

SPRINGLOADED LOW PRESSURE REGULATOR LPRS SERIES

HIGH ACCURACY VERSION OF RS4, RS6 & RS8



MAIN FEATURES

- ss 316L
- balanced valve
- Cv 1.95
- large diaphragm - higher accuracy
- leak tight shut-off
- suction tube reduces droop
- ideal as second stage regulator
- elastomer seat insert
- choice of o-ring materials
- shell design according to EN 12516
- delivery according to PED

CHARACTERISTICS

Inlet pressure : 16 bar
Outlet range : 0,1 – 3 bar (16 bar design)
Seat diameter : 10 mm
Cv (Kv): : 1.95 (1.66)

Materials:

- Body & Trim : ss 316L
- Springhousing : ss 316L
- Seat insert : elastomer
- Seals & Diaphragm : elastomer

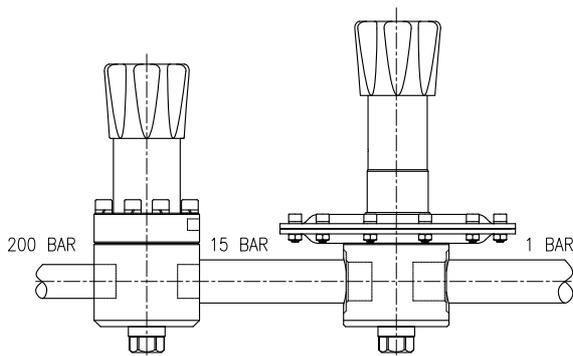
Connections:

- LPRS4 : 1/2" bspp, npt
- LPRS6 : 3/4" bspp, npt
- LPRS8 : 1" bspp
- All models : flanges to DIN / ANSI B16.5

• Gauge port : 1/4" npt

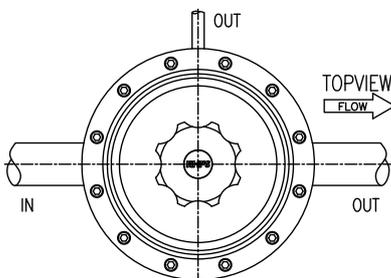
| | | |
|------------------------|-----------|--------|
| Weight without flanges | : LPRS4 | 5 kg |
| | : LPRS6/8 | 5,5 kg |
| Weight with flanges | : LPRSF4 | 6,5 kg |
| | : LPRSF6 | 7,8 kg |
| | : LPRSF8 | 8,3 kg |

Temperature range : -20 to +80 °C *



Typical 2-stage reduction

PORTING STYLE



CLEANING

This regulator is ultrasonically cleaned and degreased. Oxygen cleaning based on ASTM-G93 Level C / CGA 4.1 is optional.

Do not use teflon tape or anaerobic sealing compounds on the bspp threads.

* Actual range depends on choice of seat- and seal material.



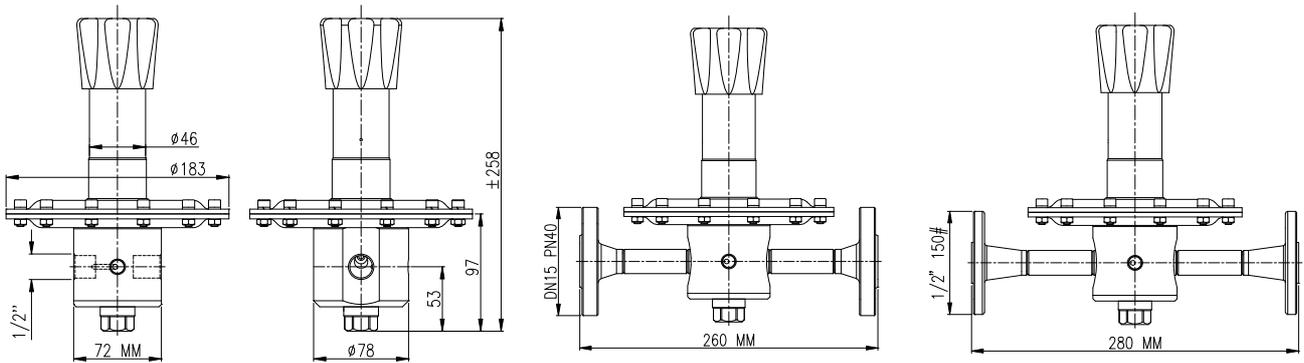
Swagelok regulators are not "Safety Accessories" as defined in the Pressure Equipment Directive 97/23/EC:



Do not use the regulator as a shut off device.

