Dispensing Valves

Product Description
Deltrol Controls Liquid Dispensing Valves are direct-acting, gravity fed (up to 3 psi) valves primarily designed to dispense water (up to 210°F) or similar media from a tank. The most common applications for our valves are hot beverage and vending equipment, ice machines, and floor scrubbers. Deltrol Controls offers 5 types of Liquid Dispensing Valves, each providing unique features for your application. Each of these valves is briefly described in this brochure, and complete product information can be obtained by visiting our website at www.deltrol-controls.com.

Principle of Operation
The following illustration shows a common Liquid Dispensing Valve. A water source is typically connected to the inlet port of the valve and the valve controls the flow of fluid to the outlet port. In the closed position, the diaphragm is biased against a valve seat by a spring, preventing water flow. When power is applied to the coil, the plunger and diaphragm move away from the valve seat, allowing liquid to pass through the valve.

Features
- Polyester encapsulated Class F coils
- Standard coil termination: 0.25” X 0.03” male quick connect terminals
- Termination options for DSVP11 and DSVP12 models include: Lead wires, DIN 43650 Form A, and Deutsch DT04-2P
- UL recognition (US and Canada) for most models
- NSF listing on most valves with silicone diaphragms
- ENEC Certification on select DSVP12(N) and DSVP15 models
- Optional QF “Quiet Flow” coil for quiet AC operated valves (not available on all models) [1]
- Optional vent tube available on select models to allow for full release of outlet media
- Life expectancy: 125,000 cycles under normal conditions
- Multiple inlet and outlet configurations available – special designs may be available upon request
- Multiple material options available to suit your specific application

Valve Body Options

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RoHS Compliance
This product is compliant with RoHS Directive (2002/95/EC) and RoHS Recast (2011/65/EU). This declaration is based on a combination of supplier declarations and testing to EN 62321

[1] AC coils that are internally rectified may require protection from transient voltages. It is recommended that a metal-oxide varistor (MOV) be placed in parallel at the coil.
[2] The CE Mark on Deltrol components indicates that the component is designed for use in a product required to comply with CE marking directives; certification to the LVD directive is only practical once the component is fully integrated into a finished product under the scope of either directive.
### General Description

All are 2-way, direct acting dry plunger valves. Our largest valve, designed for large capacity flow requirements. Multiple port and bracket options to suit your application. Modular design for on-the-spot configuration, high relative sealing ability.

This valve provides superior flow and an easy-to-use flow rate adjuster integral to the valve body. State-of-the-art fastener-less design, excellent flow and consistency.

### Electrical Specifications

#### Coil Voltages

- 24, 120, 240 VAC, 50/60 HZ
- 12, 24, 36 VDC

#### Internally rectified AC Coils

- No Yes Yes/ Non-rectified version available

#### Coil Powers

- 30 W (standard) 12 W (AC), 11 W DC (standard)
- 14 W (AC), 12 W (DC) (standard)

#### Coil Termination

- 0.25” spade terminals
- Lead Wires DIN 43650 Form A
- Deutsch DT04-2P

### Mechanical Specifications

#### Media

- Water and Water-Based Solutions up to 210° F (98° C) Polysulfone Body
- up to 170°F (77° C) Nylon Body

#### Max. Head Pressure

- 18” W.C. Standard, up to 40” optional
- 12” W.C. Standard, up to 72” optional
- 30” W.C. Standard, up to 72” optional
- 12” W.C. Standard, up to 72” optional
- Intermittent 50%, 1 minute on

#### Normal Ambient Temp

- 95° F (35° C)
- 77° F (25° C)
- 113° F (45° C)

#### Coil Treatment

- Polyester Encapsulated
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#### Insulation Class

- Class F 311° F (155°C)
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### Media Specifications

#### Max. Flow Rate @ 4” w.c.

- (water @ 73° F)
- 3.6 fl oz/sec 1.5 fl oz/sec (0.302 valve seat)
- 1.9 fl oz/sec (0.406 valve seat)
- 1.1 fl oz/sec (#5 valve body)
- 1.8 fl oz/sec (#2 valve body)
- 1.6 fl oz/sec (standard version)
- 1.75 fl oz/sec (high flow version)

#### Max Flow Rate 12” w.c.

- (water @ 73°F)
- 5.8 fl oz/sec 2.5 fl oz/sec (0.302 valve seat)
- 3.3 fl oz/sec (0.406 valve seat)
- 2.0 fl oz/sec (#5 valve body)
- 2.5 fl oz/sec (#2 valve body)
- 2.5 fl oz/sec (standard version)
- 2.8 fl oz/sec (high flow version)

#### Inlet/Outlet Connection

- Ø0.77 barb / Ø0.77 barb
- 1/4-18 NPTF / Ø0.63 or Ø.50 barb
- Ø.57 barb / Ø.57 barb inline

#### Bracket Options

- Available in 90° increments
- See website for details

#### Optional Vent Tube

- No Yes Yes Yes Yes

#### Normally Open Version Option

- Yes - DC only
- No Yes No

#### Flow Adjuster Option

- Yes - Backstop Adjuster
- No Yes - integral to valve body

#### Valve Body Material

- Polysulfone, Nylon
- Noryl®, Polysulfone, Nylon
- Polysulfone

#### Diaphragm Material

- Silicone, Viton®, EPDM
- Silicone, Viton®, EP
- Silicone

#### Weight

- 14 oz. 8 oz. 7.5 oz. 7.6 oz. 5.5 oz

#### Agency Approvals

- NSF-169 listed on most valves with silicone diaphragms
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#### File No.

- MH12958
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### Other

- US Patent No. 6,684,901 7,938,383

Specifications subject to change without notice. (*) Approvals do not apply to all valves. Contact the factory for specific approvals.

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Deltrol Controls Products
Deltrol Controls designs and manufactures dispensing valves, inlet valves, proportional valves, 2-way pressure valves, solenoids, relays, hose sets and fittings, and custom assemblies. We offer an extensive line of standard products and have an in–house engineering staff that will work with you to design a custom product specific to your application.

Please visit www.deltrol-controls.com for further information.

Deltrol Controls Overview
Deltrol Controls is located in Milwaukee, Wisconsin USA and is a wholly-owned subsidiary of Deltrol Corp. For over 50 years, we have designed and manufactured valves, solenoids, relays, and custom assemblies for a variety of applications. Our Milwaukee operation employs approximately 125 employees, working out of a 110,000 sq. ft. ISO 9001:2015 Registered manufacturing facility. We also have manufacturing capabilities in other parts of the world that allow us to be a globally competitive supplier.