

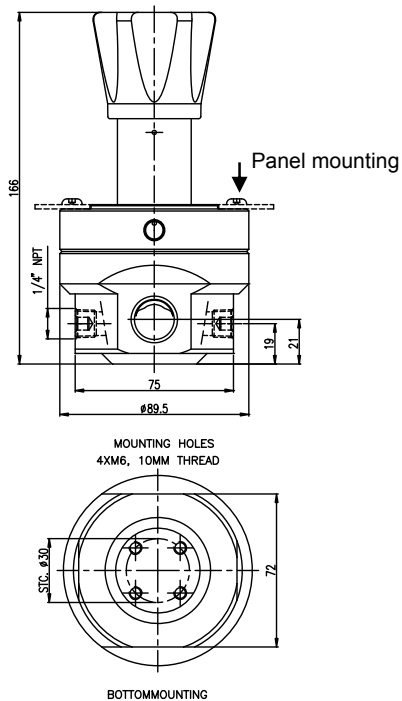
# SPRINGLOADED PRESSURE REGULATOR LRS(H)4

## HIGH ACCURACY • ANALYZER APPLICATIONS

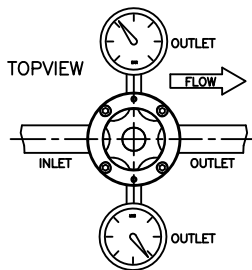


### MAIN FEATURES

- various valve arrangements
- ss 316L throughout
- diaphragm sensing
- bubble tight shut-off
- 3 outlet ranges
- bottom mounting
- shell design according to EN 12516
- many options



### PORTING STYLE



### CHARACTERISTICS

Inlet pressure	: 35 bar (6.0 mm seat)
	: 400 bar (2.2 mm seat)
Outlet range	: 0 - 20 bar
• Cv (Kv) 6,0 mm	: 0.73 (0.62)
• Cv (Kv) 2,2 mm	: 0.05 (0.043)
Materials:	
• Body & Trim	: ss 316L
• Spring housing	: ss 316L
• Seat insert	: LRS4: elastomer
	: LRS4: pctfe
• Diaphragm	: ptfе/butyl, ss 316L
• Seals	: viton
Connections:	
• Line	: 1/2" npt
• Vent	: 1/8" npt
• Outlet gauges	: 2x 1/4" npt
Weight	: 2,6 kg
Temperature range	: -20 to +80°C *

### CLEANING

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

\* 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.

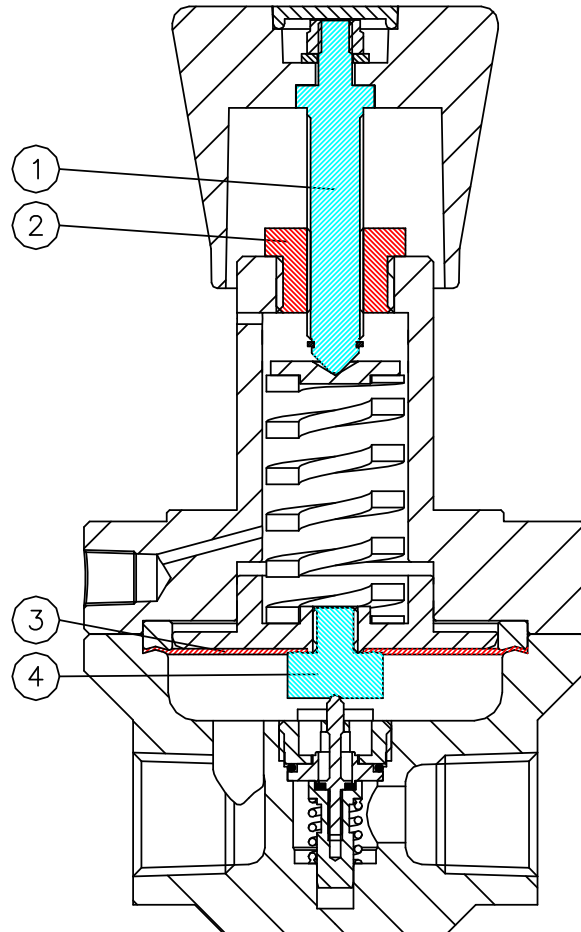
## RHPS Series

## WHY BUY THE LRS(H)4?

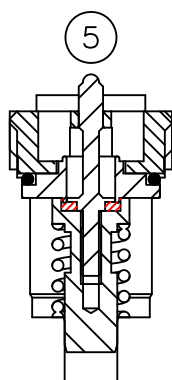
Both types offer a variety of features, which make it **very attractive** regulators. Due to the large effective sensing area they are very accurate. The LRSH4 is capable of handling **400 bar** inlet pressure.

