

# Figures 4700-D, 4700-U

## Pressure Reducing & Sustaining Valves

### Description

GA Industries Figures 4700-D and 4700-U self-contained, pilot-operated, differential piston actuated pressure reducing and sustaining valves reduce a higher, fluctuating inlet pressure to a lower, steady downstream pressure regardless of variations in demand, providing the inlet pressure is above a pre-determined minimum.

The valve will throttle as needed to sustain the minimum inlet pressure and close if the inlet pressure falls below the minimum.

The valve's unique V-port trim provides a semi-linear flow characteristic for excellent control during periods of minimum demand plus full port capacity to handle peak demand such as fire flow.

### Product Features

- Heavy duty cast iron body with lead-free bronze internals for long term dependable service
- V-port trim provides excellent low flow control plus full port capacity
- Standard visual position indicator
- Pilot system standard with closing speed needle valve, wye strainer and pilot isolating valves

### Standard Materials

- Body Cast Iron, ASTM A126 Class B
- Cover Steel, ASTM A36
- Internal Trim Lead-free Bronze
- Renewable Seat Buna-N
- Internal Fasteners Stainless Steel
- External Fasteners Steel, A307, Zinc Plated
- Pilot System Lead Free Brass, Bronze or Copper

### Corrosion Protection

- Standard: Internal and External Carboline 891  
NSF-61 Certified Epoxy, min 6 mil DFT

### Options

- Option C Integral "Stop-Check" Feature, Prevents Reverse Flow
- Option S 120VAC Solenoid, Closes Valve on Electrical Signal
- Option P2: 316 SS External Fasteners
- Option 1S With Honeywell HDLS NEMA 1, 3, 4, 4X, 6, 6P, 12 & 13 SPDT Limit Switch
- Option G1 Inlet Pressure Gauge
- Option G2 Inlet and Outlet Pressure Gauges

### Ordering Data

- Figure Number (4700-D or 4700-U)
- Size
- Options and/or Accessories

Data Sheet 4700.01B



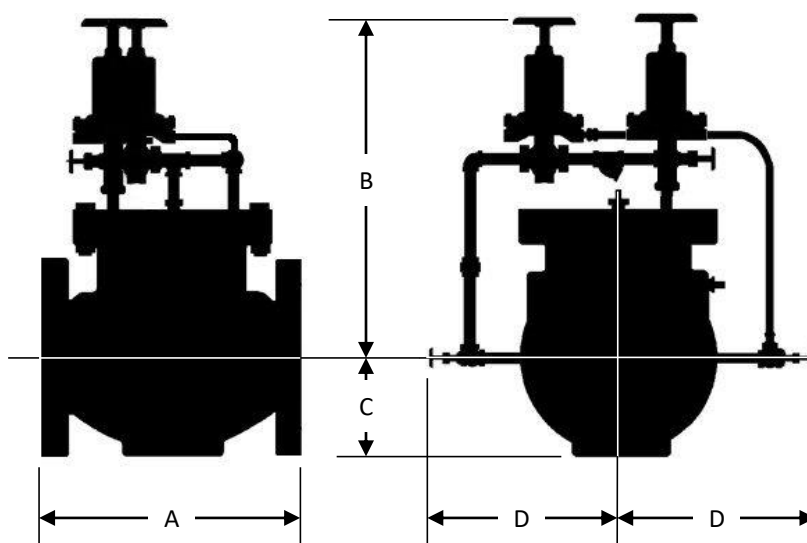
Non-Shock Working Water Pressure Up to 125F (52C)			
Figure No.	4700-D		4700-U
Flanges	ANSI B16.1 Class 125		ANSI B16.1 Class 250
Size	3" – 12"	14" to 20"	3" – 20"
Max Inlet Pressure	200 PSI	150 PSI	300 PSI
Hydro Test	300 PSI	225 PSI	450 PSI

### Data Sheet 4700.01B

#### Sizing Guidelines

Valve Size	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"
Flow Coefficient (C <sub>v</sub> )	130	205	447	831	1,175	1,750	2,500	3,264	4,131	5,100
Recommended Maximum Continuous Flow, USGPM	450	800	1,750	3,100	5,000	7,000	9,600	12,500	16,000	19,500
Recommended Maximum Intermittent Flow, USGPM	565	1,000	2,200	3,875	6,250	8,750	12,000	15,600	20,000	24,000
Recommended Minimum Continuous Flow, USGPM	25	40	90	150	250	350	450	600	800	1,000

- Recommended maximum continuous flow based on approximate 20 ft/sec nominal inlet velocity. Maximum intermittent flow is 25 ft/sec nominal inlet velocity.
- Use formula  $Q = C_v (\Delta P)^{1/2}$  (where Q = required flow rate and  $\Delta P$  is inlet pressure minus reduced pressure) but do not exceed the above recommended maximum flow rates.
- Standard Figure 4700-D or 4700-U reduced/outlet pressure cannot be higher than 85% of minimum inlet pressure. Consult factory if reduced/outlet pressure could be higher than 85% of inlet.



#### Installation Dimensions

	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"
A	12	13	18	24½	26	31	33	36	40	40
B	24	24	25	27	30	30	39	41	45	45
C	4¼	5¼	6½	8¼	9¼	13	12¼	17	17	21
D	9	10	12	14	18	19	20	21	23	23
WGT	160	200	350	700	1,200	1,500	1,700	2,300	3,600	3,800

- Face to face same for both Class 125 and Class 250 flanged valves, Class 250 supplied with flat face
- Dimensions are in inches, weight in pounds and are approximate. Consult factory if critical.
- Angle body valves available, consult factory for dimensions
- 24" and larger valves available, consult factory

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