

## SD-Z-GPRS2-SEAL

*GSM/GPRS datalogger with built-in I/Os, telecontrol functions and advanced programming language*



SD-Z-GPRS2-SEAL is a GSM / GPRS quad band datalogger, with built-in I/Os and Ethernet interface. The device is configured as master unit of Z-PC Line remote I/O system.

SD-Z-GPRS2-SEAL offers high performance for data acquisition, data storage, and wireless data transmission, measurements and alarms. SD-Z-GPRS2-SEAL unit operates as a Modbus master unit on the RS485 serial communication port with wireless GSM / GPRS transmission mode.

The software package SEAL (Seneca Advanced Language) allows, based on object oriented programming, enables control logic, automation routines, alarms, thresholds, timers, report management with the possibility to fully configure and upgrade the device by SIM card or static IP.

***THE SIMPLEST REMOTE MANAGEMENT SYSTEM  
FOR UNIVERSAL APPLICATIONS***

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# SENSOR DATA

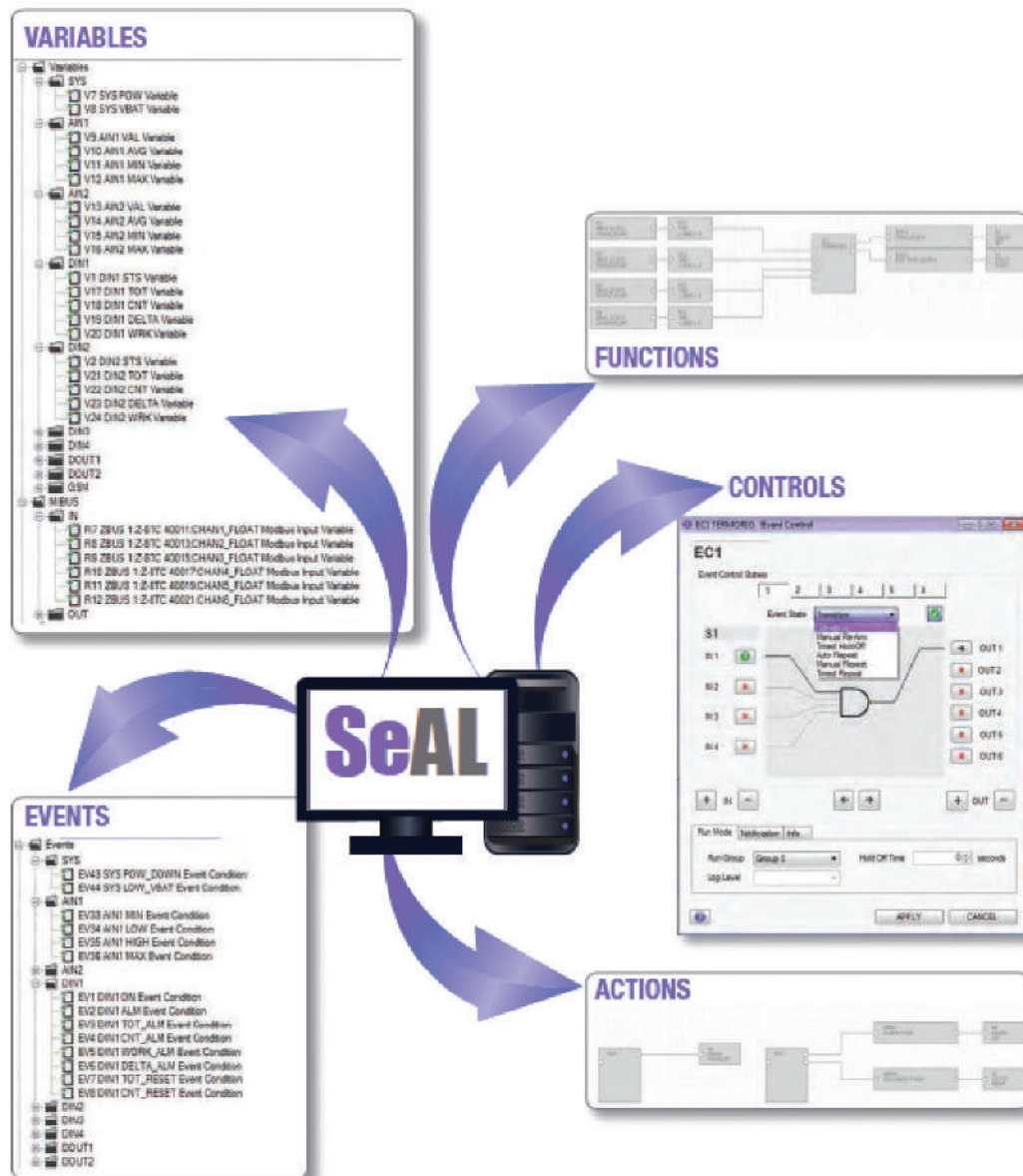
## SD-Z-GPRS2-SEAL

### Object Editor with function blocks

SEAL (SensorData Advanced Language) is an object-oriented programming system supported by all Windows platforms, designed for the management of advanced automation and remote communication projects.

