

D05 Pressure Regulating Valves

Braukmann

SPECIFICATION DATA



FEATURES

- Noncorroding unitized cartridge contains all working parts and is easily replaceable.
- Includes built-in strainer and thermal bypass.
- Balanced seat construction provides superior pressure regulation.
- Inlet and outlet are internally threaded female NPT, and externally threaded for use with union assemblies.
- One model can be used in low, standard or high pressure applications; D05 has a 15 to 150 psi outlet pressure adjustment range with up to 400 psi inlet pressure.
- Available with or without gauge tap.
- U06P Stand-In Pipe available for temporary installation during construction or system flushing.
- Two-year warranty.

APPLICATION

The Honeywell Braukmann D05 Pressure Regulating Valve is a high quality pressure regulating valve that maintains a constant outlet pressure over a wide range of inlet supply pressures. It is ideally suited for new residential and light commercial construction, drip irrigation, and applications requiring highly sensitive and accurate regulation.

The wide inlet pressure range of the D05 gives flexibility without compromising reduced outlet pressure accuracy or capacity. The superior balanced single seat design maintains a constant outlet pressure over a wide range of inlet pressures. The noncorroding unitized cartridge insert contains all the working parts and is easily replaceable.

The D05 is used for water or air regulation. It is not suitable for steam.



SPECIFICATIONS

Model:

D05 Pressure Regulating Valves.

Construction Materials:

Body: Bronze.
 Internal Parts: Stainless steel and engineered thermoplastic.
 Regulator Mechanism: Fabric-reinforced diaphragm.

Inlet Pressure:

400 psi maximum.

Reduced Pressure Range:

15 to 150 psi (1/2 in. to 1 in.).
 15 to 130 psi (1-1/4 in.).

Outlet Pressure:

Factory set at 60 psi.

Differential:

14 psi minimum (inlet to outlet).

Reduced Ratio:

10:1 maximum.

Temperature (Maximum):

Air: 158°F (70°C).
 Water: 180°F (82°C).

Pipe Sizes:

1/2 in., 3/4 in., 1 in., and 1-1/4 in. available.

Connections:

Can be configured as female thread-by-thread, single- or double-union, NPT threaded or sweat.

Strainer Screen Size:

0.032 in.

Gauge Tap:

1/4 in. NPT (available on all models).

Approvals:

ASSE (Std. 1003) Certified.
 IAPMO, CSA, and City of L.A. Listed.

Dimensions:

See Fig. 1.

Capacities (Water) (See Table 1.):

The suitability of a given regulator size is dependent on the pressure requirements where it will operate. For the pressure regulator valve size required for a specific installation, determine the following:

- ① Pressure differential between inlet and outlet pressure in pounds per square inch (psi),
- ② Capacity in gallons per minute (gpm), and
- ③ Allowable reduced pressure falloff in psi.

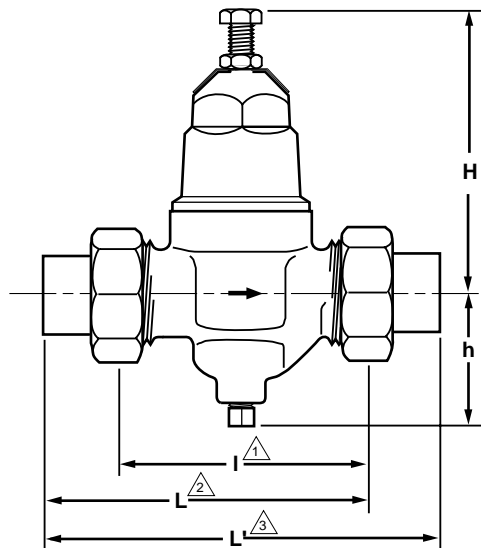
Given these variables, use Table 1 to determine the proper size pressure regulator valve for your application.

Example: An installation has 135 psi inlet pressure, 60 psi outlet pressure (75 psi pressure differential). If 12 gpm capacity is required with only 10 psi falloff allowable, a 1/2 in. D05 is required.

SIZE (INCHES)	H	h ^④	l ^④
1/2	4-9/16 (116)	2-1/16 (52)	3-3/16 (81)
3/4	4-9/16 (116)	2-1/16 (52)	3-1/2 (89)
1	6 (152)	2-5/8 (66)	3-15/16 (100)
1-1/4	6 (152)	2-5/8 (66)	4-11/16 (119)

SIZE (INCHES)	SWEAT TAILPIECE		THREADED TAILPIECE	
	L ^②	L' ^③	L ^②	L' ^③
1/2	3-7/8 (98)	4-5/8 (118)	4-1/16 (103)	4-15/16 (126)
3/4	4-5/16 (110)	5-3/16 (132)	4-5/16 (110)	5-3/16 (132)
1	5-1/4 (133)	6-1/2 (166)	5 (127)	6-1/16 (154)
1-1/4	6-3/16 (157)	7-11/16 (195)	6 (152)	7-5/16 (185)

- ^① NON-UNION MODEL.
- ^② SINGLE-UNION MODEL.
- ^③ DOUBLE-UNION MODEL.
- ^④ DIMENSIONS WITH GAUGE PLUG.



