



Gas trains/Components

Product catalogue

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ARIS Stellantriebe

At one glance

- > Over 40 years of market presence and experience
- > Specialists for drive technology and valves
- > Own test laboratory
- > Completed product portfolio of own products and trading goods

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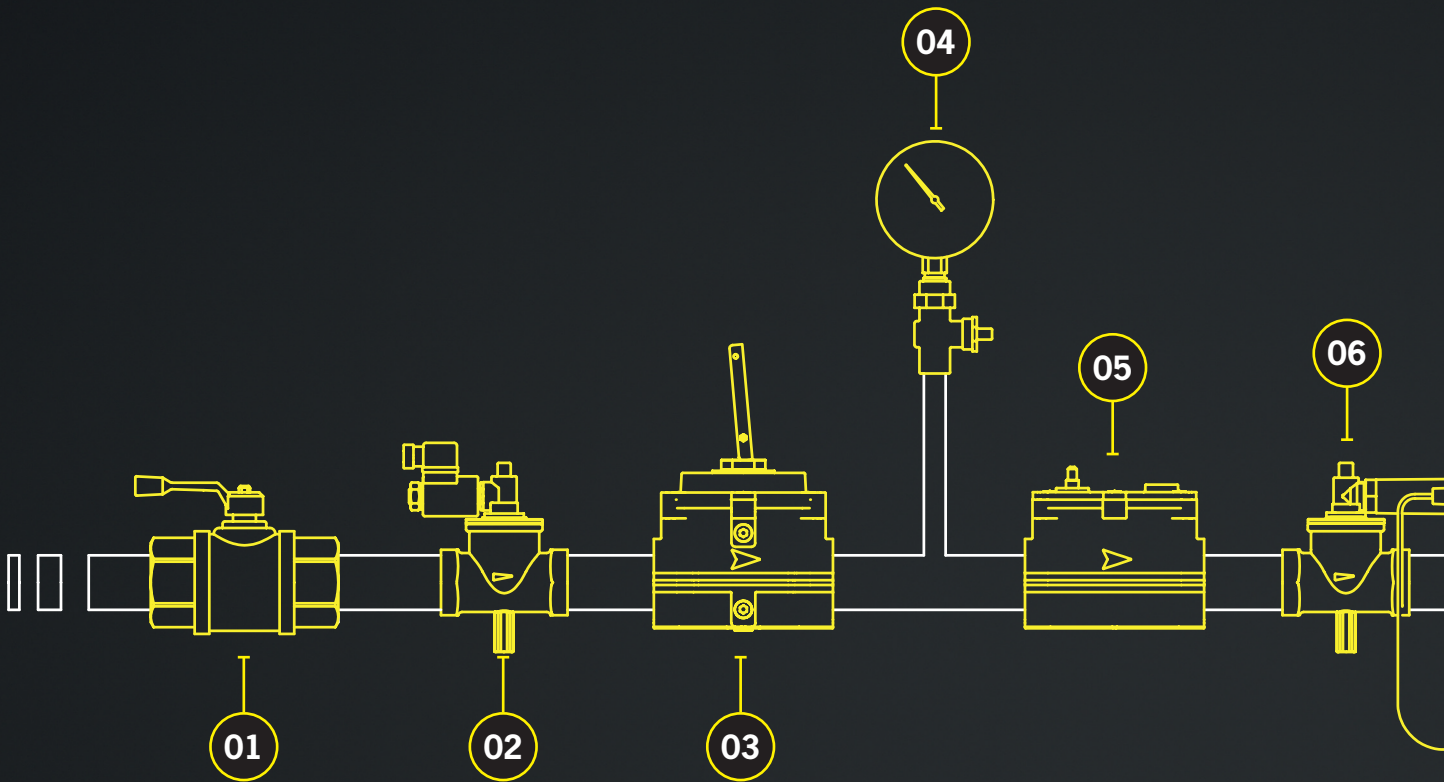
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OVERVIEW

Gas train

All components required for gas treatment and control with the legally required approvals (European standard, partly DVGW).



01

Shut-off Ball Valve

To isolate the system from main supply.