### STANDARD FEATURES

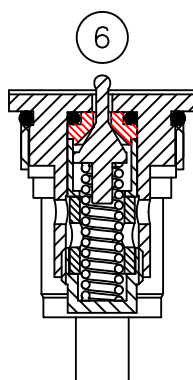
1. Low torque no-wear stem
2. Removable hardened cap
3. Large ptfе/butyl diaphragm **for higher accuracy**
4. Non-venting
5. Viton seat in LRS4 **less chance of leakage**
6. Pctfe seat in LRSH4
7. Cartridge valve assembly in LRSH4 **easy and fast in-field servicing**



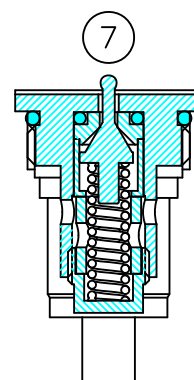
### VALVE ARRANGEMENTS



rubber seat  
standard in LRS4



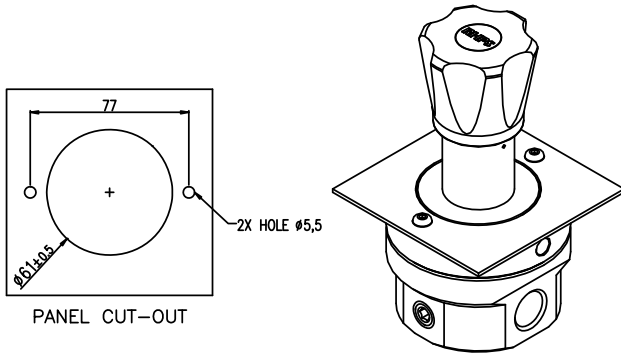
pctfe seat  
standard in LRSH4



cartridge  
standard in LRSH4

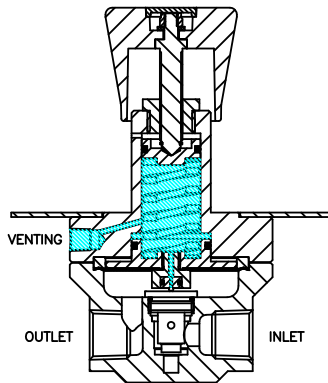
## PANELMOUNTING

No disassembly required placing the LRS4 regulator in a panel.

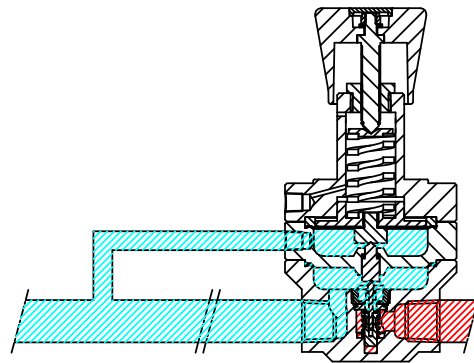


## OPTIONS

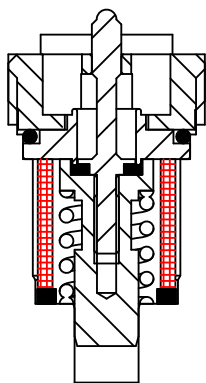
- Self venting  
Captured venting below the panel standard in self-venting version.



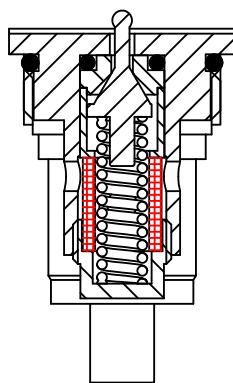
- External feedback  
Compensates for pressure loss (droop).



- 25 – 30  $\mu$ m filter  
Less chance of seat damage, but reduces the flow.

