



PRODUCT LINE

IN THE LEADERSHIP STREAM SINCE 1998

DS Controls JSC has been a manufacturer of pipeline valves since 1998.

During the years of development, the range of manufactured products has expanded and includes:

- control and on-off valves,
- safety relief valves and blocks of safety relief valves with change-over valves,
- high performance valves for severe service applications,
- pressure and temperature regulators,
- digital displacer level transmitters,
- ultrasonic flow meters,
- compressors and pumps.

In addition to the supply of equipment customers are offered a full range of after-sales services:

- installation supervision,
- staff training,
- diagnostics, periodic maintenance and spare parts supply,
- repair performed by qualified personnel at the official service center or at the Customer's site.

DS Controls JSC has a fleet of machining, measuring and testing equipment for maximum localization of production processes.

About the company

>200

employees in the company

5500 m²

production facilities

2000 m²

office premises

ISO

the production is certified according to ISO 9001:2015, ISO 14001:2015, ISO 45001:2018 standards

>130 000

pieces of equipment have been supplied

1500 m²

warehouse area

ROTARY CONTROL VALVE

35002 Series

Function

Control / on-off valve

Main characteristics

Nominal diameter: DN 25 to DN 300 mm

Connection: flanged / wafer

Nominal pressure: PN 1,6 to PN 10 MPa

Operating temperature: -196 to +400 °C

Body material: carbon steel / cold-resistant steel / stainless steel / corrosion-resistant alloys

Actuator: pneumatic, spring-diaphragm / pneumatic, piston / electric / manual

Trim: eccentric rotary segmented plug

Flow characteristic: linear / equal percentage

Leakage: class IV, V, VI according to GOST 9544-2015 / class A according to GOST 9544-2015

Rangeability: 100:1

Main options: heating jacket / ceramic trim / noise reduction plate



- Universal rotary segmented valve with eccentric plug, combining the best features of linear and rotary control devices
- The smooth shape of the wet part minimizes erosion and wear of the trim parts
- High accuracy and rangeability under conditions of significant pressure drop
- Extended integral bonnet allows to use a highly reliable carbon packing with PTFE over the entire operating temperature range

SINGLE SEAT VALVE

21000 Series

Function

Control / on-off valve

Main characteristics

Nominal diameter: DN 15 to DN 200 mm

Connection: flanged / welded

Nominal pressure: PN 1,6 to PN 42 MPa

Operating temperature: -196 to +560 °C

Body material: carbon steel / cold-resistant steel / stainless steel / heat-resistant steel / corrosion-resistant alloys

Actuator: pneumatic, spring-diaphragm / pneumatic, piston / electric / manual

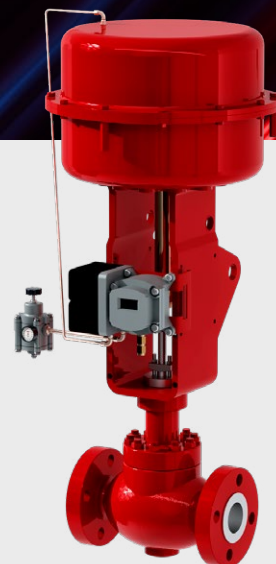
Trim: single seat, heavy top guided

Flow characteristic: linear / equal percentage

Leakage: class IV, V, VI according to GOST 9544-2015 / class A according to GOST 9544-2015

Rangeability: 50:1

Main options: anti-noise trim/ anti-cavitation trim / heating jacket / angle body / cryogenic design / bellows seal



- The single seat valves of the 21000 series, due to their simplicity and reliability, can be used in a wide range of pressures and temperatures
- The reinforced top guide of the plug ensures its stability in the flow, even under challenging operating conditions
- The use of a quick-release seat enables easy inspection of the valve on site

CAGE GUIDED VALVE

41005 Series

Function

Control / on-off valve

Main characteristics

Nominal diameter: DN 50 to DN 600 mm

Connection: flanged / welded

Nominal pressure: PN 1,6 to PN 42 MPa

Operating temperature: -196 to +565 °C

Body material: carbon steel / cold-resistant steel / stainless steel / corrosion-resistant alloys

