

SOLENOID VALVES

4707 Massachusetts Ave. - P.O. Box 18128
 Indianapolis, Indiana 46218-0128
 Ph: 1-800-63 GOULD Fx: (317) 547-5234
 Web: <http://www.gouldvalve.com>
 E-mail: gouldvalve@gouldvalve.com



1/8" - 3" NPT TYPE Q & QR Series

2-WAY – CAST BRONZE BODIES - PACKLESS
 VELVETROL® INTERNAL PISTON PILOT OPERATED
 GENERAL PURPOSE SOLENOID VALVES - FULL PORT
 NORMALLY CLOSED OR NORMALLY OPEN



- ★ FOR: GENERAL SERVICE-AIR-INERT GASES-WATER-OIL-STEAM
- ★ PRESSURES: 5 PSI DIFFERENTIAL MINIMUM TO 400 PSI MAXIMUM
- ★ TEMPERATURE: -420°F TO 450°F. CLASS F OR N COILS
- ★ MOUNTING: INSTALL IN HORIZONTAL LINE WITH COIL UPRIGHT AND ON TOP

SIZES 1/8" - 3" NPT FULL PORT

- ★ **SERVICE RATINGS** Complete Pricing, Service & Electrical Ratings shown in Price Schedule. Valves will be furnished for 5-150 PSI Air-Water and 120 VAC Unless Otherwise Specified.

NORMALLY CLOSED--

--NORMALLY OPEN

Q-3B, Q-3EP, Q-3V Q-3T	GENERAL PURPOSE – AIR – WATER 5-150, 10-400 PSI (Normally Open to 300 PSI) 220°F. Max. Fluid Temp. Class F Coils: 120, 240, 480 VAC 60 Hz, 14Watts Max.	QR-3B, QR-3EP QR-3V, QR-3T
Q4-3B, Q4-3EP Q4-3V, Q4-3T	GENERAL PURPOSE: AIR – WATER - INERT GASES – WATER – OIL 5-150, 10-400 PSI (Normally Open to 300 PSI) 300°F. Max. Fluid Temp. Class F. Non-Standard Coils Available With Voltage, Wattage, and Lead Wire Length To Your Specs.	QR-3B, QR-3EP QR-3V, QR-3T
Q-1-3T, Q-1-3EP 	STEAM 5-150 PSI; 365°F Max. Fluid Temp., (-3EP: 5-50, 300°F); Class N 120, 240, 480 VAC 60 Hz, 20 Watts Max.	QR-1-3T QR-1-3EP
Q4-1-3T, Q4-1-3EP	STEAM (to 200 PSI) – HOT FLUIDS (to 450°F) SIMILAR TO Q4 Series EXCEPT High Temp.	QR-1-3T, QR-1-3EP
ADD -1	HIGH TEMP. (CLASS N) COILS - FLUID TEMP. TO 450°F. STEAM to 200 PSI.	ADD -1
ADD -2	EXPLOSION PROOF COIL HOUSING – UL CLASS I GROUP D, CLASS II GROUP E, F, G. NEMA 7	ADD -2
ADD -3B, -3EP -3V, -3T	LEAKPROOF PILOT SEAT: -3 O-RING (BUNA, ETHYLENE- PROPYLENE, FLOUROCARBON (VITON®), & PTFE); -3T PTFE, -3V FLOUROCARBON (VITON®)	ADD -3B, -3EP -3V, -3T
ADD -24	WATER TIGHT COIL HOUSING - NEMA 4	ADD -24
ADD -25	DUST TIGHT COIL HOUSING - NEMA 5	ADD -25
ADD -57	MANUAL RESET – SAFETY SHUT-OFF, NO VOLTAGE RELEASE. SEE BULLETIN 210-Q57	ADD -57
ADD -81, -84	-81 SLOW CLOSE (REDUCES WATER HAMMER) -84 QUICK CLOSE (BOTH FACTORY SETUPS)	ADD -81, 84
ADD -9	SPECIAL CONSTRUCTION FOR CRYOGENIC APPLICATIONS. FLUID TEMP. TO -420°F. SEE BULLETIN -9 CRYOGENICS	ADD -9
ADD -230	SPECIAL CONSTRUCTION FOR GASOLINE AND DIESEL FUEL. SEE BULLETIN 230-Q	ADD -230
ADD -FL	PIPE CONNECTION:-FL FLANGE	ADD -FL

