



## BATTERY VOLUME CONVERSION DEVICE

Model EK155

### Product informations

**EK155**, electronic volume converter with data logging, charging and integrated GPRS/GSM communication module; this device calculates volumes and flow rates at standard conditions on the basis of consumption data provided by pulses proportional to the gas flow from the connected gas meter and analogue measurements of gas temperature and pressure.

### Product features

- designed to be easily installed in Elster BK-G10 and BK-G25 meters
- consisting of a central unit with an external pressure probe and a temperature sensor
- sensors are permanently connected to the apparatus
- the sophisticated data logging function stores consumption data according to different tariff levels, an event log is used to store all events such as clock synchronisation, component errors, parameter changes etc.
- meter readings, measured values and parameters, are displayed on an alphanumeric LCD display, only with icons indicating the status of the device
- three digital inputs (2 x LF, 1 x status)
- two digital outputs
- remote firmware update (WELMEC 7.2)
- CTR communication protocol
- separate batteries for volume conversion and data communication
- *MID Approval*
- *ATEX approval for use in zones 0,1 (GPRS modem included)*
- *Compliant with Resolution ARG 155/08*
- *Conforms to Italian standard UNI-TS 11291*



## Applications

- conversion of volumes for billing activities
- data recording according to different tariff schemes
- automatic data transfer to the SAC

## Technical Features

|                                     |   |
|-------------------------------------|---|
| <b>METROLOGICAL APPROVAL</b>        | MID APPROVAL<br>COMPLIANT WITH EUROPEAN<br>STANDARD EN 12405-1:2011-04  |
| <b>ATEX APPROVAL</b>                | ATEX ZONE 0, 1, II 1G EX IA IIA T3 WITH<br>INTEGRATED MODEM   |
| <b>PROTECTION DEGREE</b>            | IP65 (PROTECTED AGAINST WATER<br>JETS FROM ANY DIRECTION AND<br>COMPLETELY SEALED AGAINST DUST<br>AND FUMES) IN ACCORDANCE WITH EN<br>60529 |
| <b>ENVIRONMENTAL<br/>CONDITIONS</b> | - 25°C ÷ + 70°C   |
| <b>POWER SUPPLY<br/>CONVERTER</b>   | 1 LITHIUM BATTERY MODULE, 3.6<br>V, TYPE LP-08, CAPACITY: 17 AH<br>(LIFETIME > 5 YEARS UNDER<br>STANDARD OPERATING<br>CONDITIONS)           |
| <b>BACKUP BATTERY</b>               | 1 LITHIUM BATTERY, 3.6 V, SIZE 1/2 AA,<br>CAPACITY: 1 AH  |



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| <b>MODEM POWER SUPPLY</b> | 1 LITHIUM BATTERY MODULE, 3.6 V, TYPE LP-07 (LIFETIME > 5 YEARS UNDER STANDARD OPERATING CONDITIONS)<br>LP-07D (38 AH), CAN OPTIONALLY BE USED TO DOUBLE THE BATTERY LIFE   |
| <b>CONTROL PANEL</b>      | KEYPAD WITH 2 KEYS  |
| <b>DISPLAY</b>            | ALPHA NUMERIC LCD DISPLAY   |
| <b>INPUTS</b>             | 3 DIGITAL INPUTS:<br><ul style="list-style-type: none"> <li>• 2 FOR THE LF CONNECTION FOR THE PULSE GENERATOR</li> <li>• 1 FOR STATUS SIGNALS</li> </ul>  |
| <b>OUTPUT SIGNALS</b>     | 2 TRANSIENT DIGITAL OUTPUTS   |
| <b>PRESSURE SENSOR</b>    | TYPE KP070, PRESSURE RANGE 0.8 - 5.2 BAR / 2 - 10 BAR / 4 - 20 BAR EXTERNAL VERSION, CABLE LENGTH 0.75 OR 2.5 M<br>CONNECTION FOR PRECISION STEEL TUBE OR PRESSURE HOSE, THREAD M12 X 1.5                               |
| <b>TEMPERATURE SENSOR</b> | TYPE TR115, PT-1000 - TWO-WIRE RESISTANCE THERMOMETER TO EN 60751, CLASS A<br>TEMPERATURE RANGE: - 25°C TO + 60°C<br>WITH PROTECTIVE TUBE FOR USE IN A SUMP<br>SENSOR SIZE: 50 MM, Ø 6 MM, CABLE LENGTH 0.75 M OR 2.5 M |



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| <b>ARCHIVES</b>       | <ul style="list-style-type: none"> <li>• ARCHIVE FOR MONTHLY VALUES, CAPACITY: 25 RECORDS</li> <li>• ARCHIVE FOR DAILY VALUES, CAPACITY: 400 RECORDS</li> <li>• ARCHIVE FOR MEASUREMENT INTERVAL VALUES (INTERVALS 1 S - 1 H), CAPACITY: 14,300 RECORDS</li> <li>• ARCHIVE FOR CURRENT OR PREVIOUS BILLING PERIODS, CAPACITY: 15 RECORDS</li> </ul> |
| <b>REGISTERS</b>      | <ul style="list-style-type: none"> <li>• STATUS ARCHIVE - RECORDING OF ALL EVENTS OCCURRED, CAPACITY: 500 RECORDS</li> <li>• SETTINGS ARCHIVE - RECORDS OF PARAMETER OR VALUE CHANGES, CAPACITY: 500 RECORDS</li> <li>• GAS COMPOSITION ARCHIVE, CAPACITY: 150 RECORDS</li> </ul>   |
| <b>DATA INTERFACE</b> | OPTICAL INTERFACE IN ACCORDANCE WITH IEC 62056-21   |
| <b>MATERIALS</b>      | POLYCARBONATE PLASTIC CASE FOR INSTALLATION ON THE METER, PIPE OR WALL  |
| <b>DIMENSIONS</b>     | 178 X 233 X 47 MM (HXWXD) - INCLUDING CONNECTOR COVER   |
| <b>WEIGHT</b>         | APPROX. 1.3 KG (INCLUDING BATTERIES)  |

| SKU         | MODEL                         | PRICE                |
|-------------|-------------------------------|----------------------|
| 00000050553 | VOLUME CONVERTER - MOD. EK155 | €1709.4 VAT EXCLUDED |



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