Pietro Fiorentini

Dival 507-512

Medium - Low Pressure Gas Regulator

TECHNICAL BROCHURE

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Who we are

We are a global organization that specializes 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 solutions that span the whole natural gas chain.

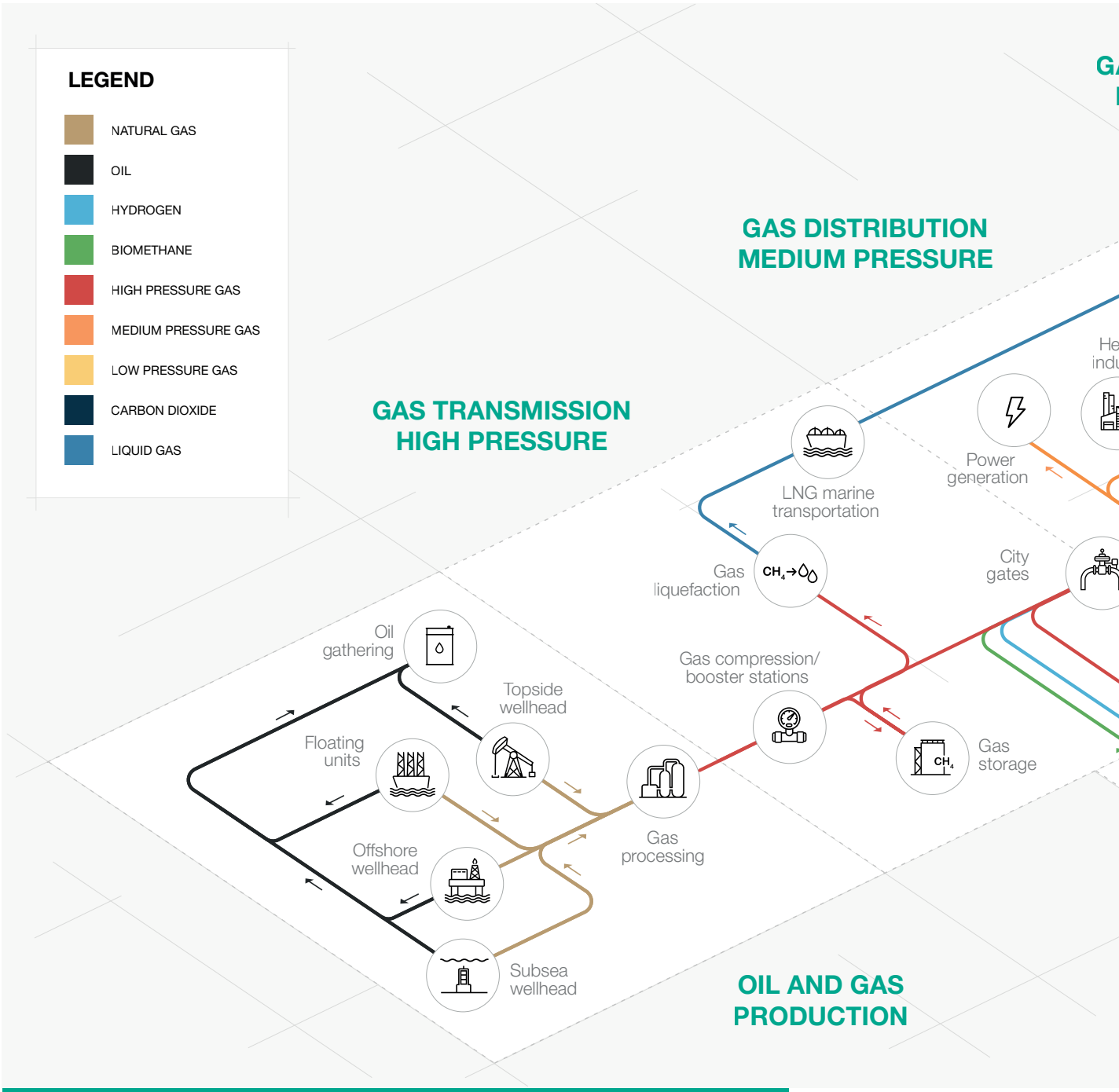
We are constantly evolving to meet our customers' highest expectations in terms of quality and reliability.