RHPS Series

DIMENSIONS – 1/2" model– DN15

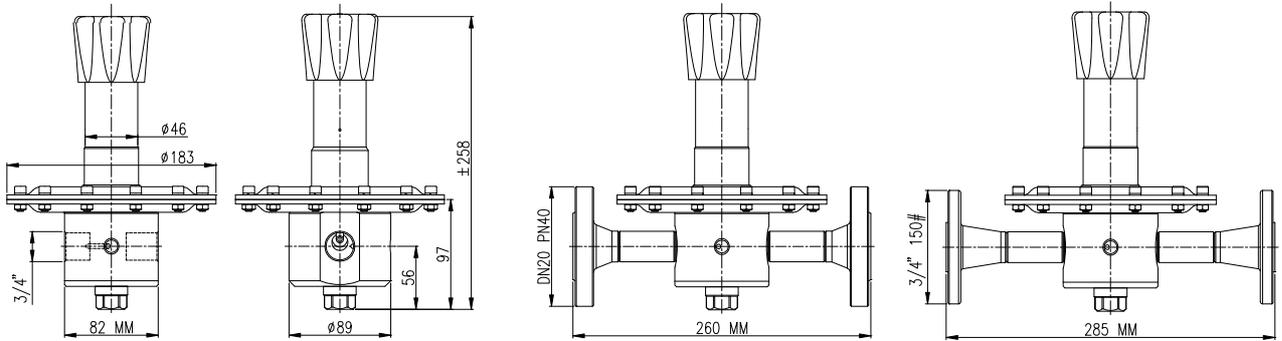


1/2" BSPP – ISO R/228/1
1/2" NPT – ANSI B1.20.1

DN15 PN40 – DIN 2635

1/2" 150# - ANSI B 16.5

DIMENSIONS – 3/4" model – DN20

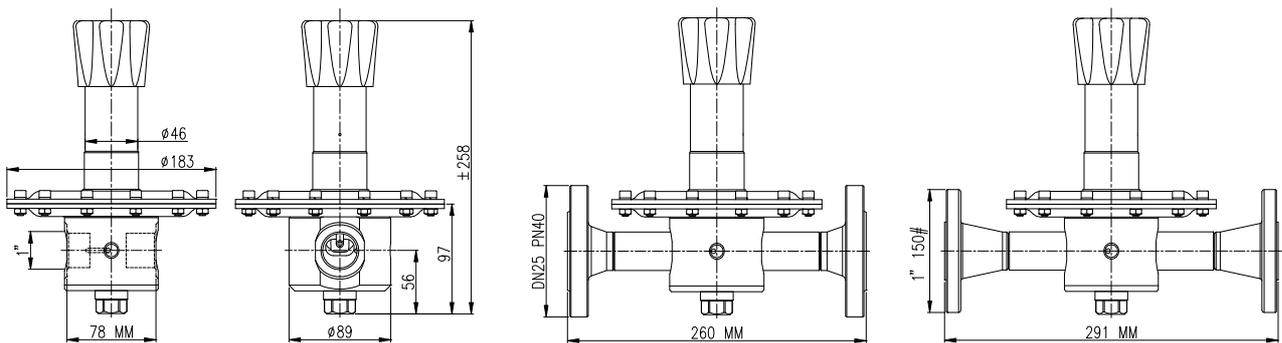


3/4" BSPP – ISO R/228/1
3/4" NPT – ANSI B1.20.1

DN20 PN40 – DIN 2635

3/4" 150# - ANSI B 16.5

DIMENSIONS – 1" model– DN25



1" BSPP – ISO R/228/1

DN25 PN40 – DIN 2635

1"150# - ANSI B 16.5

FLOWTABLE 1/2" DN15, 3/4" DN20, 1" DN25 model

| P1 (bar) | P2 (bar) | Spring range (bar) | Flow (Nm ³ /hr) |
|----------|----------|--------------------|----------------------------|
| 1 | 0.1 | 0.1 – 1 | 22 |
| | 0.3 | 0.1 – 1 | 30 |
| 3 | 0.1 | 0.1 – 1 | 22 |
| | 0.3 | 0.1 – 1 | 40 |
| | 0.8 | 0.1 – 1 | 60 |
| | 2.0 | 0.3 – 3 | 80 * |
| 5 | 0.1 | 0.1 – 1 | 22 |
| | 0.3 | 0.1 – 1 | 40 |
| | 0.8 | 0.1 – 1 | 60 |
| | 2.0 | 0.3 – 3 | 130 * |
| 10 | 0.1 | 0.1 – 1 | X + |
| | 0.3 | 0.1 – 1 | 40 |
| | 0.8 | 0.1 – 1 | 60 |
| | 2.0 | 0.3 – 3 | 130 * |
| 16 | 0.1 | 0.1 – 1 | X + |
| | 0.3 | 0.1 – 1 | 40 |
| | 0.8 | 0.1 – 1 | 60 |
| | 2.0 | 0.3 – 3 | 130 * |

+ inlet pressure too high. Do not exceed 6 bar.

Droop

Due to the working of the suction tube, LPRS shows little or no droop. Where flow is marked with * droop is some 15%.

