

DS05 Dial Set Pressure Regulating Valves

Braukmann

SPECIFICATION DATA



FEATURES

- Built-in, factory-calibrated outlet pressure adjustment dial.
- 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.
- Gauge tap included on all models.
- U06P Stand-In Pipe available for temporary installation during construction or system flushing.

APPLICATION

The Honeywell Braukmann DS05 Dial Set 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 suitable for potable water and irrigation applications. The downstream pressure adjustment dial eliminates the need for a pressure gauge when adjusting the pressure setting (static pressure only).



SPECIFICATIONS

Model:

DS05 Dial Set Pressure Regulating Valves.

Construction Materials:

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

Seat Design:

Balanced single-seat construction.

Inlet Pressure (Maximum):

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).

Dial Calibration Accuracy:

±4 psi.

Reduced Ratio:

10:1 maximum.

Temperature (Maximum):

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

Ambient Temperature Rating:

34°F to 140°F (1°C to 60°C).

Pipe Sizes Available:

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.

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.

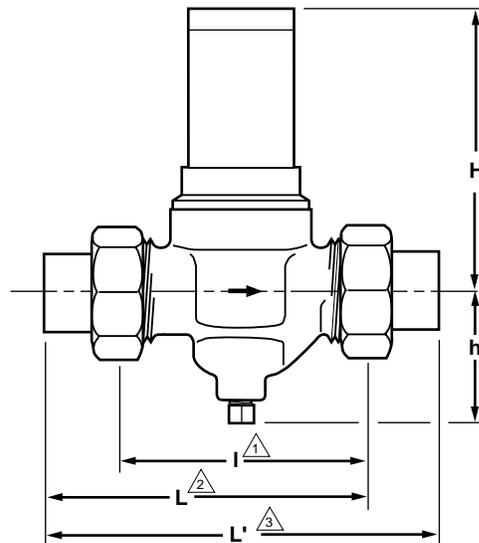
Given these variables, use Table 1 to determine the proper size of pressure regulator valve for your application.

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. DS05 is required.

SIZE (INCHES)	H	h ^④	l ^①
1/2	4-5/16 (110)	2-1/16 (52)	3-3/16 (81)
3/4	4-5/16 (110)	2-1/16 (52)	3-1/2 (89)
1	5-9/16 (141)	2-5/8 (66)	3-15/16 (100)
1-1/4	5-9/16 (141)	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 (99)	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 CONFIGURATION.
- ^② SINGLE-UNION MODEL CONFIGURATION.
- ^③ DOUBLE-UNION MODEL CONFIGURATION.
- ^④ DIMENSION WITH GAUGE PLUG.



M3625A

Fig. 1. DS05 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.

DS05 Parts and Accessories

Order Number Description

Replacement Parts

272838	Bonnet Kit for 1/2 in. and 3/4 in. DS05.
272839	Bonnet Kit for 1 in. and 1-1/4 in. DS05.
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, female NPT Threaded 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 DS05 Double Union Pressure Regulating Valves, 3/4 in.
U06P1052	Plastic Stand-in Pipe (spacer) for use with DS05 Double Union Pressure Regulating Valves, 1 in.

DS05 DIAL SET PRESSURE REGULATING VALVES

Order Number Description

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.

Service Tool

MT06A1025 Service Tool for 1/2 in. and 3/4 in. DS05.

MT06A1009 Service Tool for 1 in. and 1-1/4 in. DS05.

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