★ **CONSTRUCTION:**

CLASS F & N COILS are Waterproof, Fungusproof, Molded of Filled Polyester with 18" Leads.
 BODIES are Sand Cast in Bronze rated 400 psi WOG. PISTON SPRINGS are 316 or 302 SS.
 BONNET ASSEMBLIES are 304 SS TUBES silver soldered to Brass BONNET and TUBE PLUG.
 PISTON ASSEMBLIES are Brass with Filled Teflon® PISTON RINGS, Stainless Steel EXPANDERS, and Buna, EP,
 Fluorocarbon, or Virgin Teflon® SEAT DISCS.
 PILOT ASSEMBLIES are 416 SS ARMATURE with a 316 SS PILOT POINT and 316 SS PINS.

★ **SPECIALS:**

Teflon® Leak Proof Seat Screws, Teflon® Discs (Standard on all Steam Valves), Teflon® Coated Pistons & other Special Assemblies Available. Non-Standard Coils are Available with Voltage, Wattage, and Lead Wire Length to your specifications. Consult Factory.

See Price Schedule for "Terms and Conditions of Sale." (Back Cover)

PERFORMANCE, ORDERING AND INSTALLATION GUIDE

ORDERING DATA--SPECIFY PIPE SIZE, TYPE, FLUID, OPERATING PRESSURE, TEMPERATURE RANGE, ELECTRICAL SPECIFICATIONS, BACK PRESSURE (IF ANY).

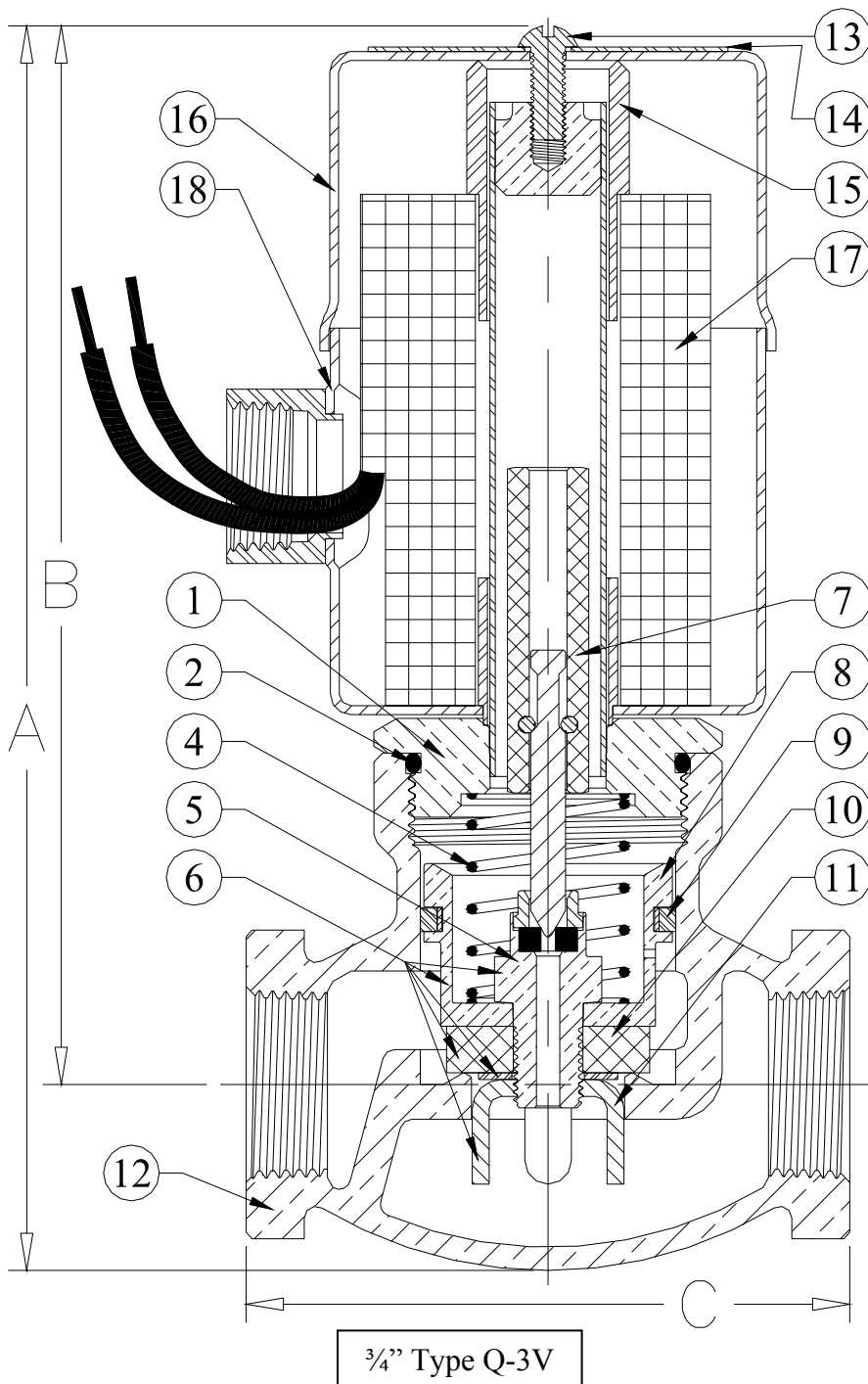
FLOW CHARACTERISTICS--SEE FLOW CURVES IN BULLETIN 5-FL, OR Cv FACTORS LISTED BELOW AND IN BULLETIN CP-1.