02

Solenoid Valve

Is suitable to guarantee the gas interception from gas detector in case of gas leaking.

03

Jerk Handle Valve

Manually operated valve that allow the flow inside the piping while minimizing the pressure losses. With the possibility of remote interception operation; the closing is faster and safer than traditional ball devices.

04

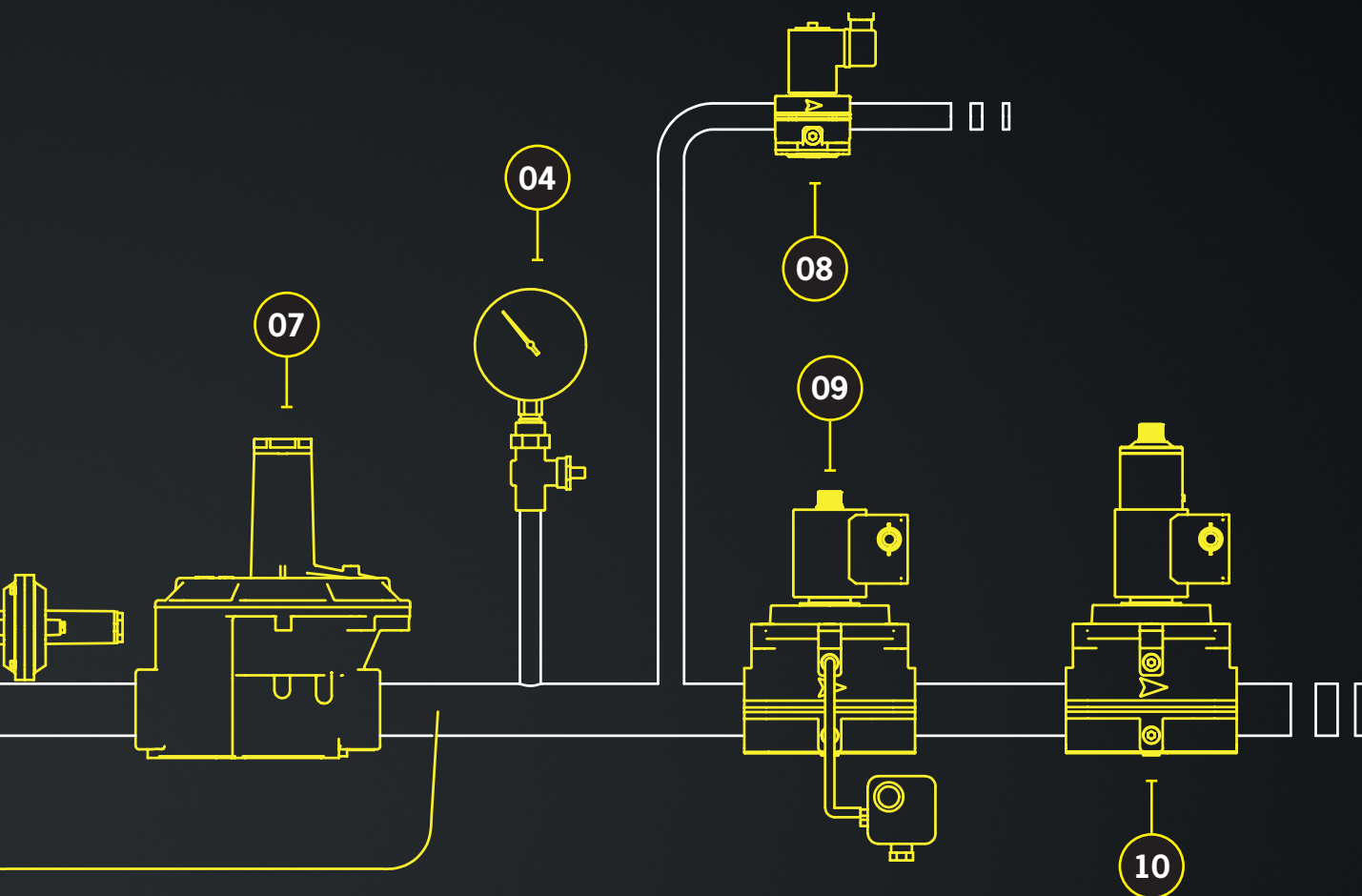
Pressure Gauge

To monitor upstream and downstream pressure, the pressure gauges are installed. Isolation valve is provided with each pressure gauge for easy replacement of pressure gauges in case of failure.

