

1810.0 • 1/4"-2"

1820.0 • 1/4"-2"

1830.0 • 1/4"-2"

ADJUSTABLE PRESSURE RELIEF VALVES CE  
WITH FREE DISCHARGE

CONNECTION: MALE



## HYDRAULIC FEATURES

The adjustable pressure relief valve with "free discharge" is a security measure against overpressure designed to open solely by the energy of the fluid in the event the internal pressure of the system reaches the valve's predetermined maximum pressure (Preset Nominal Pressure Pnr), thus releasing the fluid through the free discharge outlet into the air. This safety valve with free discharge closes automatically when the internal pressure of the system descends below the predetermined pressure. The safety valve with automatic free discharge satisfies the essential safety requirements stipulated in the EU Pressure Equipment Directive (PED) 97/23/EC.

## TECHNICAL FEATURES

**Pressure:**  
Maximum allowable working pressure (PN) 16 bar  
Preset nominal pressure (Pnr) is adjustable in the field from 0.5 to 16 bar  
(When ordering, please indicate whether preset pressure surpasses 10 bar)

Minimum accumulation pressure	- 5%
Overpressure	10%
Reclosing value	20%

**Threading:**  
Pipeline connections Threads according to ISO 228/1

**Requirements and tests as per:**

Type test:	
Operating performance	Test P20 - EN 12266-2
Acceptance test:	
Seat tightness	Test P12 - EN 12266-1
Shell strength	Test P10 - EN 12266-1



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## PED OPERATING LIMITS

Code	Obturator Material	Max. allowable Pressure PS	Max. allowable Temperature TS	PED Risk Category	PED Evaluation Procedure	PED Supervisory Body	Acceptable Fluids
1810	Brass	16 Bar	from 0° to 220 °C	I	Module A	n.a.	S Group 1 (subject to OR approval)
1820	SBR Rubber	16 Bar	from 0° to 70 °C	I	Module A	n.a.	G Group 1 (subject to OR approval)
1830	Teflon®	16 Bar	from 0° to 180 °C	I	Module A	n.a.	G-S Group 1 (subject to OR approval)

L: Liquids - G: Gas - S: Steam

*This pressure release valve is not a "safety accessory", but rather a "pressure accessory" as defined in Article 1, Section 2.1.4 of EU Directive 97/23/EC, and further specified in Article 3, Section 1.4; classified in Annex III, Section 3. Devices of this sort can in exceptional cases be used for a specific safety function, especially if the downstream system is not protected otherwise, within the limits of the relevant risk class.*

## DESIGN

Brass Body EN 12165 - CW617N  
Brass bonnet dimensions 1/4"-1 1/2" EN 12164 - CW614N  
Cast brass bonnet dimensions 2" EN 1982-CN753S  
Other components in brass EN 12164 - CW614N  
Metal seat: obturator in brass - EN 12165 - CW617N  
Rubber seat: obturator gasket in NBR elastomer  
Teflon seat: obturator gasket in pure PTFE (Teflon)  
Sm GALVANIZED STEEL spring - EN 10270-1

