

RFD600

Medium Low Pressure Gas Regulator



TECHNICAL BROCHURE

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Who we are

We are a global organization specialized in designing and manufacturing technologically advanced solutions for natural gas treatment, transmission and distribution systems.

We are the ideal partner for operators in the Oil & Gas sector, with a business offer that goes across the whole natural gas chain.

We are in constant evolution to meet our customers' highest expectations in terms of quality and reliability.

Our aim is to be a step ahead of the competition, with customized technologies and an after-sale service program undertaken with the highest grade of professionalism.



Pietro Fiorentini advantages



Localised technical support



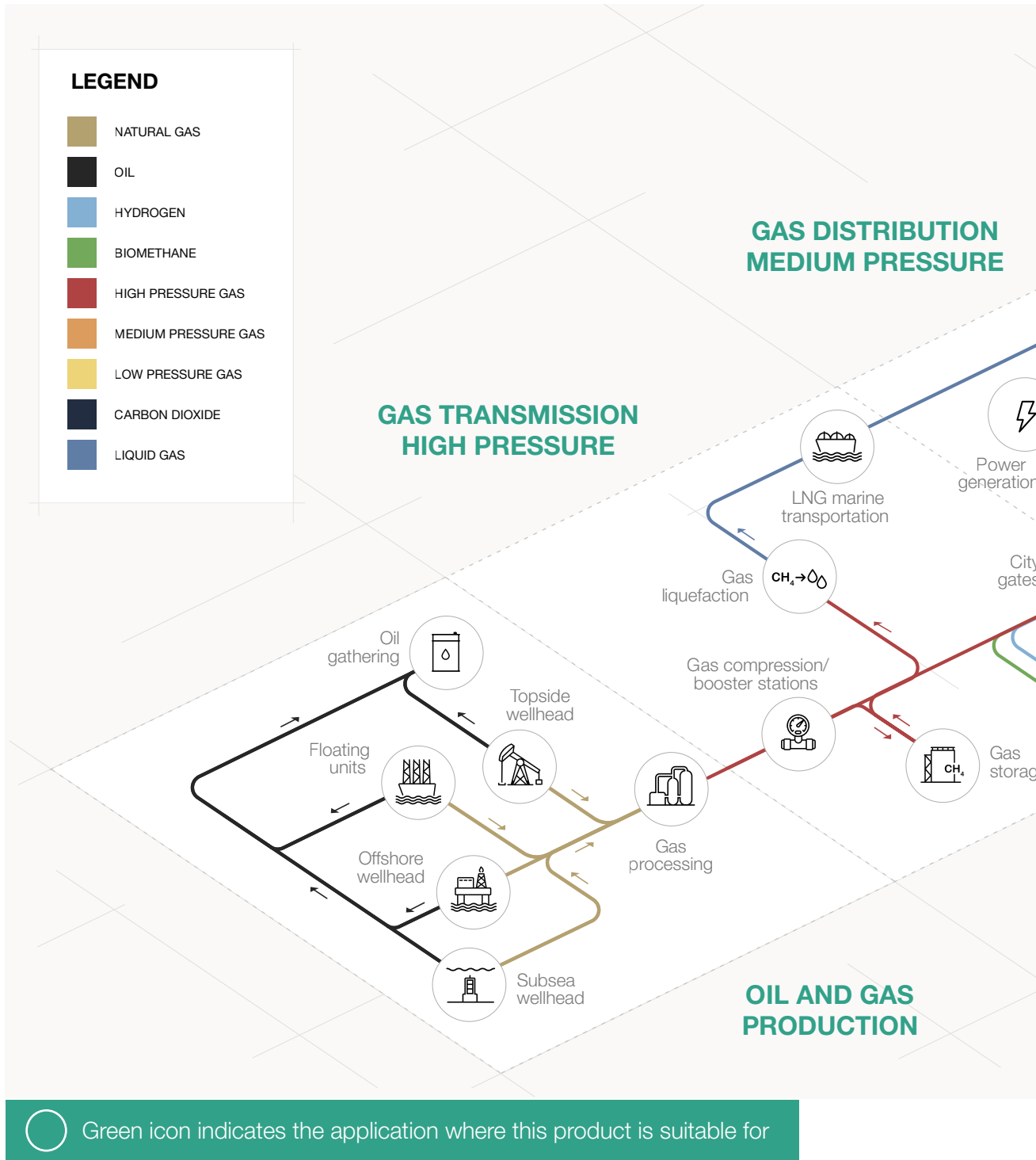
Experience since 1940



We operate in over 100 countries



Area of Application



