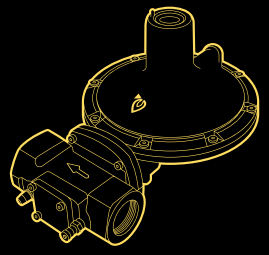
BP24F / BP24S Standard Models

** Orientation rule: Position of the vent to be read like a watch face, seen from above with the input direction = 6 hours and the output direction = 12 hours.*

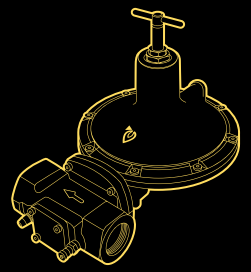
Previous BP2402L Codes	New BP24 Codes	Inlet con-nexion	Outet connexion	Inlet pressure (Pu) bar	Outlet pressure (Pd) mbar	Declared gas	Flow rate		OPSO	PRV	UPSO	Upstream pres-sure testing point	Downstream pressure testing point	Original vent orientation*	Performances rule
							kg/h of propane or LPG (S)m³/h of NG	kW	mbar	mbar	mbar				
	BP24F (1" - 1"1/4)														
001206AA	001206CA	FEM. Rc1"	FEM. Rc1"1/4	0,24- 0,5	21 (19 -23)	NG	40	448	-	-	-	Schrader	8 mm	3	EN 334 (AC10 SG20) **
001200	001200CA			(0,3) 0,5 - 2	30 (25 - 43)	LPG	70 (60)	966 (828)	-	75	-			3	EN 16129
001230PX	001230CX	FEM. 1"NPT	FEM. 1"1/4 NPT						-	75	-			3	
001205	001205CA	FEM. Rc1"	FEM. Rc1"1/4	(0,3) 0,5 - 2	37 (32 - 48)	Propane			-	75	-			6	EN 16129 (EN 437 ΔP5)
001212AA	001212CA								-	-	-			6	
001211AB	001211CB	FEM. 1"NPT	FEM. 1"1/4 NPT	0,5 - 5	75 (50 - 100)	Propane	100 (NG 85)	1380 (NG 952)	-	120	-			3	EN 16129
001211AC	001211CC			0,6 - 5	125 (80 - 180)				-	200	-			3	
001215AA	001215CA	FEM. Rc1"	FEM. Rc1"1/4	0,65 - 5	150 (80 - 180)				-	-	-			6	
001216AA	001216CA			0,8 - 5	300 (200 - 350)				-	-	-			3	
	BP24F UPSO (1" - 1"1/4)														
001240AC	001240CC	FEM. Rc1"	FEM. Rc1"1/4	60 - 90 (150) mbar	37 (32 - 48)	Propane	25 (50)	345 (690)	-	75	28	Schrader	8 mm	6	BS 6891 **
	BP24FR (1" - 1"1/4)														
001210XX	001210CA	FEM. Rc1"	FEM. Rc1"1/4	0,5 - 5	20 - 300	LPG	15 - 80	207 - 1104	-	Pd + 60	-	Schrader	8 mm	3	EN 16129
001210AX	001210CX	FEM. 1"NPT	FEM. 1"1/4 NPT						-	Pd + 60	-			3	
	BP24S (1" - 1")														
-	001300CA	FEM. Rc1"	FEM. Rc1"	(0,3) 0,5 - 2	30 (25 - 43)	LPG	60 (50)	828 (690)	-	75	-	Tap G.1/8"	Tap G.1/4"	6	EN 16129
-	001300CB			(0,3) 0,5 - 2	37 (32 - 48)	Propane			-	75	-			6	EN 16129 (EN 437 ΔP5)
-	001300CC			0,5 - 5	75 (50 - 100)		70 (60 NG)	966 (672 NG)	-	115	-			6	EN 16129
-	001300CD			0,65 - 5	150 (80 - 180)		80 (70 NG)	1104 (784 NG)	-	225	-			6	
-	001300CE			0,8 - 5	300 (200 - 350)				-	420	-			6	
	BP24S OPSO UPSO (1" – 1")														
-	006847CA	FEM. Rc1"	FEM. Rc1"	(0,3) 0,5 - 2	30 (25 - 43)	LPG	60 (50)	828 (690)	130	75	22	Tap G.1/8"	Tap G.1/4"	6	EN 16129
-	006847CB			(0,3) 0,5 - 2	37 (32 - 48)	Propane			130	75	28			6	EN 16129 (EN 437 ΔP5)
-	006847CC			0,5 - 5	75 (50 - 100)		70 (60 NG)	966 (672 NG)	140	115	-			6	EN 16129
-	006847CD			0,65 - 5	150 (80 - 180)		80 (70 NG)	1104 (784 NG)	300	225	-			6	
-	006847CE			0,8 - 5	300 (200 - 350)				475	420	-			6	

