Differential Pressure, Dome-Loaded Pressure Reducing Regulators—RD(H)6DP Series

Features

- Balanced poppet design
- Diaphragm sensing
- Adjustable bias
- Dome-to-outlet pressure ratio approximately 1:1

Options

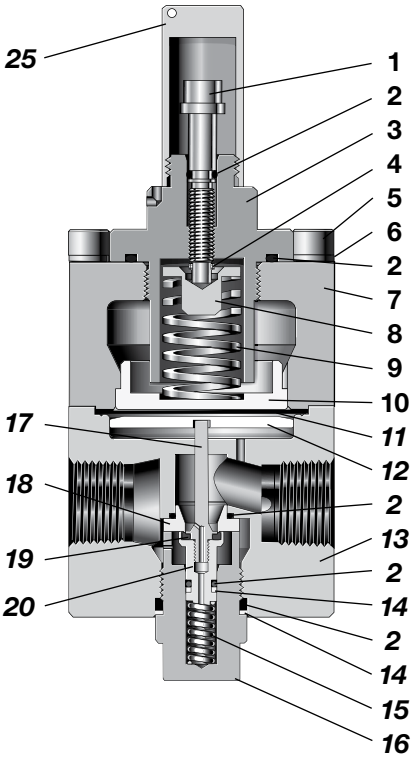
- Antitamper
- Gauge connection—choice of 4 configurations
- NACE MR0175/ISO 15156-compliant models
- Special cleaning to ASTM G93 Level C

Technical Data

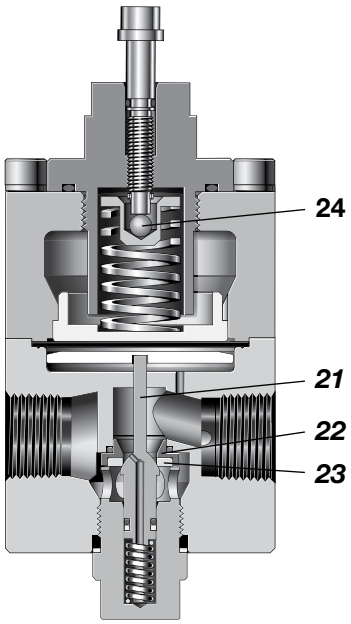
Series	Maximum Inlet Pressure psig (bar)	Maximum Outlet Control Pressure psig (bar)	Sensing Type	Bias Range psig (bar)	Temperature Range °F (C°)	Flow Coefficient (C_v)	Seat Diameter in. (mm)	Inlet and Outlet Connections	Gauge / Dome Connection	Weight (Without Flanges) lb (kg)
RD6DP	1015 (70.0)	1015 (70.0)	Diaphragm	14.5 to 145 (1.0 to 10.0)	–4 to 176 (–20 to 80) See **Pressure-Temperature Ratings,** page 32.	1.95	0.39 (10.0)	3/4 in. NPT, ISO/BSP parallel thread, EN or ASME flange	Gauge: 1/4 in. NPT; Dome: 1/4 in. NPT	10.6 (4.8)
RDH6DP	5800 (400)	3335 (230)								

Materials of Construction

RD6DP Series Regulator with Soft Seat Seal



RDH6DP Series Regulator with Hard Seat Seal



Component	Material / Specification
1 Adjustment screw	316L SS / A479 or EN10088
2 O-ring	EPDM, FKM, nitrile
3 Dome screw	316L SS / A479 or EN10088
4 Split pin	A2
5 Cap screw	A4-80
6 Washer	A4
7 Dome	316L SS / A479 or EN10088
8 Upper spring guide	316L SS / A479 or EN10088
9 Differential spring	CR50V4
10 Lower spring guide	316L SS / A479 or EN10088
***11** Diaphragm*	*EPDM, FKM, or nitrile*
***12** Diaphragm plate*	*316L SS / A479 or EN10088*
***13** Body*	
***14** Backup ring*	*PTFE*
***15** Poppet spring*	*302 SS / A240*
***16** Body plug*	*316L SS / A479 or EN10088*
RD Series Only Components	
***17** Poppet*	*316L SS / A479 or EN10088*
***18** Seat*	
***19** Seat seal*	*EPDM, FKM, or nitrile*
***20** Poppet housing*	*316L SS / A479 or EN10088*
RDH Series Only Components	
***21** Poppet*	*431 SS / A276*
***22** Seat*	*316L SS / A479 or EN10088*
***23** Seat seal*	*PCTFE or PEEK*
24 Ball	Commercial stainless steel
25 Antitamper cover, opt	316L SS / A479 or EN10088
Wetted lubricants: Silicone-based and synthetic hydrocarbon-based	