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

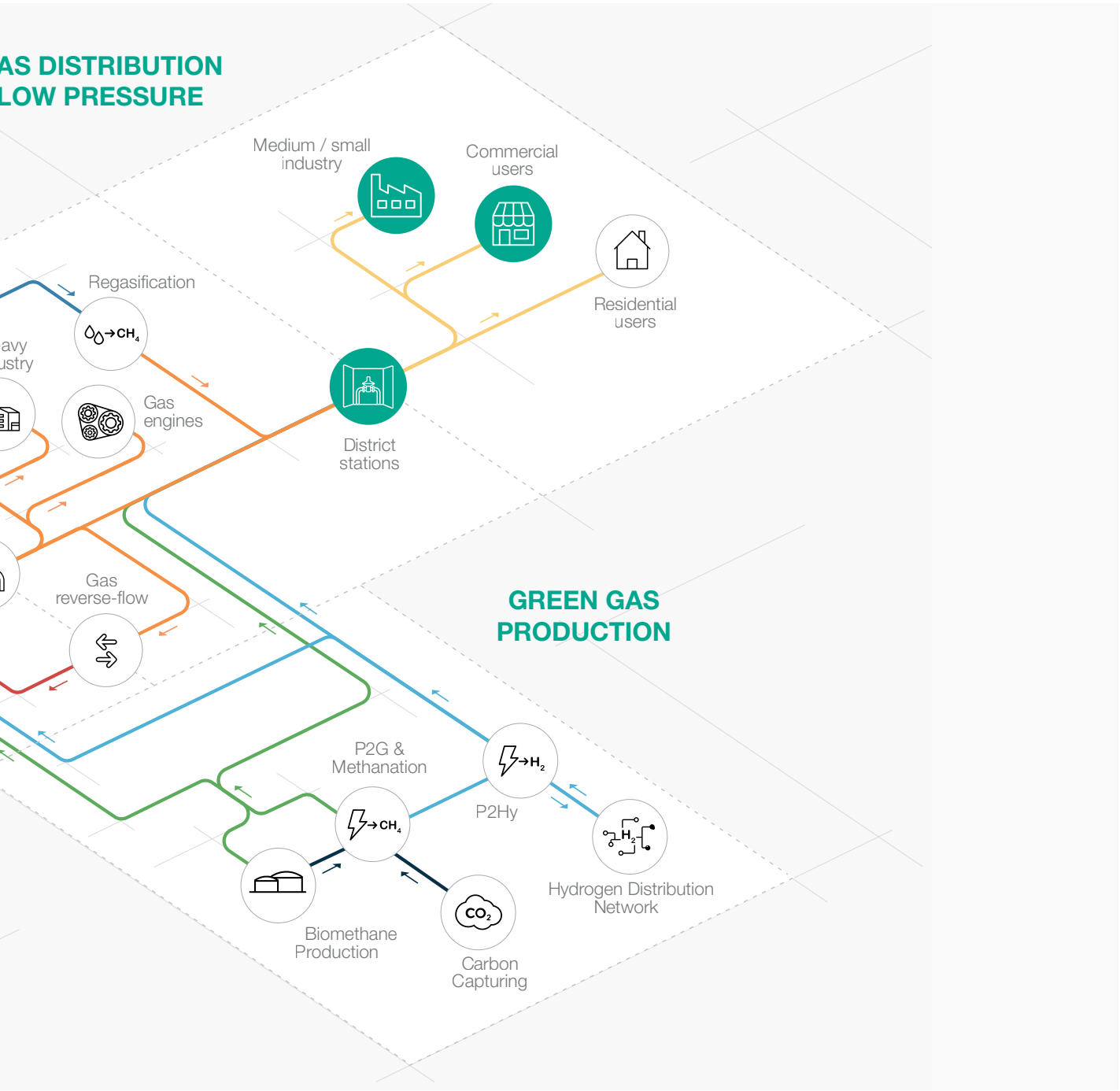
Pietro Fiorentini advantages

- Localized technical support
- Experience since 1940
- Operating in over 100 countries

Area of Application



Green icon indicates the application where this product is suitable for


AS DISTRIBUTION
LOW PRESSURE
Medium / small industry
Commercial users
Residential users
Regasification
Gas engines
District stations
Gas reverse-flow
GREEN GAS PRODUCTION
P2G & Methanation
P2Hy
Hydrogen Distribution Network
Biomethane Production
Carbon Capturing

Introduction

The **Dival 507-512** by Pietro Fiorentini are a **lever-operated** gas pressure regulators controlled by a diaphragm and contrasting regulated spring action.

Mainly used for medium and low pressure natural gas distribution networks, as well as commercial and industrial applications.

It should to be used with previously filtered non-corrosive gases.

According to the European Standard EN 334, it is classified as **Fail Open**.

The Dival 507-512 are **Hydrogen Ready** for NG-H2 blending.

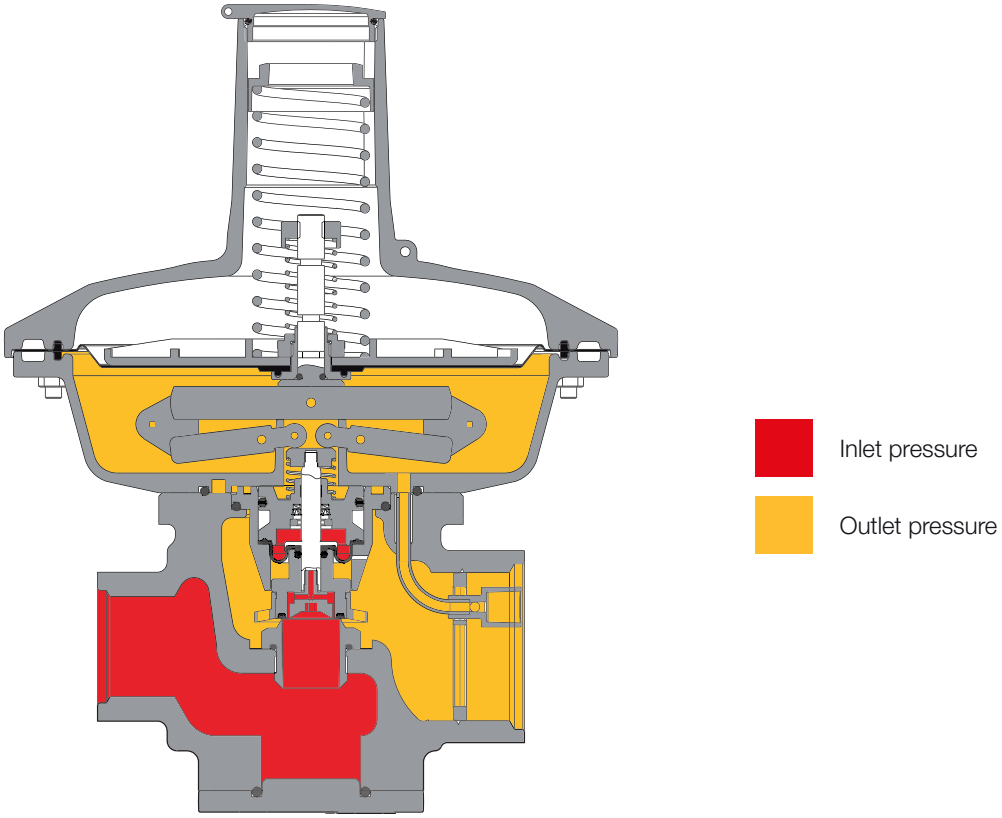


Figure 1 Dival 507-512

Features and Calibration ranges

The **Dival 507-512** is a **direct-operated** device for medium and low pressure with an unique **dynamic balancing system** which ensures an **outstanding turndown ratio** combined with an extremely **accurate outlet pressure control.**

A balanced pressure regulator it is a pressure regulator where delivery pressure accuracy is not affected by the fluctuation of the inlet pressure and flow during its operation. Therefore, a balanced pressure regulator can have a single orifice for all pressure and flow operating conditions.

