NOVACOMET

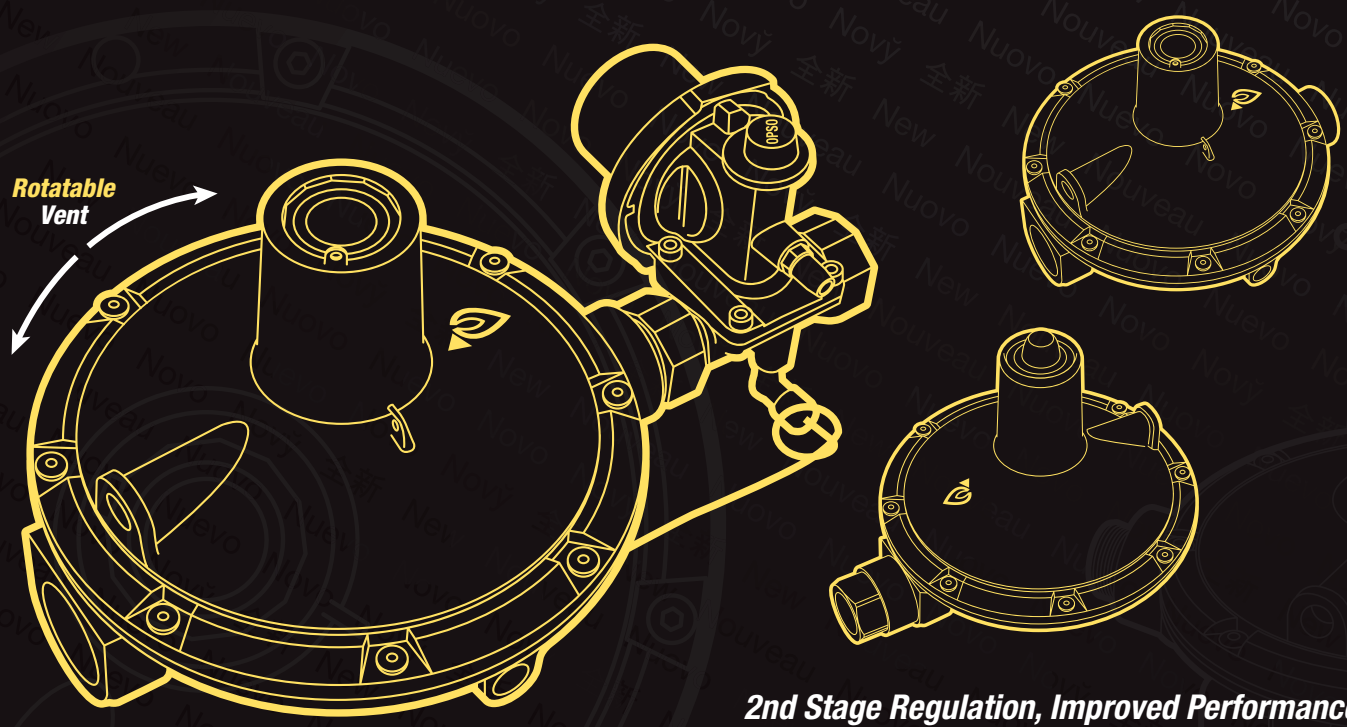
BP2403 NEW
Low Pressure Regulator up to 70 kg/h

BP2403 - BP2403R - BP2403 OPSO - BP2403 UPSO - BP2403 OPSO/UPSO

Features

Large range of regulators
Capacity up to 70 kg/h (970 kW)
Rotatable Vent
Inlet pressure from 0.05 to 6 bar

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



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



Versatile economic pressure regulator supplying high capacity flow rates at both low and high inlet pressure ranges. 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 models for more complex applications - choose the features accordingly

- 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 150 to 350 mbar.

BP2403 Standard models used in commercial and industrial applications engineer settable.

BP2403R Variable pressure models which require regular or fine tuning of pressure adjustment for industrial processes.

BP2403 - UPSO/OPSO models offer security features for additional safety, 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 (9,6 or 12,7 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.

