



# Z-LOGGER3, Z-GPRS3, Z-UMTS

## ADVANCED DATALOGGER WITH ALARM MANAGEMENT, BUILT-IN I/O'S AND TELECONTROL FUNCTION

### Highlights

- Nr 1 10/100 Mbps Fast ethernet port (RJ45)
- RS485 ModBUS Master,
- RS485/RS232 on terminal,
- Available with modem 2G or 3G+
- SeAL software platform
- Webserver embedded
- Voice Alarm and DTMF commands
- Log and real-time ModBUS / Ethernet variables, I/O's channels, thresholds, controls and bit operations management
- Firmware update and remote configuration via ftp and webserver
- ModBUS TCP-IP, ftp, webserver, http functions

Z-LOGGER3, Z-GPRS3, Z-UMTS are multiprotocol unit, with built-in I/O's for high-performance data acquisition, datalogging, measurements and M2M telemetry. They can work stand-alone or networked over ModBUS RTU as Master or ModBUS TCP-IP as clientserver.

These dataloggers operate with built-in I/O's and Ethernet interfaces Master Modbus unit on RS485 serial ports and can support 2G/3G+ communication.

The free software package SEAL is an object oriented programming tool, allows logic control, automation routines, alarms, thresholds, timers, report management with the possibility to configure and upgrade the device from remote.

**SeAL**  
Seneca Advanced Language



**SENECA**  
www.seneca.it



## Z-LOGGER3, Z-GPRS3, Z-UMTS

ADVANCED DATALOGGER WITH ALARM MANAGEMENT,  
BUILT-IN I/O'S AND TELECONTROL FUNCTION



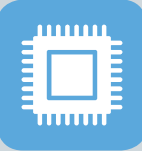
### #4 DIGITAL INPUTS

PNP, NPN  
(resettable counters or totalizers  
@32bit up to 30 Hz)



### #2 ANALOG INPUTS

0..20 mA, 0..30 V  
Accuracy 0,1% f.s.



### MEMORY

RAM 256 kB  
Flash 1MB+8MB (log)



### AC/DC POWER SUPPLY

11..40 Vdc (\*); 12..28 Vac  
Power failure battery backup

(\* ) 19..40 Z-UMTS



### RS485 MODBUS MASTER

#2 serial interfaces for I/O extension  
with programmable parameters



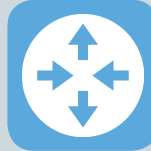
### BUILT-IN MODEM

GSM, GPRS, UMTS, HSPA+



### #2 RELAY OUTPUT

SPDT free contacts  
(max 2A - 250 Vac)



### ETHERNET MODBUS

### TCP/IP INTERFACE

10/100 Mbps (RJ45)






### MICRO USB INTERFACE



### COMPACT DIMENSION

100 x 112 x 35 mm (h x d x w)

	BUILT-IN MODEM	PROTOCOLS	BUILT-IN I/O'S	VOICE ALARMS/ COMMANDS	INTERFACES
Z-LOGGER3	-	FTP, SMTP, MODBUS TCP, MODBUS RTU	4DI, 2AI, 2DO	-	1 ETH 1 RS485 1 RS485/RS232 1 MICRO USB
Z-GPRS3	GSM/GPRS	PPP, FTP, SMTP, MODBUS TCP, MODBUS RTU	4DI, 2AI, 2DO	✓	1 ETH 1 RS485 1 RS485/RS232 1 MICRO USB
Z-UMTS	GSM, GPRS, UMTS, HSPA+	PPP, FTP, SMTP, MODBUS TCP, MODBUS RTU	4DI, 2AI, 2DO	✓	1 ETH 1 RS485 1 RS485/RS232 1 MICRO USB

	Z-LOGGER3	Z-GPRS3	Z-UMTS
	 <p><b>COMING SOON</b></p> <p><b>Datalogger with built-in I/Os and telecontrol functions</b></p>	 <p><b>NEW</b></p> <p><b>GSM/GPRS datalogger with built-in I/Os, telecontrol functions, voice alarm</b></p>	 <p><b>COMING SOON</b></p> <p><b>3G+ datalogger with built-in I/Os, telecontrol functions, voice alarm</b></p>