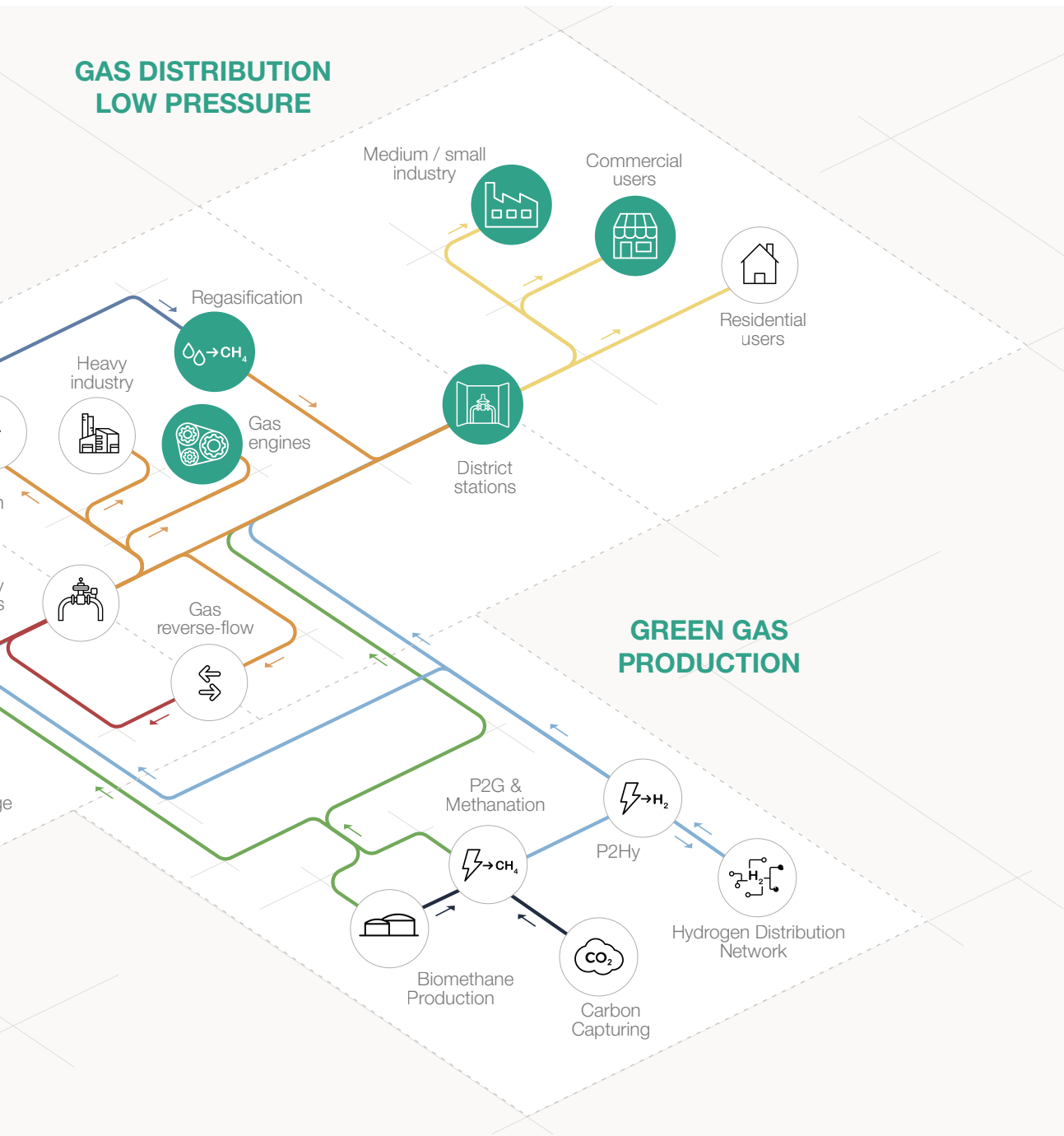


Figure 1 Area of Application Map



Introduction

RFD600 pressure regulator is a **direct acting pressure regulator** controlled by spring, which is applicable to medium and low pressure gas pressure regulation and non-corrosive gas filtered and purified, such as natural gas. In addition to being used for gas supply of transmission and distribution pipe network and gas appliances, due to its simple structure, rapid response and high reliability, it is also especially suitable for upstream users (boilers, gas furnaces, etc.) whose pressure often fluctuates due to sharp flow changes. RFD600 series regulator is classified according to GB27790, as a regulator which reacts in opening (**Fail to Open**).

It is a top entry design, which confers to the regulator management advantages, for example the ability to perform full maintenance without uninstalling it from the connection pipe.

