

## High-Sensitivity, Spring-Loaded Pressure-Reducing Regulators—LPRS10 and LPRS15 Series

### Features

- Balanced poppet design
- Diaphragm sensing
- High flow and high accuracy
- Suction tube for reduced droop
- Ideal as second-stage regulator

### Options

- Antitamper
- NACE MR0175/ISO 15156-compliant models
- Special cleaning to ASTM G93 Level C



### Technical Data

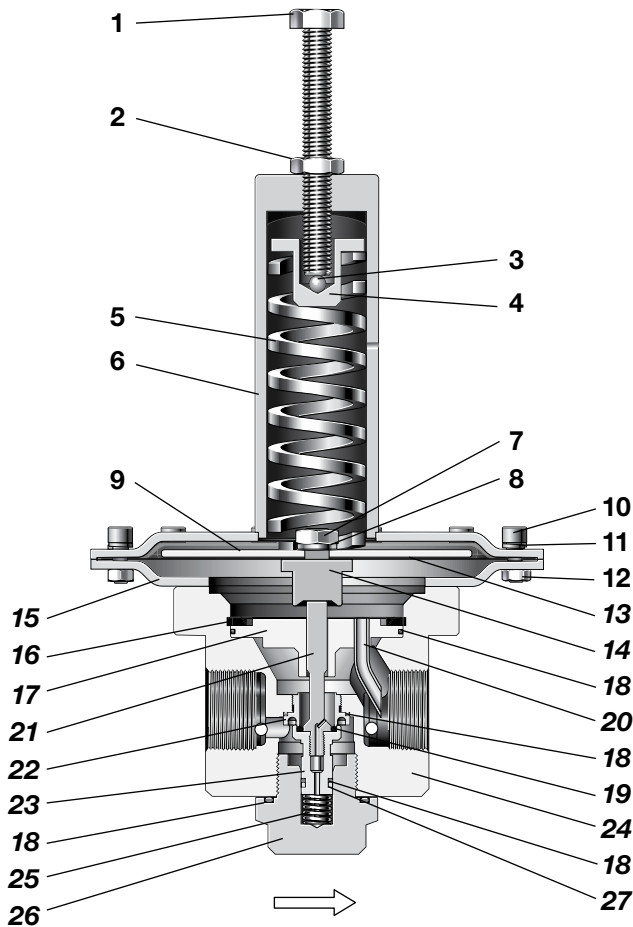
Series	Maximum Inlet Pressure psig (bar)	Maximum Outlet Control Pressure psig (bar)	Sensing Type	Temperature Range °C (°F)	Flow Coefficient (C <sub>v</sub> )	Seat Diameter in. (mm)	Connections			Weight (Without Flanges) lb (kg)
							Inlet and Outlet		Gauge	
							Size	Type		
LPRS10	232 (16.0)	43.0 (3.0)	Diaphragm	-4 to 176 (-20 to 80) See <b>Pressure-Temperature Ratings</b> , page 8.	3.79	0.55 (14.0)	1 in. DN25	NPT ISO/BSP parallel thread ASME or EN flange	1/4 in. NPT or ISO/BSP parallel thread <sup>①</sup>	17.6 (8.0)
LPRS15							1 1/2 in. DN40			22.0 (10.0)

See pages 29 and 29 for flow data.

① Regulators with NPT inlet / outlet connections have 1/4 in. NPT gauge connections.

### Materials of Construction

LPRS10 Series Regulator



Component	Material / Specification
1 Adjusting screw	A2-70
2 Nut	A2
3 Ball	Commercial stainless steel
4 Spring guide	316L SS / A479 or EN10088
5 Set spring	50CRV4
6 Spring housing assembly	316L SS / A479 or EN10088
7 Nut	A2
8 Washer	A4
9 Diaphragm plate	316L SS / A479 or EN10088
10 Cap screw	A4-80
11 Washer	A2
12 Nut	A2
13 Diaphragm	<i>PTFE, FKM, EPDM, or nitrile</i>
14 Diaphragm screw	316L SS / A479 or EN10088
15 Bottom cover	Commercial stainless steel
16 Retaining ring	316L SS / A479 or EN10088
17 Body plate	316L SS / A479 or EN10088
18 O-rings	<i>EPDM, FKM, or nitrile</i>
19 Seat seal	<i>EPDM, FKM, or nitrile</i>
20 Suction tube	316L SS / A479 or EN10088
21 Poppet	316L SS / A479 or EN10088
22 Seat	316L SS / A479 or EN10088
23 Poppet housing	316L SS / A479 or EN10088
24 Body	316L SS / A479 or EN10088
25 Poppet spring	302 SS / A313
26 Body plug	316L SS / A479 or EN10088
27 Backup ring	PTFE

Wetted components listed in *italics*.

Gauge plugs (not shown): 431 SS / A276.

