

Features

- Design eliminates metal-to-metal contact to extend life up to 20 million cycles in dry air or gas applications
- Internal AC hum and metallic click at energization are eliminated. Quiet operating
- Easily handles applications involving rapid cycling or continuous energization

Construction

| Valve Parts in Contact with Fluids | |
|------------------------------------|------|
| Core Bumpers | UR |
| Rider Rings | PTFE |

For more information, see individual Series in General Service Valve Section.

Electrical

| Standard Coil and Class of Insulation | Watt Rating and Power Consumption | | | | Spare Coil Part Number | |
|---------------------------------------|-----------------------------------|-------|------------|-----------|------------------------|----------------|
| | DC Watts | AC | | | General Purpose | Explosionproof |
| | | Watts | VA Holding | VA Inrush | AC | AC |
| F | ① | 15.1 | 22 | 22 | 270110 | 270114 |

Standard Voltages: 24, 120, 240, 480 volts AC, 60 Hz (or 110, 220 volts AC, 50 Hz).
Must be specified when ordering.

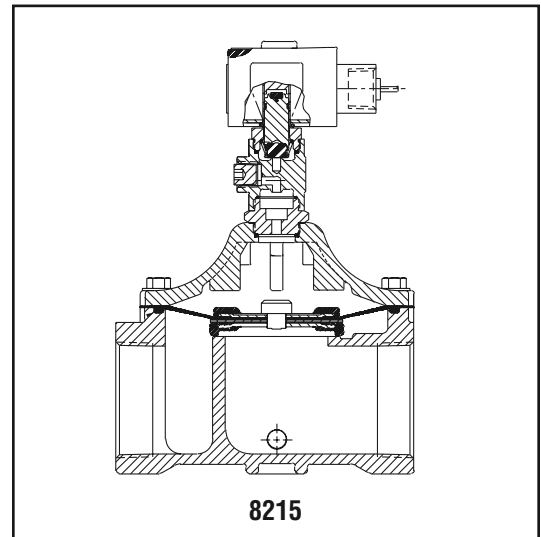
Note: ① Consult your local ASCO sales office for DC voltages.

Solenoid Enclosures

Standard: Watertight, Types 1, 2, 3, 3S, 4, and 4X.

Optional: Explosionproof and Watertight, Types 3, 3S, 4, 4X, 6, 6P, 7, and 9.
(To order, add prefix "EF" to catalog number.)

See *Optional Features Section* for other available options.



SPECIAL SERVICE VALVES

Nominal Ambient Temp. Ranges

32°F to 104°F (0°C to 40°C)

Refer to *Engineering Section* for details.

Approvals

CSA certified. UL listed General Purpose Valves.
Meets applicable CE directives.

Installation

For optimum life, the valve should be installed with the solenoid positioned upright and vertical.

Refer to *Engineering Section* for details.

Specifications (English units)

