

VOLUME CORRECTOR SERIES

ELCOR



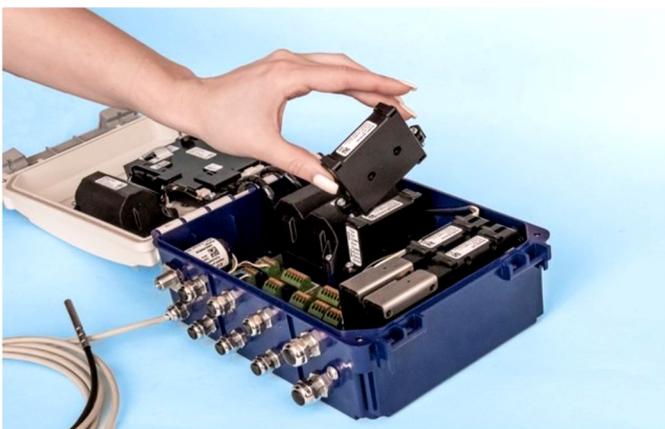
The best way to predict the future is to create it

Introduction

Elgas s.r.o. is the largest manufacturer for gas volume correctors, world-wide. When paired with FMG gas meters, they represent the latest technology in custody transfer gas metering. The latest Elgas volume correctors ELCOR*plus* and ELCOR are powerful solutions for billing purposes. The available Universal Datalogger for station control and monitoring, utilize the same base format and both are designed as compact devices integrating the metrological part together with a communication unit and telemetry features.

ELCOR*plus*

The most powerful model is the ELCOR*plus*. Its robust and modular design covers all known demands from Electronic Volume Corrector (EVC) to a powerful Datalogger. Information about primary volume can be received from all types of gas meters through low frequency pulse inputs (Reed contact or Wiegand sensor), HF pulses and absolute encoders (NAMUR, SCR+). For greater flexibility, the EVC can be equipped with an Elgas mechanical index with integrated relative encoder and installed on any brand/type of gas meter with an Instrument Drive. The software is configurable and the EVC can act as a P or T corrector, a P&T corrector with a fixed correction factor and as a full PTZ device calculating compressibility according to all known methods.



Modular Design

Configurability of the device either as a single or dual channel EVC with the possibility to add non-metrological channels. To meet the most demanding applications a fully equipped EVC includes:

- 6 pressure or temperature transducers
- 12 digital inputs
- 4 digital outputs
- 6 analogue inputs
- 4 analogue outputs



Communication

The ELCOR*plus* can handle two independent communication modems, internal and external. Selectable modem modules include 2G, 3G, 4G and 4G NB. The future proof modular design allows for easy replacement with future generation of modems without interruption operation. With regular calling once a day, battery lifetime is guaranteed for at least 5 years. For more frequent or permanent communication an external power supply module (AC or Solar) can be supplied. In addition, two selectable serial interfaces RS232/RS485 with various communication protocols are available for independent data transfer to data collection systems, monitoring and control systems.

ELCOR

A simplified version of the bigger ELCOR*plus* designed as a single channel EVC with only one RS485/RS232 serial port. A single battery powers the EVC and an optional embedded modem. The ELCOR is suitable for low cost projects where a reliable, smart but powerful EVC is demanded.

Datalogger DATCOM & DATCOM*plus*

For telemetry projects where dataloggers are required, DATCOM and DATCOM*plus* are available. Identical HW and FW as the ELCOR series, enhanced with functionality typical for datalogger applications. The open architecture together with flexible internal structure of ELGAS dataloggers brings unlimited solution for any project in gas segment.

Technical Data

| | Elcorplus | Elcor |
|---|--|--|
| Housing | | |
| Material | Glass fiber polycarbonate | |
| Dimensions | 10.4 x 7.9 x 4.4 in | 8.3 x 7.5 x 3.7 in |
| Weight (depends on configuration) | 4.85 lbs | 3.3 lbs |
| Protection class (EN 60529) | IP 66, outdoor environment | |
| Working Temperature | -13 °F to +158 °F (optionally from -40 °F) | |
| Control Panel | | |
| Keypad | 6 button capacitive keypad | |
| Display | Local reading of all measured instantaneous and archived data. | |
| Standard Variant | Graphic backlit LCD 128 x 64 | |
| Optional | Alphanumeric segment backlit LCD (working from -40 °C ; always ON) | |
| Digital Transducers (max. 2) | | |
| Pressure transducer type | EDT 96 | |
| Standard MID approved ranges - absolute | 11.6 - 75.4; 29 - 145; 58 - 290; 101.5 - 507.6; 203 - 1015.3; 362.6 - 1885.5 psia | |
| Extended MID approved ranges - absolute | 11.6 - 145; 11.6 - 290; 58 - 1015.3 psia | |
| Non MID ranges - absolute (accuracy 0.2% full scale) | 11.6 - 507.6; 11.6 - 1015.3; 11.6 - 1885.5 psia | |
| Non MID ranges - gauge (accuracy 0.4% full scale - below 1 bar) | 0 - 2.9; 0 - 14.5; 0 - 23.2; 0 - 58; 0 - 87; 0 - 145; 0 - 362.6; 0 - 580.2; 0 - 1015.3 psia | |
| Temperature transducer type | EDT 101 | |
| Measuring range standard | -13 °F to +158 °F | |
| Measuring range extended | -40 °F to +158 °F | |
| Power Supply | | |
| EVC battery packs - battery life (in defined conditions) | B - 03 (17Ah) lithium battery - up to 11 years | B - 03 (17Ah) lithium battery - up to 11 years |
| Modem battery packs - battery life (in defined conditions) | HB - 03 (GSM/GPRS modem, lithium battery, 12Ah) - up to 6 years HB - 03D (GSM/GPRS modem, lithium battery, 20Ah) - up to 11 years HB - 04 (LTE modem, lithium battery, 12Ah) - up to 6 years | |
| External power supply | PS - E external module (EVC) PS - M external module (MODEM) | not available |
| Communication | | |
| Serial communication interface | 2 x RS232 or RS485 | 1 x RS232 or RS485 |
| Optical communication interface | optical interface (EN 62056 - 21) | |
| Wireless communication (modem) | GSM/GPRS LTE Cat1 LTE M1 LTE - NB (preliminary) | |
| I/O capabilities | | |
| Digital inputs | up to 12x (LF, 2x HF, binary) | 3x (LF or binary) |
| Digital outputs | 4x (LF or binary) | 2x (LF or binary) |
| Analog inputs (4 - 20mA) | up to 6x (optional) | not available |
| Analog outputs (4 - 20mA) | up to 4x integrated (optional) up to 4x (using external module CLO) | 2x (using external module CLO) |
| Encoder Interface | | |
| Encoder types supported | NAMUR, SCR+, ELGAS | |

