

# Product is discontinued!

## TC210

### Electronic temperature volume corrector



#### Applications

Billing of gas consumption with consideration of the current gas temperature

#### Brief information

The TC210 is a battery-operated volume corrector with a permanently connected temperature sensor. It registers the volume pulses from a gas meter and calculates the standard volume using the gas temperature measured by the sensor. In this calculation, the values for the gas pressure and the compressibility are included as constant, fixed values.

**Operation:** All of the current values and parameters can be called up on a 12-digit display with the help of only one button. The data is organised in the form of a simple list. The values are displayed together with a complete description and the corresponding unit of measurement.

The main menu (user list) contains the values for standard volume, actual volume, temperature, time, gas pressure as well as the compressibility and the conversion factors. When required, any other data such as system or status information or archive data can be displayed by calling up further available menus.

**Additional functions:** The archive in the TC210 records meter readings and other measured values on a monthly basis. In addition to these entries, meter readings and measured values are also stored in the case of any special events (e.g. when the clock or a meter is reset). More than 500 archive lines are available for storing the data.

All of the data recorded in the archive can be called up on the display and can be read out via the interface. The data can then be further processed with the help of the software components WinLOOK and WinVIEW.

The WinPADS parameterisation and readout software and a connection cable with an optical interface are available for the purpose of setting parameters and starting up the device. This is not necessary if the required settings have already been entered exworks.

The TC210 has two sealable outputs in order to connect any further processing devices. The outputs can be used to transmit standard or actual volume pulses or to signal any errors or faults.

**Versions:** The TC210 has a robust plastic housing with a separate battery compartment. The battery can be replaced without breaking the official calibration seal. In order to ensure the best possible mounting conditions in combination with different types of gas meters (diaphragm, rotary and turbine meters), a number of different versions are available. The TC210 can also be mounted on a wall.

#### Main features

- Temperature volume corrector for meter sizes G10 to G250
- Conform to European standard EN 12405
- PTB approval
- Suitable for use in Ex-Zone 1 EEx ib IIB T4
- High metering accuracy
- Pressure value fixed constant
- Data logger for monthly meter readings  $V_m$  and  $V_b$
- Optical interface for setting parameters and reading out data (IEC 62056-21)
- Battery operated
- Two freely-programmable digital outputs
- Various mounting possibilities

# TC210: Electronic temperature volume corrector

Technical data	
Order number	83 452 240
Housing	Plastic housing with separate battery compartment
Dimensions	H 157 mm x W 117 mm x D 57 mm (not including connections)
Weight	Approx. 600 g
ATEX approval	Zone 1, ID: EEx ib IIB T4
Protection class	IP 65
Ambient conditions	Temperature: - 30 to + 60 °C
Power supply	1 lithium battery module 3.6V / 16.5 Ah (operational life up to 8 years in standard operation) Battery change without loss of data and without breaking calibration seals
Control panel	1-key plastic-coated keypad
Display	12-character LCD display
Pulse inputs	2 digital inputs for pulse generators (f < 2 Hz) and status signals (e.g. manipulation contact)
Temperature sensor	Type Pt-500 Class B in accordance with DIN IEC 751 permanently connected to volume corrector
Temperature measuring range	Gastemperature: - 20 to + 60 °C
Pressure	Fixed value: 0.5 to 6.0 bar (absolute)
Calibration switch	Button inside device
Measuring error under normal operating conditions	Actual volume: no lost pulses Standard volume: ≤ 0.2 % of reading Temperature: ≤ 0.1 % of reading Flow rate: ≤ 5 % of reading
Signal outputs	2 digital transistor outputs, freely programmable and sealed via calibration lock as - Pulse output for all actual or standard volume meters - Signal output for alarm and/or warning
Data interface	Optical interface in accordance with IEC 62056-21 (IEC1107)

## BK-G40 with TC210



Assembled on the thermowell

## TRZ2 G160 with TC210



Assembled on the index

## RVG G65 with TC210



Assembled on the thermowell

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