| Pipe Size (ins.) | Orifice Size (ins.) | Cv Flow Factor | Operating Pressure Differential (psi) | | Max. Fluid Temp. °F | Brass Body Catalog Number | Aluminum Body Catalog Number | Watt Rating/Class of Coil Insulation AC |
|---|---------------------|----------------|---------------------------------------|-----------------------|---------------------|---------------------------|------------------------------|---|
| | | | Min. | Max. AC Air-Inert Gas | | | | |
| 2/2 VALVES (5 MILLION CYCLE CAPABILITY) | | | | | | | | |
| NORMALLY CLOSED (Closed when de-energized) | | | | | | | | |
| 3/8 | 5/8 | 3 | 5 | 125 | 140 | 8210G001Q | - | 15.1/F |
| 1/2 | 5/8 | 4 | 5 | 125 | 140 | 8210G002Q | - | 15.1/F |
| 3/4 | 3/4 | 4.5 | 5 | 125 | 140 | 8210G009Q | - | 15.1/F |
| 1 | 1 5/8 | 13 | 1 | 20 | 140 | - | 8215G095Q | 15.1/F |
| 1 1/4 | 1 5/8 | 15 | 1 | 20 | 140 | - | 8215G096Q | 15.1/F |
| 1 1/2 | 1 5/8 | 20 | 1 | 20 | 140 | - | 8215G097Q | 15.1/F |
| 2 | 2 3/32 | 34 | 1 | 20 | 140 | - | 8215G098Q | 15.1/F |
| NORMALLY OPEN (Open when de-energized) | | | | | | | | |
| 3/8 | 5/8 | 3 | 5 | 125 | 140 | 8210G011Q | - | 15.1/F |
| 1/2 | 5/8 | 4 | 5 | 125 | 140 | 8210G012Q | - | 15.1/F |
| 3/4 | 3/4 | 4.5 | 5 | 125 | 140 | 8210G013Q | - | 15.1/F |
| 1 | 1 5/8 | 13 | 1 | 20 | 140 | - | 8215G099Q | 15.1/F |
| 1 1/4 | 1 5/8 | 15 | 1 | 20 | 140 | - | 8215G100Q | 15.1/F |
| 1 1/2 | 1 5/8 | 20 | 1 | 20 | 140 | - | 8215G101Q | 15.1/F |
| 2 | 2 3/32 | 34 | 1 | 20 | 140 | - | 8215G102Q | 15.1/F |
| 2/2 VALVES (20 MILLION CYCLE CAPABILITY) | | | | | | | | |
| NORMALLY CLOSED (Closed when de-energized) | | | | | | | | |
| 1/8 | 1/8 | .35 | 0 | 125 | 140 | 8262G077Q | - | 15.1/F |
| 1/4 | 1/8 | .35 | 0 | 125 | 140 | 8262G232Q | - | 15.1/F |
| 1/4 | 7/32 | .85 | 0 | 50 | 140 | 8262G208Q | - | 15.1/F |
| NORMALLY OPEN (Open when de-energized) | | | | | | | | |
| 1/8 | 1/16 | .09 | 0 | 125 | 140 | 8262G091Q | - | 15.1/F |
| 1/4 | 1/16 | .09 | 0 | 125 | 140 | 8262G032Q | - | 15.1/F |
| 3/2 VALVES (5 MILLION CYCLE CAPABILITY) | | | | | | | | |
| NORMALLY CLOSED (Closed when de-energized) | | | | | | | | |
| 3/8 | 5/8 | 3 | 10 | 125 | 140 | 8316G014Q ② | - | 15.1/F |
| 1/2 | 5/8 | 4 | 10 | 125 | 140 | 8316G024Q ② | - | 15.1/F |
| NORMALLY OPEN (Open when de-energized) | | | | | | | | |
| 3/8 | 5/8 | 3 | 10 | 125 | 140 | 8316G016Q ② | - | 15.1/F |
| 1/2 | 5/8 | 4 | 10 | 125 | 140 | 8316G026Q ② | - | 15.1/F |
| 3/2 VALVES (20 MILLION CYCLE CAPABILITY) | | | | | | | | |
| UNIVERSAL OPERATION (Pressure at any port) | | | | | | | | |
| 1/8 | 1/16 | .09 | 0 | 70 | 140 | 8320G001Q | - | 15.1/F |
| 1/4 | 1/16 | .09 | 0 | 70 | 140 | 8320G172Q | - | 15.1/F |
| 1/4 | 3/32 | .15 | 0 | 40 | 140 | 8320G174Q | - | 15.1/F |
| NORMALLY CLOSED (Closed when de-energized) | | | | | | | | |
| 1/8 | 1/16 | .09 | 0 | 125 | 140 | 8320G013Q | - | 15.1/F |
| 1/4 | 1/16 | .09 | 0 | 125 | 140 | 8320G182Q | - | 15.1/F |
| 1/4 | 1/8 | .31 | 0 | 35 | 140 | 8320G186Q | - | 15.1/F |
| NORMALLY OPEN (Open when de-energized) | | | | | | | | |
| 1/8 | 1/16 | .09 | 0 | 125 | 140 | 8320G027Q | - | 15.1/F |
| 1/4 | 1/16 | .09 | 0 | 125 | 140 | 8320G192Q | - | 15.1/F |
| 1/4 | 1/8 | .31 | 0 | 35 | 140 | 8320G196Q | - | 15.1/F |
| 4/2 VALVES (5 MILLION CYCLE CAPABILITY) | | | | | | | | |
| SINGLE SOLENOID | | | | | | | | |
| 1/4 | 1/4 | .53 | 10 | 125 | 140 | 8344G070Q ② | - | 15.1/F |
| 3/8 | 1/4 | .53 | 10 | 125 | 140 | 8344G001Q ② | - | 15.1/F |
| 1/2 | 3/8 | 1.3 | 10 | 125 | 140 | 8344G074Q ② | - | 15.1/F |
| 4/2 VALVES (20 MILLION CYCLE CAPABILITY) | | | | | | | | |
| SINGLE SOLENOID | | | | | | | | |
| 1/4 | 1/16 | ① | 10 | 100 | 140 | 8345G002Q ② | - | 15.1/F |