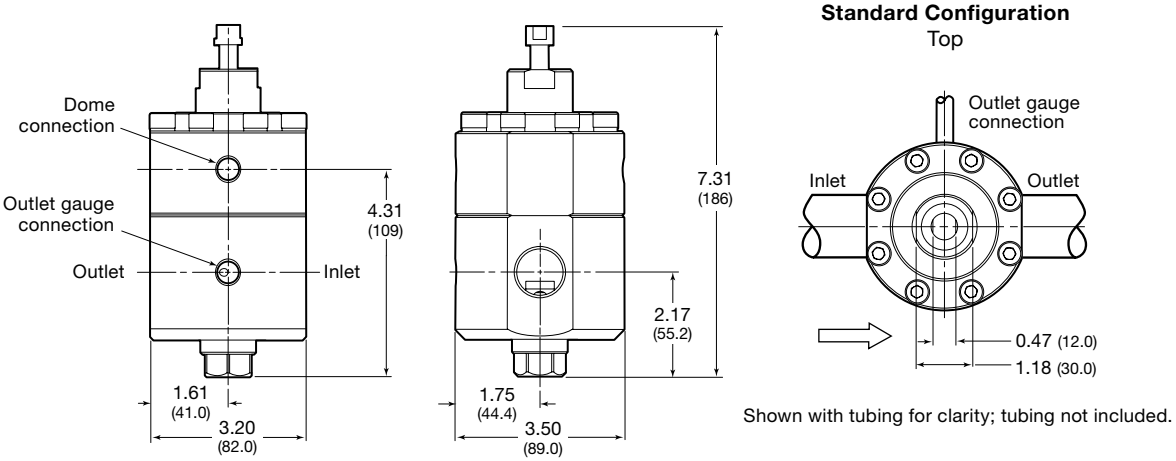
Wetted components listed in *italics.*
Gauge plugs (not shown): 431 SS / A276.

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.



Shown with tubing for clarity; tubing not included.

Ordering Information

Build an RD(H)6DP series regulator ordering number by combining the designators in the sequence shown below.

1	2	3	4	5	6	7	8	9	10	11
RD	FA	6	A	1	- 02	- V	V	V	DP2	- GN2

1 Series
- **RD** = 1015 psig (70.0 bar) maximum inlet pressure
- **RDH** = 5800 psig (400 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
- 6 = 3/4 in. / DN20

4 Pressure Class

Omit designator if flanges are not ordered.
- **A** = ASME class 150
- **B** = ASME class 300
- **C** = ASME class 600
- **E** = ASME class 1500
- **F** = ASME class 2500
- **M** = DN class PN16
- **N** = DN class PN40

5 Flange Facing

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

6 Body Material
- 02 = 316L SS

7 Seal Material
- **V** = Fluorocarbon FKM
- **N** = Nitrile
- **E** = EPDM

8 Diaphragm Material
- **V** = Fluorocarbon FKM
- **N** = Nitrile
- **E** = EPDM

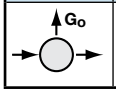
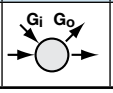
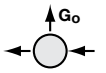
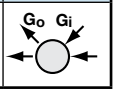
9 Seat Seal Material

RD series
- **V** = Fluorocarbon FKM
- **N** = Nitrile
- **E** = EPDM

RDH series
- **K** = PCTFE
- **P** = PEEK

10 Differential Pressure
- **DP2** = 0 to 43 psig (0 to 3.0 bar) bias
- **DP3** = 0 to 145 psig (0 to 10.0 bar) bias

11 Options
- **A** = Antitamper
- **GN2** = Gauge connection, see below
- **GN4** = Gauge connection, see below
- **GN5** = Gauge connection, see below
- None = Standard connection, see below

Gauge Connection Configuration			
Standard	GN2	GN4	GN5
			

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