OPERATION--PISTON PILOT OPERATED. MINIMUM PRESSURE DROP OF 5 PSI (ΔP) IS REQUIRED ACROSS VALVE FOR OPERATION.

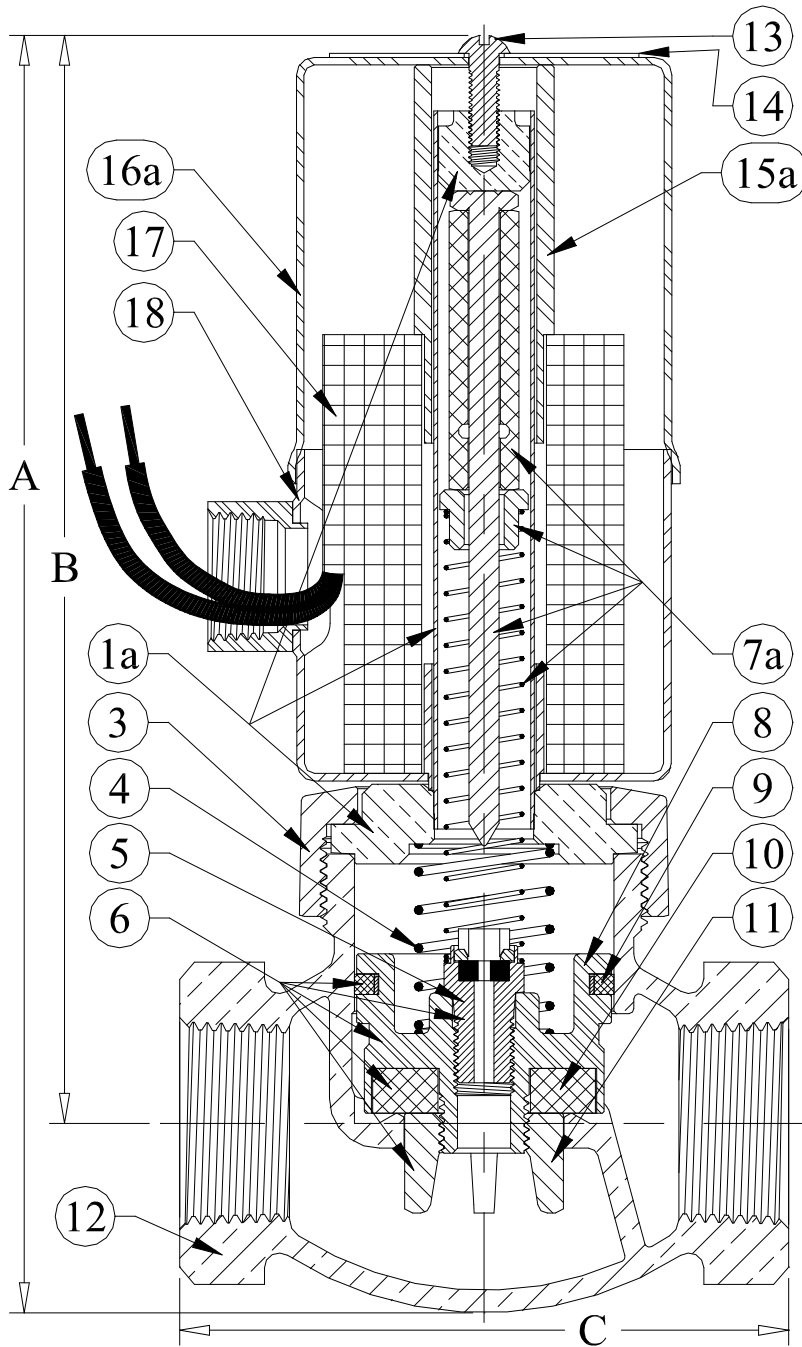
MOUNTING--MOUNT IN HORIZONTAL LINE WITH COIL VERTICAL AND ON TOP. INSTALL 40 MESH STRAINER (NO LARGER) AHEAD OF VALVE. CHECK FOR PROPER COIL VOLTAGE. MAKE SURE THAT THE FLOW ARROW ON VALVE BODY IS POINTING IN THE DIRECTION OF FLOW. PTFE TAPE STRONGLY RECOMMENDED FOR ALL JOINTS.