GENERAL DATA			
Power Supply	11..40 Vdc; 19..28 Vac	11..40 Vdc/ 19..28 Vac	<b>19..40</b> Vdc/ 19..28 Vac
Power transducer	Yes, +12Vdc@40mA	Yes, +12Vdc@40mA	Yes, +12Vdc@40mA
Consumption	Max 3,5 W	6,5 W (max)	6,5 W (max)
Backup battery	Yes (approx 60 min lifetime)	Yes (approx 60 min lifetime)	Yes (approx 60 min lifetime)
On/Off button	Yes	Yes	Yes
SD ejection button	Yes	Yes	Yes
Voice Alarm and DTMF Commands	No	Yes	Yes
Isolation	1.500 Vac	1.500 Vac	1.500 Vac
Protection degree	IP20	IP20	IP20
LED status indicators	Power Supply – Serial Communication – Ethernet – SD card – Input / Output status	Power Supply – Serial Communication – Ethernet – SD card – Input / Output status – Modem Status	Power Supply – Serial Communication – Ethernet – SD card – Input / Output status – Modem Status
Operating temperature	-10..+50°C	-10..+50°C	-10..+50°C
Weight	250 g	280 g	280 g
Dimension (wxhxd)	100 x 112 x 35 mm	100 x 112 x 35 mm	100 x 112 x 35 mm
Mounting	DIN rail	DIN rail	DIN rail
Case	PBT, black	PBT, black	PBT, black

I/O CHANNELS			
Ethernet interface	10/100 Mbps (RJ45)	10/100 Mbps (RJ45)	10/100 Mbps (RJ45)
Serial interface #1	RS485 ModBUS Master, programmable baud rate	RS485 ModBUS Master, programmable baud rate	RS485 ModBUS Master, programmable baud rate
Serial Interface #2	RS485/RS232 on terminal, programmable baud rate	RS485/RS232 on terminal, programmable baud rate	RS485/RS232 on terminal, programmable baud rate
Switchable RS232/RS485	Yes RS232	Yes RS232	Yes RS232
USB interface	Micro USB tipo B HOST (local programming)	Micro USB tipo B HOST (local programming)	Micro USB tipo B HOST (local programming)
Protocols	Ftp, Smtp, http, ModBUS TCP, ModBUS RTU, HTTP	Ftp, Smtp, http, ModBUS TCP, ModBUS RTU, HTTP, PPP	Ftp, Smtp, http, ModBUS TCP, ModBUS RTU, HTTP, PPP
Modem	no	GSM/GPRS Quad Band 850/900/ 1800/1900 MHz	UMTS/HSPA+ 900/2100MHz (standard) UMTS/HSPA+ 850/1900/2100 MHz (option) GSM/GPRS quad-band 850/900/1800/1900 MHz (standard)

PROCESSING, MEMORY			
CPU	ARM 32bit@120MHz, O.S. real-time	ARM 32bit@120MHz, O.S. real-time	ARM 32bit@120MHz, O.S. real-time
RAM	256 kB	256 kB	256 kB
Flash (program)	1 MB	1 MB	1 MB
Flash (serial)	8 MB	8 MB	8 MB
Expandable memory	Micro SD slot up to 32 GB	Micro SD slot up to 32 GB	Micro SD slot up to 32 GB
Datalogging	Measurement, alarms, events, logging on Micro SD card (max 32 GB) or onFlash. Synchronous and asynchronous datalogger	Measurement, alarms, events, logging on Micro SD card (max 32 GB) or onFlash. Synchronous and asynchronous datalogger	Measurement, alarms, events, logging on Micro SD card (max 32 GB) or onFlash. Synchronous and asynchronous datalogger

