



ULTRAMAG ULTRASONIC GAS FLOW METER COMPLEX



Smooth Flowmeters
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PRODUCT DESCRIPTION



ULTRAMAG - is a ultrasonic gas flow meter complex based on ultrasonic technologies for measuring of gas flow and volume rate with the possibility of temperature, pressure and gas compressibility factor correction.

ULTRAMAG – PROVIDING YOU WITH THE PERFECT GAS FLOW METER FOR ANY APPLICATION

Function:

ULTRAMAG is destined for the commercial and the industrial market. The complex is produced with dynamic range of measurement 1:160 and rate values from G10 to G250. ULTRAMAG competes with membrane gas meters G25...G65. Ultrasonic complexes ULTRAMAG have compact pipe runs. The connection to the pipeline is performed by thread connection for diameters of 40, 50, 80 mm, as well as flanged with nominal inside diameter of 80 and 100 mm.

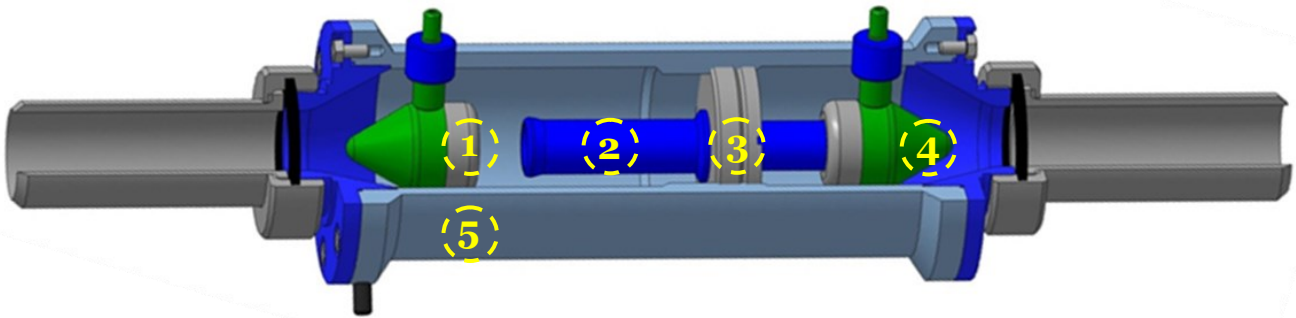
Application:

Complexes can be used in gas-distribution plants, gas distribution points, boiler and industrial plants and other gas metering stations with inlet pressure up to 1.6 MPa. ULTRAMAG can be used for measurement of natural gas, biogas and LPG in a steam state.