*** Designed, manufactured and tested according to EN 16129 standard*

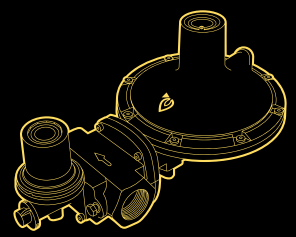
BP24F



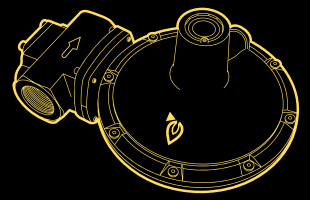
BP24FR



BP24S OPSO UPSO 006847CB



BP24S



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NOVACOMET

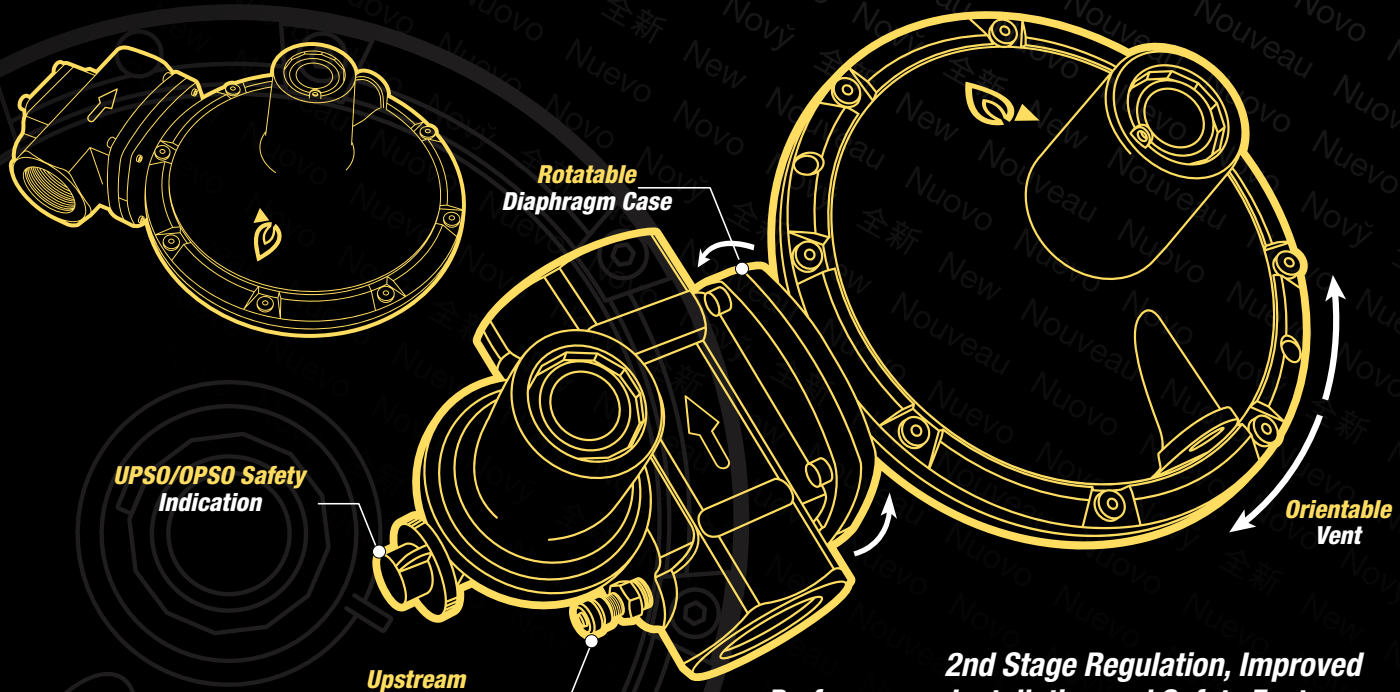
BP24F / BP24S NEW
High Capacity low pressure regulator (up to 150kg/h)*