05

Gas Filter

Protects rest of the system from any debris or dust that may be carried with the gas stream. Debris may for example consist of parts accidentally left in the pipe during construction.

**06****Slam Shutt-off Valve**

Is installed after Filter and before pressure regulator. The slam shut valve closes the supply of gas. When a downstream pressure exceeds a pre-determined limit.

07**Gas Governor**

Is a control valve that reduces the input pressure of a fluid to a desired value at its output.

08**Safety Relief Valve**

Is a set higher pressure than slam shut-off valve so that the safety relief will operate when. Slam shut-off valve fails to operate.

09**Pressure Switch**

Are designed for switching a circuit on, off or over if the pressure actual value changes in relation to the setpoint.

10**Solenoid Valve**

For gas are designed for safeguarding and controlling the air and gas supply to gas burners and gas appliances.

OVERVIEW

Gas train





In addition to the individual components, we also offer you the necessary piping, including yellow or blue painting, up to the completely assembled gas control system. Of course, we also supply the gas control line with optional test certificate (PED certificate).

BALL VALVES



DESCRIPTION

Ball valves are suitable to shut-off air and gas belonging to the first, second and third gas family.

The ball valves can be supplied with thread or flange connections.

They are CE certified according to EN 331 for the threaded version and according to EN 13774 for the flanged version.

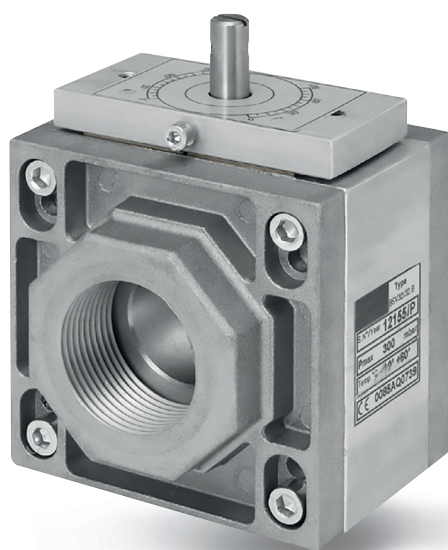
- > manual operated (on request with lockable lever)
- > with electric actuator
- > with pneumatic actuator

TECHNICAL FEATURES

| | |
|---------------------------------|---|
| Housing of thread valve | Nickel plated brass |
| Housing of flanged valve | Cast-iron GJS 400-15 |
| O-Ring | NBR |
| Seat | PTFE |
| Max. Operating pressure | 5 bar (threaded version) 16 bar (flanged version) |
| Operating temperature | -20 °C up to +60 °C |
| Connection | 1/4" up to 4" threaded connection (brass) DN15 up to DN200 flange connection (cast iron) |

Full bore or reduce bore on request.

GAS REGULATING VALVES



Threaded connection
3/4"; 1"; 1 1/4"; 1 1/2"; 2"



Flanged connection
DN 25 – DN 250

DESCRIPTION

The butterfly valves are suitable to be used on residential and industrial combustion systems. The valves are DVGW approved to the Norm EN 161.

The valves are pure control valves without zero shut-off (leakage approx. 1 % of max. KV value) and do not be used as shut-off devices.