Actuator: pneumatic, spring-diaphragm / pneumatic, piston / electric / manual

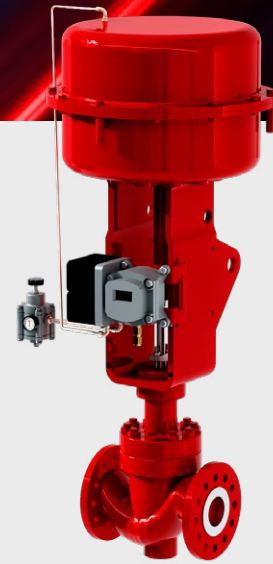
Trim: balanced cage-guided

Flow characteristic: linear / equal percentage

Leakage: class II, III, IV, V, VI according to GOST 9544-2015 / class A according to GOST 9544-2015

Rangeability: 100:1

Main options: anti-noise trim/ anti-cavitation trim / heating jacket / angle body / cryogenic design / bellows seal / anti-surge control



- Due to the balanced plug cage guided valves of the 41005 series can be used at the highest pressure drops
- A wide range of trim designs allows to find the right solution for various combinations of operating conditions and sealing requirements
- The use of high-strength materials ensures fault-free operation at maximum pressures and temperatures

THREE WAY VALVE

Function

Mixing valve / diverting valve

Main characteristics

Nominal diameter: DN 25 to DN 300 mm

Connection: flanged / welded

Nominal pressure: PN 1,6 to PN 10 MPa

Operating temperature: -29 to +454 °C

Body material: carbon steel / cold-resistant steel / stainless steel / heat-resistant steel

Actuator: pneumatic, spring-diaphragm / pneumatic, piston / electric / manual

Trim: top guiding in the plug and guiding within both seat rings

Flow characteristic: linear

Leakage: class II, III or IV according to GOST 9544-2015

Rangeability: 50:1

Main options: leak off option / bellows seal



- Three way control valves are designed to be used as mixing and diverting devices
- The construction and materials used ensure high flow capacity, reliability and long service life
- Directing the working fluid «to open both ports» ensures dynamic stability of the plug in the flow

MULTI-STAGE VALVE

Function

Control valve

Main characteristics

Nominal diameter: DN 25 to DN 200 mm

Connection: flanged / welded

Nominal pressure: PN 10 to PN 42 MPa

Operating temperature: - 40 to +560 °C

Body material: carbon steel / cold-resistant steel / heat-resistant steel / stainless steel / corrosion-resistant alloys

Actuator: pneumatic, spring-diaphragm / pneumatic, piston / electric / manual

Trim: multi-stage, anti-cavitation, axial flow

Flow characteristic: linear

Leakage: class IV or V according to GOST 9544-2015

Main options: PTFE seat and leakage class VI according to GOST 9544-2015 / angle body



- Multi-stage labyrinth type valve is designed to control high pressure drops of liquid working fluids
- The labyrinth shape of the trim is used to distribute the pressure drop along the axis of the plug
- The construction provides effective protection against cavitation and reduces the speed of the working fluid, thereby preventing erosion and vibration

BUTTERFLY VALVES

23000 and MAK Series

Function

Control / on-off valve

Main characteristics

Nominal diameter: DN 50 to DN 2400 mm

Connection: flanged / wafer / welded

Nominal pressure: PN 0,6 to PN 42 MPa

Operating temperature: -196 to +600 °C

Body material: carbon steel / cold-resistant steel / stainless steel / corrosion-resistant alloys

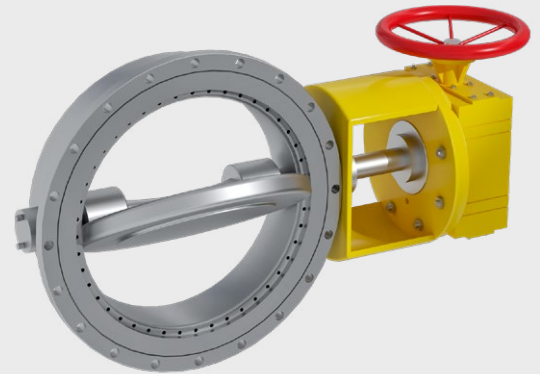
Actuator: pneumatic, piston / electric / manual

