Technical specification

Mechanical parameters	
- dimensions (w x h x d)	(315 x 415 x 175) mm, except connector and bushings
- weight	8 kg (depends on accumulator capacity)
- housing	plastic, ABS
Environment	
- protection class	IP65, according to EN 60529
- ambient temperature	-20 °C - +60 °C
- storage temperature	-30 °C - +85 °C (without accumulator)
- climatic resistance	suitable for installation in outdoor surround
Intrinsic safety	
- classification	non hazardous area, associated apparatus
- ATEX approval	FTZÚ 08 ATEX 0268X
Power supply	
- type of battery	VRLA accumulator 12V/7,2 Ah
- battery lifetime	5 years
- type of charging	230 VAC
Digital inputs	6 digital inputs, may be set as a impulse or binary: • 4 of them are intrinsically safe • binary inputs – max. 6 inputs, connecting of reed contact or non-potentional output • LF impulse inputs - max. 4 inputs, connecting of reed contact on nonpotentional output, WIEGAND
Digital outputs	4 digital outputs: • pulse or binary (SW configurable) • 1 of them is intrinsically safe
Inrinsically safe power supply for gas volume correctors	- 6 V
Interface for connection of correctors	- serial line RS485
Service communication interface	- serial line RS232, D-Sub 9 connector on board
Communication in GSM network	GSM modem - 900 MHz, 1800 MHz, GPRS – standard - 850 MHz, 1900 MHz – option

Manufacturer: ELGAS, s. r. o., Ohrazenice 211, 533 53 Pardubice, Czech republic
tel.: +420/ 466 414 500, 466 414 511 fax: +420/ 466 411 190
E-mail: sales@elgas.cz, http://www.elgas.cz

L902EN_200811

Manufacturer: ELGAS, s. r. o., Ohrazenice

GPRS communicator
DATCOM-AMR3/E
(Automatic Meter Reading)

- Automatic Meter Reading system
- Remote communication for Gas volume correctors
- Communication in GSM/GPRS network
- Installation in non-hazardous area
- 230V power supply with accumulator backup
- 6 digital inputs (pulse, binary)
- 4 digital outputs (pulse, binary)
- Communication through serial RS-232 interface
- Large size of data memory
- Easy inslatallation and easy maintenance

