



Highlights

- Battery power supplied
- External power supply (option)
- High accuracy and stability of measurement
- Embedded modem 2G/3G/4G/NB (option)
- Possibility to replace the modem on site
- MID and ATEX approved
- Long battery life
- Excellent price/performance ratio
- Antitamper protection

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Introduction

The newest member of the gas volume corrector family manufactured by ELGAS company. ELCORlite is battery power supplied gas volume corrector based on ELCOR and ELCORplus models.

It is a volume corrector with an integrated modem, optimized for projects where modularity is not required as in higher models.

Device description

ELCORlite is a single-channel gas volume corrector powered by lithium batteries. Low frequency pulse inputs are used to connect to the gas meter.

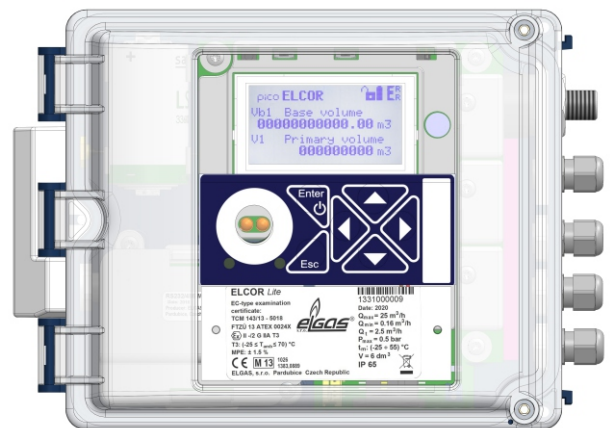
Pressure measurement is provided by the latest type of digital pressure transducer ELGAS EDT 125, which can be installed to the device as internal or external. Very wide measuring ranges (e.g. 80 - 2000 kPa) make it easier for the user to use the device in various types of measurements.

Temperature measurement is again performed by ELGAS product namely the EDT 124 temperature transducer which is a new digital converter with a semiconductor sensing element.

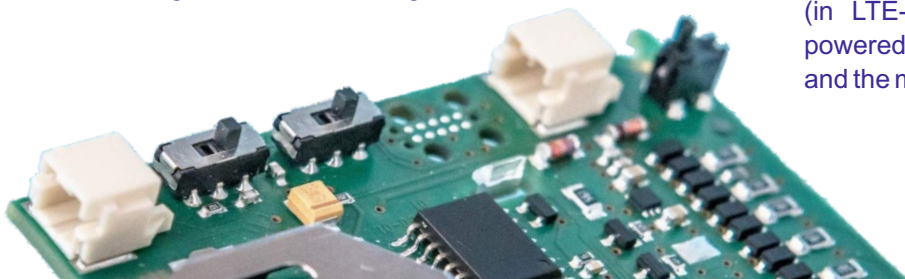
The local user interface is realized by LCD graphic display with backlight, which allows in combination with up to 6-button keyboard display of all information, including stored data and also offers the possibility to change the settings of basic parameters.

Alternatively, the device can be supplied with a segment display, which allows a permanent display of the measured quantities.

Communication with the corrector can be realized using a metallic RS485/RS232 serial interface. An optical interface (according to IEC-1107 / IEC 62056-21) is used for local setting or local data reading.



The device includes an optional integrated modem, which is available in variants that support all currently available networks, including IoT (Internet of Things) networks. In the future, the modem can be replaced at the installation site with a type supporting more modern technologies. ELCORlite is powered by batteries with a high capacity, ensuring the operation of the device for more than 10 years. The modem is powered by its own lithium battery which depending on the selected modem, allows the modem to operate for a period of time up to 20 years (in LTE-NB networks). Optionally, ELCORlite can be powered from an external source, both the corrector and the modem (PS-E and PS-M1 power supplies).



Technical specifications

Intrinsic safety	
Classification (according to variant)	Ex II 1G Ex ia IIB T4 Ga / Ex II 2G Ex ib IIB T3 Gb
Type approval ATEX (2014/34/EU)	FTZÚ 20 ATEX 0067X
Metrology	
EVC type according to MID	volume corrector Type 1
Variants	PTZ / T-corrector
Maximum error according to MID (%)	0.5
Typical error (%)	0.15
Type approval MID (2014/32/EU)	TCM 143/20 - 5757
Housing	
Housing material	Polycarbonate
Dimensions (W x H x D, mm)	234 x 182 x 61
Weight (kg)	approx. 1.5
Ingress protection (EN 60529)	IP 66, outdoor conditions
Environment temperature	-25°C to +70°C (optionally from -40°C)
Control panel	
Keypad	6 keys, capacitive keypad
Display	
Standard version	Graphical, backlit LCD, 128 x 64 pixels, activation from the keypad
Optionally	Segment backlit LCD, permanent display of values (working from -40 °C)
Pressure measurement	
Pressure transducer type	EDT 125 (internal or external)
Measuring ranges according to MID (kPa) accuracy 0.25% from measured value	80 - 520, 200 - 1000, 400 - 2000
Extended ranges according to MID (kPa) accuracy 0.25% from measured value	80 - 1000, 80 - 2000
Temperature measurement	
Temperature transducer type	EDT 124
Standard measuring ranges	-25°C to +70°C
Extended measuring ranges	-40°C to +70°C
Digital inputs	
Number	4
Configurable as	LF pulse / binary
Digital outputs	
Number	2
Configurable as	LF pulse / binary / analog (4 - 20 mA via external module CLO)
Communication interface	
IR optical interface	IEC-1107 / IEC 62056-21
Metalic serial interface	RS 485 (or RS 232 as option)
Modem	2G (GPRS) / 4G (LTE-Cat1) / 4G (LTE-M1) / 4G (LTE-NB)
Corrector power supply	
Battery type	Lithium battery, D cell, SAFT LS 33600 (3,6V/17Ah)
Battery life	12 years (at defined conditions)
External power supply	Intrinsically safe power supply module PS-E
Modem power supply	
Battery type	HBL-03 / HBL-04 / HBL-05 / SAFT LS 17500 (according to the modem used)
Battery life	5 - 20 years (according to the modem used)
External power supply	Intrinsically safe power supply module PS-M1