Trim: double offset or triple offset design

Seal type: soft seal / laminated seat ring / metal-to-metal seal

Leakage: class A according to GOST 9544-2015

Main options: heating jacket / cryogenic design



- The triple offset design ensures uniform distribution of specific pressure by entire sealing surface, requiring minimum torque
- Minimum time required to rotate the valve
- Bidirectional supply of working fluid is allowed

DIGITAL DISPLACER LEVEL TRANSMITTER DLT-01

13400 Series

Function

Level transmitter / level PID controller / density measurement function

Main characteristics

Nominal diameter: DN 50...100 for internal mounting without displacer chamber / DN 40/50 for external mounting with displacer chamber

Measuring range: 300 to 6000 mm

Connection: flanged / welded

Nominal pressure: PN 10 to PN 42 MPa

Operating temperature: -196 to +450 °C

Body material: carbon steel / stainless steel / special alloys

Electronic module: power supply: 12 to 30 V DC/ output analog signal 4-20 mA/ output digital HART signal / power consumption not more than 1,2 volt-ampere / explosion-proof marking OEx ia IIC T6... T5 Ga X or 1Ex db IIC T6...T5 Gb X / IP66 / accuracy $\pm 0,5\%$ (0,2% on request)



- Intelligent digital instrument with HART communication protocol, combining superior performance with easy setup and calibration
- Contactless sensor and built-in microcontroller with high accuracy convert rotation of torsion tube rod into analog electronic signal. The latest configuration and calibration data is saved even when the power is turned off
- Diagnostics and continuous recording of device status data

PRESSURE REGULATOR

Function

Downstream pressure regulator / Upstream pressure regulator

Main characteristics

Nominal diameter: DN 15 to DN 250 mm

Connection: flanged / threaded

Nominal pressure: PN 1,6 to PN 10 MPa

Operating temperature: -50 to +300 °C

Body material: carbon steel / cold-resistant steel / heat-resistant steel / stainless steel / corrosion-resistant alloys

Actuator: spring-diaphragm

Leakage: class II, III, IV or VI according to ANSI/FCI 70-3

Main options: internal or external sensing line / packingless construction



- Pressure regulators are designed for saturated and superheated steam, various liquid and gaseous working fluids
- Metal-to-metal or soft seat
- A wide range of diaphragm materials
- Simple and cost-effective design
- Pressure adjustment with one adjusting screw over the entire spring range

SAFETY RELIEF VALVE

19000 Series

Function

Safety relief valve

Main characteristics

Working fluid: liquid / gas / steam / two-phase fluid

Nominal diameter DN: inlet 15 to 50 mm / outlet 25 to 50 mm

Connection: threaded / flanged / welded

Nominal pressure: inlet: ANSI class 150 to 2500 / outlet: ANSI class 150 to 600

Operating temperature: -196 to +593 °C

Set pressure: 0,035 to 55,1 MPa

Flow area: 1,26 to 2,84 cm²

Body material: carbon steel / cold-resistant steel / heat-resistant steel / stainless steel / corrosion-resistant alloys

Disc seat: metal-to-metal seat / soft seat with O-Ring

Main options: design for operation with hydrogen sulfide / lifting lever / O-Ring seat seal



- Wide range of applications
- Suitable for various operating conditions

PILOT-OPERATED SAFETY RELIEF VALVE

3900 Series

Function

Safety relief valve

Main characteristics

Working fluid: liquid / gas / steam / two-phase fluid

Nominal diameter DN: inlet 25 to 300 mm / outlet 50 to 400 mm

Connection: flanged

Nominal pressure: inlet: ANSI class 150 to 2500 / outlet: ANSI class 150 to 300

Operating temperature: -40 to +263 °C

Set pressure: 0,1 to 25,8 MPa

Flow area: 0,71 to 451,22 cm²

Body material: carbon steel / cold-resistant steel / heat-resistant steel / stainless steel / corrosion-resistant alloys

Disc seat: soft seat with O-Ring

Main options: sensing line filter / design for operation with hydrogen sulfide / backflow preventer / remote sensing



- Pilot-operated valve
- Increased flow capacity
- Tightness at operating pressures up to 99% of the set pressure
- The valve is not affected by backpressure
- Due to the high reseating pressure, the minimum flow rate of the working fluid is ensured when the valve operates

