

# PRESSURE RELIEF VALVE SV 811L

## 4.5 up to 45.0 bar



**Spring loaded, direct acting pressure relief valve for hydrogen-powered motor vehicles according to the European Regulation (EC) No. 79/2009, as implemented by Regulation (EC) No. 406/2010.**

### Benefits

- type-approval from Federal Motor Transport Authority according to Regulation (EC) 79/2009 and (EC) 406/2010
- individual opening pressure from 4.5 up to 45.0 bar
- TÜV-certification of pressure setting
- stainless steel 1.4404
- compact size for easy, problem free installation
- range of inlet connections
- adapter for connection to ventilation pipe

### Approvals

Manufactured and certified according to Commission Regulation (EU) No. 406/2010 Annex IV, Part 3

Company certified according to ISO 9001 and PED 97/23/EC Module H

CE-marked according to:

- PED 97/23/EC

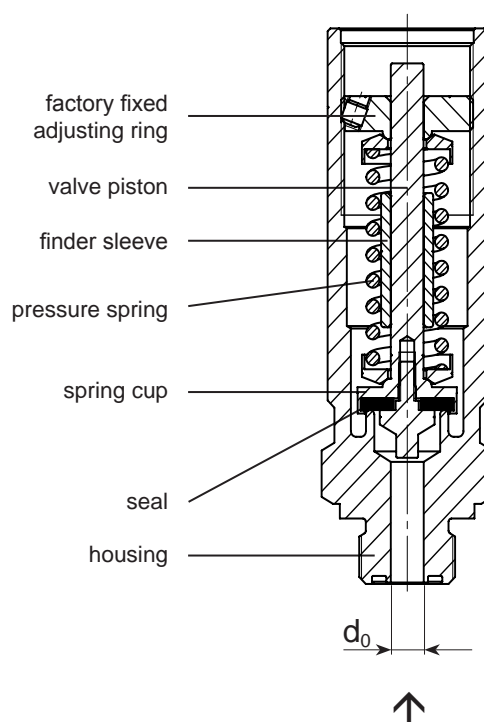
- type-approval from Federal Motor Transport Authority

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|                                   | SV811L  |
|-----------------------------------|---|
| <b>Type-approval</b>              | <p>&lt; 30 bar<br/>no type-approval is required according to Regulation (EC) No. 79/2009 Appendix I b</p> <hr/> <p>&gt; 30 bar<br/>e1<br/>00 0006</p> |
| <b>Opening pressure</b>           | 4.5 up to 45.0 bar  |
| <b>Gases</b>                      | hydrogen  |
| <b>Material</b>                   | housing and metal turned parts made of stainless steel 1.4404, pressure spring made of stainless steel 1.4310, valve seal EPDM                        |
| <b>Width across flats</b>         | 27 mm   |
| <b>Weight</b>                     | approx. 360 g   |
| <b>Drill hole (d<sub>0</sub>)</b> | 6.0 mm  |
| <b>Temperature range</b>          | -40 °C/-40 °F up to max. +85 °C/+185 °F   |
| <b>Adapter</b>                    | for connection to ventilation pipe at the outlet  |
| <b>Burst pressure of housing</b>  | <p>900 bar</p> <hr/> <p>heavy duty version (Model SV811) 1600 bar</p>   |



# PRESSURE RELIEF VALVE SV 811L

## 4.5 up to 45.0 bar



Flow capacity for hydrogen at 23 °C / 73.4 °F (valid only for atmospheric back pressure)

### SV811L

|                                 |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------------|------|------|------|------|------|------|------|------|------|------|------|
| Opening pressure [bar]          | 4.5  | 5    | 6    | 7    | 8    | 9    | 10   | 11   | 12   | 13   | 14   |
| Volume flow [m <sup>3</sup> /h] | 194  | 216  | 259  | 302  | 345  | 388  | 431  | 474  | 517  | 560  | 603  |
| Opening pressure [bar]          | 15   | 16   | 17   | 18   | 19   | 20   | 21   | 22   | 23   | 24   | 25   |
| Volume flow [m <sup>3</sup> /h] | 646  | 689  | 732  | 914  | 964  | 1015 | 1065 | 1116 | 1166 | 1216 | 1267 |
| Opening pressure [bar]          | 26   | 27   | 28   | 29   | 30   | 31   | 32   | 33   | 34   | 35   | 36   |
| Volume flow [m <sup>3</sup> /h] | 1312 | 1362 | 1412 | 1462 | 1512 | 1562 | 1612 | 1662 | 1712 | 1762 | 1812 |
| Opening pressure [bar]          | 37   | 38   | 39   | 40   | 41   | 42   | 43   | 44   | 45   |      |      |
| Volume flow [m <sup>3</sup> /h] | 1862 | 1912 | 1962 | 2011 | 2161 | 2211 | 2261 | 2210 | 2260 |      |      |

### Type / Variants / Versions

| Overall length [mm] | Inlet male thread (M)                           | Outlet female thread (F) | Drill hole d <sub>0</sub> [mm] |
|---------------------|---|--------------------------|--------------------------------|
| SV811L              |   |                          | SV811L                         |
| 95.2                | 11/16-16 UNF-2A                                 | M24 x 1                  | 6.0                            |
| 96.0                | 9/16-18 UNF-2A                                  |                          |                                |
| 96.5                | G 1/4; 1/4" NPT<br>G 3/8; 3/8" NPT<br>M16 x 1.5 |                          |                                |
| 96.8                | 13/16-16 UNF-2A                                 |                          |                                |
| 101.5               | G 1/2; 1/2" NPT                                 |                          |                                |
|                     | G 3/4; 3/4" NPT<br>M20 x 1.5                    |                          |                                |