BP24F - BP24F OPSO UPSO - BP24FR - BP24S - BP24S OPSO UPSO

Features

Capacity up to 350 kg/h (4800 kW)
Rotatable Vent
Inlet pressure from 0.05 to 6 bar
Rotatable diaphragm case

Installer and customer friendly:
Easy installation / Safety devices and adjustment options



*based on 2 bar inlet pressure

2nd Stage Regulation, Improved Performance, Installation and Safety Features

BP24F 001200CA

BP24FR 001210CA

BP24S OPSO UPSO 006847CB

BP24S 001300CA

High capacity low pressure regulator, suitable to accommodate an extensive range of operating conditions, having a compact design and an installer configurable design to meet the toughest of environments.

Built by Novacomet part of the Clesse Group, the design uses the proven capabilities of the existing BP24 diaphragm casing dimensions to give excellent pressure regulation that can be integrated with the new design high capacity UP/OPSO security system.

Mainly used in medium and large power installations (domestic metered networks, commercial, agricultural or industrial) as final stage or intermediate stage pressure reduction.

Suitable for all types of LPG, natural gas, synthetic natural gas (SNG) or other non aggressive gases (air, nitrogen, biomethane).

Wide range, choose from both standard range listed or bespoke specialist available.

- ✓ Low pressure - final pressure reduction normally 21, 30, 37, 75, and up to 100 mbar,
- ✓ 3rd stage regulation with inlet pressure below 500 mbar,
- ✓ Intermediate pressure regulation supplying 125 to 350 mbar.

BP24F Standard models used in commercial and industrial applications engineer settable.

BP24FR Variable pressure models which require regular or fine tuning of pressure adjustment for industrial processes.

BP24F UPSO/OPSO models offer security features for additional safety, protecting downstream installations from either over pressure or under pressure situations.

BP24S NEW design - Short efficient dimension regulator optimised for 1" connections. Design for easy installation and servicing in space restricted areas.

Security and Safety - New high capacity UP/OPSO system optional on all models, protecting downstream installations from either over pressure or under pressure situations.

Models listed can contain one or more feature.

Design Solutions for LPG

FEATURES

High capacity and excellent pressure control with internal regulation system based on:

- ✓ Direct operated, spring loaded, mechanism,
- ✓ Adapted seat diameter (13,5 mm),
- ✓ HNBR highly resilient valve seat pad,
- ✓ Large reinforced diaphragm.

Stable pressure control is achieved and consistent in all conditions of temperature, capacity and inlet pressure operating in the normal range of the regulator. Meeting the manufacturing and performance standard EN 16129 where applicable.

Connections

The gas connection, available as standard:

- ✓ Inlet: 1" - Rc or NPT type,
- ✓ Outlet: 1" and 1"1/4 - Rc or NPT.

Convenient for most gas installers, offering generous pipe diameter connection for low pressure drop in installation pipework.