Accessories on request:

- Incorporated Slam shut valve
- Incorporated relief valve

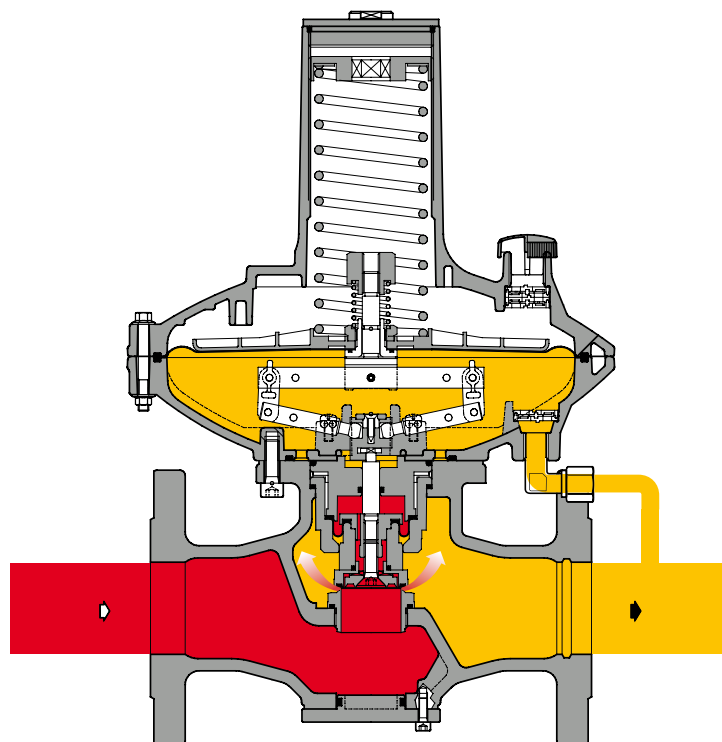


Figure 2 RFD600



Inlet pressure



Outlet pressure


Main features


Features	Values
Design pressure (DP)*	0.5 MPa
Inlet pressure	0.4 MPa
Downstream pressure range	DN25 BP from 2 kPa to 8 kPa; MP from 8.1 kPa to 50 kPa DN50 BP from 2 kPa to 8 kPa; MP from 8.1 kPa to 50 kPa
Ambient temperature range	-20 °C to +60 °C
Operating Temperature range	-20 °C to +60 °C
Accuracy class AC	10
Lockup pressure class SG	20
Flow rate	DN25 Gas flow up to 300 Sm ³ /h DN50 Gas flow rate up to 800 Sm ³ /h


(*) REMARK: Different functional features and/or extended temperature ranges available on request. Stated temperature ranges are the maximum for which the equipment's full performance, including accuracy, are fulfilled. Standard product may have a narrower range.


