# 1811.0 • 3/8”-3”
# 1821.0 • 3/8”-3”
# 1831.0 • 3/8”-3”

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ADJUSTABLE PRESSURE RELIEF VALVES CEWITH CONVEYABLE DISCHARGE CE MARKED
IN COMPLIANCE WITH DIRECTIVE PED 97/23/EC - CAT I

CONNECTIONS: FEMALE-FEMALE

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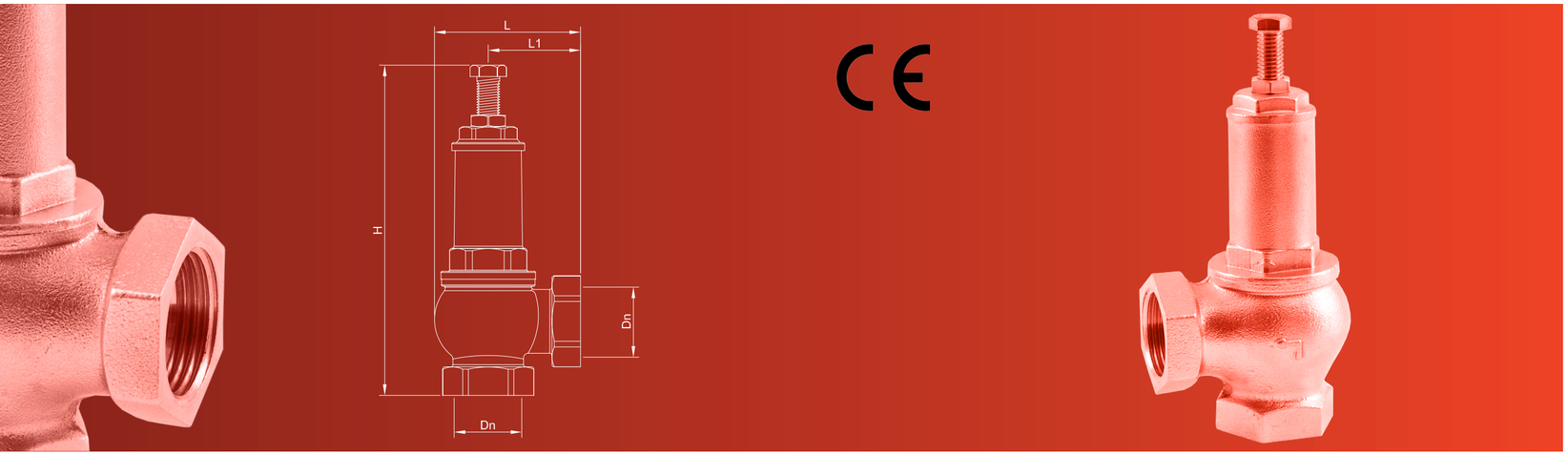


## FEATURES

| Dn | L | L1 | H |
|---|---|---|---|
| 3/8” | 45 | 28.5 | 115 |
| 1/2” | 56 | 35.5 | 122 |
| 3/4” | 64 | 39.5 | 149 |
| 1” | 76 | 47 | 163 |
| 1”1/4 | 90 | 56 | 192 |
| 1”1/2 | 100 | 63 | 218 |
| 2” | 124 | 75 | 247 |
| 2”1/2 | 135 | 79.5 | 280 |
| 3” | 145 | 84.5 | 293 |

## HYDRAULIC FEATURES

The CE marked pressure relief valve with conveyed discharge is a self-regulating valve capable of maintaining the pressure of the system (P) constant within a specified range, using the energy of the fluid, conveyed and discharged, and regulating the position of the obturator. Force is applied directly to the obturator by a spring (direct action). Once the reference point for pressure P is established, the pressure relief valve automatically adjusts itself by either increasing or decreasing the flow section, and thus the discharge capacity, in order to keep the system’s pressure constant. In case the system’s pressure drops below the reference pressure P, the pressure relief valve will close automatically. The discharge side of the body can be conveyed and therefore it is perfect for use only with fluids, gas and steam (Group I - if compatible). This valve 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
Shell strength Test P10 - EN 12266-1
Acceptance test:
Seat tightness Test P12 - 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 |
|---|---|---|---|---|---|---|---|
| 1811 | Brass | 16 Bar | from 0° to 220 °C | I | Module A | n.a. | S-L Group I* and II) |
| 1821 | SBR Rubber | 16 Bar | from 0° to 70 °C | I | Module A | n.a. | L Group I* and II |
| 1831 | PTFE® | 16 Bar | from 0° to 180 °C | I | Module A | n.a. | L-G-S Group I* and II |

