EK210

Electronic volume corrector

This product is discontinued!

Applications

The EK210 can be used universally for invoicing purposes

Brief information

The EK210 is a compact, battery-operated device consisting of a central unit with an integrated pressure sensor and a permanently connected Pt-500 temperature sensor.

Operation: All actual values, parameters and the latest standard volume meter readings can be called up and displayed via two keys, with which parameters can also be set and changed. The arrow keys guarantee user-friendly navigation through the data display, which is divided into two levels. Each value is shown together with a complete description and the corresponding unit of measurement.

Additional functions: The meter readings for the last 15 months for both V_m and V_b are stored at the beginning of the month in the monthly archive. The end-of-month V_m and V_b readings from the previous month can be called up on the display. A logbook for up to 250 entries makes it possible to monitor the operation of the EK210 and to record events such as status changes, signal inputs or when limits have been exceeded. The last 200 changes made to the parameters are recorded in a further logbook (Audit Trail). The monthly archive and the logbooks can all be accessed via the optical interface with the help of the parameter software WinPADS.

Inputs: The EK210 has three digital inputs for reed switches or transistor switches. The inputs can be used as pulse or status inputs.

Outputs: Four freely definable digital outputs enable the transfer of a large range of data. If they are programmed as pulse outputs, this enables the transfer of volume pulses necessary for a metering cycle and if they are programmed as status outputs, messages or warnings can be displayed.
Two of the outputs are alternatively officially protectable by calibration lock.

Versions: The EK210 is designed for either wall-mounting, pipe-mounting or direct meter-mounting. For wall-mounting the housing is equipped with bore holes and for meter-mounting, a mounting bracket is available.

Main features

- System volume corrector
- Conform to European Standard EN 12405
- MID approval
- Calculation of compressibility in accordance with S-GERG-88 or with a programmable fixed value
- Data logger for monthly meter readings V_m and V_b
- Integrated logbook for recording events and changes (Audit Trail)
- High accuracy
- Optical interface for setting parameters and reading out data (IEC 62056-21)
- Mains-free operation
- Suitable for use in Ex-Zone 1
- Four freely programmable digital outputs, two of which are sealable

EK210: Electronic volume corrector

Technical data	
Order number	83 462 250
Housing	Cast aluminium for wall, pipe or meter assembly
Dimensions	H 126 mm x W 126 mm x D 90 mm (not including connections)
Weight	App. 1.5 kg
Metrological approval	Conform to European Standard EN 12405-1: 2005 + A1: 2006 MID - DE-08-MI002-PTB001 volume conversion device
ATEX approval	Zone 1, ID: EEx ia IIC T4
Protection class	IP 66 (suitable for outdoor installation)
Ambient conditions	Temperature: -25 to +55 °C
Power supply	1 lithium battery module (operational life > 5 years under standard operating conditions) Battery can be changed without breaking calibration seals
Control panel	2-key plastic-coated keypad
Display	Two-line DOT-matrix display with description of displayed value
Inputs	3 digital inputs for connecting LF pulsers and status signals (e.g. tamper detection)
Pressure sensor	Integrated in the housing, precision steel-pipe connection (Ermeto 6L), 12 x 1.5 thread Pressure ratings 0.7 – 2 bar / 0.8 - 5 bar / 1.4 - 7 bar / 2 – 10 bar / 2.4 - 12 bar / 4 – 20 bar / 6 - 30 bar / 8 - 40 bar / 14 – 70 bar / 16 – 80 bar
Temperature sensor	Pt-500 resistance thermometer to DIN 60751 with protective tube, for use with thermowell. Fitting length 50mm, Ø 6mm, length of supply cable 2.5 m
Compressibility	Calculated in accordance with S-GERG-88 or as fixed value
Signal outputs	4 digital transistor outputs, for use as required, 2 of them protectable via calibration lock - Pulse output for all actual or standard volume meters - Signal output for alarm/warning status information
Archive	Monthly archive - Meter readings and maximums of the last 15 months for V_b and V_m
Logbooks	Event logbook - Recording of non-periodic events (e.g. time changes) with time stamp - Storage capacity 250 records Change logbook (audit trail) - Recording of all parameter changes with time stamp (old and new values) - Storage capacity 200 records
Interface	- Optical interface in accordance with IEC 62056-21 (IEC1107)

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