

## Integral Pilot-Operated, Dome-Loaded Pressure-Reducing Regulators, High Sensitivity—LPRD20, LPRD25, LPRD30, LPRD40 Series

### Features

- Balanced poppet design
- Diaphragm sensing
- Integral pilot regulator (LPRS4 series) with dynamic regulation
- High flow
- Large diaphragm for high accuracy
- Integral feedback line
- Inlet and outlet gauges

### Options

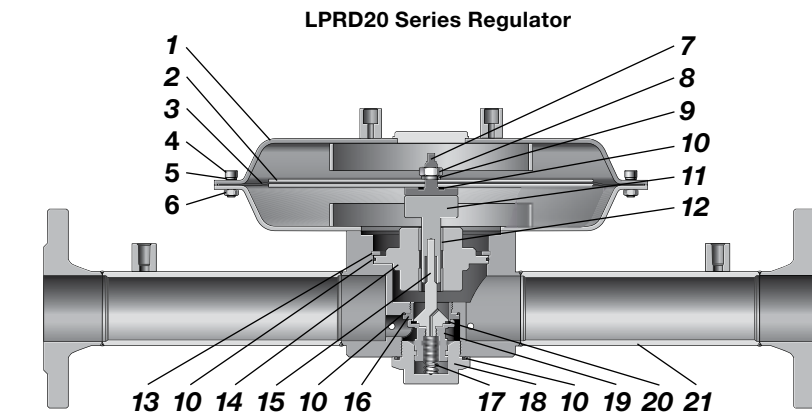
- Special cleaning to ASTM G93 Level C



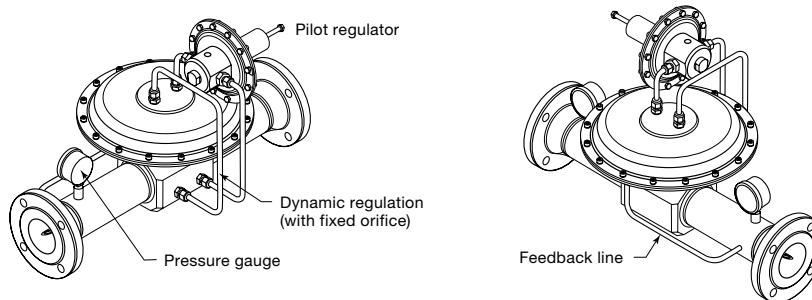
### Technical Data

Series	Maximum Inlet Pressure psig (bar)	Maximum Outlet Control Pressure psig (bar)	Sensing Type	Temperature Range °F (C°)	Flow Coefficient (C <sub>v</sub> )	Seat Diameter in. (mm)	Inlet and Outlet Connections	Gauges / Dome Connection	Weight lb (kg)
LPRD	232 (16.0)	29.0 (2.0)	Diaphragm	-4 to 176 (-20 to 80) See <b>Pressure-Temperature Ratings</b> , page 32.	LPRD20: 13 LPRD25: 21 LPRD30: 36 LPRD40: 73	LPRD20: 0.98 (25.0) LPRD25: 1.25 (32.0) LPRD30: 1.65 (42.0) LPRD40: 2.36 (60.0)	EN or ASME flanges— LPRD20: 2 in. LPRD25: 2 1/2 in. LPRD30: 3 in. LPRD40: 4 in.	Inlet and outlet gauges included. Dome: 1/4 in. ISO/BSP parallel thread	Varies with model and end connection

### Materials of Construction



LPRD20 with LPRS4 Pilot Regulator



Component	Material / Specification
1 Dome assembly	316L SS / A479 or EN10088
2 Dome plate (2)	
3 Diaphragm	EPDM, FKM, or nitrile
4 Cap screw	A4-80
5 Washer	A4
6 Nut	A2
7 Diaphragm screw	316L SS / A479 or EN10088
8 Nut	A2
9 Washer	A4
10 O-ring	EPDM, FKM, or nitrile
11 Push rod	316L SS / A479 or EN10088
12 Guide bushing	PTFE
13 Retaining ring	Commercial stainless steel
14 Body plate	316L SS / A479 or EN10088
15 Poppet	431 SS / A276
16 Seat	316L SS / A479 or EN10088
17 Poppet spring	302 SS / A240
18 Body plug	316L SS / A479 or EN10088
19 Poppet housing	
20 Seat seal	EPDM, FKM, or nitrile
21 Body assembly	316L SS / A479 or EN10088

Wetted lubricants: *Silicone-based and synthetic hydrocarbon-based*

Wetted components listed in *italics*.