SAFETY RELIEF VALVE

1900 Series

Function

Safety relief valve

Main characteristics

Working fluid: liquid / gas / steam / two-phase fluid

Nominal diameter DN: inlet 25 to 300 mm/ outlet 50 to 400 mm

Connection: flanged

Nominal pressure: inlet: ANSI class 150 to 2500 / outlet: ANSI class 150 до 600

Operating temperature: -196 to +816 °C

Set pressure: 0,035 to 42 MPa

Flow area: 0,71 to 509,65 cm²

Body material: carbon steel / cold-resistant steel / heat-resistant steel / stainless steel / corrosion-resistant alloys

Disc seat: metal-to-metal seat / soft seat with O-Ring / for liquid service

Main options: bellows design / design for operation with hydrogen sulfide / lifting lever / soft seat with O-Ring / steam-jacket



- Wide range of applications
- Suitable for various operating conditions

BLOCKS OF SAFETY RELIEF VALVES WITH CHANGE-OVER VALVES

Main characteristics

Working fluid: liquid / gas / steam / two-phase fluid

Nominal diameter: DN 15 to DN 250 mm

Connection: flanged / threaded

Nominal pressure: PN 1,6 to PN 10 MPa

Operating temperature: -50 to +300 °C

Body material: carbon steel / cold-resistant steel / heat-resistant steel / stainless steel / corrosion-resistant alloys

Actuator: spring-diaphragm

Leakage: class II, III, IV or VI according to ANSI/FCI 70-3

Main options: switching device with chain-and-sprocket drive, with cardan drive



THREE WAY BALL VALVE

Function

On-off valve

Main characteristics

Nominal diameter: DN 15 to 400 mm

Connection: flanged / welded

Nominal pressure: PN 1,6 to PN 42 MPa

Operating temperature: -100 to +400 °C

Body material: carbon steel / cold-resistant steel / heat-resistant steel / stainless steel / corrosion-resistant alloys

Actuator: pneumatic, piston / electric / manual

Type of bore: full-bore

Type of construction: trunnion mounted ball / floating ball / L-type and T-type bore

Seal type: soft seal / metal-to metal seal

Leakage: class A according to GOST 9544-2015

Standard design: blow-out proof stem / antistatic device

Main options: V-Ring packing / extended handle (stem extension)



- Simple and reliable construction
- Minimum time required to rotate the valve
- Simple shape of the wet part and the absence of stagnant zones in it

FLOATING BALL VALVE

Function

On-off valve

Main characteristics

Nominal diameter: DN 15 to DN 200 mm

Connection: flanged / welded

Nominal pressure: PN 1,6 to PN 42 MPa

Operating temperature: -196 to +400 °C

Body material: carbon steel / cold-resistant steel / heat-resistant steel / stainless steel / corrosion-resistant alloys

Actuator: pneumatic, piston / electric / manual

Type of bore: full-bore / reduced bore

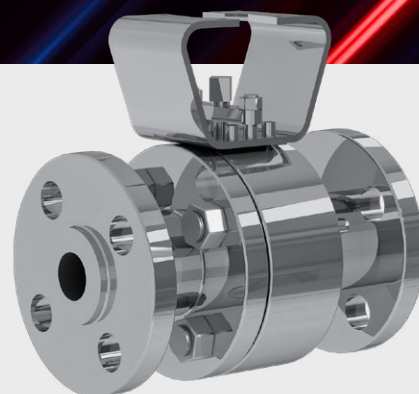
Type of construction: floating ball

Seal type: soft seal / metal-to metal seal

Leakage: class A according to GOST 9544-2015

Standard design: blow-out proof stem / antistatic device / unidirectional and bidirectional flow

Main options: port in the ball for pressure balancing / extended handle (stem extension) / V-Ring packing / cryogenic design / fireproof design / heating jacket



- Simple and reliable construction
- Minimum time required to rotate the valve
- Simple shape of the wet part and the absence of stagnant zones in it

TRUNNION MOUNTED BALL VALVE

Function

On-off valve

Main characteristics

Nominal diameter: DN 50 to DN 1400 mm

Connection: flanged / welded

Nominal pressure: PN 1,6 to PN 42 MPa

Operating temperature: -196 to +550 °C

Body material: carbon steel / cold-resistant steel / heat-resistant steel / stainless steel / corrosion-resistant alloys