OPERATING PRESSURE: THE SOLENOID VALVE SHOULD BE ORDERED WITH **THE MAXIMUM RATED PRESSURE CLOSEST TO THE ACTUAL PRESSURE THE VALVE WILL OPERATE IN.** FOR EXAMPLE: IF YOUR APPLICATION IS FOR 40 PSI, ORDER A VALVE RATED 5-125 PSI **NOT** 10-250 PSI.

SERVICING--SOLENOID VALVES SHOULD BE FREQUENTLY CHECKED FOR OPERATION, CLEANLINESS, & INTERNAL WEAR - REPAIR KITS ARE FACTORY AVAILABLE --GIVE SIZE, TYPE, SERIAL NUMBER OR OPERATING DATA (VOLTAGE, PRESSURE, ETC.)



Valve Size	1 N.C. Bonnet Assembly	1a N.O. Bonnet Assembly	2 Bonnet Seal	3 Bonnet Ring	4 Piston Spring	5 SeatScrew	6 Piston Assembly	7 N.C. Pilot Assembly	7a N.O. Pilot Assembly	8 Piston Only	9 Piston Ring & Expander	10 Seat Disc	11 GuideNut	12 Body	13 Coil Screw	14 Nameplate
	Q-3V*	QR-3V*	BOTH	BOTH	BOTH	BOTH	BOTH	Q-3V*	QR-3V*	BOTH	BOTH	BOTH	BOTH	BOTH	BOTH	BOTH
1/8	4032	4032R	2121x	N/A	37-14	415-3xx	4073x	25-1	32R1	402	57	3612x	406B	400-8	9	44-1-1
1/4	4032	4032R	2121x	N/A	37-14	415-3xx	4073x	25-1	32R1	402	57	3612x	406B	400-4	9	44-1-1
3/8	4032	4032R	2121x	N/A	37-14	415-3xx	4073x	25-1	32R1	402	57	3612x	406B	400-1	9	44-1-1
1/2	4032	4032R	2121x	N/A	37-14	415-3xx	4073x	25-1	32R1	402	57	3612x	406B	400-2	9	44-1-1
3/4	4132	4132R	2125x	N/A	37-3	415-3x	4173x	25-1	32R1	412	159	3634x	416	410	9	44-1-1
1	4232	4232R	N/A	428	37-3	415-3xx	4273x	25-1	32R1	422	58	361x	429	420	9	44-1-1
1-1/4	4332	4332R	N/A	438	37-2	415-3xx	4373x	25-1	32R1	432	434	36114x	439	430	9	44-1-1
1-1/2	4432	4432R	N/A	448	37-2	415-3xx	4473x	25-1	32R1	442	93	36112x	449	440	9	44-1-1
2	4532	4532R	240x	458	37-2	415-3xx	4573x	25-1	32R1	452	176	362x	459	450	9	44-1-1
2-1/2	4632	4632R	2-42x	468	37-2	415-3xx	4673x	22-1	32R6	462	102	36212x	469	460	9	44-1-1
3	4732	4732R	2-46x	478	37-2	415-3xx	4773x	22-1	32R6	472	474	363x	479	470	9	44-1-1