Table 1 Features


RFD600 competitive advantages


- 


Balanced
- 


Top Entry
- 


Works with low differential pressure
- 

Easy maintenance
- 

High precision
- 

Integrated optionals
- 

Fail Open plug and seat regulator
- 

Biomethane compatible and 20% Hydrogen blending compatible. Higher blending available on request
- 

High turn down ratio



Materials and Approvals

Part	Materials
Body	Modular cast iron GS400-18
Head covers	ADC12
Diaphragm	Rubberized canvas
Valve seat	Brass
Seals	NBR

REMARK: The materials indicated above refer to the standard models. Different materials can be provided according to specific needs.

Table 2 Materials

Construction Standards and Approvals

RFD600 regulator is designed according to the European standard EN 334. The regulator reacts in opening (Fail Open) according to EN 334.

The product is certified according to European Directive 2014/68/EU (PED). Leakage class: bubble tight, better than VIII according to ANSI/FCI 70-3.



EN 334



PED-CE

Installation

To improve the operation performance of the regulator, follow the installation on below.

Downstream in line installation

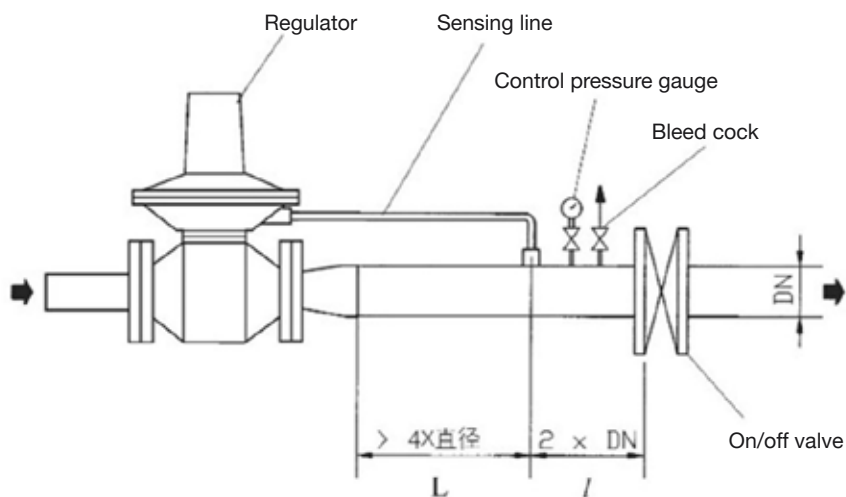


Figure 3 RFD600 in line installation

Downstream right angle installation

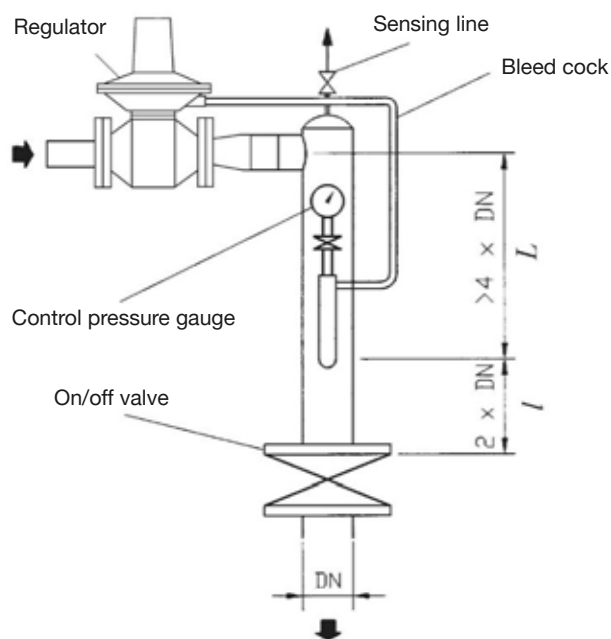


Figure 4 RFD600 right angle installation



Modularity

The features of **RFD600** series regulators make it a product suitable for any application. The fast response time makes it ideal for burner or industrial applications or whenever sudden changes of flow rate are part of the process.