## PRODUCT CODES

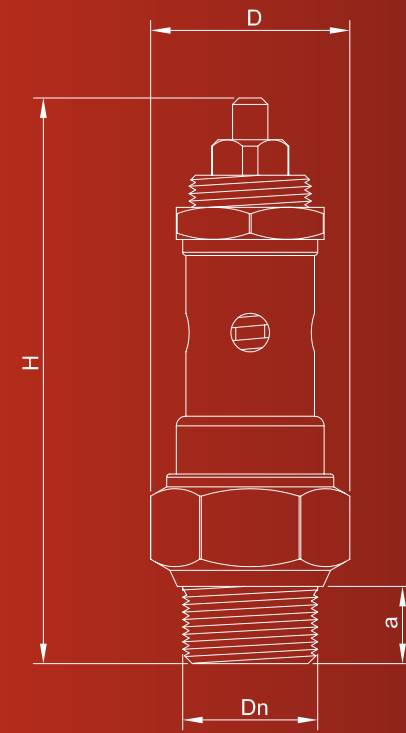
Metal seat product codes	Rubber seat product codes	PTFE seat product codes
1810.008 metal seat 1/4" M	1820.008 rubber seat 1/4" M	1830.008 PTFE seat 1/4" M
1810.012 metal seat 3/8" M	1820.012 rubber seat 3/8" M	1830.012 PTFE seat 3/8" M
1810.015 metal seat 1/2" M	1820.015 rubber seat 1/2" M	1830.015 PTFE seat 1/2" M
1810.020 metal seat 3/4" M	1820.020 rubber seat 3/4" M	1830.020 PTFE seat 3/4" M
1810.025 metal seat 1" M	1820.025 rubber seat 1" M	1830.025 PTFE seat 1" M
1810.033 metal seat 1 1/4" M	1820.033 rubber seat 1 1/4" M	1830.033 PTFE seat 1 1/4" M
1810.042 metal seat 1 1/2" M	1820.042 rubber seat 1 1/2" M	1830.042 PTFE seat 1 1/2" M
1810.050 metal seat 2" M	1820.050 rubber seat 2" M	1830.050 PTFE seat 2" M

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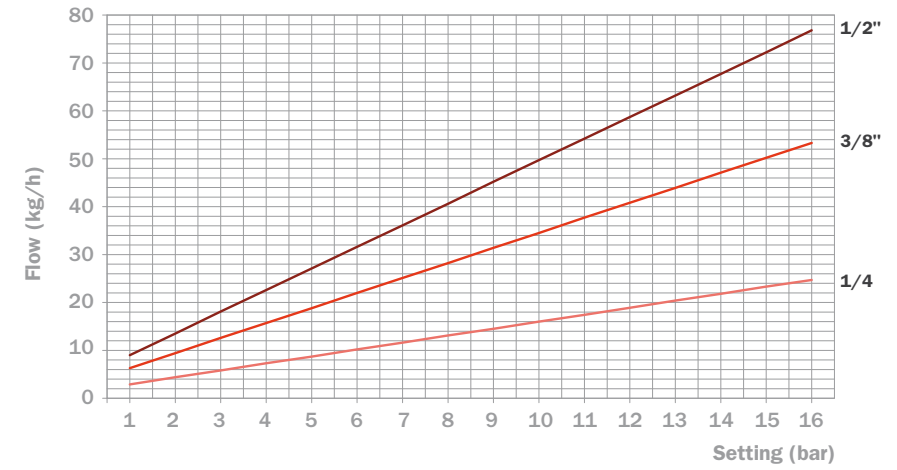
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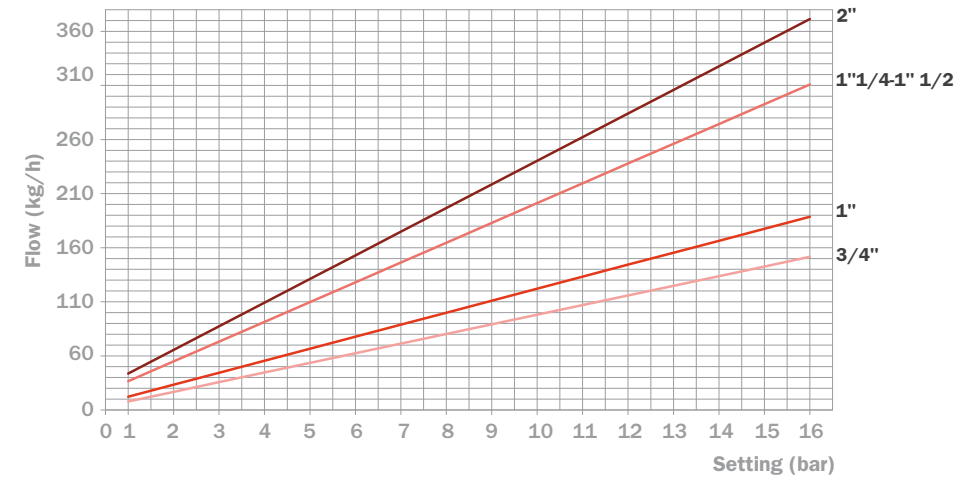
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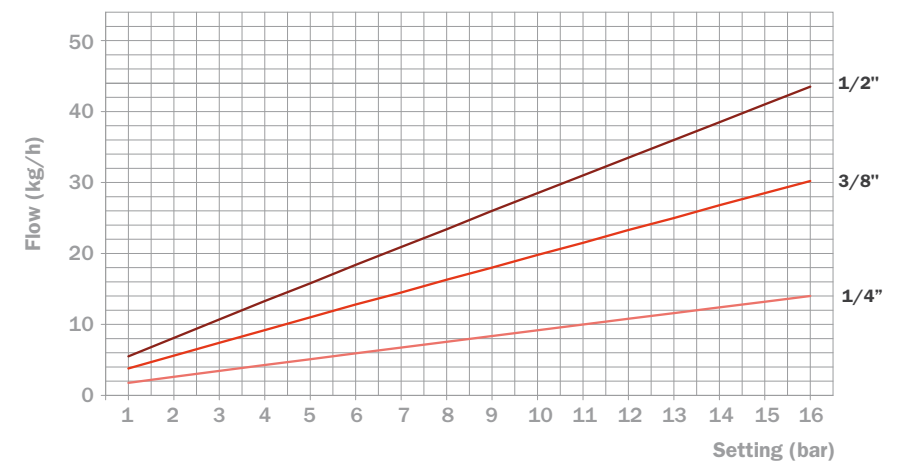
DISCHARGING FLOW GAS - 1820.0-1830.0 1/4"÷1/2"



