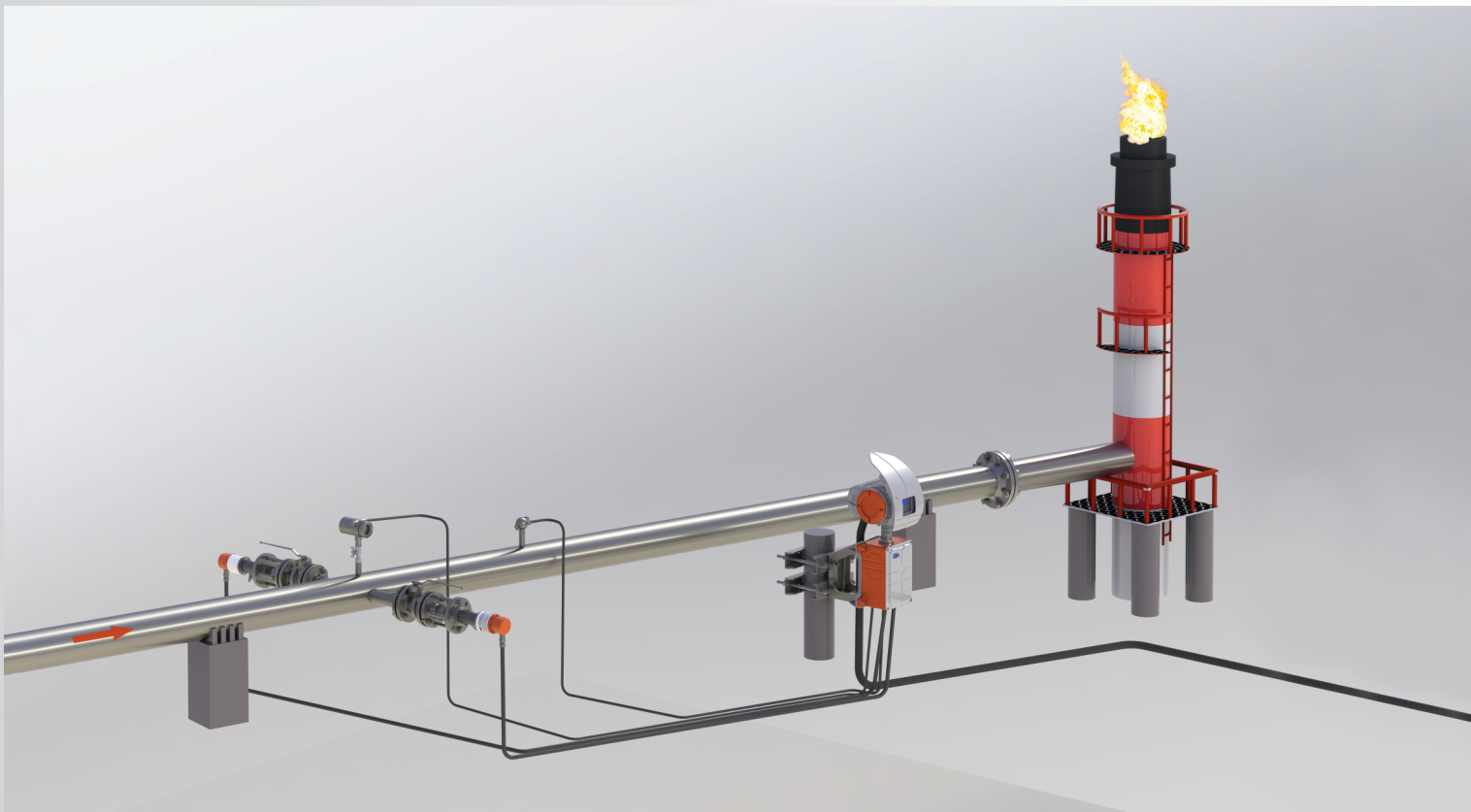


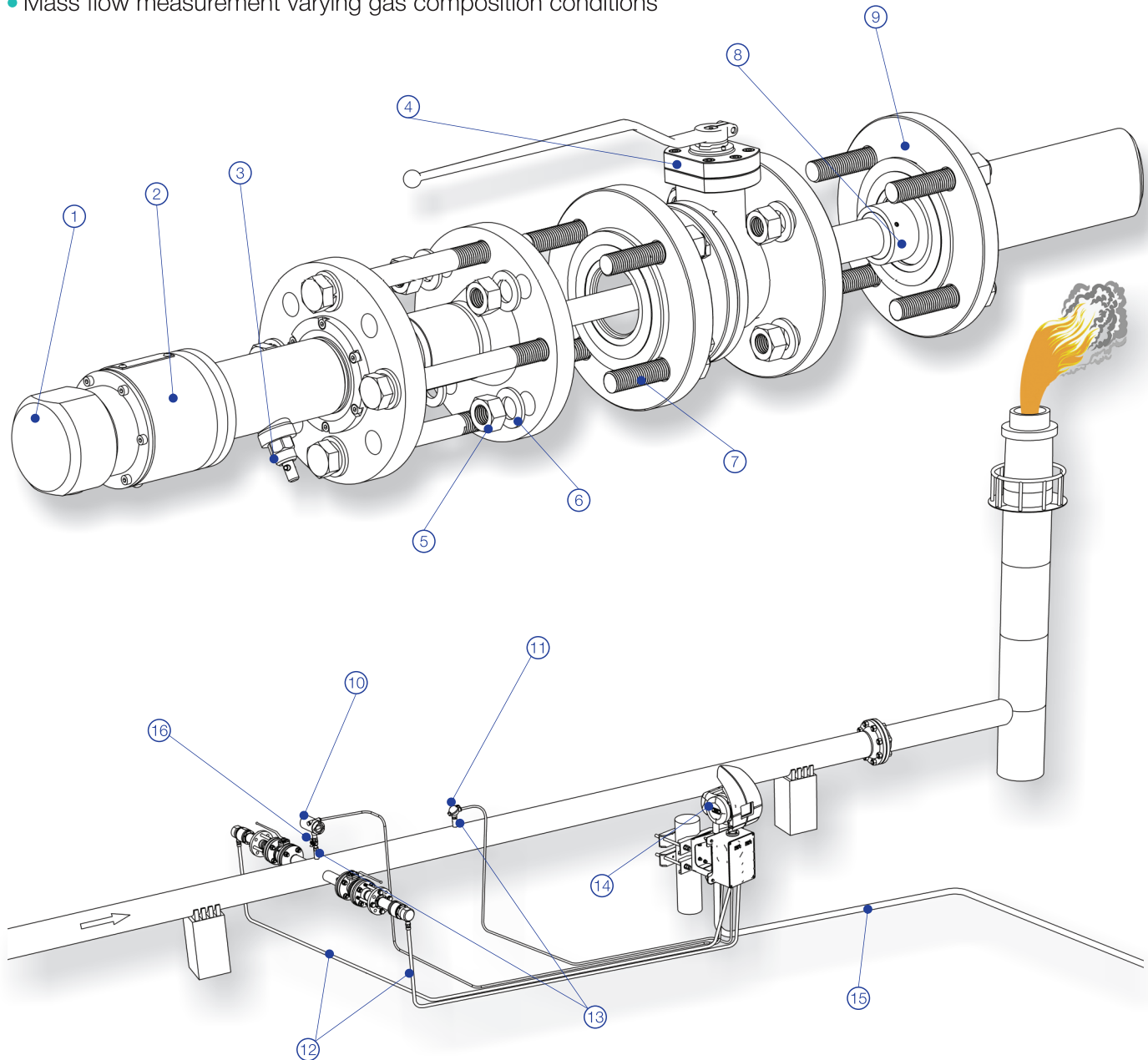
# KTM100 RUS<sup>®</sup>

ULTRASONIC FLARE GAS METER



## APPLICATIONS

- Process gas measurement
- Detection of flare gas leakage and monitoring gas losses
- Measurement of wet gases with high liquid fraction and solid particle content
- Flare gas measurement on offshore oil and gas platforms
- Mass flow measurement varying gas composition conditions