PROGRAMMING			
Software platform	SEAL	SEAL	SEAL
Web Server	Yes	Yes	Yes
DIP-switch	Yes	Yes	Yes
Libraries & Functions	Alarm management, commands, events, FTP/MAIL send, HTTP Log and real-time ModBUS / Ethernet variables, I/O channels, thresholds, controls and bit operations management Firmware update and remote configuration via ftp and webservice ModBUS TCP-IP, ftp e webservice, http functions	GSM/GPRS data exchange, alarm management, commands, events, FTP/MAIL send, HTTP Log and real-time ModBUS / Ethernet variables, I/O channels, thresholds, controls and bit operations management Firmware update and remote configuration via ftp and webservice ModBUS TCP-IP, ftp e webservice, http functions supported via Ethernet or modem	GSM/GPRS/HSPA+ data exchange, alarm management, commands, events, FTP/MAIL send, HTTP Log and real-time ModBUS / Ethernet variables, I/O channels, thresholds, controls and bit operations management Firmware update and remote configuration via ftp and webservice ModBUS TCP-IP, ftp e webservice, http functions supported via Ethernet or modem
Advanced functions	Math functions, filters on ModBUS alarms, post/get http function, blocks counter, events block	Math functions, filters on ModBUS alarms, post/get http also via Ethernet and PPP functions, gsm alarm no signal, Ethernet alarm communication, blocks counters, events block, Webserver and Modbus TCP by GPRS (with fixed IP SIM or private APN) and Ethernet	Math functions, filters on ModBUS alarms, post/get http also via Ethernet and PPP functions, gsm alarm no signal, Ethernet alarm communication, blocks counters, events block, Webserver and Modbus TCP by GPRS/HSPA+ (with fixed IP SIM or private APN) and Ethernet

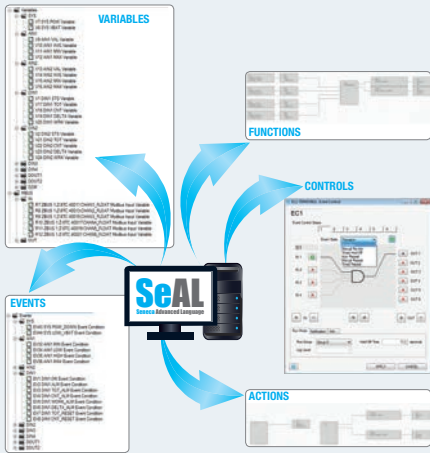
ORDER CODES			
Code	Description	Code	Description
Z-LOGGER3	Datalogger, alarm module, web server with built-in IO	MSD	Micro SD memory card with adapter
Z-GPRS3	GSM/GPRS datalogger with built-in IOs, telecontrol functions, voice alarm	Z-PC-DIN1-35	DIN rail bus 1 slot 35 mm
Z-UMTS	3G+ datalogger with built-in IOs, telecontrol functions, voice alarm	Z-PC-DINAL1-35	DIN rail bus system head terminal + 1 slot 35 mm
A-GSM	External GSM antenna dual band swing, cable 3,2 m	CU-A-MINIB-1	USB-A Mini USB-B 5 P plug cable, 1 mt
A-GSM-DIR-5M	GSM directive antenna, cable 5 m	CU-A-MINIB-2	USB-A Mini USB-B 5 P plug cable, 2 mt
A-GSM-OMNIDIR	GSM-UMTS-WIFI Omnidirectional Antenna	Z-SUPPLY	24V @ 1,5 A single phase switching power supply
FD01	Photodiode for pulses counting, max freq. 10Hz	SEAL	SENECA Advanced language, programming graphic software
KIT-USB	Programming toolkit for USB interface instruments	SEAL LEGACY	SENECA Advanced language with wizard

Technical data, diagrams and drawings in this brochure are indicative only and not binding

## PROGRAMMING

### SeAL

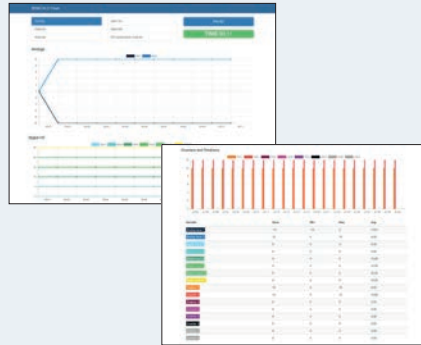
Seneca Advanced Language



**SEAL (Seneca Advanced Language)** is a software designed by Seneca that allows through object oriented programming, to manage the controls, automations, alarms, thresholds and reports with possibility of configuration and remote update via SIM or static IP.