SEAL can intuitively manage variables, controls, automation functions, alarms, thresholds, reporting, network communication settings with the possibility of configuration and remote update by Ethernet or SIM. SEAL key features are control alarms and events associated with the I / O channels, bit operations, comparators, trigger and timing sequence.

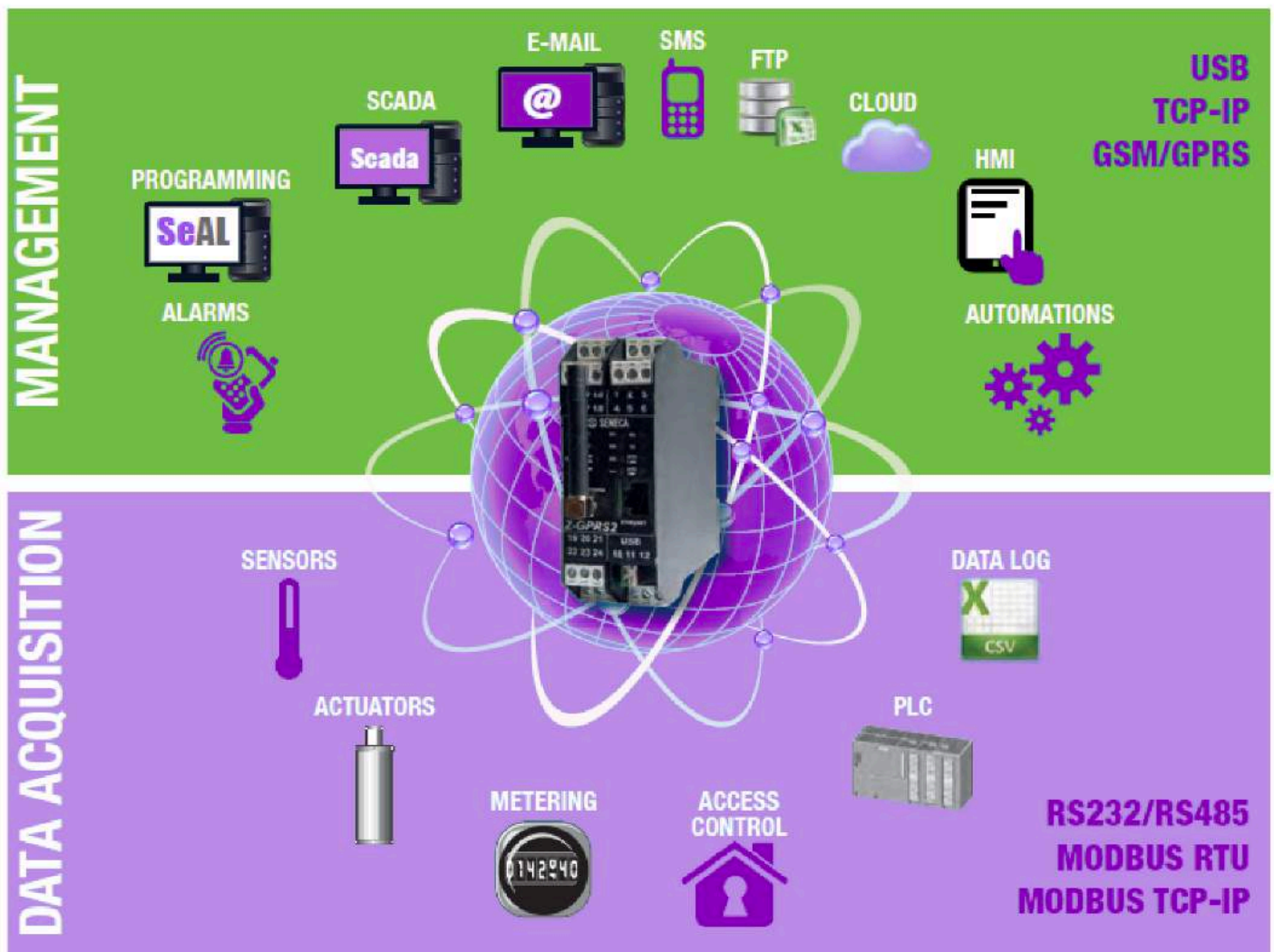
SEAL offers the possibility to set function blocks, control blocks on threshold and comprehensively manage the ModBUS variables of the devices to be programmed. With the new release 2 and 1.5 Legacy, SEAL is available as a configuration system for data logging, remote management and remote alarm units as SensorData ALARM2, SD-GPRS2-SEAL-Z and SD-ZLOGGER- SEAL.