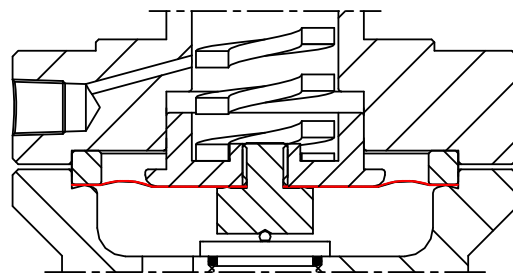


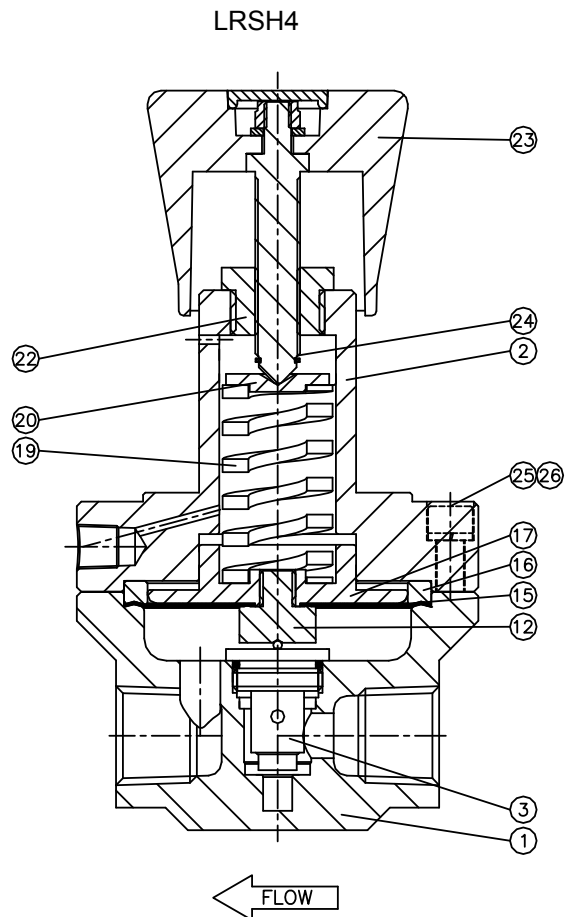
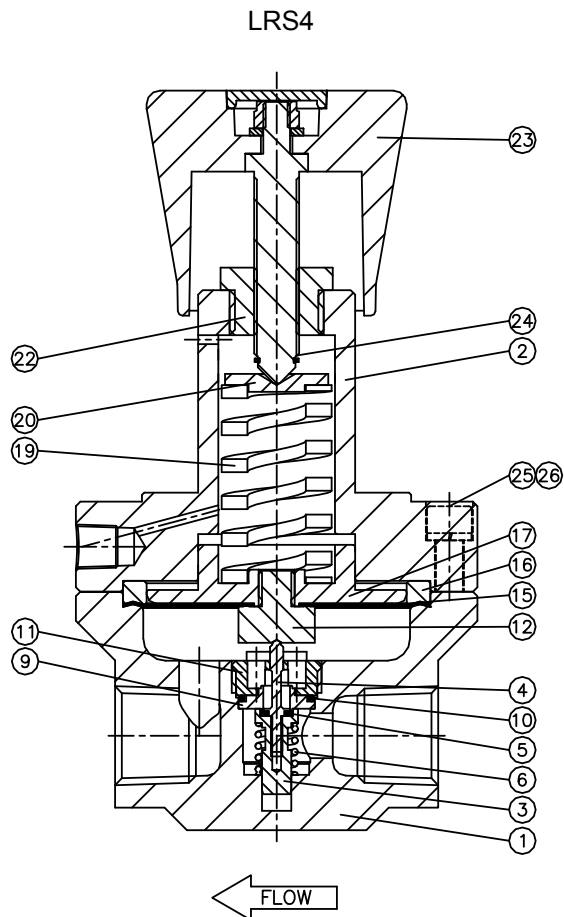
LRS4



LRS4H

- ss 316L diaphragm  
For media incompatible with a standard diaphragm. P2: 9 bar max