This regulator is suitable for use with previously filtered, non-corrosive gases and distribution networks as well as high load industrial applications.

It is a **truly top entry design** which allows an **easy maintenance** of parts directly in the field **without removing the body from the pipework.** Set point adjustement of the regulator is operated via a pilot unit used to load and unload the bleeding pressure from the top chamber.

The modular design of the Dival 507-512 pressure regulators allows slam shut valve LA

Figure 2 Dival 507-512

Figure 3 Dival 507-512 with LA

Dival 507-512 competitive advantages

- Balanced type
- Operates with low differential pressure
- High accuracy
- Fail Open
- Token IRV
- Internal sensing line
- Top Entry
- Easy maintenance
- Built-in accessories
- Biomethane compatible and 20% Hydrogen blending compatible. Higher blending available on request

Features

Features	Values
Design pressure* (PS[1] / DP[2])	up to 1 MPa for BP, up to 2 MPa for MP and TR up to 145 psig for BP, up to 290 psig for MP and TR
Ambient temperature* (TS[1])**	from -20 °C to +60 °C from -4 °F to +140 °F
Inlet gas temperature*,***	from -20 °C to +60 °C from -4 °F to +140 °F
Inlet pressure (MAOP / p_{umax}[1])	• from (Pd + 0.01) MPa to 1 MPa from BP from (Pd + 0.01) MPa to 2 MPa for MP and TR • from (Pd + 1.45) psig to 145 psig from BP from (Pd + 1.45) psig to 290 psig for MP and TR
Range of downstream pressure (Wd[1])	• from 1.5 to 11 kPa for BP, from 8 to 30 kPa for MP, from 30 to 300 kPa for TR • from 6”w.c. to 1.6 psig for BP, from 1.16 to 14.35 psig for MP, from 4.3 to 43 psig for TR
Available accessories	LA slam shut, relief valve, monitor version, silencer (for model 512)
Minimum operating differential pressure (Δp_{min}[1])	0.01 MPa | 1.45 psig
Accuracy class (AC[1])	up to 10 | up to 1% absolute (depending on working conditions)
Lock-up pressure class (SG[1])	up to 20 (depending on version and set point)
Nominal size (DN[1,2])	DN 1”; DN 1-1/2”
Connections	Threaded Rp EN 10226-1, NPT ASME B1.20.1

([1]) according to EN334 standard
([2]) according to ISO 23555-1 standard
(*) NOTE: Different functional features and/or extended temperature ranges may be available on request. Stated inlet gas temperature range is the maximum for which the equipment’s full performance, including accuracy is guaranteed. Product may have a different pressure or temperature ranges according to the version and/or installed accessories.
(**) NOTE: Stated temperature range is the operating range for which the equipment’s mechanical resistance and leakage rate are guaranteed. Some body materials, if multiple choices are available, may not be suitable for all the available versions shown.
(***) NOTE: Stated temperature range is the range for which the equipment’s full performance, including accuracy and lock-up are guaranteed. Some body materials, if multiple choices are available, may not be suitable for all the available versions shown.

Table 1 Features

Materials and Approvals

Part	Material
Body	Cast iron GS 400–18 UNI EN 1083 Aluminum EN AC 43300 UNI EN 1706
Cover	Aluminum
Seat	Brass
Diaphragm	Fabric finish rubber
O-ring	Nitrile rubber
NOTE: 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

The **Dival 507-512** 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 class VIII according to ANSI/FCI 70-3.

EN 334

PED-CE

Maximum allowable operating pressure

Design pressure (p_s according to EN334)				
Version	Body		Slam shut	
	MPa	psig	MPa	psig
Cast Iron Body 1"x1" and 1" x 1-1/2"	2.00	290	2.00	290
Aluminum Body 1"x1" and 1" x 1-1/2"	2.00	290	2.00	290

Table 4 Design pressure of body and slam shut

Design pressure (p_s according to EN334)						
Parts	Control head					
	BP		MP		TR	
	MPa	psig	MPa	psig	MPa	psig
Cover	2.00	290	2.00	290	2.00	290
Diaphragm	0.03	4.35	0.06	8.70	0.60	87.02
Max Diaphragm Δp	0.02	2.90	0.03	4.35	0.53	76.87

Table 5 Design pressure of control heads

MAOP Maximum Allowable Operating Pressure (p_{umax} according to EN334)							
Version		Control head					
		BP		MP		TR	
		MPa	psig	MPa	psig	MPa	psig
WITH / WITHOUT CE MARKING	All version (all body materials)	1.00	145	2.00	290	2.00	290
	All version (all body materials) + SSV	1.00	145	2.00	290	2.00	290

Table 6 MAOP Maximum Allowable Operating Pressure with/without CE marking

Springs ranges and control heads

Control heads pressure ranges				
	Control head BP	Control head MP	Control head TR	Spring Table web link
Model				
Dival 507	1.5 ÷ 10 kPa 6”w.c. ÷ 1.45 psig	8 ÷ 30 kPa 1.16 ÷ 4.35 psig	30 ÷ 300 kPa 4.35 ÷ 43.51 psig	TT 00213
Dival 512	1.5 ÷ 10 kPa 6”w.c. ÷ 1.45 psig	8 ÷ 30 kPa 1.16 ÷ 4.35 psig	30 ÷ 300 kPa 4.35 ÷ 43.51 psig	TT 00213

Table 7 Control heads calibration range

General link to the calibration tables: **PRESS HERE** or use the QR code:

DIVAL 507-512 BP						
Spring part number	Spring color	d	Lo	De	Spring range ("w.c.)	
					Min.	Max.
US64470137RO	Red	1.8	115	34	5.8	7.5
US64470068GI	Yellow	2	110	34	7.5	11.6
US64470139NE	Black	2.2	115	34	11.6	15.5
US64470140MA	Brown	2.7	106	34	15.5	28.0
US64470071GR	Grey	2.8	115	34	28.0	44.1
d = Wire Diameter (mm) **Lo** = Spring Length (mm) **De** = External Diameter (mm)						