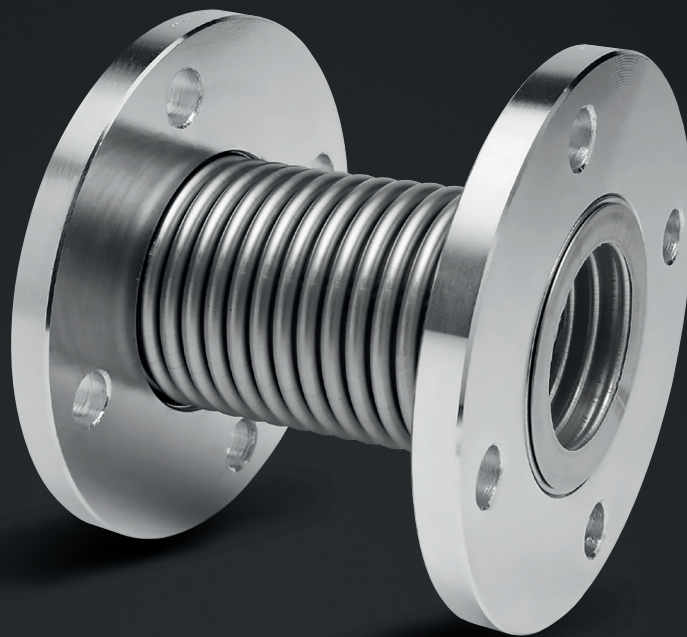
- > manual operated (on request with lockable lever)
- > with electric actuator
- > with pneumatic actuator

TECHNICAL FEATURES

| | |
|--------------------------------|---|
| Housing | Aluminium |
| Shaft | AISI 303 |
| Plate | Aluminium or AISI 304 |
| Max. Operating pressure | 500 mbar |
| Operating temperature | Gas: -10 °C up to +60 °C Air: -10 °C up to +80 °C (up to 200 °C on request) |
| Control ratio | 10:1 |

1 or 2 internal orifice reductions respect the nominal diameter of the valve.

STAINLESS STEEL COMPENSATOR



DESCRIPTION

Metal flexible joints suitable for the installation of gas burners, using air under pressure, enable vibration isolation and compensate for the misalignment of ducting.

The joints are fitted with threaded male-male connections. Flanges in carbon steel are loose, enabling alignment of the holes of flanges and counter-flanges, avoiding detrimental tensions and facilitating their assembly.

TECHNICAL FEATURES

| | |
|-------------------------|--|
| Material | AISI 321 |
| Max. temperature | 300 °C |
| Max. pressure | 10 bar |
| Length | 150 – 200 mm |
| Connections | ½" up to 2 ½" (threaded connection) DN50 up to DN250 (flanged connection) |

FLEXIBLE CONNECTING HOSES



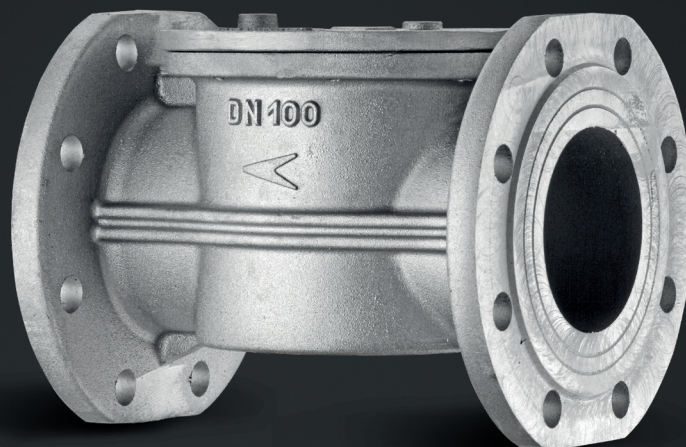
DESCRIPTION

The metal flexible pipes are particularly suitable for the feeding of burners for methane gas or other fuel gas of the first, second and third gas categories and air in industrial combustion systems. They are manufactured according to norm DIN 3384. Available with female thread connection, male thread connection or flanges.

TECHNICAL FEATURES

| | |
|--------------------------|--|
| Material | AISI 321/304 |
| Temperature range | -20 °C up to +600 °C |
| Max. pressure | 16 bar (air) 4 bar (gas) |
| Length | free to choose |
| Connections | 3/8" up to 2" (threaded connection) DN10 up to DN100 (flanged connection) |

GAS FILTERS



DESCRIPTION

Gas filters according to DIN 3386, can be used for all the types of natural gas, LPG or not corrosive gases. These filters are widely used for protection of control devices, pressure regulators, meters and on systems that are requiring a high degree of filtration.

