

News about the Elster ultrasonic gas meter

Ultrasonic transducer Rb-Ti

The successor for the transducer Rb5 used for nearly 10 years is now available in the form of the newly developed ultrasonic transducer Rb-Ti. The wetted parts of the Rb-Ti are made of titanium and feature both an extended pressure and temperature range and a potentially higher

insensitivity to soiling compared to its predecessor.

As neither the dimensions nor the installation type have changed, the new transducers can be directly used in place of the old ones.



Two-part design: The wetted part is made of titanium, the connection block of brass.



Old transducer Rb5

New transducer Rb-Ti

The new ultrasonic transducers have been incorporated into the production of ultrasonic gas meters with immediate effect.

Specification:

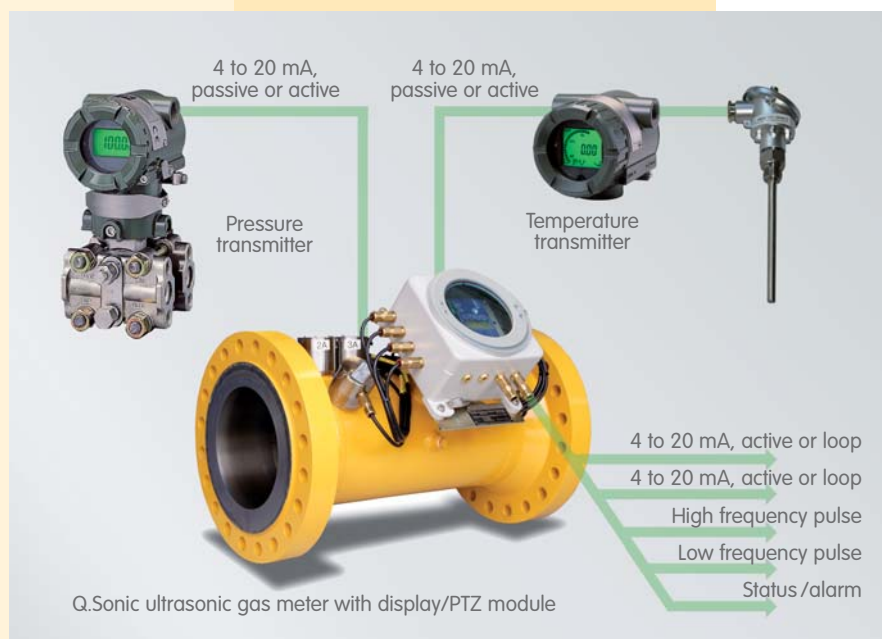
- Frequency 200 kHz
- T_{max} 120°C
- p_{max} 150 bar (retractable under pressure) > 400 bar (non-retractable)
- Interchangeable with Rb5 transducer

Volume correction module (PTZ module)

For non-custody transfer applications, we also offer a new volume correction module for CheckSonic and Q.Sonic ultrasonic gas meters.

In addition to the inputs for pressure and temperature transmitters, the module also includes a display unit and several outputs. The PTZ module can be used together with the Series III and Series IV signal processing units (SPU).

The technical details of the module are shown in the table on page 14.



Function	Internal volume correction with live inputs for pressure and temperature (for non-fiscal metering only!)
Inputs RS-232 serial port 2 x analogue inputs	Internal connection to the flow meter board (ProDSP) 4 to 20 mA, passive or active (24 V DC), two-wire, 16 bit resolution, scalable range Temperature input: -50 to +200°C (-58 to +390°F) Pressure input: 0 to 25,000 kPa (0 to 3625 psi-a)
Outputs 2 x analogue outputs HF output (high frequency) LF output (low frequency) Status/alarm	Active or loop powered, 4 to 20 mA, two-wire, 16 bit resolution, scalable range Opto-coupler, 0 – 5000 Hz, $I_{max} = 30$ mA Opto-coupler, 1 pulse per 0.1 m ³ /1 m ³ /10 m ³ / ... 100,000 m ³ alternatively imperial units, $I_{max} = 30$ mA Opto-coupler, $I_{max} = 30$ mA
Display + keypad	LED, backlit, 4 lines x 20 characters, 4 keys Display and keypad are used for PTZ board set-up. In normal operation, the main values are displayed alternately.
Calculation methods (Z)	<ul style="list-style-type: none"> • Off, volume correction disabled • AGA 8 gross method 2 • SGERG-88
Ambient temperature range	-20°C to +60°C

We will continue to keep you posted on the topic of ultrasonic gas measurement.