



# Z-LTE

## 4G DATALOGGER WITH BUILT-IN I/O, REMOTE CONTROL FUNCTIONS AND VOICE COMMANDS

### Highlights

- **Backup battery with about 60 minutes lifetime**
- **Voice commands and alarms Built-in I/O (4 digital inputs, 2 analog inputs, 2 digital outputs)**
- **Nr.1 Ethernet interface 10/100 Mbps (RJ45), nr.2 serial interfaces, nr.1 Micro USB interface**
- **Modem: 4G/LTE /GNSS/GPS up to 55 channels**
- **System protocols: Ftp client, Sntp, http, ModBUS TCP, ModBUS RTU**
- **Datalogging measurements and alarms on MicroSD card (max 32 GB) or on Flash**
- **Integration with PLCs and third party systems**
- **Remote monitoring with IoT platforms**
- **Advanced functions: mathematical processing, modbus alarm filters, http post/get via modem and PPP**

Thanks to an enhanced industrialization and a new highperformance 4G/LTE modem with GPS GNSS receiver up to 55 channels, Z-LTE datalogger meets the growing needs of data collection, real-time analysis and integration with IT systems.

Designed to perform remote alarm, remote control, telemetry and datalogging functions, this device is available with 8 built-in I/O channels, voice alarms/audio commands with DTMF tones, dedicated programming and supervision software, 4 built-in communication ports (1 Ethernet 10/100, 1 RS232/RS485, 1 RS485, 1 MicroUSB), support for communication and IoT protocols (Ftp, Sntp, Smtps, http rest, https, ModBUS RTU, ModBUS TCP-IP, MQTT, SMS).

Z-LTE also has an integrated UPS that provides autonomy time up to 1 hour in case of power failure. Z-LTE can be combined with Cloud BOX, an IoT / Cloud solution proposed by SENECA that allows you to centralise data, manage remote connections, create customisable multi-user supervision pages based on HTML5 and responsive dashboards/widgets.



**SENECA**  
www.seneca.it

# Z-LTE



**4G Datalogger with built-in I/O, remote control functions and voice commands**

## TECHNICAL DATA

### GENERAL DATA

Power transducers	Yes
Power consumption	Max 6,5 W
Built-in UPS / Rechargeable battery	Yes (max autonomy 60 minutes)
LED status indicators	Power supply, GSM, 4G network logging, Input/Outputs/SD card status, Ethernet
Connections	3-way screw terminal blocks (5 mm pitch for cable up to 2.5 mm <sup>2</sup> )
Micro USB port	Yes
MicroSD slot	Yes
Voice Alarms and DTMF Commands	Yes
Isolation	1.500 Vac
Protection degree	IP20
SIM	'Push-push SIM slot for mini SIM 15x25 mm
Operating temperature	-10...+50°C
Weight	280 g
Dimensione (wxhxd)	100 x 112 x 35 mm
Mounting	35 mm DIN rail, IEC EN60715
Case	PBT, black

### I/O CHANNELS

Digital Inputs	Nr. 4 channels PNP, NPN, max 30 Hz (4 counters/totalizers @32bit)
Analog Inputs	Nr. 2 channels, voltage range (0..30 Vdc); current (0..20 mA); accuracy 0,1% f.s.
Digital Outputs	Nr. 2 relay channels SPDT max 2 A 250 Vac
ModBUS I/O expansion	Yes

### COMMUNICATION

Communication ports	Nr.1 Ethernet 10/100 M (RJ45), Nr.1 RS232/RS485 switchable (clamp), Nr.1 RS485 ModBUS, Nr.1 Micro USB B Host prog. Local Host
Protocols	FTP client,SMTP , http rest (TLS), MQTT (TLS), ModBUS TCP Client/Server, ModBUS RTU Master / Slave, Https, SMTP with SSL/TLS,
Modem	4G/LTE
GPS	22 channels, -165dBm (option)
Transparent Gateway	Yes

### PROCESSING, MEMORY

Flash (serial)	8 MB
Expandable memory	Micro SD card included (up to 4 GB) expandable up to 32 GB (dedicated slot)
Datalogger	Measurements, alarms, events, logging on Micro SD card and Flash
Synchronous Datalogger	Minimum sampling time 1 minute
Asynchronous Datalogger	Up to 8 trigger events with max. input freq. 1 Hz