Actuator: pneumatic, piston / electric / manual

Type of bore: full-bore / reduced bore

Type of construction: trunnion mounted

Seal type: soft seal / metal-to metal seal

Leakage: class A according to GOST 9544-2015

Standard design: blow-out proof stem / antistatic device / unidirectional and bidirectional flow / self-relieving seats (SPE)

Main options: drain plug / body cavity relief plug / a valve for injection of lubricant to the seat area; to the packing area / special design of seats (DPE) / stem extension / V-Ring packing / cryogenic design / fireproof design / top entry construction / one piece construction



- Simple and reliable construction
- Minimum time required to rotate the valve
- Simple shape of the wet part and the absence of stagnant zones in it

LINED BALL VALVE

Function

Control / on-off valve

Main characteristics

Nominal diameter: DN 15 to DN 300 mm

Connection: flanged

Nominal pressure: PN 1,0 to PN 1,6 MPa

Operating temperature: -40 to +200 °C

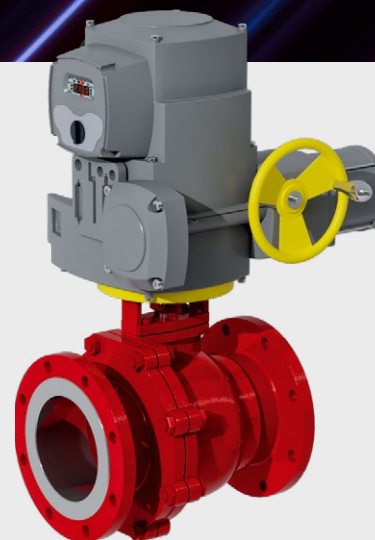
Body material: carbon steel / stainless steel with PTFE coating

Actuator: pneumatic / electric / manual

Trim: rotary, ball, V-port

Flow characteristic: equal percentage

Leakage: class VI, A according to GOST 9544-2015



- The guaranteed wall thickness of the lining and its chemical resistance make this rotary valve suitable for the majority of corrosive fluids
- Reliable dovetail connection of the lining to the metal base of the body
- High flow capacity

DESUPERHEATER

Function

Steam temperature regulation by water injection

Main characteristics

Nominal diameter: steam connection DN 80 / 100 mm / water connection DN 25/80 mm

Connection: flanged

Nominal pressure: PN 4,0 to PN 42 MPa

Operating temperature: up to +454 °C

Body material: heat-resistant steel / stainless steel

Actuator: spring-diaphragm / electric

Trim: with adjustable cross-section of injection nozzles

Leakage: class IV or V according to GOST 9544-2015

Main options: four different water flange positions, balanced and unbalanced plug



- The cooling device allows to adjust the amount of injected water by changing the cross section of the active nozzles
- Typical application: steam cooling after the control valve, industrial steam conditioning

LIMIT SWITCHES

Main characteristics

Construction: electromechanical switches / contactless inductive sensors, NAMUR

Working travel: rotary travel up to 90°/ linear travel 12 to 305 mm (through a linkage)

Operating temperature: -60 to +85 °C

Body material: aluminum with epoxy coating

Explosion-proof marking: 0ExialICT4...T6, 1ExdIICT5/T6

Ingress protection: IP 66 or IP 67

Connection: electrical 3/4 NPT



- The devices are used to indicate the end positions of a valve's travel using microswitches or sensors)
- Metal body
- Corrosion-resistant construction, without copper and copper alloy parts contacting with the atmosphere

FILTER-REGULATORS

Main characteristics

Construction: lightweight and compact, with a miniature membrane and a sintered polyethylene filter

Maximum inlet pressure: up to 15 kgf/cm²

Adjustable outlet pressure range: 0,35 to 7 kgf/cm²

Operating temperature: -60 to +80 °C

Body material: aluminum with epoxy coating

Filter element size: up to 5 micron

Connection: pneumatic 1/4 NPT, 1/2 NPT



- The filter-regulator is a compact and lightweight device used for preparation and stable supply of air for instrumentation and control systems
- Excellent pressure control
- Corrosion-resistant construction without the use of copper and copper alloys