Adjustable regulated pressure models

The outlet regulated pressure is pre-set at nominal values and may be adjusted, in use, according to table "Product Range".

Variable pressure models

Wide operating range of pressures on these models come with optional T-bar and locking nut handle, providing convenient user adjustment from the minimum value up to the maximum value pressures (see product range).

Vent orientation - New "Rotatable Vent"

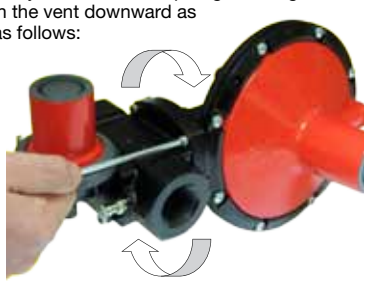
Breather vent orientation, made easy by the new design of Rotatable Vent cover to ensure water is prevented from entering and/or accumulating in the regulator, either by rain, humidity or condensation. The operation can be carried out on site by a qualified engineer.

1. Unscrew one by one the 8 screws,
2. Rotate and orientate the regulator cover with vent downward oriented,
3. Redo the 8 screws alternately again
4. Make a leak test to ensure everything is OK and the Rotatable Vent cover is sealed.

New Rotatable Diaphragm Case

After installation into the pipework, it's easy to rotate the diaphragm casing to fit into confined spaces or to position the vent downward as requested previously. Please proceed as follows:

1. Slack off (with an hexagon wrench) one by one, the 4 screws around the flange,
2. Rotate and orientate the diaphragm casing as necessary,
3. Redo the 4 screws alternatively,
4. Make a leak test to ensure everything is OK and the Rotatable Flange is sealed.



OPERATIONAL DESIGN

OPSO safety (Over Pressure Shut Off) and UPSO safety (Under Pressure Shut Off

- ✓ BP24F regulators may be fitted with a safety OPSO valve which interrupts the flow of gas upstream in case of over pressure. The intervention OPSO value is factory pre-set.
- ✓ UPSO may be generated by interruption of upstream gas supply, excessive gas consumption, gas supply pipe obstruction. The intervention UPSO value is factory pre-set.
- ✓ OPSO / UPSO has a visual indicator.
- ✓ Easily resettable.
- ✓ Possible sealing means to prevent from any improper reset.
- ✓ Certain models of BP24F may additionally equipped with an UPSO safety function which interrupts the flow of gas in case of low pressure. In this case, UPSO function is integrated in the OPSO device.

Connectable vent

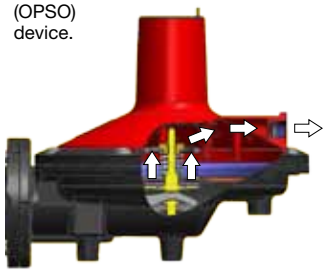
- ✓ The vent may be connected to a pipe, which allows to unload in a safe area, the pressurised gas released by the PRV,
- ✓ Vent device is pre-equipped with an internal filter preventing intrusion from undesirable element (spider, dust…),
- ✓ Connection type: Female G1/4" RH.

BP24S regulators are SAFETY READY

- ✓ Usually, BP24S is delivered without any safety device nor pressure testing point. But, upon request, it's possible to install, before delivery or on site, any safety device, pressure testing point or manometer.

PRV safety

- ✓ BP24 regulators can be manufactured with an internal Pressure Relief Valve (PRV) that allows release of slight overpressure, in particular resulting from thermal expansion in the static flow mode and avoids nuisance activation of safety overpressure (OPSO) device.



- ✓ For indoors installations and/or poorly ventilated areas is recommended to pipe the vent outside.

OTHER BENEFITS

Pressure test points

BP24F regulators are fitted with two pressure testing points:

- ✓ Schrader type valve for upstream pressure.
- ✓ Testing point for a 8 mm I.D. pipe for downstream pressure.