### ORDERING INFORMATION

example: LRSN4-02-2-VTV-S

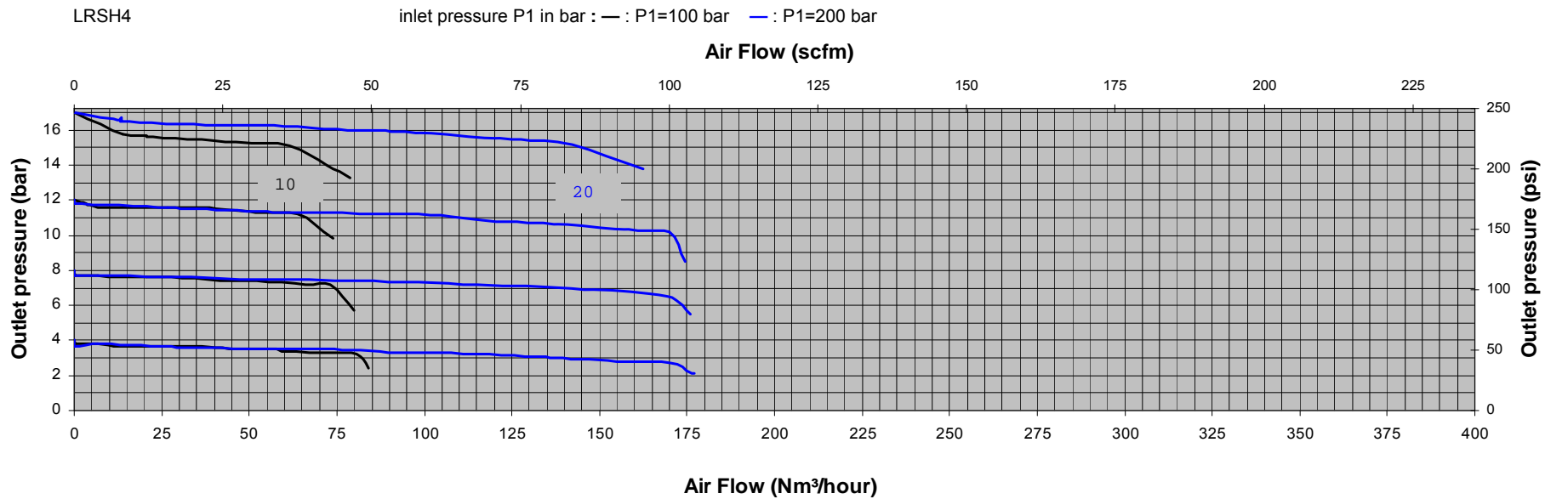
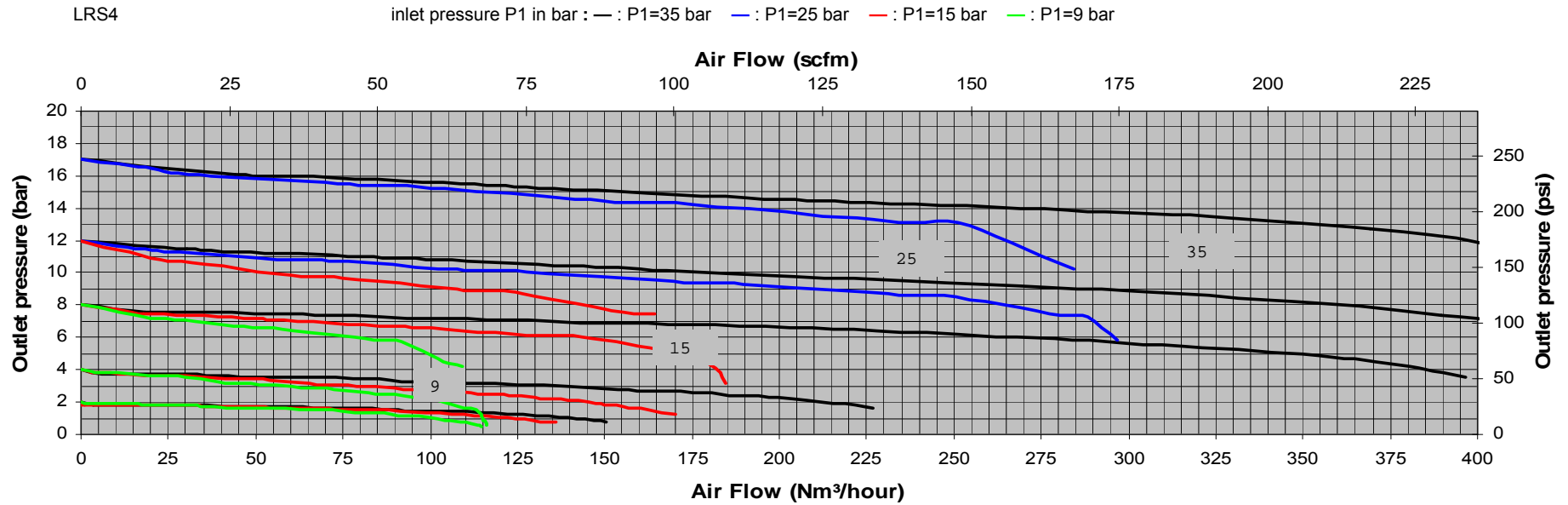
LRS	N4	- 02	- 2	- V	T	V	- S
series / inlet	port	body material	outlet range	o-rings	diaphragm	seat	options
<b>LRS = 35 bar</b> <b>LRSH = 400 bar*</b>  *Down stream side 35 bar design pressure.	<b>N4 = 1/2" npt</b>	<b>02 = ss316L</b>	1 = 0 – 3 bar <b>2 = 0 – 9 bar</b> 3 = 0 – 20 bar	<b>V = viton</b> <i>Options:</i> <b>F = fflkm</b> <b>E = epdm</b> <b>N = nitrile</b>	<b>T = ptfe</b> <i>Options:</i> <b>M = ss316L*</b> * Only for 0-3 or 0-9 bar	<b>V = viton</b> <i>Options:</i> <b>F = fflkm</b> <b>E = epdm</b> <b>LRSH:</b> <b>K = pctfe</b>	<b>S = self venting</b> <b>F = filter</b> <b>EF = external feedback</b> <b>N = nace</b>  Self venting and external feedback cannot be used at the same time!