# SENSOR DATA

## SD-Z-GPRS2-SEAL

SD-Z-GPRS2-SEAL is a GSM / GPRS datalogger with built-in I/Os and remote control functions. The devices are configured as Master unit for SD-Z-PC Line Distributed I/O System. Both versions offer high performance data acquisition and wireless commands, measures and alarms transmission. SD-Z-GPRS2-SEAL support web server, ftp server, MODBUS TCP-IP server. They also enable full compatibility with iPhone™, iPad™ and Android™ mobile devices.



## UNIVERSAL APPLICATION FIELDS



RENEWABLE  
ENERGIES



TELECONTROL



BUILDING  
TECHNOLOGIES



ENVIRONMENT  
MONITORING



M2M



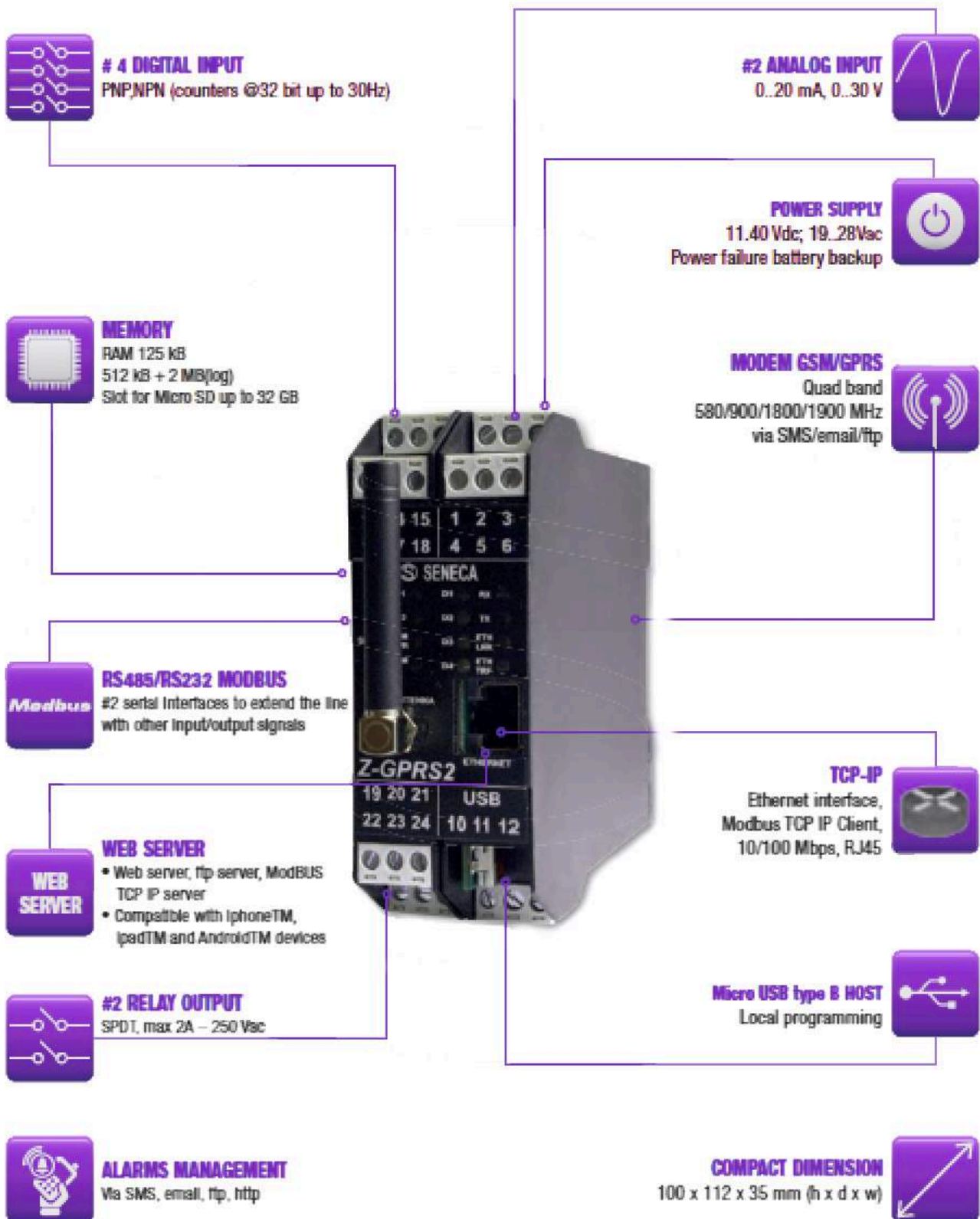
ENERGY  
MANAGEMENT



# SENSOR DATA

## SD-Z-GPRS2-SEAL

## HARDWARE, MAIN FEATURES

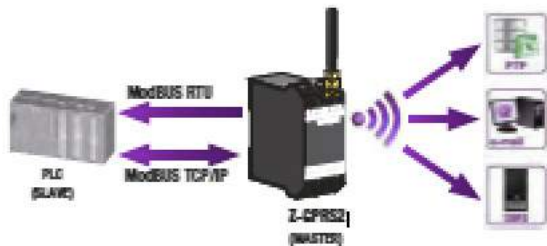


# SENSOR DATA

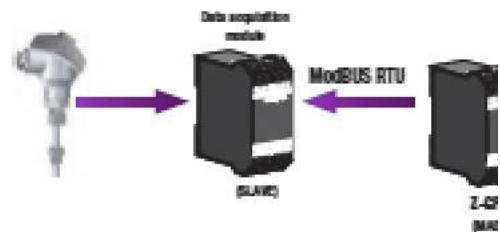
## SD-Z-GPRS2-SEAL

## APPLICATIONS DIAGRAMS

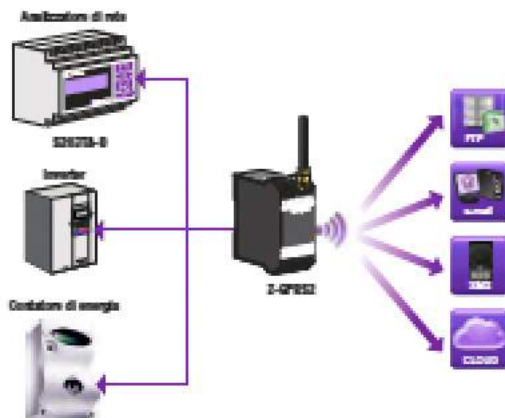
### PLC REMOTE MANAGEMENT



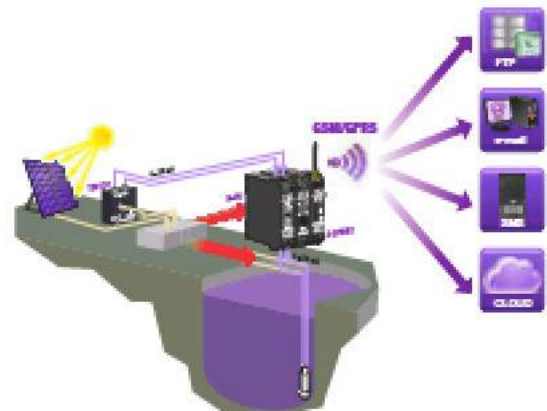
### ACQUISITION AND DATA RETRANSMISSION



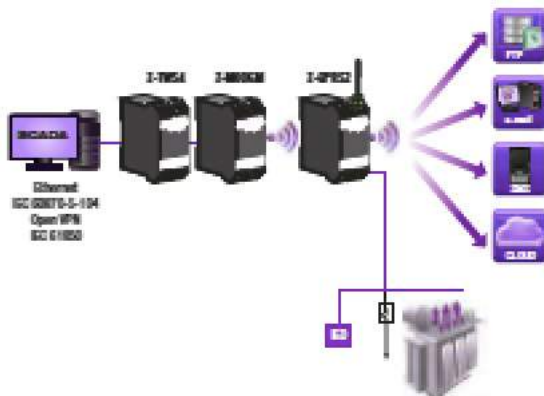
### SUPERVISION AND CONTROL OF MODBUS INVERTERS AND ENERGY METERS



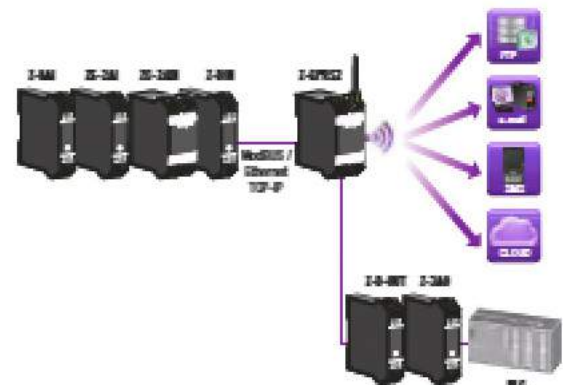
### GSM/GPRS TELECONTROL OF INTEGRATED PLANTS