① Inlet Cv is 0.036; exhaust Cv is 0.092.

② **IMPORTANT:** A Minimum Operating Pressure Differential must be maintained between the pressure and exhaust ports.

Supply and exhaust piping must be full area, unrestricted. ASCO flow controls and other similar components must be installed in the cylinder lines only.

SPECIAL SERVICE VALVES

Specifications (Metric units)

| Pipe Size (ins.) | Orifice Size (mm) | Kv Flow Factor (m3/h) | Operating Pressure Differential (bar) | | Max. Fluid Temp. °C | Brass Body Catalog Number | Aluminum Body Catalog Number | Watt Rating/Class of Coil Insulation AC |
|---|-------------------|-----------------------|---------------------------------------|-----------------------|---------------------|---------------------------|------------------------------|---|
| | | | Min. | Max. AC Air-Inert Gas | | | | |
| 2/2 VALVES (5 MILLION CYCLE CAPABILITY) | | | | | | | | |
| NORMALLY CLOSED (Closed when de-energized) | | | | | | | | |
| 3/8 | 16 | 2.57 | 0.3 | 8.6 | 60 | 8210G001Q | - | 15.1/F |
| 1/2 | 16 | 3.43 | 0.3 | 8.6 | 60 | 8210G002Q | - | 15.1/F |
| 3/4 | 19 | 3.86 | 0.3 | 8.6 | 60 | 8210G009Q | - | 15.1/F |
| 1 | 41 | 11.14 | 0.1 | 1.4 | 60 | - | 8215G095Q | 15.1/F |
| 1 1/4 | 41 | 12.86 | 0.1 | 1.4 | 60 | - | 8215G096Q | 15.1/F |
| 1 1/2 | 41 | 17.14 | 0.1 | 1.4 | 60 | - | 8215G097Q | 15.1/F |
| 2 | 53 | 29.14 | 0.1 | 1.4 | 60 | - | 8215G098Q | 15.1/F |
| NORMALLY OPEN (Open when de-energized) | | | | | | | | |
| 3/8 | 16 | 2.57 | 0.3 | 8.6 | 60 | 8210G011Q | - | 15.1/F |
| 1/2 | 16 | 3.43 | 0.3 | 8.6 | 60 | 8210G012Q | - | 15.1/F |
| 3/4 | 19 | 3.86 | 0.3 | 8.6 | 60 | 8210G013Q | - | 15.1/F |
| 1 | 41 | 11.14 | 0.1 | 1.4 | 60 | - | 8215G099Q | 15.1/F |
| 1 1/4 | 41 | 12.86 | 0.1 | 1.4 | 60 | - | 8215G100Q | 15.1/F |
| 1 1/2 | 41 | 17.14 | 0.1 | 1.4 | 60 | - | 8215G101Q | 15.1/F |
| 2 | 53 | 29.14 | 0.1 | 1.4 | 60 | - | 8215G102Q | 15.1/F |
| 2/2 VALVES (20 MILLION CYCLE CAPABILITY) | | | | | | | | |
| NORMALLY CLOSED (Closed when de-energized) | | | | | | | | |
| 1/8 | 3 | .30 | 0.0 | 8.6 | 60 | 8262G077Q | - | 15.1/F |
| 1/4 | 3 | .30 | 0.0 | 8.6 | 60 | 8262G232Q | - | 15.1/F |
| 1/4 | 6 | .72 | 0.0 | 3.4 | 60 | 8262G208Q | - | 15.1/F |
| NORMALLY OPEN (Open when de-energized) | | | | | | | | |