Table 8 TT 00213 - DIVAL 507-512 BP setting springs

DIVAL 507-512 MP						
Spring part number	Spring color	d	Lo	De	Spring range (psig)	
					Min.	Max.
US64470071GR	Grey	2.8	115	34	1.1	1.5
US2701178	Green	3.2	105	34	1.5	2.5
US64470142AZ	Light blue	3.8	100	34	2.5	4.3
d = Wire Diameter (mm) **Lo** = Spring Length (mm) **De** = External Diameter (mm)						

Table 9 TT 00213 - DIVAL 507-512 MP setting springs

DIVAL 507-512 TR						
Spring part number	Spring color	d	Lo	De	Spring range (psig)	
					Min.	Max.
US64470143BI	White	4.5	97	34	4.3	5.8
US64470143BI	White	4.5	97	34	5.8	10.1
US64470144VI	Purple	5	100	34	10.1	15.9
US64470145AR	Orange	5.5	100	34	15.9	28.9
US64470151BL	Blu	6.5	100	34.5	28.9	43.5
d = Wire Diameter (mm) **Lo** = Spring Length (mm) **De** = External Diameter (mm)						

Table 10 TT 00213 - DIVAL 507-512 TR setting springs

Accessories

For the pressure regulators:

- Slam shut valve
- Relief valve

Monitor configuration

The in-line monitor is generally installed upstream of the active regulator. Although the function of the monitor regulator is different, the two regulators are virtually identical from the point of view of their mechanical components. The only difference is that monitor is set at a higher pressure than active regulator. The Cg coefficients of the worker regulator with an in-line monitor is the same, but during worker regulator sizing it shall be considered the differential pressure drop generated by the fully open in-line monitor. As a practice, to incorporate this effect a Cg reduction of 20% of the worker regulator can be applied.

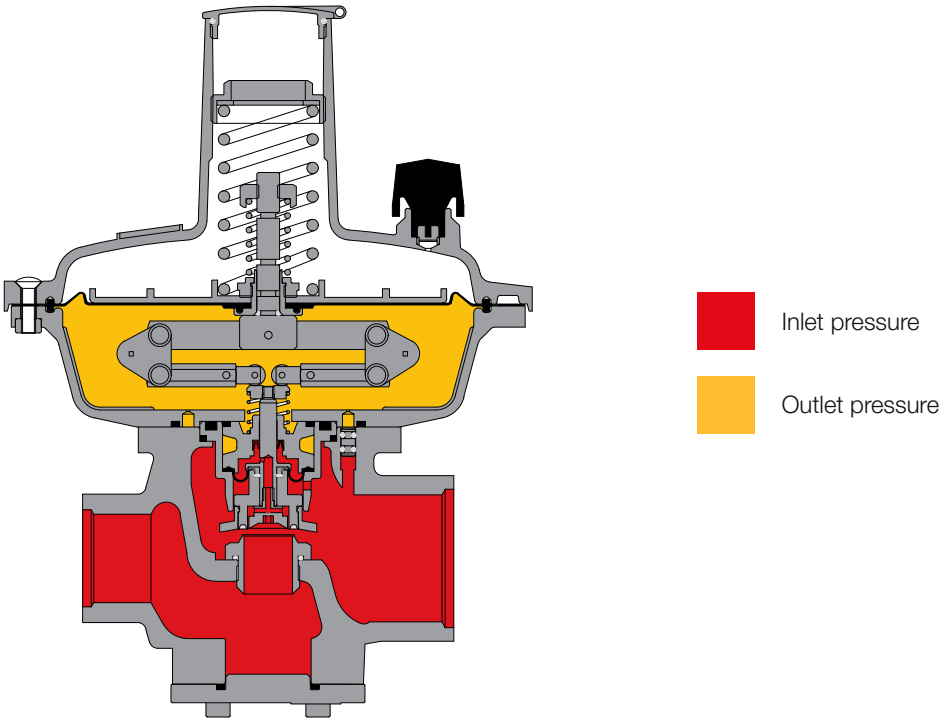


Figure 4 Dival 507-512 in-line monitor

Slam Shut LA

The Dival 507-512 pressure regulator offers the possibility of installing an **incorporated LA slam shut valve**, depending on the regulator size, and this can be done either during the manufacturing process or be retrofited in the field.

LA is available for all sizes.

Retrofitting can be done without modifying the pressure regulator assembly. With the built-in slam shut, the Cg valve coefficients is 5% lower than the corresponding version without.

The main characteristics of this device are:

- OPSO — Overpressure Shut-Off
- UPSO — Underpressure Shut-Off
- Internal by-pass
- Push button for tripping test (optional)
- Compact dimensions
- Easy maintenance
- Remote tripping option
- Limit switch option

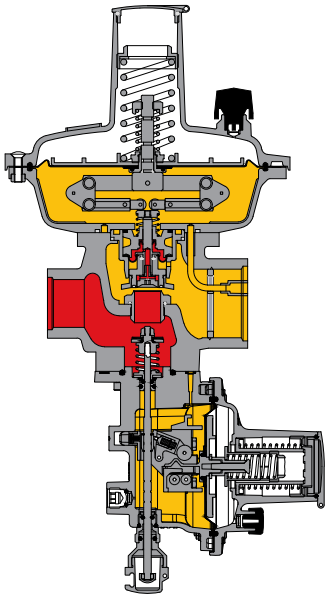


Figure 5 Dival 507-512 with LA

Pressure switch types and ranges					
SSV model	**Type**	**Operation**	**Range Wh**		**Spring Table web link**
			kPa	**psig**	
LA	BP	OPSO	3 - 18	0.43 - 2.61	TT 00214
		UPSO	0.6 - 6	0.087 - 0.87	
LA	MP	OPSO	14 - 45	2.03 - 6.52	TT 00214
		UPSO	1 - 24	0.14 - 3.48	
LA	TR	OPSO	25 - 550	3.62 - 79.77	TT 00214
		UPSO	10 - 350	1.45 - 50.76	

Table 11 Settings table

Shut-off device model LA performance	
Worker set point	**Minimum suggested set-point**
1.7 kPa 7”w.c.	3.7 kPa 15”w.c.
13.7 kPa 2 psig	20.6 kPa 3 psig
34.4 kPa 5 psig	48.2 kPa 7 psig
68.9 kPa 10 psig	89.6 kPa 13 psig
Please see PF monitor and accesory setting sheet for precise settings.	