### SETTINGS

Programming environment	SEAL (SENECA Advanced Language)
Max. number of logic blocks (SEAL)	32
Max variables managed per device	100 + 39 (embedded)
HMI and data management	Cloud BOX (web app)
Variables and trends visualization tool	Log Factory
Web Server	Yes
DIP-switch	Yes
Mobile app	SENECA SMS

### MAIN FUNCTIONS

Settings	Projects, Email, Counters, Timers, Variables, I/O, Thresholds, Controls, and Bit Operations
Character encoding	UTF8/UNICODE support
Firmware update	SD Card, USB port, external Ftp, web server
IoT / Cloud Support	http post, MQTT, CloudBOX compatibility
Advanced mathematical functions	Yes
DynDNS support	Yes

### STANDARD

Approvals	CE
Norms	EN 61000-6-4, EN 61000-6-2, EN 301511, EN 301489-1, EN 301489-7, EN 60950

## SEAL

SEAL (Seneca Advanced Language) is an advanced management software that allows, through object oriented programming, to manage commands, automations, alarms, thresholds, reporting with the possibility of remote configuration and updating via SIM or static IP.

The diagram illustrates the SEAL software architecture. At the center is the 'SeAL Seneca Advanced Language' logo. Surrounding it are five main functional areas:

- VARIABLES:** A tree view of system variables including SYS (SYS POW, SYS VBAT), AN1 (AN1 VAL, AN1 AVG, AN1 MIN, AN1 MAX), AN2 (AN2 VAL, AN2 AVG, AN2 MIN, AN2 MAX), DIN1 (DIN1 STS, DIN1 TOT, DIN1 CH1, DIN1 DELTA, DIN1 WRK), DIN2 (DIN2 STS, DIN2 TOT, DIN2 CH1, DIN2 DELTA, DIN2 WRK), and DO (DOU1, DOU2).
- FUNZIONI:** A graphical representation of logic functions and control blocks.
- CONTROLLI:** A screenshot of the 'ECL THRESHOLD: Event Control' window, showing a control logic diagram with inputs (IN1-4) and outputs (OUT1-6), and a 'Run Mode' section.
- EVENTI:** A list of event conditions such as 'EVS3 AN1 MIN Event Condition', 'EVS4 AN1 LOW Event Condition', 'EVS5 AN1 HIGH Event Condition', 'EVS6 AN1 MAX Event Condition', 'EVS7 DIN1 ON Event Condition', 'EVS8 DIN1 ALM Event Condition', 'EVS9 DIN1 TOT\_ALM Event Condition', 'EVS10 DIN1 CH1\_ALM Event Condition', 'EVS11 DIN1 WRK\_ALM Event Condition', 'EVS12 DIN1 DELTA\_ALM Event Condition', 'EVS13 DIN1 TOT\_RESET Event Condition', and 'EVS14 DIN1 CH1\_RESET Event Condition'.
- AZIONI:** A graphical representation of actions and control blocks.

## ORDER CODES

Code	Description
Z-LTE	4G ModBUS Datalogger with built-in I/O, remote control functions and voice commands

## ACCESSORIES

A-GSM	External GSM dual band swing antenna 3.2 m cable
A-GSM-DIR-5M	Triband GSM-DECT-UMTS SMA-M compact directional antenna, 5 mt cable
A-GSM-OMNIDIR	Omnidirectional GSM-UMTS-WIFI antenna, 5.1 dB, SMA-M. 5 mt cable
A-GSM-OMNIDIR-10	Omnidirectional antenna GSM-UMTS-WIFI, 5.1 dB, SMA-M. cable 10 mt
A-GSM-QUAD-N	Omnidirectional external antenna 4G/WI-FI, FME, 3 mt cable
A-GPS-SMA	GPS antenna with SMA connection
CU-A-MICROB	USB-A Micro USB-B 5 P plug cable
EASY-USB	USB - UART TTL Converter
FD01	Photodetector for pulse counting
Z-PC-DINAL1-35	DIN rail quick mounting bracket, head +1 slot, 35mm
Z-PC-DIN1-35	DIN rail quick mounting bracket, 1 slot, 35mm
Z-PC-DIN4-35	DIN rail quick mounting bracket, 4 slot, 35mm

## SOFTWARE

SEAL	SENECA Advanced language, graphic - object oriented advanced programming environment
LOG FACTORY	Data visualization and archiving tool
OPC-DA-SERVER	Communication and data exchange software OPC Server DA I/O, unlimited tags (hardware license)
OPC-UA-SERVER	Communication and data exchange software OPC Server UA I/O, unlimited tags (hardware license)



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