This functionality is useful for variable regulators users in order to easily set the regulated pressure.

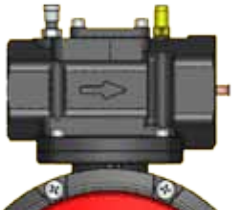
It's also possible, to have an indicative manometer fitted.

Pressure setting sealing

On some models provision to seal internal adjustable pressure settings onto using the regulator cap is now available where specified.

Construction

- ✓ BP24F / BP24S regulators are design, manufactured and tested according to EN 16129 standard,
- ✓ Regulators comply with the European Pressure Equipment Directive PED 2014/68/CE, and production according to ISO 9001 quality management standard,
- ✓ Body and cover of regulators: die cast aluminium alloy,
- ✓ Body and cover of OPSO safety: die cast zinc alloy,
- ✓ Flange connection: die cast aluminium alloy,
- ✓ Diaphragm: NBR-R reinforced EN 549,
- ✓ Valve pad: HNBR according to EN 549.



Label Marking

In conformity with EN 16129 requirements, the following information is marked on the label regulator or the safety:

- ✓ NOVACOMET BP24F / BP24S,
- ✓ Type of gas,
- ✓ Inlet connection type (G) and pressure range, indicated in bar,
- ✓ Outlet connection type (H) and set pressure (pressure range for variable models), indicated in mbar,
- ✓ Flow capacity, indicated in kg/h of LPG or Propane or in (S)m^3/h of NG and corresponding rated power in kW,
- ✓ Setting of the over-pressure relief valve (PRV), if any, indicated in mbar,
- ✓ Setting of the OPSO safety, if any, indicated in mbar,
- ✓ Setting of the UPSO safety, if any, indicated in mbar,
- ✓ Referring standard : EN 16129,
- ✓ Manufacturing date: ww/yy (week/year),
- ✓ For regulators set pressure according to EN 437, the downstream gas installation acceptable lost of charge indicated as follows: ΔP2 (for 2 mbar) or ΔP5 (for 5 mbar).

Manufacturers advice: Always follow the installation instructions and local rules for gas installation for the Country.