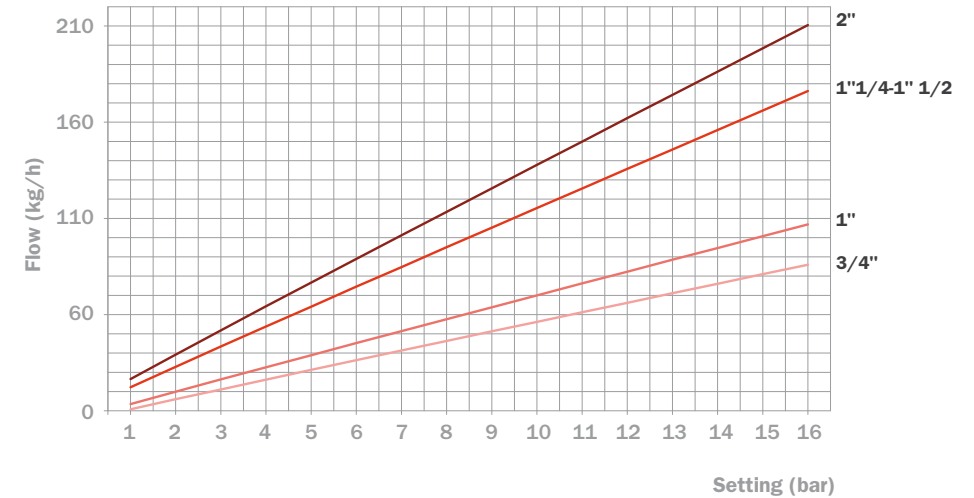
DISCHARGING FLOW GAS - 1820.0-1830.0 3/4"÷2"



DISCHARGING FLOW STEAM - 1810.0-1830.0 1/4"÷1/2"



DISCHARGING FLOW STEAM - 1810.0-1830.0 3/4"÷2"



FEATURES

Dn	D	H	a
1/4"	29	88	10
3/8"	30	87	11
1/2"	31	89	12
3/4"	43	109	15
1"	52	124	17
1 1/4"	66	145	23
1 1/2"	74	158	23
2"	88	177	25

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