### Flow Data

The graphs illustrate the change or “droop” in outlet pressures as the flow rate increases. For more flow curve information, contact your authorized Swagelok representative.

### LPRS10 Series

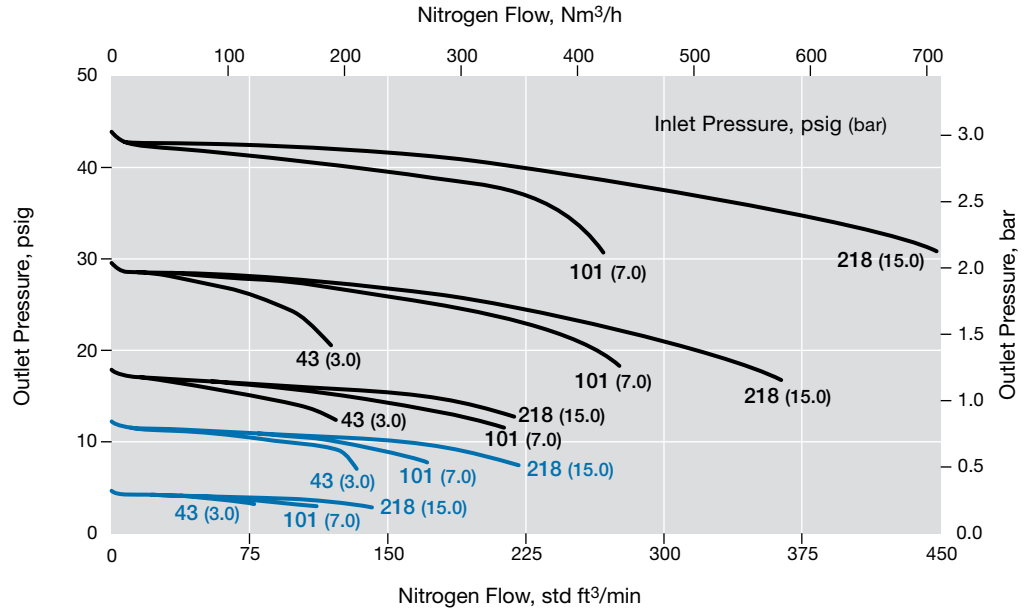
**Flow Coefficient: 3.79**

**Maximum Inlet Pressure: LPRS10—232 psig (16.0 bar)**

**Outlet Pressure Control Range: 1.4 to 43 psig (0.10 to 3.0 bar)**

**Pressure Control Range**

- 1.4 to 14.0 psig (0.10 to 1.0 bar)
- 4.3 to 43 psig (0.30 to 3.0 bar)



### LPRS15 Series

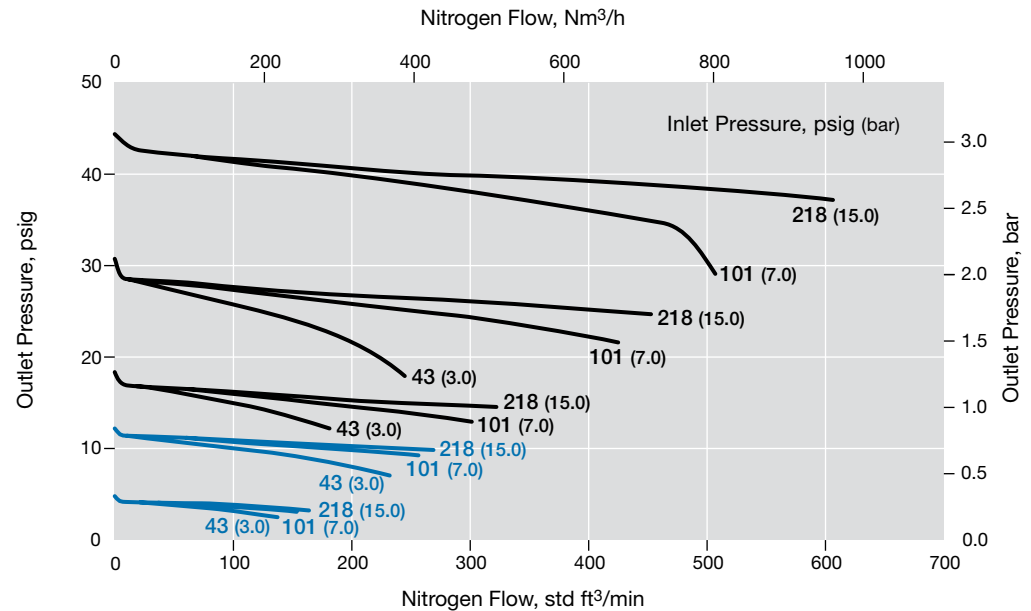
**Flow Coefficient: 7.3**

**Maximum Inlet Pressure: LPRS15—232 psig (16.0 bar)**

**Outlet Pressure Control Range: 1.4 to 43 psig (0.10 to 3.0 bar)**

**Pressure Control Range**

- 1.4 to 14.0 psig (0.10 to 1.0 bar)
- 4.3 to 43 psig (0.30 to 3.0 bar)