The high accuracy against any inlet pressure variation makes of RFD 600 series an optimum product also for gas district systems, an application generally where piloted operating regulators are preferred.

An extremely easy maintenance and a reduced number of parts are the background of low cost operation.

RFD600 - Slam shut LE600

This is a device which stops immediately gas flow whenever downstream pressure exceeds given set-point. Device can be actuated also manually.

A further advantage of the incorporated slam-shut valve is that it can be retro fitted at any time on a previously installed RFD 600 series without modifying the regulating unit.

Further the slam-shut can be positioned in four different positions in such way to be fixed in the most

apropriated position versus the surrounding encumbrance if any.

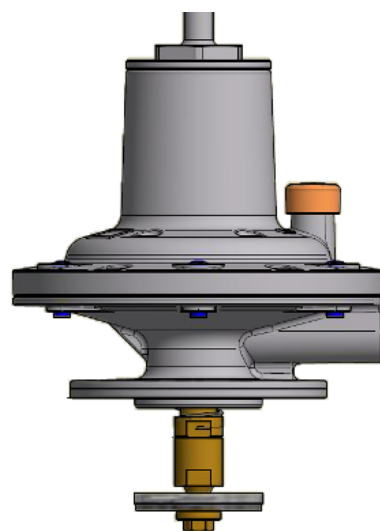


Figure 5 LE600 - standard version

LE600 features

Features	Values
Design pressure (DP)*	0.5 MPa
Slam shut accuracy class AQ	10
Set pressure range	DN25 BP from 3.2 kPa to 16 kPa MP from 10.1 kPa to 80 kPa DN50 BP from 3.2 kPa to 16 kPa MP from 10.1 kPa to 80 kPa

