

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

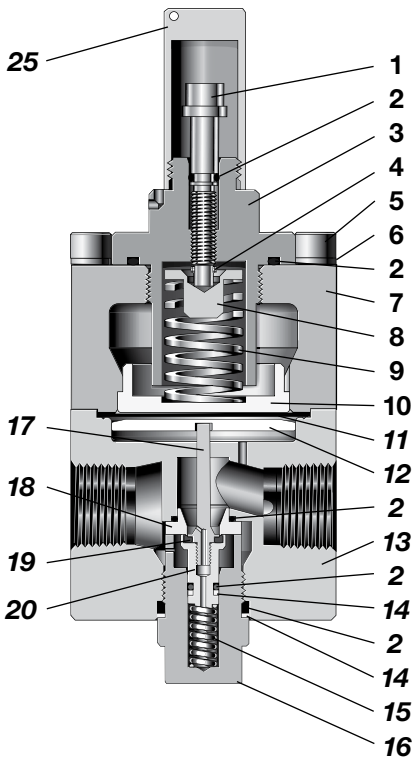


Technical Data

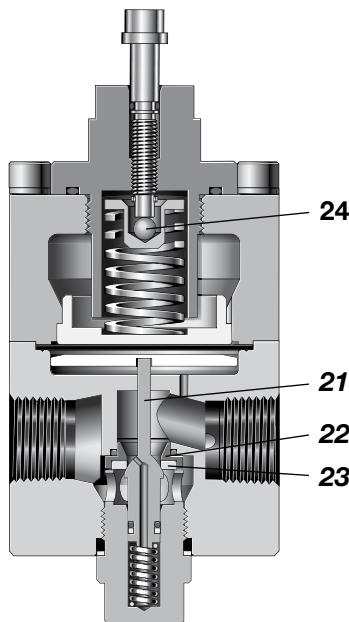
Series	Maximum Inlet Pressure psig (bar)	Maximum Outlet Control Pressure psig (bar)	Sensing Type	Bias Range psig (bar)	Temperature Range °F (C°)	Flow Coefficient (C _v)	Seat Diameter in. (mm)	Inlet and Outlet Connections	Gauge / Dome Connection	Weight (Without Flanges) lb (kg)
RD6DP	1015 (70.0)	1015 (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	50CRV4
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 / A313
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
<i>Wetted lubricants: Silicone-based and synthetic hydrocarbon-based</i>	

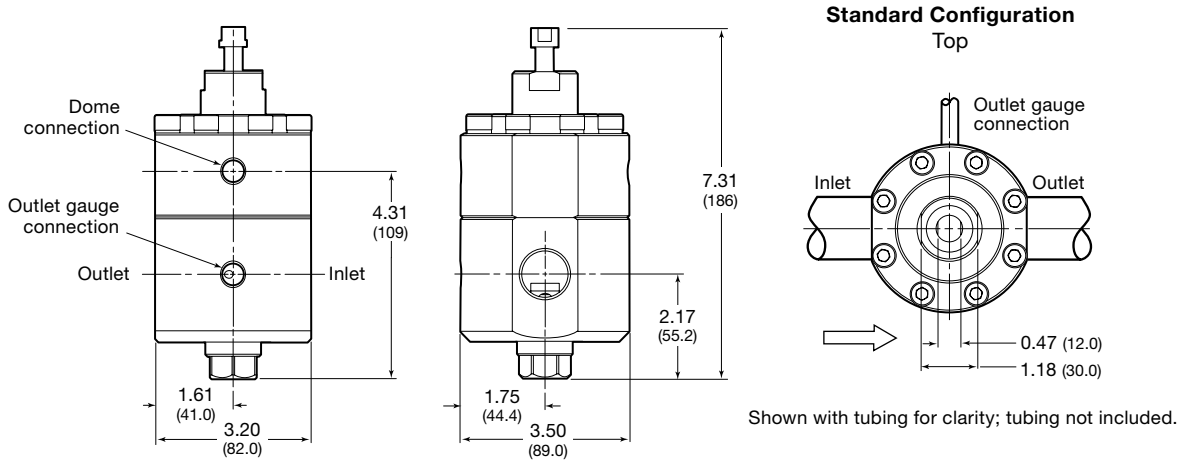
Wetted components listed in *italics*.
Gauge plugs (not shown): 431 SS / A276.

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.



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