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

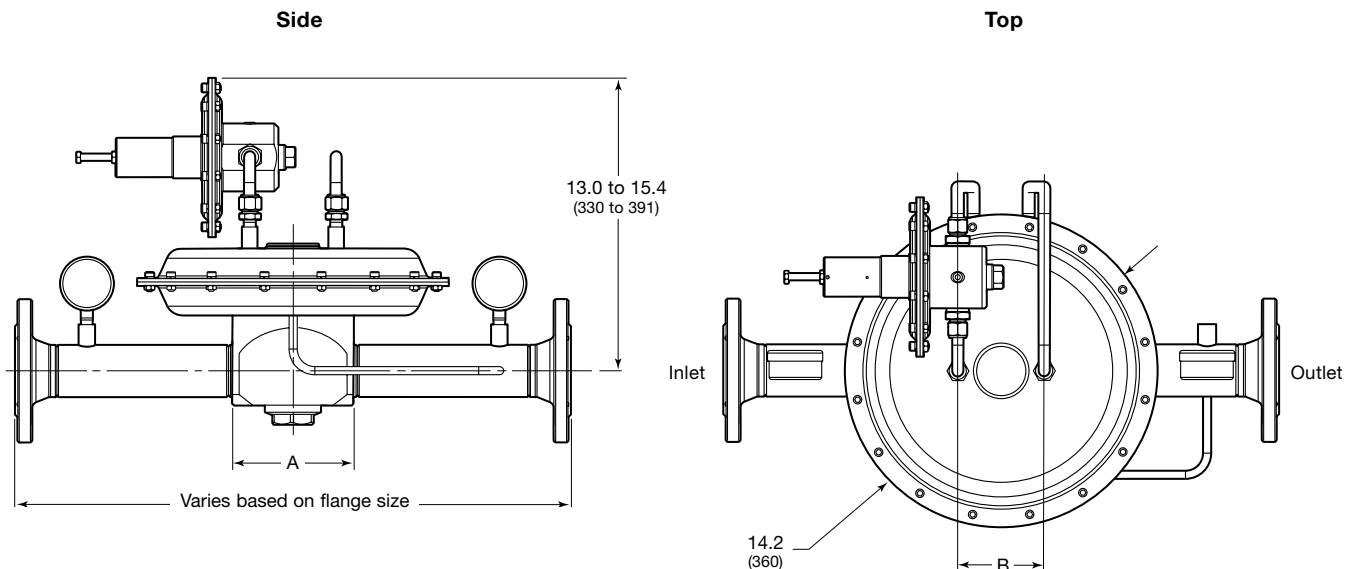
### Flow Data

For flow curve information, contact your authorized Swagelok representative.

### Dimensions

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

Series	End Connection Size	Dimensions, in. (mm)	
		A	B
LPRD20	2 in.	5.87 (149)	3.94 (100)
LPRD25	2 1/2 in.	7.01 (178)	2.56 (65.0)
LPRD30	3 in.	5.87 (149)	3.94 (100)
LPRD40	4 in.	8.66 (220)	3.94 (100)



### Ordering Information

Build an LPRD series regulator ordering number by combining the designators in the sequence shown below.

**1** **2** **3** **4** **5** **6** **7** **8** **9** **10** **11**  
**LPRD FA 20 A 1 - 02 - 2 - V V V - G93**

**1 Series**

LPRD = 232 psig (16.0 bar) maximum inlet pressure

**2 Inlet / Outlet**

**FA** = ASME B16.5 flange  
**FD** = EN 1092 (DIN) flange

**3 Size**

**20** = 2 in. / DN50  
**25** = 2 1/2 in. / DN65  
**30** = 3 in. / DN80  
**40** = 4 in. / DN100

**4 Pressure Class**

**A** = ASME class 150  
**N** = DN class PN40

**5 Flange Facing**

**1** = Raised face smooth  
**3** = RTJ

**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 29 psig (0.30 to 2.0 bar)

**8 Seal Material**

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

**9 Diaphragm Material**

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

**10 Seat Seal Material**

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

**11 Options**

**G93** = ASTM G93 Level C-cleaned