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).

Connections
The gas connection, available as standard :

- ✓ Inlet: Rc 3/4” ISO 7 - G3/4” ISO 228 - 3/4” NPT or NUT M20x1,5RH,
- ✓ Outlet: G3/4” ISO 228, Rc 1” ISO 7 or 1” NPT,

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

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 engineers.

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

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

Adjustable Pressure



Variable Pressure



Rotatable Vent



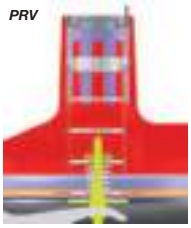
OPSO



UPSO



PRV



Connectable Vent



Label Marking



OPERATIONAL DESIGN

Safety Device (OPSO / UPSO / PRV)
OPSO safety (Over Pressure Shut Off)

- ✓ BP2403 regulators can 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,
- ✓ OPSO safety has a visual indicator and testing point for a pipe 8 mm I.D. diameter,
- ✓ Easily re-settable,
- ✓ Possible sealing means to prevent from any improper reset.

UPSO safety (Under Pressure Shut Off)

- ✓ Certain models are equipped with an UPSO safety device which interrupts the flow of gas in case of low pressure: UPSO (Under Pressure Shut Off) generated by interruption of upstream gas supply, excessive gas consumption, gas supply pipe obstruction. The intervention UPSO value is factory preset,
- ✓ UPSO safety has a visual indicator and test point,
- ✓ Easily resettable.

PRV safety

- ✓ BP2403 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.

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.

OTHER BENEFITS

Pressure test point / Manometer
Regulators fitted (upon request) with a pressure testing point or Schrader type valve to allow downstream pressure monitoring. It’s also possible (upon request), to have a manometer fitted. This functionality is useful for variable regulators in order for the user to easily set the regulated pressure.

Easy wall mounting
Two lateral metallic brackets may be attached to the regulator on site to allow an easy wall mounting. Both manometer and wall mounting bracket may be used together.

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

Construction

- ✓ BP2403 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,
- ✓ Inlet connections: brass according to EN 12165,
- ✓ 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 BP2403
- ✓ 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)m³/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 EN437, the downstream gas installation acceptable lost of charge indicated as follows: ΔP2 (for 2 mbar) or ΔP5 (for 5 mbar).

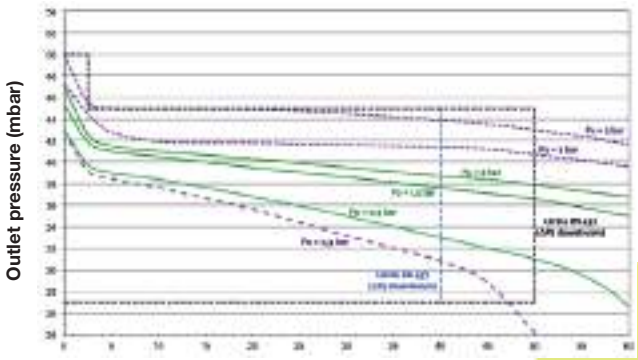
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TYPICAL PERFORMANCES

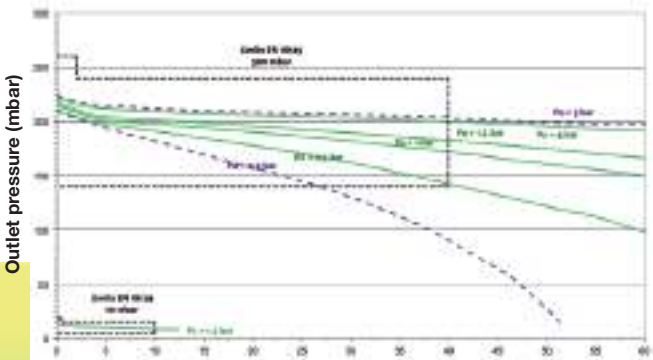
The propane capacity is indicated on the above curves. Nevertheless, it's possible to calculate the corresponding capacity for any other gas than propane using the conversion table below:

