DTMF commands on Z-LTE and Z-LTE4.

CONFIGURATION AND LOGIC

Web Server on the whole range, SEAL environment or logic rules, SENECA SMS 2 app.

CYBER SECURITY

EN 18031-1 / RED DA compliance; Z-LOGGER4 and Z-LTE4 according to IEC 62443-4-2.

SELECTION TABLE

	Z-LOGGER3	Z-LOGGER4	Z-LTE	Z-LTE4
CONNECTIVITY AND SECURITY				
Cellular network	–	–	4G/LTE WW + GNSS	4G/LTE WW + GNSS
Voice alarms / DTMF	–	–	•	•
HTTPS / MQTT with TLS	–	•	•	•
VPN BOX 2 integration	–	•	–	•
IEC 62443-4-2	–	•	–	•
EN 18031-1 / RED DA	•	•	•	•
DynDNS	•	–	•	–
MEMORY AND PROCESSING				
Managed variables, max	100	500	100	500
Internal Flash	8 MB	16 MB	8 MB	16 MB
Minimum sampling	1 min	1 s	1 min	1 s
Trigger events, max	8	100	8	100
Programming	SEAL (32 blocks) + Web Server	Web Server + logic rules	SEAL (32 blocks) + Web Server	Web Server + logic rules
Firmware update	FTP, Web Server, microSD	Web Server, VPN BOX 2	FTP, Web Server, microSD	Web Server, VPN BOX 2
COMMON FEATURES				
Inputs / outputs	4 PNP/NPN DI with 32-bit counters up to 30 Hz · 2 AI 0..20 mA / 0..30 V, 16 bit · 2 SPDT relay DO 2 A / 250 Vac			
Interfaces	Ethernet 10/100 (RJ45) · 1 switchable RS232/RS485 · 1 ModBUS RS485 · ModBUS I/O expansion			
Power supply	11..40 Vdc; 19..28 Vac		19..40 Vdc; 19..28 Vac	
Continuity and memory	Integrated UPS, max 60 min backup · emergency mode · microSD slot (SD/SDHC)			
Mechanics and environment	100 x 112 x 35 mm · 250 g (Z-LTE / Z-LTE4: 280 g) · 35 mm DIN rail · IP20 · -10..+50 °C · CE, UKCA			

● = available – = not available. Technical data are indicative and not binding.

PROTOCOLS AND GATEWAY MODES

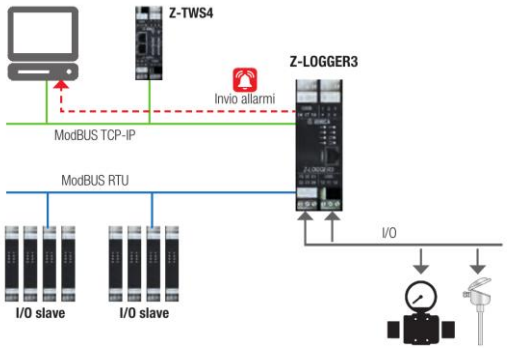
	Z-LOGGER3	Z-LOGGER4	Z-LTE	Z-LTE4
ModBUS RTU / TCP-IP	Master / Slave · Client / Server			
Transparent Gateway, ModBUS Pass Through	•	•	•	•
FTP client, SMTP	•	FTP client	•	FTP client
HTTP post / REST, MQTT	•	•	•	•
HTTPS, MQTT with TLS	–	•	•	•

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APPLICATION EXAMPLES

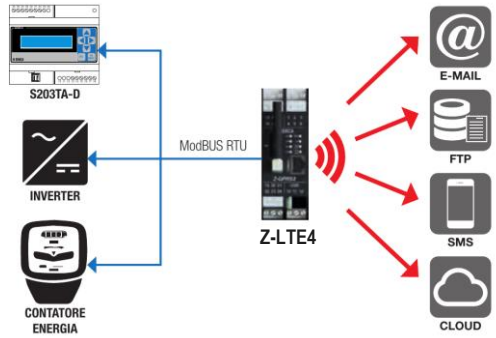
Sensors and ModBUS I/O → Smart Datalogger → Ethernet / 4G → SCADA / Cloud

DATA ACQUISITION AND RETRANSMISSION



Z-LOGGER3 acquires I/O and ModBUS RTU modules, logs the data and makes it available via ModBUS TCP-IP, sending alarms to the supervisor.

SUPERVISION AND ENERGY METERING



The datalogger reads analyzers, inverters and meters via ModBUS RTU and transmits data and alarms via e-mail, FTP, SMS and cloud.

APPLICATION FIELDS

Water and pumping
Levels, flow rates, pump status and alarms

Energy metering
ModBUS meters and analyzers, pulses

Plant supervision
Machine states, events, process KPIs

Remote control and alarms
Remote commands and alarms via 4G

ORDER CODES

Code	Description
DATALOGGER ETHERNET	
Z-LOGGER3	Datalogger with I/O, alarm management, Web Server
Z-LOGGER4	Datalogger with I/O, alarm management, Web Server, IEC 62443-4-2
SPARE PARTS	
Z-LOGGER3-BTT	Spare battery kit and front label for Z-LOGGER3
Z-LTE-BTT	Spare battery kit for Z-LTE

Code	Description
DATALOGGER 4G / LTE	
Z-LTE-WW	4G WW datalogger, integrated I/O, remote control, voice communication
Z-LTE4	4G WW datalogger, integrated I/O, remote control, voice communication, IEC 62443-4-2
SOFTWARE	
SEAL	SENECA Advanced Language, advanced programming software (Z-LOGGER3, Z-LTE)

Z-LTE is the range name, Z-LTE-WW the order code. Communication accessories (4G antennas, VPN BOX 2): see the dedicated sections.

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