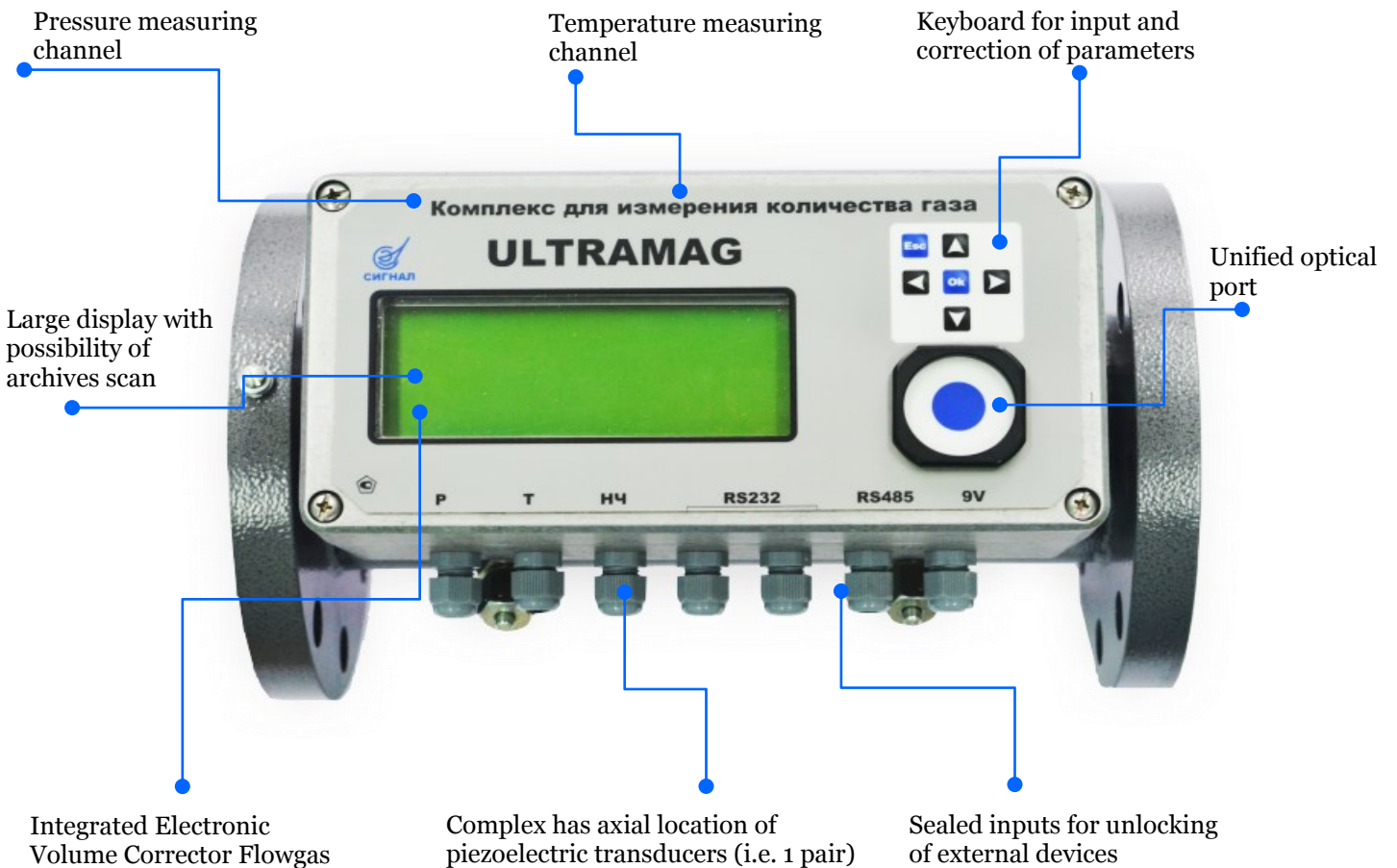
Advantages

- Placingany position;
- Wide measuring range of pressure channel1:11;
- Wide flowrate range Q_{min}/Q_{max} 1:160;
- Simultaneous operation of three interfacesRS-232, RS-485, optoport;
- Calibration interval6 years;
- Autonomous power supply up to6 years;
- Supply withabsolute pressure or overpressure transducer;
- Deep archive of records about2000 months;
- Temperature rangefrom -40°C up $+60^{\circ}\text{C}$;
- Operation with pressures from0 up to 1.6 MPa;
- Explosion protection1ExibIICT4 X
- Dust-and-moisture protectionIP 65

PRODUCT DESIGN



- 1-----Piezoelectric transducer
- 2 -----Reed-pipe
- 3-----Partial disk
- 4 -----Air cowling
- 5-----Housing



METROLOGICAL PARAMETERS

The relative error for volume measuring on the flowrates from Qmax to Q tran., %.....	±1
The relative error for volume measuring on the flowrates from Qmin to Qtran., %	±2
The relative error of pressure measuring channel, %	±0.4
The relative error of temperature measuring channel, %	±0.15
The relative error of conversion to standard conditions, %	±0.5
The relative error of calculations, %	±0.005
The measuring range of absolute pressure, kgf/cm ²	0.9-10
Pressure loss at maximum flowrate:	
-320 Pa—for meters type 1	
-700 Pa—for meter type 2	

TECHNICAL PARAMETERS

DN	Type	Qmax, m ³ /h	Size, mm	Weight, kg
40	16	25	320 * 130 * 180	15
40	25	40	320 * 130 * 180	15
50	16	25	320 * 130 * 180	15
50	25	40	320 * 130 * 180	15
50	40	65	320 * 130 * 180	15
50	65	100	320 * 130 * 180	15
80	65	100	320 * 185 * 200	19
80	100	160	380 * 255 * 230	23
100	100	160	380 * 255 * 230	23
100	160	250	380 * 255 * 230	23
100	250	400	380 * 255 * 230	23