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

BP2403 - Setting 37 mbar according to EN 16129 and EN 437

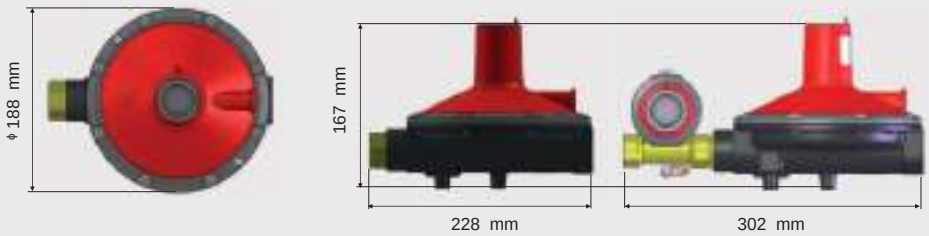


BP2403R - Setting 10-200 mbar according to EN 16129

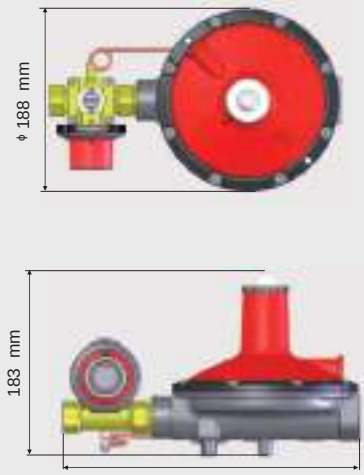


OVERALL DIMENSIONS

BP2403 - BP2403 OPSO



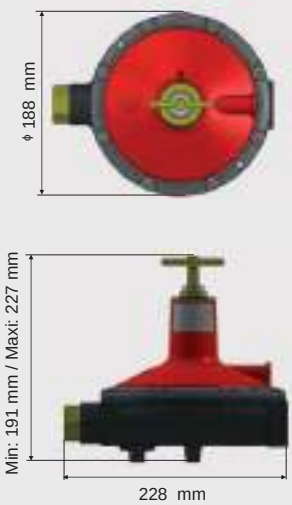
BP2403 OPSO/UPSO



BP2403 UPSO



BP2403R



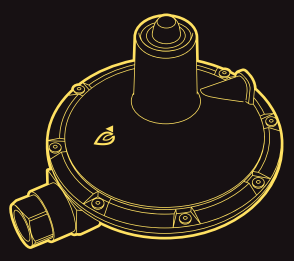
BP2403 Standard Models

** 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.*

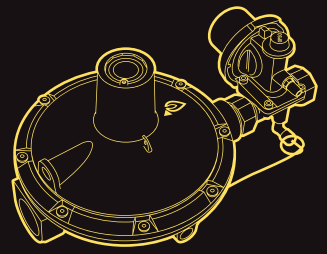
PREVIOUS BP2402 code	BP2403 Code	Inlet connection	Outlet connection	Inlet pressure (Pu) bar	Outlet pressure (Pd) mbar	Declared gas	Flow rate		OPSO	PRV	UPSO	Original vent orientation*	Performances rule
							kg/h of propane or LPG ((S)m³/h of NG)	kW	mbar	mbar			
	BP2403												
001107AB	001107CB	FEM-Rc3/4	FEM-Rc1	0,24 - 0,5	21 (18 - 24)	NG	25	280	-	-	-	0	EN 334 **
	001107CE	M. G3/4	M. G3/4	0,24 - 0,36	20 (18 - 24)	NG	25	280	-	-	-	0	CCH 96-01 **
001100XX	001100CA	FEM-Rc3/4	FEM-Rc1	(0,3) 0,5 - 2	30 (24 - 41)	LPG	50 (40)	690 (552)	-	75	-	0	EN 16129
001130PX	001130CA	FEM-3/4NPT	FEM-1 NPT	(0,3) 0,5 - 2	30 (24 - 41)	LPG	50 (40)	690 (552)	-	75	-	0	EN 16129
001105	001105CA	FEM-Rc3/4	FEM-Rc1	(0,3) 0,5 - 2	37 (32 - 46)	Propane	50 (40)	690 (552)	-	75	-	4	EN 16129 (ΔP5)
001107AA	001107CA			(0,3) 0,5 - 2	37 (32 - 46)	Propane	50 (40)	690 (552)	-	-	-	0	EN 16129 (ΔP5)
001107AC	001107CC			0,7 - 5	148 (65 - 155)	Propane	70 (NG 55)	966 (NG 616)	-	-	-	7	EN 16129
001107AD	001107CD			0,8 - 5	300 (200 - 350)	Propane	70 (NG 55)	966 (NG 616)	-	-	-	0	EN 16129
001117	001117CA	NUT-M20X1,5RH		0,5 - 2	37 (32 - 46)	Propane	40	552	-	75	-	5	EN 16129 (ΔP5)