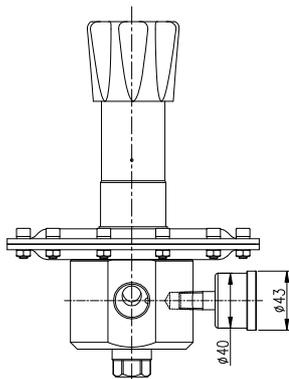
Flow

Do not exceed the flows given in the table. If you do, P2 may rise above the original setting.

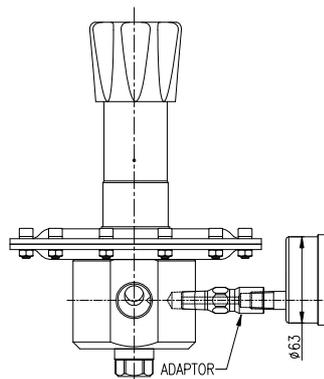
GAUGES

Due to the size of the diaphragm enclosure it is not possible to fit a gauge without an adaptor, unless a gauge with dial Ø 40 and centric back connection is used.

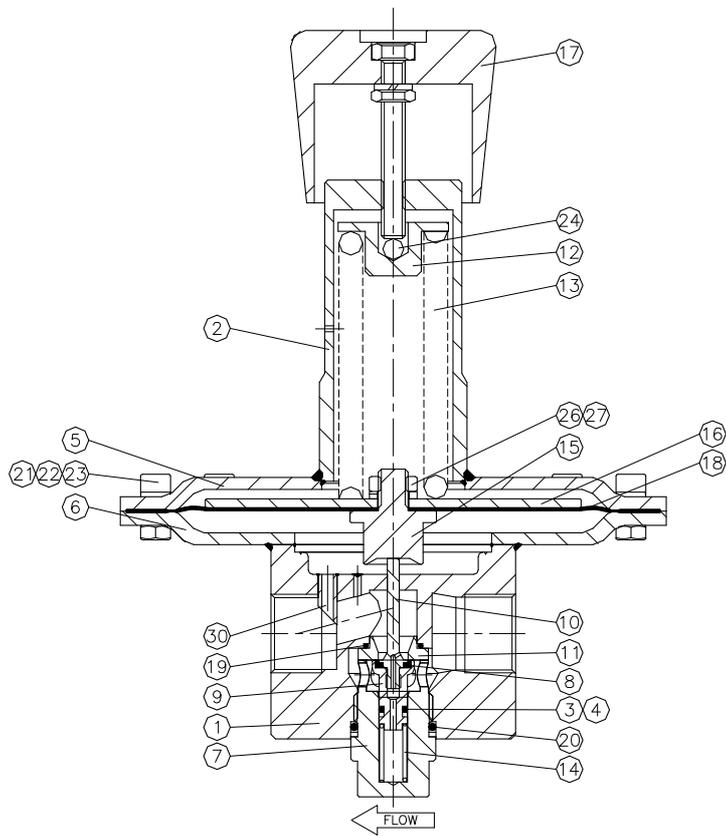
RHPS GAUGE ADAPTOR



Gauge casing Ø40
centric back-connection
(G)



Gauge casing Ø63 or larger
back-connection or bottom connection
(GA)



GAUGEPORT(S)

standard:



options:



GN2
(not in combination with flanges)



GN4



GN5
(not in combination with flanges)

ORDERING INFORMATION

example: LPRSN6-02-2-NNN

| LPRS | N6 | | - 02 | - 2 | - N | N | N | |
|----------------------|---|--|--------------------|--|---|--|---|------------------------|
| series / inlet | connection | flange facing* | material | outlet range | o-rings | diaphragm | seat | options |
| LPRS = 16 bar | B4 = ½" bspp B6 = ¾" bspp B8 = 1" bspp N4 = ½" npt N6 = ¾" npt N8 = 1" npt ANSI flanges FA4A = ½" class 150 FA6A = ¾" class 150 FA8A = 1" class 150 Din flanges FD4N = DN15 PN40 FD6N = DN20 PN40 FD8N = DN25 PN40 | (if flanges are ordered) 1 = raised face smooth | 02 = ss316L | 2 = 0.1 – 1 bar 3 = 0.3 – 3 bar | N = nitrile E = epdm V = viton | N = nitrile E = epdm V = viton T = ptfе | N = nitrile E = epdm V = viton | A = anti-tamper |

Red text identifies an example ordering number.

Safe Product Selection

When selecting a product, the total system design must be considered to ensure safe, trouble-free performance. Function, material compatibility, adequate ratings, proper installation, operation, and maintenance are the responsibilities of the system designer and user.

RHPS, Swagelok—TM Swagelok Company
 © 2010 Swagelok Company
 Printed in U.S.A., OM
 June 2010, R0
 MS-02-383-E