### ENERGY AND LOAD MANAGEMENT

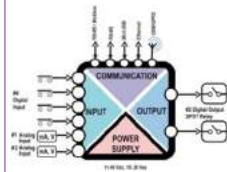


### DATALOGGING AND DATA RETRANSMISSION



# SENSOR DATA

## TECHNICAL SPECIFICATIONS SD-Z-GPRS2-SEAL



Z-GPRS2-SEAL is a GSM / GPRS quad band datalogger, with built-in I/Os and Ethernet interface. The device is configured as master unit of Z-PC Line remote I/O system . ZGPRS2-SEAL offers high performance for data acquisition, data storage, and wireless data transmission, measurements and alarms. Z-GPRS2-SEAL unit operates as a Modbus master unit on the RS485 serial communication port with wireless GSM / GPRS transmission mode. The software package SEAL allows, based on object oriented programming, enables control logic, automation routines, alarms, thresholds, timers, report management with the possibility to fully configure and upgrade the device by SIM card or Ethernet.

**GSM/GPRS datalogger with built-in I/O's, telecontrol functions and advanced programming language**

### TECHNICAL FEATURES

Power Supply	11..40 Vdc; 19..28 Vac
Power Consumption	2 W (standby), 6,5 W (max)
Backup Battery	Yes
Isolation	500 Vac between power supply and other circuits
Protection Degree	IP20
Signaling LDEs	I/O status, Communication (RX/TX), GSM, Power
Operating Temperature	-10..+50°C
Weight	280 g
Dimension	100 x 112 x 35 mm (hxdxw)
Mounting	DIN rail
Housing	PA6, black

### I/O CHANNELS

Digital Input	N° 4 digital input PNP, NPN (counters @32bit up to 30 Hz), max input voltage 30 Vdc
Analog Input	N°2 analog input, range 0..20 mA, 0..30V
Digital Output	N°2 relays SPDT max 2 A 250 Vac

### COMMUNICATION

MODEM GSM/GPRS	Quad band 580/900/1800/1900 MHz via SMS/email/ftp
Serial Interface	RS485 ModBUS, programmable baud rate (Master) RS485, programmable baud rate on terminal (Master)
USB interface	Micro USB, B HOST type
Ethernet Interface	Ethernet Port 10/100 Mbps (RJ45) 10/100 Mbps (RJ45)
System protocols	Ftp, Smtpt, http, ModBUS TCP, ModBUS RTU Ftp, Smtpt, http, ModBUS TCP, ModBUS RTU

### PROCESSING, MEMORY

CPU	ARM Cortex Processor M4 @ 32 Bit
RAM	128 kB
Flash Memory	Log 2 MB
Upgradeable	Memory Slot for Micro SD up to 32 GB
Datalogging	Measurement , Alarms, Data logging on micro SD card (max 32 GB) or on built-in flash memory

### PROGRAMMING

Tools	SEAL, SEAL LEGACY, EASY LOG VIEWER, EASY Z-GPRS2, SMS/email, Web server, Mobile App
Functions	<b>MAIN COMMANDS:</b> Commands on ringing, management of phone book enabled for commands and alarms (up to 20 contacts), commands protected by password, ModBUS RTU Master & ModBUS TCP-IP setting; <b>ADVANCED FUNCTIONS:</b> Events/alarms associated to I/O management, RTC, thresholds, filters, hysteresis; LOG variables management and ModBUS real-time management , built-in IO, totalized values; <b>LIBRARIES AND CONTROLS:</b> Bit operations, comparators, trigger and timers, calendars, schedules; threshold blocks, contacts management, pulses, reset, ModBUS variables; firmware update and remote configuration via FTP

### STANDARDS

Certifications	CE
Norms	EN 301511, EN 301489-1/7, EN 60950

### ORDER CODES

Code	Description
Z-GPRS2	GSM/GPRS datalogger with built-in I/O's and telecontrol functions
Z-GPRS2-SEAL	GSM/GPRS datalogger with built-in I/O's and telecontrol functions and advanced programming package. MSD included.
A-GSM	External GSM antenna dual band swing, cable 3,2 m
A-GSM-DIR-5M	GSM directive antenna, cable 5 m
FD01	Photodiode for pulses counting, freq. max 10Hz
KIT-USB	Programming kit with software, USB driver, users manuals and USB – miniUSB cable
MSD	Micro SD card with adapter
Z-PC-DINAL1-35	Support for DIN rail guide 35mm width

**Sensor Data**

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