QUARTER TURN SCOTCH YOKE PNEUMATIC ACTUATORS

Function

Operation of on-off and control valves

Main characteristics

Supply pressure: 3 to 7 kgf/cm²

Operating media: air / gas compatible with actuator materials

Installation position: any

Operating temperature: -60 to +100 °C

Body material: carbon steel / stainless steel

Type of actuator: double acting / spring-return

Torque value: 20 to 274 000 Nm

Angle of rotation: 50° to 90°

Main options: design for demanding operating conditions / handwheel, hydraulic pump for emergency manual control / low-temperature design up to minus 60 °C/ compressed air tank for autonomous mode operation / protection against high temperatures / marine climate design / different control scheme options



QUARTER TURN RACK & PINION PNEUMATIC ACTUATORS

Function

Operation of on-off and control valves

Main characteristics

Supply pressure: 3 to 7 kgf/cm²

Operating media: air/gas compatible with actuator materials

Installation position: any

Operating temperature: -60 to +80 °C

Body material: aluminum / stainless steel

Type of actuator: double acting / spring-return

Torque value: 2,0 to 13 500 Nm

Angle of rotation: 90 ± 5°

Main options: low-temperature design up to minus 60 °C / design for aggressive atmosphere, with PTFE coating / marine stainless steel design / compressed air tank for autonomous mode operation / different control scheme options



PNEUMATIC LINEAR ACTUATOR

Function

Operation of on-off and control valves

Main characteristics

Supply pressure: 3 to 7 kgf/cm²

Operating media: air/gas compatible with actuator materials

Installation position: any

Operating temperature: -60 to +120 °C

Body material: aluminum / carbon steel / stainless steel

Type of actuator: double acting / spring-return

Thrust: up to 1000 kN

Working travel: on request, 40 mm and more

Main options: design for demanding operating conditions / handwheel, hydraulic pump for emergency manual control / low-temperature design up to minus 60 °C / marine climate design / different control scheme options, including anti-surge control for compressors



ULTRASONIC FLOWMETER

UFM-868-GF(X)

Main characteristics

Installation: spool piece / hot tapping / cold tapping

Fluid: flare gas / gases with variable composition / fuel gas / biogas / vent gas / off-gas

Pipeline size: 50 mm – 3000 mm

Sensor material: titanium / Monel / Hastelloy / stainless steel

Body material: carbon steel / cold-resistant steel / stainless steel / corrosion-resistant alloys

Pipeline material: all metals

Pressure class of the flow part: up to 42 MPa

Measuring range: 4000:1

Flow rate: 0,08-120 m/s

Accuracy: $\pm 1,5...2,5\%$ (1 channel) / $\pm 1...2\%$ (2 channels) / $\pm 0,5\%$
(for calibration and verification by the wet method, complete with a spool piece)

Number of channels: 1 or 2

Power supply: 220 V ($\pm 10\%$) 50 ± 1 Hz; 12 to 28 V

Electronic module material: aluminum with epoxy coating / stainless steel

Ingress protection: IP 66 GF(X); IP 65 (GF)

Explosion-proof marking: 1Exd[ia]IICT5/T6

Input / output: analog (0/4 to 20 mA) / pulse / frequency

Communication protocols:

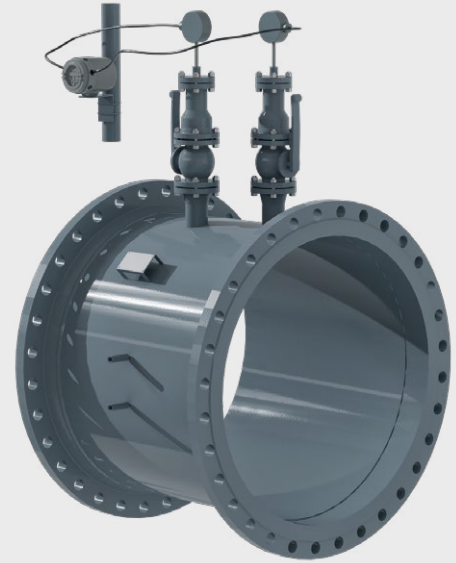
- Modbus® RS232/RS485
- HART® 5,7
- Ethernet TCP/IP/ WIFI/Panaview/ WIFI/OPC Server
- Foundation Fieldbus

Ambient temperature: -40°C to +60°C

Operating temperature:

- standard -50 to 250 °C
- optional -190°C to +450°C

Cable length: up to 330 m



- Flow meters of model UFM-868-GF(X) are designed to measure the velocity, volumetric flow rate (volume) of associated (free) petroleum, flare gases under operating conditions, as well as when using pressure and temperature transducers (or substitution values), to calculate the volumetric flow rate (volume) of associated (free) petroleum, flare gases corrected to standard conditions according to GOST 2939-63. UFM-868-GF(X) measures the mass flow rate and mass of flare gas.