Table 12 Recommended slam shut settings

LA/BP "OPSO"						
Spring part number	Spring color	d	Lo	De	Spring range ("w.c.)	
					Min.	Max.
US64470112RO	Red	2.2	44	34	11.9	19.9
US64470115GR	Grey	2.8	42	34	19.9	72.3
d = Wire Diameter (mm) **Lo** = Spring Length (mm) **De** = External Diameter (mm)						

Table 13 TT 002014 - LA/BP "OPSO" setting springs

LA/BP "UPSO"						
Spring part number	Spring color	d	Lo	De	Spring range ("w.c.)	
					Min.	Max.
US64470024BI	White	1.3	45	15	2.2	24.1
d = Wire Diameter (mm) **Lo** = Spring Length (mm) **De** = External Diameter (mm)						

Table 14 TT 002014 - LA/BP "UPSO" setting springs

LA/MP "OPSO"						
Spring part number	Spring color	d	Lo	De	Spring range (psig)	
					Min.	Max.
US64470115GR	Grey	2.8	42	34	2.0	2.6
US64470116GI	Yellow	3.2	40	34	2.6	4.0
US64470051BI	White	3.2	50	34	4.0	6.5
d = Wire Diameter (mm) **Lo** = Spring Length (mm) **De** = External Diameter (mm)						

Table 15 TT 002014 - LA/MP "OPSO" setting springs

LA/MP "UPSO"						
Spring part number	Spring color	d	Lo	De	Spring range ("w.c.)	
					Min.	Max.
US64470024BI	White	1.3	45	15	3.9	24.0
US64470038GI	Yellow	2	40	15	24.0	96.4
d = Wire Diameter (mm) **Lo** = Spring Length (mm) **De** = External Diameter (mm)						

Table 16 TT 002014 - LA/MP "UPSO" setting springs

LA/TR “OPSO”						
Spring part number	Spring color	d	Lo	De	Spring range (psig)	
					Min.	Max.
US64470116GI	Yellow	3.2	40	34	3.6	7.9
US64470051BI	White	3.2	50	34	7.9	12.3
US64470057BL	Blue	3.5	50	34	12.3	20.3
US64470058AR	Orange	4	50	34	20.3	36.2
US64470059AZ	Light blue	4.5	50	34	36.2	58.0
US64470060NE	Black	5	48	34	58.0	79.7
d = Wire Diameter (mm) **Lo** = Spring Length (mm) **De** = External Diameter (mm)						

Table 17 TT 002014 - LA/TR “OPSO” setting springs

LA/TR “UPSO”						
Spring part number	Spring color	d	Lo	De	Spring range (psig)	
					Min.	Max.
US64470038GI	Yellow	2	40	15	1.4	7.2
US64470045MA	Brown	2.4	41	15.3	7.2	14.5
US64470046BL	Blue	3	40	15	14.5	29.0
US64470149NE	Black	3.2	43	15	29.0	50.7
d = Wire Diameter (mm) **Lo** = Spring Length (mm) **De** = External Diameter (mm)						

Table 18 TT 002014 - LA/TR “UPSO”

General link to the calibration tables: **PRESS HERE** or use the QR code:

Relief valve

The Dival 507-512 series can be equipped with an incorporated internal relief valve (IRV) that discharges a limited amount of gas into the atmosphere when the regulator outlet pressure exceeds the set value. The typical triggering events are:

- Thermal expansion of the downstream gas at zero flow condition (during lock-up).
- Pressure peaks caused by sudden closing of downstream appliances or in the event of small downstream buffer volume.

When the outlet pressure returns below the set value, the relief valve closes again.