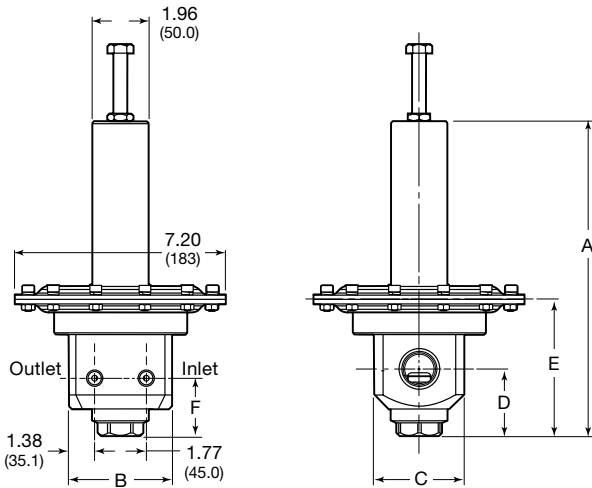


### Dimensions

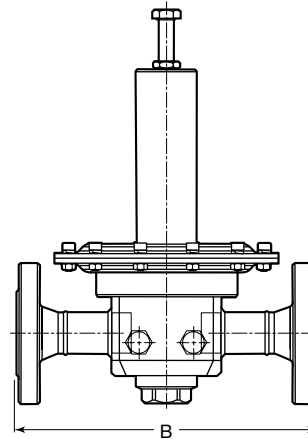
Dimensions, in inches (millimeters), are for reference only and are subject to change.

Series	End Connection Size and Type	Dimensions, in. (mm)					
		A	B	C	D	E	F
LPRS10	1 in. NPT or ISO/BSP parallel thread	10.8 (275)	3.54 (90.0)	3.07 (78.0)	2.28 (58.0)	4.69 (119)	2.00 (50.8)
	DN25 PN40—EN 1092		9.69 (246)				
	1 in. ASME class 150—B16.5		9.65 (245)				
LPRS15	1 1/2 in. NPT or ISO/BSP parallel thread	11.3 (286)	4.53 (115)	3.78 (96.0)	2.44 (62.0)	5.12 (130)	2.03 (51.6)
	DN40 PN40—EN 1092		11.0 (280)				
	1 1/2 in. ASME class 150—B16.5		12.4 (314)				

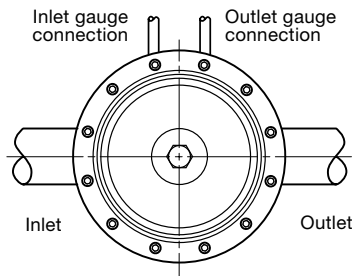
Regulators with Pipe Connections



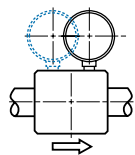
Regulators with Flange Connections



Configuration Top



Gauge Connection



Only one gauge with a 50 mm (2 in.) or larger dial size fits directly into the body.



Shown with tubing for clarity; tubing not included.

## Ordering Information

Build an LPRS10 and LPRS15 series regulator ordering number by combining the designators in the sequence shown below.

1   2   3   4   5   6   7   8   9   10   11  
**LPRS FA 10 A 1 - 02 - 2 - V V V - G93**

### 1 Series

LPRS = 232 psig (16.0 bar) maximum inlet pressure

### 2 Inlet / Outlet

**B** = Female ISO/BSP parallel thread  
**N** = Female NPT  
**FA** = ASME B16.5 flange  
**FD** = EN 1092 (DIN) flange

### 3 Size

**10** = 1 in. / DN25  
**15** = 1 1/2 in. / DN40

### 4 Pressure Class

Omit designator if flanges are not ordered.  
**A** = ASME class 150  
**N** = DN class PN40

### 5 Flange Facing

Omit designator if flanges are not ordered.  
**1** = Raised face smooth

### 6 Body Material

**02** = 316L SS

### 7 Pressure Control Range

**2** = 1.4 to 14.5 psig (0.10 to 1.0 bar)  
**3** = 4.3 to 43 psig (0.30 to 3.0 bar)

### 8 Seal Material

**V** = Fluorocarbon FKM  
**N** = Nitrile  
**E** = EPDM

### 9 Diaphragm

**V** = Fluorocarbon FKM  
**N** = Nitrile  
**E** = EPDM

### 10 Seat Seal Material

**V** = Fluorocarbon FKM  
**N** = Nitrile  
**E** = EPDM

### 11 Options

**A** = Antitamper  
**N** = NACE MR0175/ISO 15156  
**G93** = ASTM G93 Level C-cleaned