| 1/8 | 2 | .08 | 0.0 | 8.6 | 60 | 8262G091Q | - | 15.1/F |
| 1/4 | 2 | .08 | 0.0 | 8.6 | 60 | 8262G032Q | - | 15.1/F |
| 3/2 VALVES (5 MILLION CYCLE CAPABILITY) | | | | | | | | |
| NORMALLY CLOSED (Closed when de-energized) | | | | | | | | |
| 3/8 | 16 | 2.57 | 0.7 | 8.6 | 60 | 8316G014Q ② | - | 15.1/F |
| 1/2 | 16 | 3.43 | 0.7 | 8.6 | 60 | 8316G024Q ② | - | 15.1/F |
| NORMALLY OPEN (Open when de-energized) | | | | | | | | |
| 3/8 | 16 | 2.57 | 0.7 | 8.6 | 60 | 8316G016Q ② | - | 15.1/F |
| 1/2 | 16 | 3.43 | 0.7 | 8.6 | 60 | 8316G026Q ② | - | 15.1/F |
| 3/2 VALVES (20 MILLION CYCLE CAPABILITY) | | | | | | | | |
| UNIVERSAL OPERATION (Pressure at any port) | | | | | | | | |
| 1/8 | 2 | .08 | 0.0 | 4.8 | 60 | 8320G001Q | - | 15.1/F |
| 1/4 | 2 | .08 | 0.0 | 4.8 | 60 | 8320G172Q | - | 15.1/F |
| 1/4 | 2 | .13 | 0.0 | 2.8 | 60 | 8320G174Q | - | 15.1/F |
| NORMALLY CLOSED (Closed when de-energized) | | | | | | | | |
| 1/8 | 2 | .08 | 0.0 | 8.6 | 60 | 8320G013Q | - | 15.1/F |
| 1/4 | 2 | .08 | 0.0 | 8.6 | 60 | 8320G182Q | - | 15.1/F |
| 1/4 | 3 | .27 | 0.0 | 2.4 | 60 | 8320G186Q | - | 15.1/F |
| NORMALLY OPEN (Open when de-energized) | | | | | | | | |
| 1/8 | 2 | .08 | 0.0 | 8.6 | 60 | 8320G027Q | - | 15.1/F |
| 1/4 | 2 | .08 | 0.0 | 8.6 | 60 | 8320G192Q | - | 15.1/F |
| 1/4 | 3 | .27 | 0.0 | 2.4 | 60 | 8320G196Q | - | 15.1/F |
| 4/2 VALVES (5 MILLION CYCLE CAPABILITY) | | | | | | | | |
| SINGLE SOLENOID | | | | | | | | |
| 1/4 | 6 | .45 | 0.7 | 8.6 | 60 | 8344G070Q ② | - | 15.1/F |
| 3/8 | 6 | .45 | 0.7 | 8.6 | 60 | 8344G001Q ② | - | 15.1/F |
| 1/2 | 10 | 1.11 | 0.7 | 8.6 | 60 | 8344G074Q ② | - | 15.1/F |
| 4/2 VALVES (20 MILLION CYCLE CAPABILITY) | | | | | | | | |
| SINGLE SOLENOID | | | | | | | | |
| 1/4 | 2 | ① | 0.7 | 6.9 | 60 | 8345G002Q ② | - | 15.1/F |

① Inlet Kv is 0.031; exhaust Kv is 0.079.

② **IMPORTANT:** A Minimum Operating Pressure Differential must be maintained between the pressure and exhaust ports.

Supply and exhaust piping must be full area, unrestricted. ASCO flow controls and other similar components must be installed in the cylinder lines only.

Dimensions inches (mm)

Note: *Please see General Service Section for applicable 2-way, 3-way, and 4-way valve dimensions.*