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.

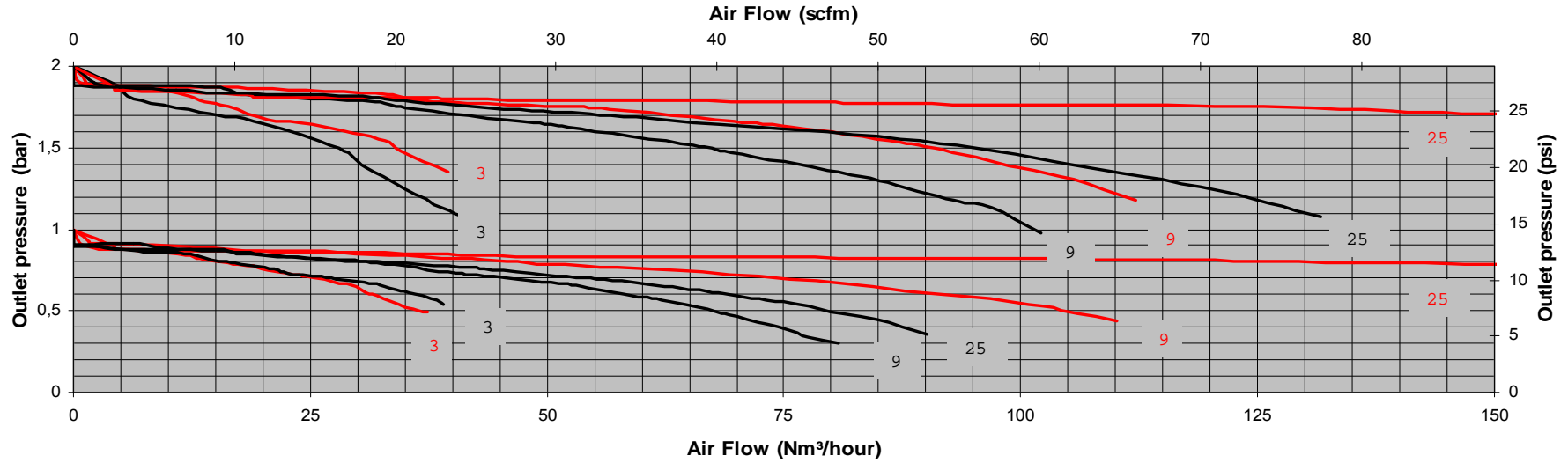
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# FLOWCURVES



# FLOWCURVES BASED ON TESTS

Comparative flow curves LRS4 **external feedback (EF)** versus standard  
 Figures at end of curve indicate P1 in bar: — : External Feedback — : Standard



Comparative flow curves LRS4 **ss 316L diaphragm (M)** versus standard  
 Figures at end of curve indicate P1 in bar: — : ss 316L diaphragm — : Standard