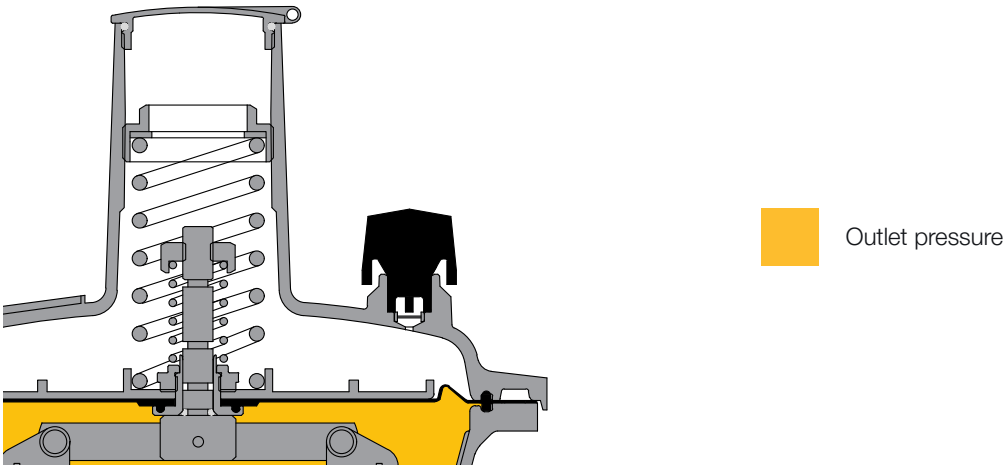


Figure 6 Dival 500 relief valve

Weights and Dimensions

Dival 507-512

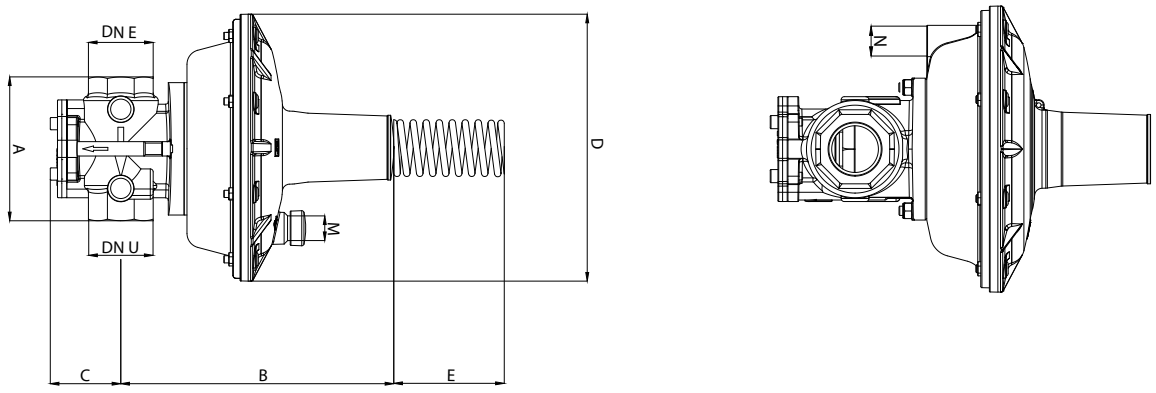


Figure 7 Dival 507-512 dimensions

Weights and Dimensions (for other connections please contact your closest Pietro Fiorentini representative)				
Model	**Dival 507**		**Dival 512**	
	[mm]	inches	[mm]	inches
A	100	3.9”	129	5.1”
B	190	10.0”	257	10.1”
C	49	1.7”	55	2.2”
D	185.5	7.3”	185.5	7.3”
E	115*	4.5”*	115*	4.5”*
DnE	1" Rp EN 10226-1		1" Rp EN 10226-1	
DnU	1" Rp EN 10226-1		1-1/2” Rp EN 10226-1	
M	1/4" Rp		1/4" Rp	
N	1/4" Rp		1/4" Rp	
Tubing Connections	Øe 10 x Øi 8 (on request imperial sizing)			
Weight	Kg	lbs	Kg	lbs
	3.6	7.9	3.8	8.4
* larger size				

Table 19 Weights and dimensions

Dival 507-512 + LA

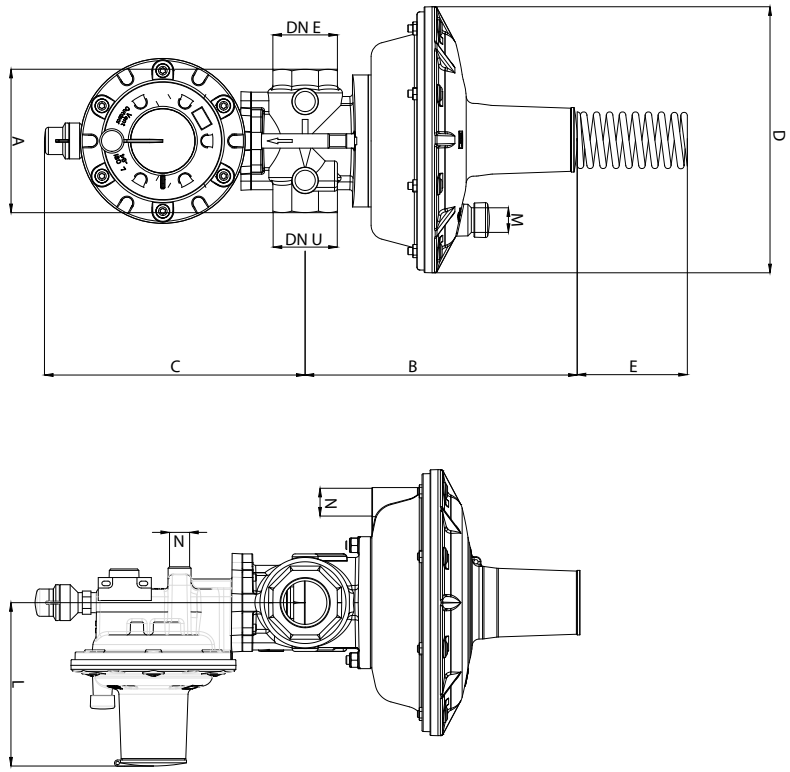


Figure 8 Dival 507-512 + LA dimensions

Weights and Dimensions (for other connections please contact your closest Pietro Fiorentini representative)				
Model	**Dival 507 + LA**		**Dival 512 + LA**	
	[mm]	inches	[mm]	inches
A	100	3.9”	129	5.1”
B	190	7.5”	194	7.6”
C	185	7.3”	185	7.3”
D	185.5	7.3”	185.5	7.3”
E	115*	4.5”*	115*	4.5”*
DnE	1" Rp EN 10226-1		1" Rp EN 10226-1	
DnU	1" Rp EN 10226-1		1-1/2” Rp EN 10226-1	
M	1/4" Rp		1/4" Rp	
N	1/4" Rp		1/4" Rp	
L	115	4.5”	115	4.5”
Tubing Connections	Øe 10 x Øi 8 (on request imperial sizing)			
Weight	Kg	lbs	Kg	lbs
	4.2	9.3	4.4	9.7
* larger size				

Table 20 Weights and dimensions

Sizing and Cg

In general, the choice of a regulator is made based on the calculation of the flow rate determined by the use of formulae using the flow rate coefficients (Cg) and the form factor (K1) as indicated by the EN 334 standard. Sizing is available through the on-line Pietro Fiorentini sizing program.

Flow rate coefficient		
Model	507	512
Nominal size	25	40
Inches	1"	1-1/2”
Cg	195	245
K1	97	96
REMARK: For safety relief valve sizing it is required to use the Cg values of this table regardless the accessories installed on the regulator. As per EN334 Cg value acceptance criteria these values may vary up to 10% which we recommend considering during the sizing process.		

Table 21 Flow rate coefficient

For sizing **PRESS HERE** or use the QR code:

Note: In case you do not have the proper credentials to access, feel free to contact your closest Pietro Fiorentini representative.

In general the on-line sizing considers multiple variables as the regulator is installed in a system, enabling a better and multiperspective approach to the sizing.