## DATA VISUALIZATION

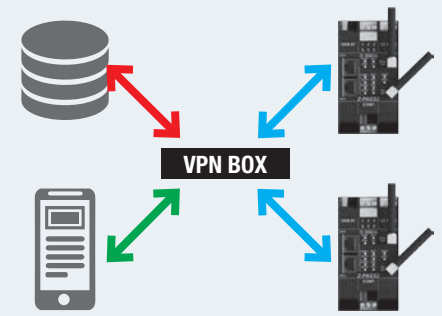
### WebSERVER



Real-time visualization analog / digital variable, counters, totalizers, log files download, firmware update

## CONNECTIVITY

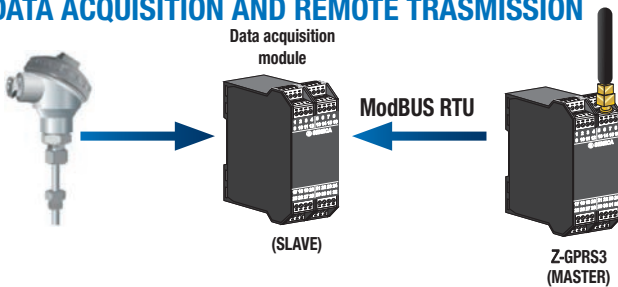
### CloudBOX



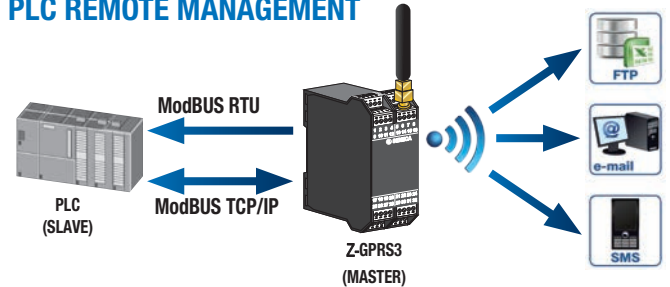
CloudBOX is a Server Cloud system – hardware or virtual machine - based on a remote connection service and a webbased micro SCADA. Micro SCADA allows real-time telemetry, RTU commands sending, log files analysis, events and alarms log archiving. CloudBOX supports standard SIM card M2M with xDSL connection even without static IP. Each device connected to CloudBOX sends data and executes commands. CloudBOX save incoming data on a database and is accessible through customizable web pages.

## APPLICATION EXAMPLES

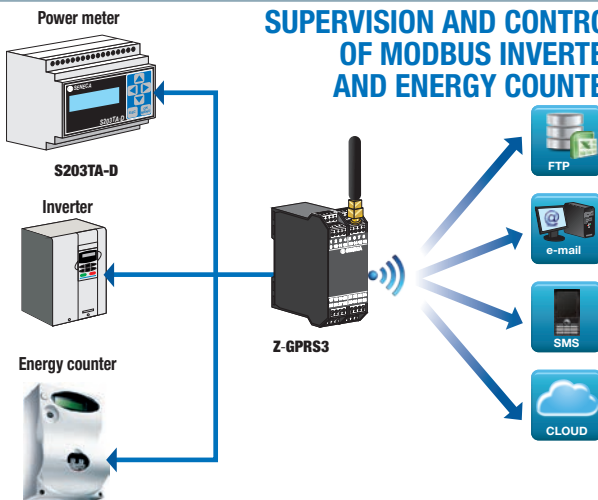
### DATA ACQUISITION AND REMOTE TRANSMISSION



### PLC REMOTE MANAGEMENT



### SUPERVISION AND CONTROL OF MODBUS INVERTER AND ENERGY COUNTER



### GSM/GPRS TELECONTROL OF ENERGY/PROCESS PLANTS