L: Liquids - G: Gas - S: Steam

** Compatibility to substances belonging to “Group I” is limited and requires to be approved by Officine Rigamonti S.p.A.*

*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.*

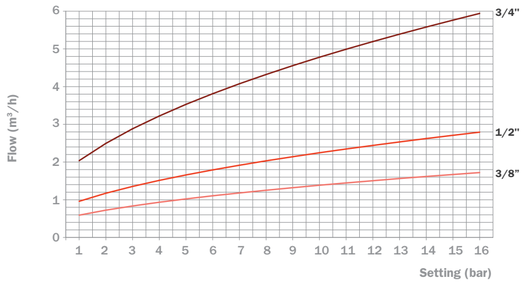
## DESIGN

Cast Brass body dimensions 3/8”-2” EN1982-CB753S
Cast bronze body dimensions 2”1/2-3” EN1982-CB491K
Brass bonnet dimensions 3/8”-1”1/2 EN12165-CW617N
Cast brass bonnet dimension 2” EN 1982-CN753S
Cast bronze bonnet dimensions 2”1/2-3” EN1982-CB491K
Other components in brass EN 12164 - CW614N
Metal seat: obturator in brass EN 12165 - CW617N
Rubber seat: obturator gasket in NBR elastomer
PTFE seat: obturator gasket in pure PTFE
Sm GALVANIZED STEEL spring - EN 10270-1

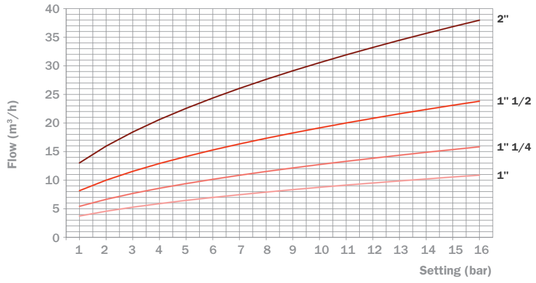
## PRODUCT CODES

| Metal seat product codes | | | Rubber seat product codes | | | PTFE seat product codes | | |
|---|---|---|---|---|---|---|---|---|
| 1811.012 | metal seat | 3/8” F/F | 1821.012 | rubber seat | 3/8” F/F | 1831.012 | PTFE seat | 3/8” F/F |
| 1811.015 | metal seat | 1/2” F/F | 1821.015 | rubber seat | 1/2” F/F | 1831.015 | PTFE seat | 1/2” F/F |
| 1811.020 | metal seat | 3/4” F/F | 1821.020 | rubber seat | 3/4” F/F | 1831.020 | PTFE seat | 3/4” F/F |
| 1811.025 | metal seat | 1” F/F | 1821.025 | rubber seat | 1” F/F | 1831.025 | PTFE seat | 1” F/F |
| 1811.033 | metal seat | 1”1/4 F/F | 1821.033 | rubber seat | 1”1/4 F/F | 1831.033 | PTFE seat | 1”1/4 F/F |
| 1811.042 | metal seat | 1”1/2 F/F | 1821.042 | rubber seat | 1”1/2 F/F | 1831.042 | PTFE seat | 1”1/2 F/F |
| 1811.050 | metal seat | 2” F/F | 1821.050 | rubber seat | 2” F/F | 1831.050 | PTFE seat | 2” F/F |
| 1811.066 | metal seat | 2”1/2 F/F | 1821.066 | rubber seat | 2”1/2 F/F | 1831.066 | PTFE seat | 2”1/2 F/F |
| 1811.080 | metal seat | 3” F/F | 1821.080 | rubber seat | 3” F/F | 1831.080 | PTFE seat | 3” F/F |