CE

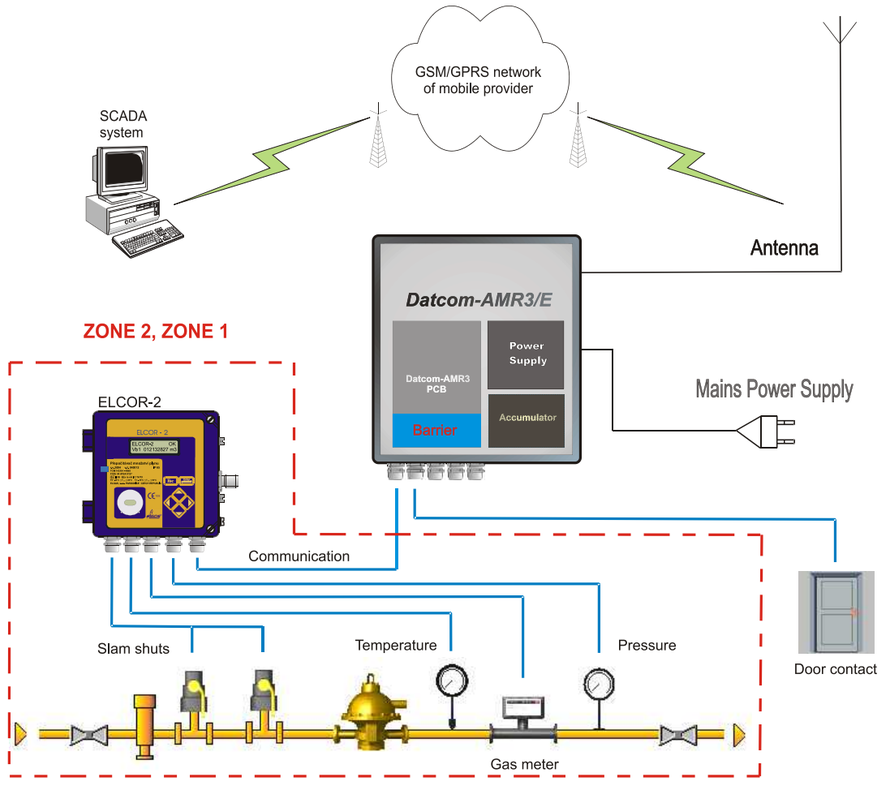
Device description

GPRS communicator DATCOM-AMR3/E belongs to category of Automatic Meter Reading devices. DATCOM-AMR3/E device meets the customer's needs for frequent data reading from the meters and following data transmission to the superior system. Device is constructed to be placed in non-hazardous area.

DATCOM-AMR3/E realizes two main functions - communication with superior system and collecting of data from connected correctors, impulse and state inputs. There is inbuilt GSM modem for communication with superior system, in mobile networks works in CSD regime (dial connection) and also GPRS modem.

The device is powered from AC 230V with accumulator backup. Backup time when power supply is interrupted depends on capacity of the accumulator. Thanks to using of the most modern components was the energy consumption minimize. In case of battery disconnecting or changing are data and pulse inputs back up from back up battery.

Example of application



Function

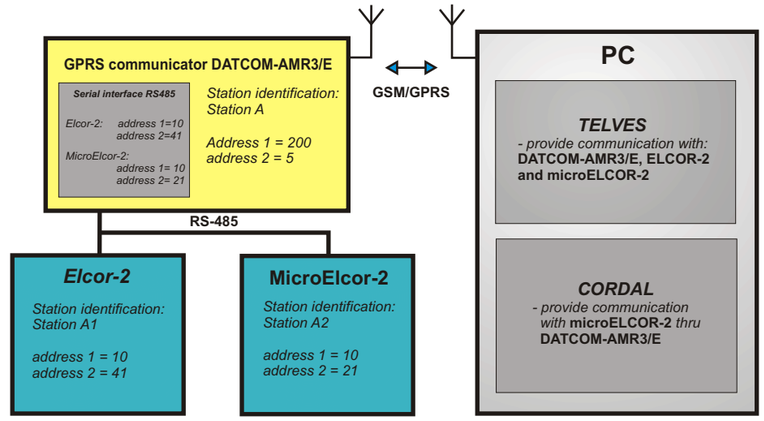
Correctors may be connected to the device using serial interface RS-485. Correctors produced by ELGAS, s.r.o. company (such as ELCOR-94, ELCOR-2, uELCOR and microELCOR-2) may be connected to the device as well as correctors made by other companies.

Digital inputs
The device is equipped with six digital inputs. Four of these inputs are intrinsically safe and configurable as binary or LF pulses. The remaining two inputs are non-intrinsically safe and are configurable only as binary. Binary inputs can be used as door contact sensors or sensors for safety slam shuts positions and so on. Pulse inputs serve for pulse outputs connection of gasmeters and gas volume correctors.

Digital outputs
Device is further equipped with four digital outputs. One of them is doubled like intrinsic safety. Another one is organized like intrinsic safety source 6V applicable for example like power supply of gas volume correctors.

Archives, Data transfer
Data from correctors and binary or pulse outputs are periodically read and saved to the archive. Also operational states of the device are monitored. According to configuration are evaluated alarm states. Content of archive is through GSM/GPRS communication transmitted to master system.
The communication may also be in “transparent regime”. Master system may in that regime communicate directly with correctors which are connected communicator and read out actual or archive values.
There are two possibilities of data transmission between communicator and superior system. Besides classic way of communication, when master system calls to device (so-called “call from above”) is possible to initiate data transmission by the device (so called “call underneath”). During this type of communication may device initiate data transmission either because of alarm state or periodically in set time interval.

Service software
For device configuration and managing of data collection from the connected devices is used service software Telves which is unified service software for latest Elgas products.



Example of system structure