TECHNICAL FEATURES

| | |
|--------------------------------|--|
| Max. operating pressure | 6 bar |
| Allowed ambient temp. | -20 °C up to +60 °C |
| Rate of filtration | < 50 Micron |
| Connection | ½" up to 2" (threaded connection) DN25 up to DN150 (flanged connection) |
| Housing | Aluminium |
| Sealing | NBR |
| Approval | PED 2014/68/UE |
| Options | Test-pont, manometer, DP clogging indicator, screws |

SLAM SHUT-OFF VALVE



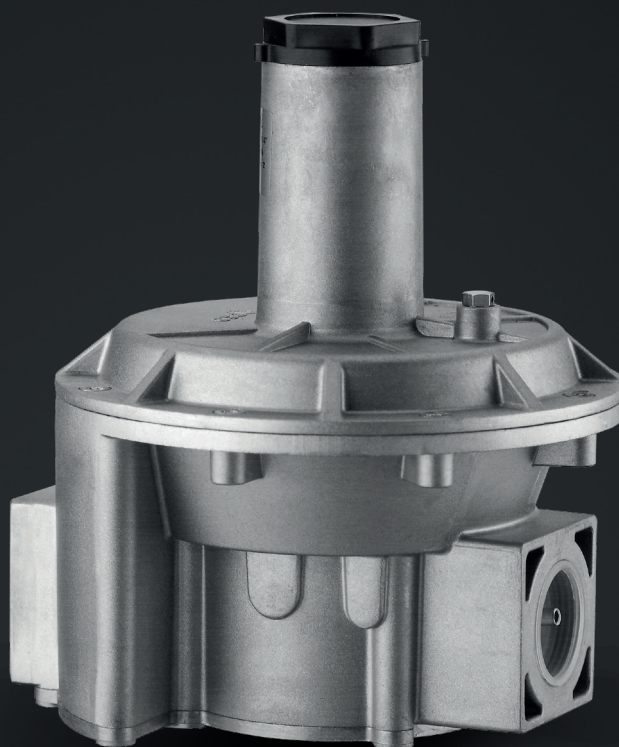
DESCRIPTION

This is a safety device which quickly intercepts gas flow when the pressure it is monitoring reaches a pre-set limit due to any anomaly in the system. The reset after release has to be done manually. Not suitable for aggressive gases.

TECHNICAL FEATURES

| | |
|------------------------------------|--|
| Max. operating pressure | 6 bar |
| Release value | 60–700 mbar |
| Closing time | <1 second |
| Allowed ambient temperature | -15 °C up to +70 °C |
| Protection class | IP 65 |
| Diameter | ½" up to 2" (threaded connection) DN65 up to DN100 (flanged connection) |
| Sealing | NBR |
| Housing | Brass up to 2"/DN 50 Aluminium DN 65–100 |
| Approval | PED |

GAS PRESSURE REGULATOR



DESCRIPTION

The gas pressure regulators are spring-loaded gas regulators with balanced plug, diaphragm command and contrast action by spring, suitable for low and medium pressure. Regulator and shut-off devices are supplied with internal sensing lines. Both regulator and shut-off devices are preset for connection to an external sensor line by the customer. They are widely used either in civil or industrial plants. Not suitable for aggressive gases.