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Fig. 1. D05 installation dimensions in in. (mm).

Table 1. Water Capacities.

Pressure Regulator Valve Size	Reduced Pressure Falloff (psi)	Pressure Differential Between Inlet and Outlet							
		25 psi		50 psi		75 psi		100 psi or more	
		Flow Capacity (US gpm)	Velocity (ft/sec) ^a	Flow Capacity (US gpm)	Velocity (ft/sec) ^a	Flow Capacity (US gpm)	Velocity (ft/sec) ^a	Flow Capacity (US gpm)	Velocity (ft/sec) ^a
1/2 inch	6	7.0	7.3	8.0	8.3	9.0	9.4	10.0	10.4
	10	10.0	10.4	11.0	11.5	12.0	12.5	13.0	13.5
	15	13.0	13.5	15.0	15.6	16.0	16.7	17.0	17.7
	20	15.5	16.0	18.0	19.5	19.0	21.0	20.0	22.0
3/4 inch	6	9.0	5.4	10.0	6.0	11.0	6.5	12.0	7.1
	10	15.0	8.9	16.0	9.5	17.0	10.0	18.0	10.7
	15	20.0	11.9	22.0	13.7	23.0	13.7	24.0	14.3
	20	23.0	13.9	26.0	17.6	27.0	16.7	28.0	17.3
1 inch	6	11.5	4.2	13.0	4.7	14.5	5.3	16.0	5.8
	10	20.0	7.2	21.5	7.8	23.0	8.3	24.5	8.9
	15	28.0	10.7	30.0	10.9	33.0	12.0	35.0	12.7
	20	32.0	14.0	37.0	13.5	40.0	15.5	41.0	15.0
1-1/4 inch	6	13.5	2.9	16.0	3.4	20.0	4.3	22.0	4.7
	10	22.0	4.7	29.0	6.2	34.0	7.3	38.0	8.1
	15	37.0	7.9	56.0	12.0	62.5	13.4	73.0	15.6
	20	55.0	11.8	78.0	16.7	87.0	18.6	101.0	21.6

^a Velocity in feet per second is based on schedule 40 pipe size. Recommended pressure falloff for general use is approximately 104 kPa (15 psi). Recommended velocities for the flow of water: Residential and general use, 5 to 10 ft/sec; industrial use, 7 to 15 ft/sec; boiler feed, 7 to 15 ft/sec.

D05 Parts and Accessories

Order Number Description

Replacement Parts

203223	Bonnet Assembly for 1/2 and 3/4 in. Valves.
203224	Bonnet Assembly for 1 and 1-1/4 in. Valves.
272840	Gasket for 1/2 in. D05/DS05 (quantity 24).
272841	Gasket for 3/4 in. D05/DS05 (quantity 24).
272842	Gasket for 1 in. D05/DS05 (quantity 24).
272843	Gasket for 1-1/4 in. D05/DS05 (quantity 24).
K05A1009	Replacement Cartridge, Screen and O-ring for 1/2 and 3/4 in. valves.
K05A1017	Replacement Cartridge, Screen and O-ring for 1 and 1-1/4 in. valves.
K05B1007	Replacement Screen and O-ring for 1/2 and 3/4 in. valves.
K05B1015	Replacement Screen and O-ring for 1 and 1-1/4 in. valves.

Union Kits

K06U1069	Union Kit—1/2 in., includes Nut, Female NPT Threaded Tailpiece and Gasket.
K06U1077	Union Kit—3/4 in., includes Nut, Female NPT Threaded Tailpiece and Gasket.
K06U1085	Union Kit—1 in., includes Nut, Female NPT Threaded Tailpiece and Gasket.
K06U1135	Union Kit—1-1/4 in. for D05/D505, includes Nut, Sweat Tailpiece and Gasket.
K06U1093	Union Kit—1/2 in., includes Nut, Sweat Tailpiece and Gasket.
K06U1101	Union Kit—3/4 in., includes Nut, Sweat Tailpiece and Gasket.
K06U1119	Union Kit—1 in., includes Nut, Sweat Tailpiece and Gasket.
K06U1143	Union Kit—1-1/4 in. for D05/D505, includes Nut, Sweat Tailpiece and Gasket.

Accessories

202868	Filter Washer, 3/4 in., for use with U06P1045 Plastic Stand-in Pipe.
202869	Filter Washer, 1 in., for use with U06P1052 Plastic Stand-in Pipe.
U06P1045	Plastic Stand-in Pipe (spacer) for use with D05 Double Union Pressure Regulating Valves, 3/4 in.
U06P1052	Plastic Stand-in Pipe (spacer) for use with D05 Double Union Pressure Regulating Valves, 1 in.

Pressure Gauges

M39A1032	Pressure Gauge with Bottom Inlet; 0 to 160 psi.
MT194A1006	Water Pressure Test and Recording Gauge with Hose Bib Connection; 0 to 300 psi.

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