- 1. ex terminal compartment
- 2. ex electronic unit
- 3. pressure balance element
- 4. ball valve
- 5. nut
- 6. washer
- 7. threaded pin
- 8. sender/receiver unit

- 9. nozzle
- 10. pressure sensor
- 11. temperature sensor
- 12. connection cable
- 13. temperature and pressure sensor arrangement
- 14. information processing unit (IPU)
- 15. connection cable
- 16. pressure sensor



## ULTRASONIC FLARE GAS METER KTM100 RUS

- ✓ Our products are completely developed and manufactured in Russian Federation
- ✓ We have complete set of design and experimental data of our products that verify product quality
- ✓ We have own testing facilities that guarantee product precision and durability
- ✓ We have service centers across the world that can provide complete set of customer support
- ✓ We have robust production line that ensures shortest on-time product delivery to our customers



Zero flow test box is used for systematic field verification of the device operation aka zero-flow verification (once every 4 years) test of KTM100 RUS gas meter

### ADVANTAGES OF ZERO-FLOW VERIFICATION

- ✓ Field verification of KTM100 RUS, no need for laboratory verification
- ✓ No dependence on pipe diameter or measurement range



# ULTRASONIC FLARE GAS METER KTM100 RUS

Technical details	KTM100 RUS			
Sender/Receiver Unit	KTM100 FL LB	KTM100 M LB	KTM100 P LB	KTM100 Lite
Gas velocity range, m/s	0,03 - 120		0,03 - 90	0,03 - 120
Uncertainty of the measurement, volumetric flow rate a.c., %	1 – path measurement: 2 or 1,5 2 – path measurement: 1,5 or 1			
Uncertainty of the mass flow rate calculation, %	0,005			
Resolution, m/s	0,001			
Operation temperature range, °C	From -70 up to 180 <sup>1)</sup>			From -40 up to +180 <sup>1)</sup>
Installation angle, °	75	90	75	75
Pipe diameters, m <sup>2)</sup>	0,2 - 1,8	0,08 - 0,6	≥ 0,3	0,08 - 0,6 <sup>3)</sup>
Operation pressure range, MPa	-0,05 - 1,6 <sup>4)</sup>			-0,05 - 1,6
Ambient temperature, °C	Sender/receiver units: -70 ... +60 IPU: -50 до +60*			
Ex-approvals				
Sender/receiver units	1 Ex d IIC T2...T6 Gb		0 Ex ia IIC T2...T6 Ga	
IPU	Ga/Gb Ex db e ia [ia Ga] IIC T4...T6			
I/O ports				
Analog outputs	1 output: 0/2/4 ... 22 mA, + 500Ω According to NAMUR NE43 (Standardization Association for Measurement and Control)			
Analog inputs	2 inputs: 0...5/10 V or 0...20 mA			
Digital outputs	Pulse/Frequency output (additional module); 3 outputs: 30 V DC/33 mA, max. frequency 10 kHz, outputs OC (Open collector) or NAMUR Status signals: normal operation/maintenance, service, and function control, range limit, maintenance needed.			
Digital inputs	1 digital input, 30 V DC/33 mA			
USB/Serial ports	USB (optional) RS485 - standard Ethernet (optional)			
Optional output signals	4-20mA/HART, RS485/MODBUS RTU/ASCII, Ethernet/MODBUS TCP, PROFIBUS DP/PA, Foundation Fieldbus			
Software	KTM Smart Stream			

<sup>1)</sup> Special versions:

- High temperature version from minus 70 °C up to plus 330 °C
- High temperature version from minus 196 °C up to plus 100 °C

<sup>2)</sup> Maximum pipe diameter can be extended by installing sender-receiver units on chord of the pipe.

<sup>3)</sup> Maximum pipe diameter can be extended up to 1,8 m by request

<sup>4)</sup> Optional up to 2,5 MPa or up to 6,3 MPa

\* by using thermal cover -60+60 °C

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