001118	001118CA			0,5 - 2	50 (35 - 75)	LPG	40	552		115	-	5	EN 16129
	BP2403 UPSO												
001120	001120CB	FEM-Rc3/4	FEM-Rc1	0,5 - 2	30 (24 - 41)	LPG	40	552	-	75	22	0	EN 16129
001120BA	001120CA			50 - 500 mbar	37 (32 - 42)	Propane	12	166	-	75	28	7	BS 6891 **
	BP2403R												
001111AX	001111CC	FEM-3/4NPT	FEM-1NPT	0,5 - 4	20 - 300	LPG	20 - 50	276 - 690	-	+75	-	0	EN 16129
001110	001110CA	FEM-Rc3/4	FEM-Rc1	0,5 - 4	10 - 200	LPG	10 - 40	138 - 552	-	+75	-	0	EN 16129
001111XX	001111CD			0,5 - 4	20 - 300	LPG	20 - 50	276 - 690	-	+75	-	0	EN 16129
001112AA	001112CA			0,5 - 4	100 - 300	LPG	30 - 50	414 - 690	-	-	-	0	EN 16129
	BP2403 OPSO												
006840BA	006840CA	FEM-Rc3/4	FEM-Rc1	0,5 - 2	30 (24 - 41)	LPG	50	690	140	75	-	0	EN 16129
006840BB	006840CB			0,5 - 2	37 (32 - 46)	Propane	50	690	140	75	-	0	EN 16129 (ΔP5)
006842RB	006842CB			0,5 - 2	75 (60 - 95)	Propane	40 (60@1 bar)	552 (828)	140	115	-	7	BS 6891 **
006842BA	006842CA			0,7 - 5	148 (65 - 155)	Propane	50 (NG 40)	690 (NG 448)	300	-	-	7	EN 16129
006842BC	006842CC			0,8 - 5	300 (200 - 350)	Propane	60 (NG 50)	828 (NG 560)	500	-	-	7	EN 16129
	BP2403 OPSO / UPSO												
006845BB	006845CB	FEM-Rc3/4	FEM-Rc1	0,24 - 0,5	21 (19 - 23)	NG	20	224	70	50	12	7	EN 16129
006845BA	006845CA			0,5 - 2	30 (24 - 41)	LPG	40 (60@1 bar)	552 (828)	100	75	22	0	EN 16129
006846RB	006846CB			0,5 - 2	37 (32 - 46)	Propane	40 (60@1 bar)	552 (828)	100	75	28	7	BS 6891 **
006846RC	006846CC			0,6 - 2	100 (65 - 155)	Propane	50	690	300	175	80	7	EN 16129

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

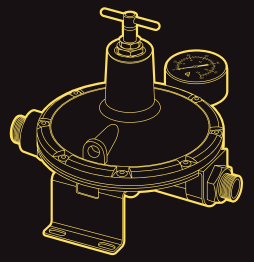
BP2403 UPSO



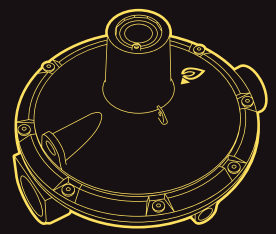
BP2403 OPSO



BP2403R



BP2403



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