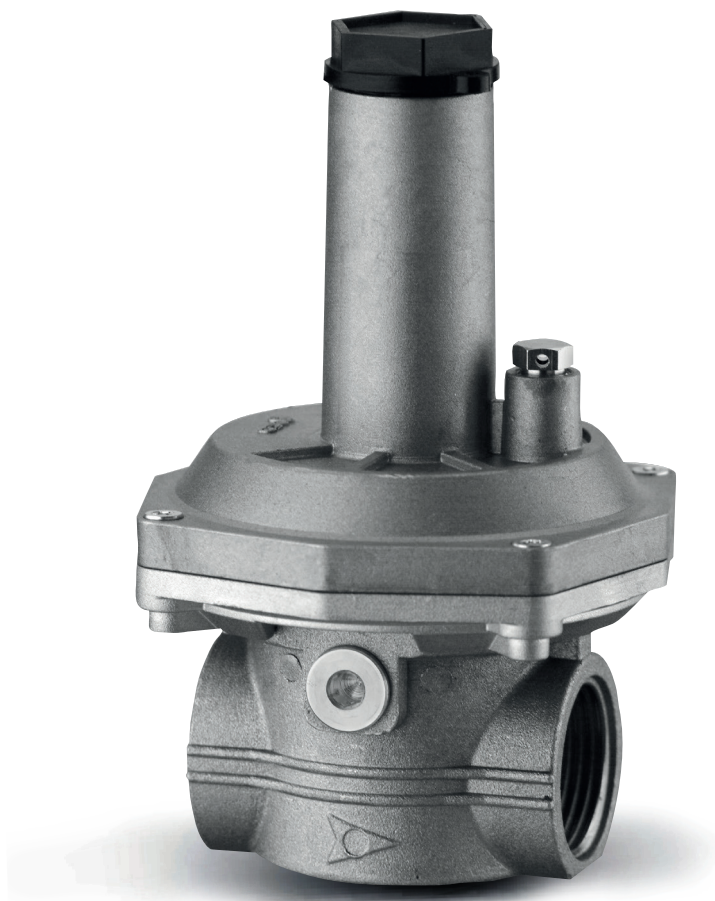
Spring-loaded regulators operate automatically with relieved piston and double safety diaphragm. The double diaphragm allows the device to be used in a control cabinet without connecting an external pipe vent. (point 3.3.2 of the EN 88 standard). All regulators have an internal measuring line and a test point for the inlet and outlet pressure.

TECHNICAL FEATURES

| | |
|----------------------------|--|
| Max. inlet pressure | 0,5; 1; or 2 bar |
| Outlet pressure | 10 up to 300 mbar |
| Connection | ½" up to 2" (threaded connection) DN25 up to DN150 (flanged connection) |
| Temperature range | -20 °C up to +60 °C |
| Approval | DIN EN 88-1:2011 PED |

SAFETY RELIEF VALVES

Overflow valves



DESCRIPTION

Pressure relief valves are suitable for application on domestic and industrial combustion plants for automatic pressure release for peaks of the flow of gases belonging to the first, second and third family. They are normally applied on the most common combustion plants like furnaces, boilers, dryers and compact burners. Not suitable for aggressive gases.

TECHNICAL FEATURES

| | |
|--------------------------|--|
| P_{max} | 1 bar |
| Triggering range | 20 – 600 mbar |
| Temperature range | -20 °C up to +60 °C |
| Connection | ½" up to 2" (threaded connection) DN25 up to DN150 (flanged connection) |
| Housing | Aluminium |
| Sealing | NBR 60Sh – DVGW EN 59 |
| Approval | 2014/68/UE PED |

SOLENOID VALVES



DESCRIPTION

Solenoid valve is applied as relief valve on gas trains. The valve shut-off the flow when it is energized. The quite operation of the valve allows installation by residential and industrial application.

Suitable for various gases including natural gas, propane and LPG. Solenoid valve optionally NO or NC (normally open or normally closed). Not suitable for aggressive gases.

Special versions available

- > Fast closing < 1 s and slow opening
0,5 up to 25 s adjustable
- > Stage valve with 2 coils
(Step 1 with reduced flow rate, step 2 with full flow rate)
- > Valve group
- > Air valve (open with no voltage applied)
- > Solenoid valve with manual reset

TECHNICAL FEATURES

| | |
|--------------------------|-----------------------------------|
| Pmax | 360 mbar/6 bar |
| Actuating time | Opening < 1 s; Closing < 1 s |
| Voltage | 230 V AC; 115 V AC; 24 V DC |
| Temperature range | -20 °C up to +60 °C |
| Connection | ½" up to 2" DN 25 up to DN 100 |
| Protection class | IP 65 |
| Approval | DIN EN 161 |

PRESSURE SWITCHES



DESCRIPTION

Pressure switches and differential pressure switches are suitable for application on domestic and industrial combustion plants for detection of pressure of gas belonging to the first, second and third family and air.