Ultrasonic transducers can be installed in the spool piece or directly in the process line using the «hot or cold tap» procedure.

The physical properties of the gas are calculated using the GSSSD MR 113 method.

- Best choice for flare gas systems. Ultrasonic flow measurement is an optimal technology for flare gas units, since it does not depend on gas properties and does not have any effect on flow rate. All-metal ultrasonic transducers installed in the pipe emit sound pulses that propagate through the gas in both directions. Based on the difference in the time of pulse transmission from the transducers (in the direction of flow and against it), the built-in electronic module calculates speed, as well as volume and mass flow rate through advanced signal processing and correlation method.

ULTRASONIC FLOWMETER

UFM-868-GM(X)

Main characteristics

Installation: spool piece / hot tapping / cold tapping

Fluid: associated petroleum gas / acid gas / fuel gas / natural gas / biogas / vent gas / off-gas

Pipeline size: 50 mm – 3000 mm

Sensor material: titanium / Monel / Hastelloy / stainless steel

Pipeline material: all metals

Pressure class of the flow part: up to 42 MPa

Measuring range: 1500:1

Flow rate: 0,08-46 m/s

Accuracy: $\pm 1,5...2,5\%$ (1 channel) / $\pm 1...2\%$ (2 channels) / $\pm 0,5\%$
(for calibration and verification by the wet method, complete with a spool piece)

Number of channels: 1 or 2

Power supply: 220 V ($\pm 10\%$) 50 ± 1 Hz; 12 to 28 V

Electronic module material: aluminum with epoxy coating / stainless steel

Ingress protection: IP 66 GM(X); IP 65(GM)

Explosion-proof marking: 1Exd[ia]IICT5/T6

Input / output: analog (0/4 to 20 mA) / pulse / frequency

Communication protocols:

- Modbus[®] RS232/RS485

- HART[®] 5,7

- Ethernet TCP/IP/ WIFI/Panaview/ WIFI/OPC Server

- Foundation Fieldbus

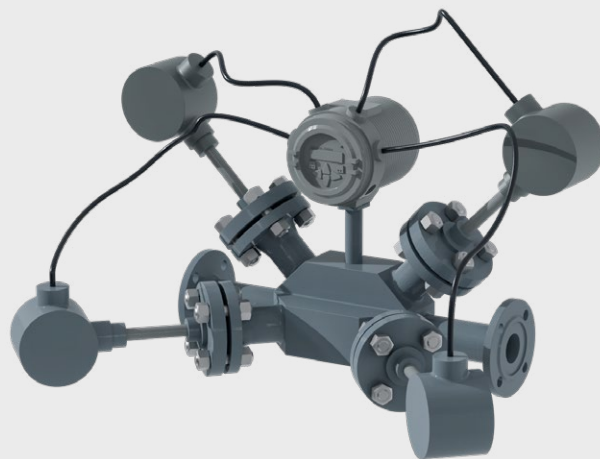
Ambient temperature: -40°C to +60°C

Operating temperature:

- standard -50 to 250 °C

- optional -190°C to +450°C

Cable length: up to 330 m



- General purpose industrial UFM-868-GM(X) flowmeters are designed to measure the velocity, volumetric flow rate (volume) of natural, associated (free) oil, flare, exhaust, collector and other gases with known physical properties under operating conditions, as well as when using pressure and temperature transducers (or substitute values), to calculate the volumetric flow rate (volume) of natural, associated (free) oil, flare gases, corrected to standard conditions according to GOST 2939-63. UFM-868-GM(X) allows to measure mass flow rate and mass of natural, associated and free oil, flare gases. Ultrasonic transducers can be installed in the spool piece or directly in the process line using the «hot or cold tap» procedure.
- The physical properties of the gas are calculated using the GSSSD MR 113 or GOST 30319.0 - GOST 30319.3 method.
- In addition to the standard single-channel model, the two-channel model provides increased accuracy when using a two-beam flow measurement method on one pipe. The two-channel model can also be used to measure flow in two different pipes. An independent pair of ultrasonic transducers is used for each of the flow measurement channels, which, when installed in the pipeline, do not interfere with the flow movement.
- The UFM-868-GM(X) gas flowmeters do not create obstacles to the flow of the fluid and, consequently, pressure losses, which reduces the need for regular maintenance, unlike other flowmeters that require significant maintenance costs.

ULTRASONIC FLOWMETER

UFM-868-GS(X)

Main characteristics

Installation: spool piece / hot tapping / cold tapping

Fluid: wet gas / saturated steam/superheated steam

Pipeline size: 50 mm – 1200 mm

Sensor material: titanium / Monel / Hastelloy / stainless steel

Pipeline material: all metals

Pressure class of the flow part: up to 42 MPa

Measuring range: 4000:1

Flow rate: 0,08-46 m/s

Accuracy: $\pm 1,5...2,5\%$ (1 channel) / $\pm 1...2\%$ (2 channels) / $\pm 0,5\%$
(for calibration and verification by the wet method, complete with a spool piece)

Number of channels: 1 or 2

Power supply: 220 V ($\pm 10\%$) 50 ± 1 Hz; 12 to 28 V

Electronic module material: aluminum with epoxy coating / stainless steel

Ingress protection: IP 66 GS(X); IP 65(GS)

Explosion-proof marking: 1Exd[ia]IICT5/T6

Input / output: analog (0/4 to 20 mA) / pulse / frequency

Communication protocols:

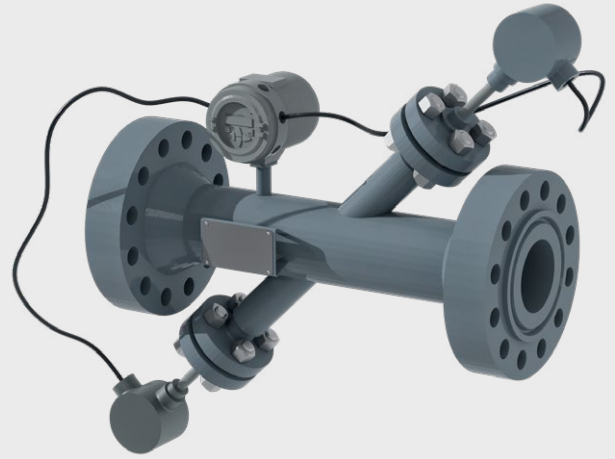
- Modbus® RS232/RS485
- HART® 5,7
- Ethernet TCP/IP/ WIFI/Panaview/ WIFI/OPC Server
- Foundation Fieldbus

Ambient temperature: -40°C to +60°C

Operating temperature:

- standard -50 to 250 °C
- optional -190°C to +450°C

Cable length: up to 330 m



- The UFM-868-GS(X) ultrasonic flowmeters are designed to measure the velocity, volume flow rate (volume) of saturated and superheated steam, as well as when using pressure and temperature transducers (or substitute values) to calculate the mass flow rate (mass) of saturated and superheated steam.
- The devices consist of ultrasonic transducers (ultrasonic sensors) installed on the measuring section and an electronic module.
- Design according to the pipeline connection method:
 - spool piece with flange connections;
 - on-site installation on the measuring pipeline.
- Application:
 - No moving parts;
 - Zero pressure drop;
 - Flow measurement without flow obstruction;
 - Operation at high temperatures;
 - Two-channel measurement mode to improve the accuracy of the results;
 - Protection against the influence of perpendicular flow in the large diameter pipes;
 - Minimum maintenance requirements due to the absence of moving parts, holes and tubes, as well as resistance to humidity and pollution;
 - No pressure loss;
 - Proven installation methods;
 - Ease of maintenance;
 - Ability to measure reverse flow.

DS Controls JSC
Nekhinskaya 61, Velikiy
Novgorod, Russian Federation,
173021

dscontrols.net
office@dscontrols.net
+7 (8162) 94-68-88