TYPICAL PERFORMANCES BP24F / BP24S

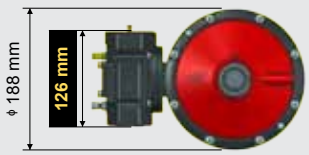
Capacity at standard conditions (kg/h Propane or LPG - (S)m³/h NG) with 1"1/2 downstream pipe															
Outlet pressure (mbar)	Type of gas	Performance rule	Limits		Inlet pressure (bar)									
					0.25	0.3	0.5	0.75	1	1.5	2	3	4	5
BP24F (1" - 1"1/4) and BP24S (1" - 1") - Low and Medium pressure - Fixed														
21	NG	EN 334 (AC10 SG20)	18,9-23,1-25,2 mbar	BP24F	25	30	50	-	-	-	-	-	-	-
		EN 334 (AC20 SG30)	16,8-25,2-27,3 mbar	BP24F	40	50	70	-	-	-	-	-	-	-
30	LPG	EN 16129	21-36-39 mbar	BP24F	60	70	90	110	125	140	150	-	-	-
				BP24S	55	60	75	90	100	115	125	-	-	-
37	Propane	EN 16129 (EN 437 ΔP5)	30-45-50 mbar	BP24F	55	65	85	105	115	130	140	-	-	-
				BP24S	50	60	75	90	95	105	115	-	-	-
		EN 16129 (EN 437 ΔP2)	27-45-50 mbar	BP24F	65	75	95	110	125	135	145	-	-	-
				BP24S	60	70	80	95	105	110	120	-	-	-
		BS6891	37 +/- 5 mbar - Lock-up +10mbar	BP24F	50	55	70	90	110	125	130	-	-	-
				BP24S	45	50	60	75	90	100	105	-	-	-
75	Propane	EN 16129	52,5-90-97,5 mbar	BP24F	-	-	100	110	120	140	150	160	180	200
				BP24S	-	-	80	90	105	125	130	140	150	150
		BS6891	75 +/- 10 mbar - Lock-up +15 mbar	BP24F	-	-	70	75	85	95	110	125	130	135
				BP24S	-	-	60	70	80	90	105	115	115	115
125	Propane	EN 16129	87,5-150-162,5 mbar	BP24F			90 (100 @ 0,6)	115	130	160	180	195	210	230
				BP24S	-	-	80(90 @0,6)	105	120	150	165	170	175	175
150	Propane	EN 16129	105-180-195 mbar	BP24F			90 (100 @ 0,65)	115	130	160	180	195	210	230
				BP24S	-	-	80(90 @0,65)	105	120	150	165	170	175	175
300	Propane	EN 16129	210-360-390 mbar	BP24F	-	-	-	140	175	225	250	300	330	350
				BP24S	-	-	-	120	140	175	190	220	235	260
	NG	EN 334 (AC10 SG20)	270-330-360 mbar	BP24F	-	-	-	80	105	135	150	175	190	200
				BP24S	-	-	-	70	85	105	115	130	150	160
BP24F - Low and Medium pressure - Variable														
20 - 300	LPG	EN 16129	Min : 11-26-29 / Max : 210-360-390 mbar	BP24F	-	-	15 - 80	15 - 100	20 - 110	25 - 140	30 - 160	40 - 200	50 - 250	50 - 300
BP24F - 3rd stage Low pressure - Fixed														
Outlet pressure (mbar)	Type of gas	Performance rule	Limits		Inlet pressure (mbar)									
					50	60	75	90	150	300	500	-	-	-
37	Propane	BS6891	37 +/- 5 mbar - Lock-up +10mbar	BP24F	20	25	30	35	50	70	80	-	-	-

The propane capacity is indicated in the table above. Nevertheless, it's possible to calculate the corresponding capacity for any other gas than propane using the conversion table below:

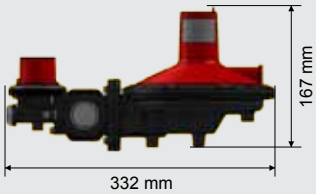
Capacity conversion							
To get the "used gas" capacity, multiply the "declared gas" capacity by the coefficient		Propane (EN16129)	GPL (EN16129)	Natural Gas-H (EN 437 - G20)	Natural Gas-L (EN 437 - G25)	Air	Nitrogen
		kg/h		(S)m³/h			
Declared gas	Natural gas-H (G20) (S)m³/h	1.12	1.20	1.00	0.95	0.74	0.76
	Propane (EN16129) kg/h	1.00	1.07	0.89	0.85	0.66	0.68
	LPG (EN16129) kg/h	0.93	1.00	0.83	0.79	0.62	0.63

OVERALL DIMENSIONS

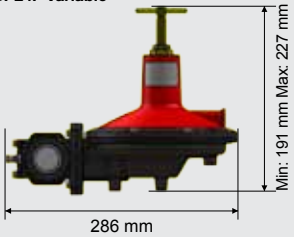
BP24F



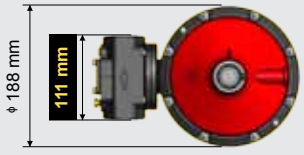
BP24F OPSO

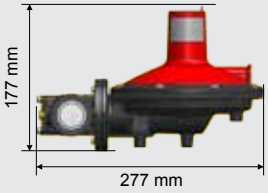


BP24F Variable

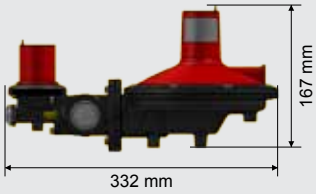


BP24S





BP24S OPSO UPSO



BP24S Variable