They are normally applied on the most common combustion plants like furnaces, boilers, dryers and compact burners.

The pressure switches are certified, according to norms EN 1854. The switching point is adjustable via hand wheel.

TECHNICAL FEATURES

| | |
|---------------------------|---|
| Pmax | 500 mbar/690 mbar/1 bar |
| Pressure switch | 0,4 up to 500 mbar |
| Housing | Brass/Aluminium |
| Sealing | NBR |
| Temperature range | -15 °C up to +60 °C |
| Switching capacity | 6 A/250 V AC |
| Protection class | IP 54/IP 44 as differential pressure switch |
| Connection | 1/4" |

PRESSURE GAUGE



DESCRIPTION

The dial pressure gauges are specially conceived for the measurement of low pressures ranging in mbar, according to EN 837-3 or high pressure in bar. They are suitable to be used on natural gas combustion systems and to measure pressure of non-corrosive fluids at the gaseous state.

They are available with 1/4" – 3/8" – 1/2" radial male connection and with 63 – 80 and 100 mm dial diameter size.

The standard version is equipped with dual scale in mbar and in H2O mm.

A shut-off valve is installed upstream of each manometer to allow easy replacement of the manometers in the event of a fault.

GAS FLOW QUANTOMETER



DESCRIPTION

Quantometers, designed in order to provide a reliable and inexpensive measuring device (non fiscal), with features alike those of fiscal turbine meter, are maintenance free and can be logged onto external instrumentation.

Quantometers fulfil various requirements of industrial metering to control the flow of gas precisely and therefore optimise the use of energy.

Turbine gas meters work on the principle of the ratio among gas moving through the meter and wheel speed. A mechanical/magnetic coupling activates the measuring unit on the top of the quantometer reporting the gas volume at operating.

Quantometers are CE certified and PED 2014/68/EU approved.

BURNER CONTROL UNIT

EFC series



DESCRIPTION

The EFC range of burner control units are designed to detect a flame is single or double stage industrial gas burners with intermittent service.

The status of the burner is clearly show via the various LED lights on the front panel. The EFC can be supplied with an internal ignition transformers and can also control one or two solenoid valves.

Flame detection can be done via a single rod, two rods or UV cell. Remote control of the burner control units also possible.

The EFC range is supplied in a thermoplastic fire-proof housing that allows for installation next to the burner. It is also available in a rack mounted version for control panel applications.

Burner control unit EFC is manufactured in accordance with EC Directive 90/396/EEC and with norms ED 298.

VALVE PROVIDING SYSTEM

MTC10



DESCRIPTION


MTC10 is a device used to verify the tightness of the both automatic valves before every start-up of the burner or after every shut down.

Whenever a leakage is detected at one of the gas valves, MTC10 prevents the burner from starting up.

MTC10 is made in compliance to norm EN 746-2 that states that installation of tightness control is mandatory in plants with power over 1200 kW.

This device may be used on industrial and domestic gas burners with or without venting pipe. CE certified according EN 1643.

Conformity according to Directive 2009/142/CE (gas directive), Directive 2004/108/CE (EMC) and Directive 94/9/CE (Directive ATEX).



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The company ARIS has been developing and producing of customized and high quality actuators for industrial valves and fittings in various industries for over 40 years.

Our intelligent, innovative rotary and part-turn actuators, as well as valve and linear actuators are perfectly matched to the customer's requirements and the respective demands. A high degree of flexibility also allows the use in other applications/industries, such as in automotive engineering.

In short: The ARIS team advises, plans and implements the appropriate solutions for your application!

As a certified company, our well-trained and committed staff guarantees you absolute professionalism and know-how. Extensive product controls and detailed in-house laboratory tests ensure the consistently high performance of our products. Our customers trust in this.

We implement our projects for gas control systems with experienced, renowned and internationally active manufacturers. Our many years of experience mean that we can design individual components or complete gas control systems for you.

NOTE


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