For different gases, and for natural gas with a different relative density other than 0.61 (compared to air), the correction coefficients from the following formula shall be applied.

$$F_c = \sqrt{\frac{175.8}{S \times (273.16 + T)}}$$

S = relative density (refer to Table 22)
T = gas temperature (°C)

$$F_c = \sqrt{\frac{316.44}{S \times (459.67 + T)}}$$

S = relative density (refer to Table 22)
T = gas temperature (°F)

Correction Factor Fc		
Gas Type	**Relative Density S**	**Correction Factor Fc**
Air	1.00	0.78
Propane	1.53	0.63
Butane	2.00	0.55
Nitrogen	0.97	0.79
Oxygen	1.14	0.73
Carbon Dioxide	1.52	0.63
Note: the table shows the Fc correction factors valid for Gas, calculated at a temperature of 15°C and at the declared relative density.		

Table 22 Correction Factor Fc

Flow rate conversion
Stm^3/h x 0.94795 = Nm^3/h

Nm^3/h reference conditions:
T= 0 °C; P= 1 barg | T= 32 °F; P= 14.5 psig
Stm^3/h reference conditions:
T= 15 °C; P= 1 barg | T= 59 °F; P= 14.5 psig

Table 23 Flow rate conversion

CAUTION:

In order to get optimal performance, to avoid premature wear on the regulators components, and to limit noise emissions, it is recommended to check the gas speed and its compliance with local practice and regulations. The gas speed at the outlet flange of the regulator which may be calculated by the following formula:

$$V = 345.92 \times \frac{Q}{DN^2} \times \frac{1 - 0.002 \times Pd}{1 + Pd}$$

V = gas speed in m/s
Q = gas flow rate in Stm^3/h
DN = nominal size of regular in mm
Pd = outlet pressure in barg

$$V = 0.0498 \times \frac{Q}{DN^2} \times \frac{14.504 - 0.002 \times Pd}{14.504 + Pd}$$

V = gas speed in ft/s
Q = gas flow rate in Scfh
DN = nominal size of regular in inches
Pd = outlet pressure in psi

Flow capacity tables

Dival 507 BP - DN 1”

From 2 kPa [8”w.c.] to 10 kPa [1.45 psig]

Dival 507 BP - recommended max flow rate for optimal performance

Inlet pressure		Outlet pressure									
		2 kPa / 8”w.c.		2.5 kPa / 10”w.c.		5 kPa / 20”w.c.		7.5 kPa / 1.09 psig		10 kPa / 1.45 psig	
MPa	psig	Stm³/h	Scfh	Stm³/h	Scfh	Stm³/h	Scfh	Stm³/h	Scfh	Stm³/h	Scfh
0.05	7.25	44	1600	65	2300	75	2700	77	2800	70	2500
0.10	14.50	54	2000	75	2700	105	3800	116	4100	113	4000
0.20	29.01	63	2300	80	2900	120	4300	154	5500	153	5500
0.25	36.26	61	2200	80	2900	120	4300	173	6200	171	6100
0.50	72.52	56	2000	80	2900	119	4300	156	5600	156	5600
0.75	108.78	56	2000	79	2800	119	4300	156	5600	156	5600
1.00	145.04	56	2000	79	2800	119	4300	155	5500	155	5500

Cg = 195 K1= 97

Table 24 Dival 507 BP flow rate with outlet pressure from 2 kPa | 8”w.c. up to 10 kPa | 1.45 psig

Dival 507 MP - DN 1”

From 10 kPa [1.45 psig] to 30 kPa [4.35 psig]

Dival 507 MP - recommended max flow rate for optimal performance

Inlet pressure		Outlet pressure									
		10 kPa / 1.45 psig		15 kPa / 2.17 psig		20 kPa / 2.90 psig		25 kPa / 3.62 psig		30 kPa / 4.35 psig	
MPa	psig	Stm³/h	Scfh	Stm³/h	Scfh	Stm³/h	Scfh	Stm³/h	Scfh	Stm³/h	Scfh
0.05	7.25	78	2800	77	2800	74	2700	75	2700	74	2700
0.10	14.50	106	3800	116	4100	116	4100	125	4500	128	4600
0.20	29.01	146	5200	176	6300	160	5700	197	7000	211	7500
0.50	72.52	208	7400	222	7900	215	7600	279	9900	297	10500
1.00	145.04	207	7400	222	7900	215	7600	280	9900	300	10600
1.50	217.56	206	7300	221	7900	214	7600	279	9900	299	10600
2.00	290.07	205	7300	220	7800	213	7600	278	9900	298	10600

Cg = 195 K1= 97

Table 25 Dival 507 MP flow rate with outlet pressure from 10 kPa | 1.45 psig up to 30 kPa | 4.35 psig

Note: Recommended max flow rate are considering multiple factors such as: extend the regulator’s life, mitigate the erosion/vibrations for high velocity and to minimize the noise emission.
Remark: all capacity stated are considering a stand alone regulator. In case of incorporated accessories a reduction of flow shall be considered.

Dival 507 TR - DN 1”

From 50 kPa [7.25 psig] to 300 kPa [43.51 psig]

Dival 507 TR - recommended max flow rate for optimal performance

Inlet pressure		Outlet pressure									
		50 kPa / 7.25 psig		100 kPa / 14.5 psig		150 kPa / 21.76 psig		200 kPa / 29.01 psig		300 kPa / 43.51 psig	
MPa	psig	Stm³/h	Scfh	Stm³/h	Scfh	Stm³/h	Scfh	Stm³/h	Scfh	Stm³/h	Scfh
0.05	7.25	-	-	-	-	-	-	-	-	-	-
0.10	14.50	108	3900	-	-	-	-	-	-	-	-
0.20	29.01	188	6700	160	5700	139	5000	-	-	-	-
0.50	72.52	336	11900	368	13000	368	13000	367	13000	394	14000
1.00	145.04	359	12700	396	14000	397	14100	397	14100	397	14100
1.50	217.56	357	12700	395	14000	395	14000	395	14000	396	14000
2.00	290.07	356	12600	393	13900	394	14000	394	14000	394	14000

Cg = 195 K1= 97

Table 26 Dival 507 TR flow rate with outlet pressure from 50 kPa | 7.25 psig up to 300 kPa | 43.51 psig

Dival 512 BP - 1”x1-1/2”

From 2 kPa [8”w.c.] to 10 kPa [1.45 psig]