Table 3 LE600 materials

- Internal by-pass
- Intervention for overpressure

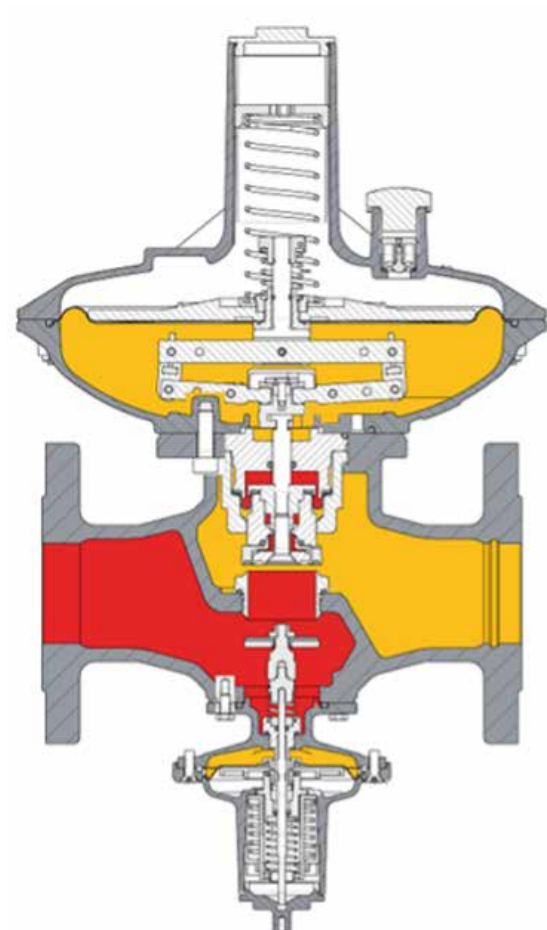


Figure 6 RFD600 with slam shut LE600



Weights and Dimensions

RFD600

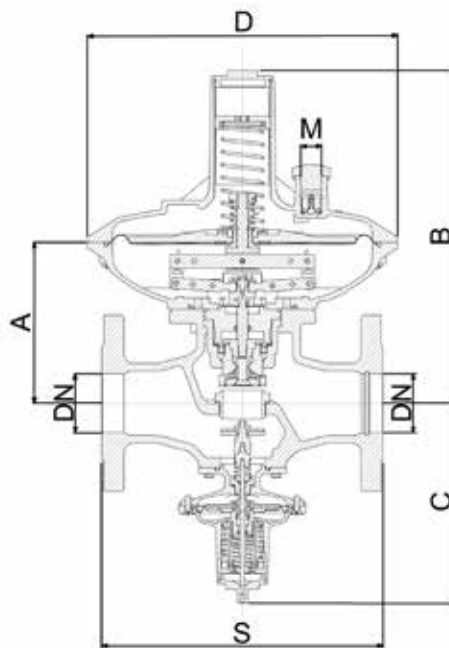


Figure 7 RFD600 dimensions

Weights and Dimensions (for other connections please contact your closest Pietro Fiorentini representative)				
DN NPS	25 1"		50 2"	
	[mm]	pollici	[mm]	pollici
S	183		254	
A	145		145	
B	300		300	
C	180		180	
D	280		280	
M	Rp 1/2"		Rp 1/2"	
Connections	Øe 10 x Øi 8 (dimensionamento imperiale su richiesta)			
Peso	Kg	lbs	Kg	lbs
RFD600	13		18	

Table 4 RFD600 weights and dimensions

RFD600 + LE600

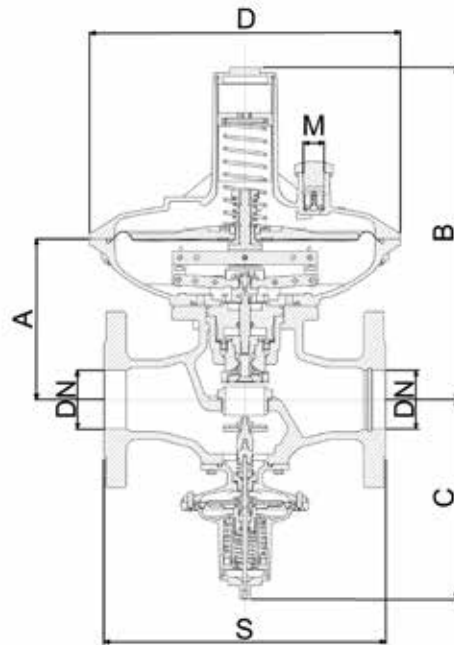


Figure 8 RFD600 + LE600 dimensions

Weights and Dimensions (for other connections please contact your closest Pietro Fiorentini representative)				
DN NPS	25 1"		50 2"	
	[mm]	pollici	[mm]	pollici
S	183		254	
A	145		145	
B	300		300	
C	180		180	
D	280		280	
M	Rp 1/2"		Rp 1/2"	
Connections	Øe 10 x Øi 8 (dimensionamento imperiale su richiesta)			
Peso	Kg	lbs	Kg	lbs
RFD600	13		18	

Table 5 RFD600 + LE600 weights and dimensions



Customer Centricity

Pietro Fiorentini is one of the main Italian international companies with high focus on product and service quality.

The main strategy is to create a stable long-term oriented relationship, putting the customer's needs first. Lean management and thinking and customer centricity are used to improve and maintain the highest level of customer experience.



Support

One of Pietro Fiorentini's top priorities is to provide support to the client in all phases of project development, during installation, commissioning and operation. Pietro Fiorentini has developed a highly standardized intervention management system, which helps to facilitate the entire process and effectively archive all the interventions carried out, drawing on valuable information to improve the product and service. Many services are available remotely, avoiding long waiting times or expensive interventions.



Training

Pietro Fiorentini offers training services available for both experienced operators and new users. The training is composed of the theoretical and the practical parts, and is designed, selected and prepared according to the level of use and the customer's need.



Customer Relation Management (CRM)

The centrality of customer is one of the main missions and vision of Pietro Fiorentini. For this reason, Pietro Fiorentini has enhanced the customer relation management system. This enables to track every opportunity and request from Customer in one single point and make free the information flow.



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