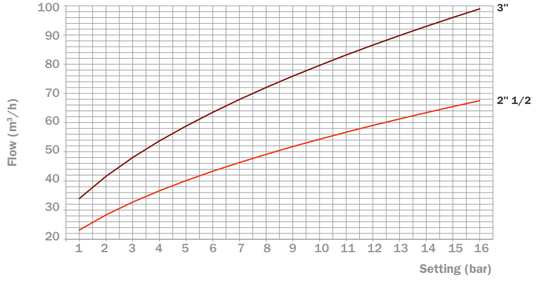
DISCHARGING FLOW $H_2O$ - 1811.0-1821.0-1831.0 3/8"÷3/4"



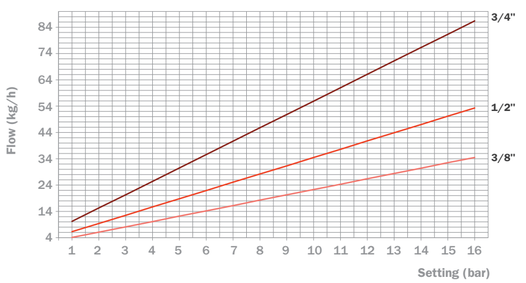

DISCHARGING FLOW $H_2O$ - 1811.0-1821.0-1831.0 1"÷2"



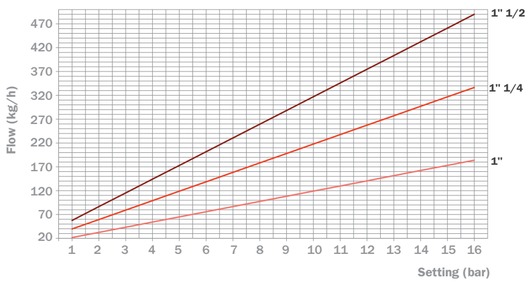

DISCHARGING FLOW $H_2O$ - 1811.0-1821.0-1831.0 2"1/2 ÷3"



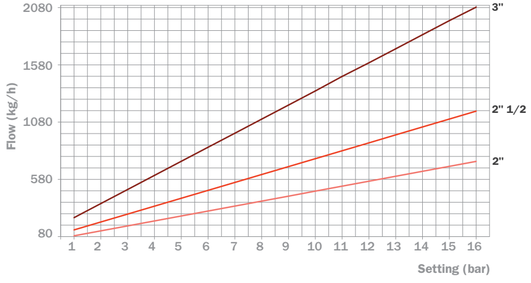

DISCHARGING FLOW GAS - 1831.0 3/8"÷3/4"



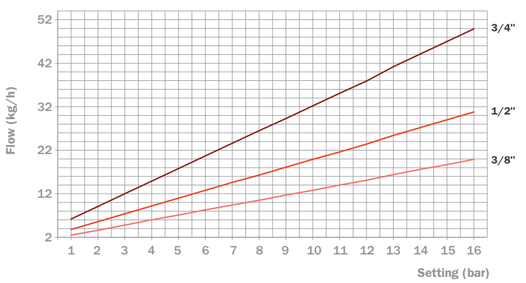

DISCHARGING FLOW GAS - 1831.0 1"÷1" 1/2



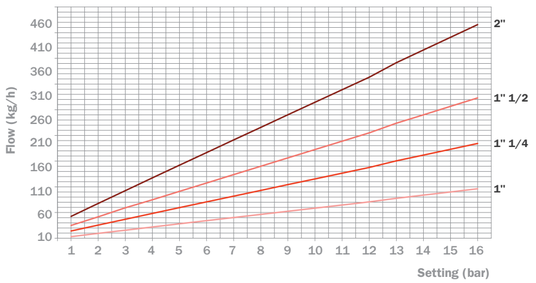

DISCHARGING FLOW GAS - 1831.0 2"÷3"




DISCHARGING FLOW STEAM - 1811.0-1831.0 3/8"÷3/4"




DISCHARGING FLOW STEAM - 1811.0-1831.0 1"÷2"




DISCHARGING FLOW STEAM - 1811.0-1831.0 2"1/2÷3"