Dival 512 BP - (accuracy 10% ; AC10 according to EN334)

Inlet pressure		Outlet pressure									
		2 kPa / 8”w.c.		2.5 kPa / 10”w.c.		5 kPa / 20”w.c.		7.5 kPa / 1.09 psig		10 kPa / 1.45 psig	
MPa	psig	Stm³/h	Scfh	Stm³/h	Scfh	Stm³/h	Scfh	Stm³/h	Scfh	Stm³/h	Scfh
0.05	7.25	125	4500	115	4100	115	4100	111	4000	102	3700
0.10	14.50	186	6600	188	6700	189	6700	188	6700	178	6300
0.20	29.01	302	10700	297	10500	319	11300	327	11600	317	11200
0.25	36.26	230	8200	303	10700	324	11500	373	13200	367	13000
0.50	72.52	157	5600	199	7100	398	14100	398	14100	398	14100
0.75	108.78	156	5600	198	7000	397	14100	397	14100	397	14100
1.00	145.04	156	5600	198	7000	396	14000	396	14000	396	14000

Cg = 245 K1= 96

Table 27 Dival 512 BP flow rate with outlet pressure from 2 kPa | 8”w.c. up to 10 kPa | 1.45 psig

Note: Recommended max flow rate are considering multiple factors such as: extend the regulator’s life, mitigate the erosion/vibrations for high velocity and to minimize the noise emission.
Remark: all capacity stated are considering a stand alone regulator. In case of incorporated accessories a reduction of flow shall be considered.

Dival 512 MP - 1”x1-1/2”

From 10 kPa [1.45 psig] to 30 kPa [4.35 psig]

Dival 512 MP - (accuracy 10% ; AC10 according to EN334)											
Inlet pressure		**Outlet pressure**									
		10 kPa / 1.45 psig		15 kPa / 2.17 psig		20 kPa / 2.90 psig		25 kPa / 3.62 psig		30 kPa / 4.35 psig	
MPa	psig	Stm³/h	Scfh	Stm³/h	Scfh	Stm³/h	Scfh	Stm³/h	Scfh	Stm³/h	Scfh
0.05	7.25	117	4200	113	4000	94	3400	91	3300	93	3300
0.10	14.50	183	6500	182	6500	161	5700	156	5600	154	5500
0.20	29.01	302	10700	301	10700	290	10300	286	10100	293	10400
0.50	72.52	448	15900	448	15900	448	15900	448	15900	448	15900
1.00	145.04	446	15800	446	15800	446	15800	446	15800	446	15800
1.50	217.56	444	15700	444	15700	444	15700	444	15700	444	15700
2.00	290.07	442	15700	442	15700	442	15700	442	15700	442	15700
Cg = 245 K1= 96											

Table 28 Dival 512 MP flow rate with outlet pressure from 10 kPa | 1.45 psig up to 30 kPa | 4.35 psig

Dival 512 TR - 1”x1-1/2”

From 50 kPa [7.25 psig] to 300 kPa [43.51 psig]

Dival 512 TR - (accuracy 10% ; AC10 according to EN334)											
Inlet pressure		**Outlet pressure**									
		50 kPa / 7.25 psig		100 kPa / 14.5 psig		150 kPa / 21.76 psig		200 kPa / 29.01 psig		300 kPa / 43.51 psig	
MPa	psig	Stm³/h	Scfh	Stm³/h	Scfh	Stm³/h	Scfh	Stm³/h	Scfh	Stm³/h	Scfh
0.05	7.25	-	-	-	-	-	-	-	-	-	-
0.10	14.50	135	4800	-	-	-	-	-	-	-	-
0.20	29.01	255	9100	200	7100	210	7500	-	-	-	-
0.50	72.52	498	17600	498	17600	498	17600	449	15900	459	16300
1.00	145.04	495	17500	496	17600	496	17600	496	17600	495	17500
1.50	217.56	493	17500	494	17500	494	17500	494	17500	494	17500
2.00	290.07	491	17400	492	17400	492	17400	492	17400	493	17500
Cg = 245 K1= 96											

Table 29 Dival 512 TR flow rate with outlet pressure from 50 kPa | 7.25 psig up to 300 kPa | 43.51 psig

Note: Recommended max flow rate are considering multiple factors such as: extend the regulator’s life, mitigate the erosion/vibrations for high velocity and to minimize the noise emission.
Remark: all capacity stated are considering a stand alone regulator. In case of incorporated accessories a reduction of flow shall be considered.

Customer Centricity

Customer centricity is a way of running your business — implementing a perfect customer experience at each stage of the pipeline. Pietro Fiorentini is one of the main Italian international company with high focus on product and service quality.

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

Support

Pietro Fiorentini's top priority is to provide support to the client in all phases of project development, during installation, start up and operation. Pietro Fiorentini has developed a highly standardized Intervention-Management-System (IMS), which helps to facilitate the entire process and putting the customer at the forefront of every decision in our process while manufacturing or developing a product to help improve the product and service. With our IMS business model many services are available remotely, avoiding long waiting times, improving service, and avoiding unnecessary expenses.

Training

Pietro Fiorentini offers training services available for both experienced operators and new customers. The training is offered for all levels of our customers which can include one or all of the following: sizing of equipment, application, installation, operation, maintenance and is prepared according to the level of use and the customer's need.

Customer Relation Management (CRM)

The service and care of our customers are one of the main missions and vision of Pietro Fiorentini. For this reason, Pietro Fiorentini has enhanced the customer relation management system. This enables us to track every opportunity and request from our customers into one single information point and allows us to coordinate information allowing us to give the customer improved service.

Sustainability

Here at Pietro Fiorentini, we believe in a world capable of improvement through technology and solutions that can shape a more sustainable future. That is why respect for people, society and the environment form the cornerstones of our strategy.

Our commitment to the world of tomorrow

While in the past we limited ourselves to providing products, systems and services for the oil & gas sector, today we want to broaden our horizons and create technologies and solutions for a digital and sustainable world. We have a particular focus on renewable energy projects to help make the most of our planet's resources and create a future in which the younger generations can grow and prosper.

The time has come to understand how and why we operate now.

Pietro Fiorentini

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