Valve Size	15 N.C. Nip	15a N.O. Nip	16 N.C. Coil Cover	16a N.O. Coil Cover	17 Coil	18 Coil Can
	Q-3V*	QR-3V*	Q-3V*	QR-3V*	BOTH	BOTH
1/8	1152	1153	89	89NO	Consult Factory or List Price Schedule	87
1/4	1152	1153	89	89NO		87
3/8	1152	1153	89	89NO		87
1/2	1152	1153	89	89NO		87
3/4	1152	1153	89	89NO		87
1	1152	1153	89	89NO		87
1-1/4	1152	1153	89	89NO		87
1-1/2	1152	1153	89	89NO		87
2	1152	1153	89	89NO		87
2-1/2	1152	1153	89	89NO		87
3	1152	1153	89	89NO	87	

Valve Size	CV Factor	Valve Dimensions							
		N. C.				N. O.			
		A	B	C	wt lbs	A	B	C	wt lbs
1/8	2.9	6.31	5.5	2.75	3	7.31	6.5	2.75	4
1/4	2.9	6.31	5.5	2.75	3	7.31	6.5	2.75	4
3/8	3.6	6.31	5.5	2.75	3	7.31	6.5	2.75	4
1/2	3.6	6.31	5.5	2.75	3	7.31	6.5	2.75	4
3/4	6.8	6.69	5.7	3.25	4	7.69	6.7	3.25	4
1	11.5	7.0	5.83	3.81	5	8.0	6.83	3.81	5
1-1/4	18.0	7.7	6.3	4.25	6	8.7	7.3	4.25	7
1-1/2	26	8.27	6.64	4.88	8	9.27	7.64	4.88	9
2	48	8.88	6.94	5.88	13	9.88	7.94	5.88	14
2-1/2	75	9.63	7.3	7.00	18	10.63	8.3	7.00	18
3	100	10.6	7.8	8.25	27	11.6	8.8	8.25	27

* Also for -3B, -3EP, & -3T Valves

1" Type QR-3V

Valve Size	1b N.C. XP Bonnet Assembly	1c N.O. XP Bonnet Assembly	7b N.C. XP Pilot Assembly	7c N.O. XP Pilot Assembly	20 Coil Endplates	21 Coil Spring	22 N.C. XP Cover	N.O. XP Cover	23 XP Bolts	XP Washers	24 XP Base
	Q-3V-2*	QR-3V-2*	Q-3V-2*	QR-3V-2*	Q-3V-2* QR-3V-2*	Q-3V-2* QR-3V-2*	Q-3V-2*	QR-3V-2*	Q-3V-2* QR-3V-2*	Q-3V-2* QR-3V-2*	Q-3V-2* QR-3V-2*
1/8	4032XP	4032RXP	22-1	P32R6	113	37-2	42NC	42NO	9-4	46-3	41A
1/4	4032XP	4032RXP	22-1	P32R6	113	37-2	42NC	42NO	9-4	46-3	41A
3/8	4032XP	4032RXP	22-1	P32R6	113	37-2	42NC	42NO	9-4	46-3	41A
1/2	4032XP	4032RXP	22-1	P32R6	113	37-2	42NC	42NO	9-4	46-3	41A
3/4	4132XP	4132RXP	22-1	P32R6	113	37-2	42NC	42NO	9-4	46-3	41A
1	4232XP	4232RXP	22-1	P32R6	113	37-2	42NC	42NO	9-4	46-3	41A
1-1/4	4332XP	4332RXP	22-1	P32R6	113	37-2	42NC	42NO	9-4	46-3	41A
1-1/2	4432XP	4432RXP	22-1	P32R6	113	37-2	42NC	42NO	9-4	46-3	41A
2	4532XP	4532RXP	22-1	P32R6	113	37-2	42NC	42NO	9-4	46-3	41A
2-1/2	4632XP	4632RXP	24-1	P32R7	113	37-2	42NC	42NO	9-4	46-3	41A
3	4732XP	4732RXP	24-1	P32R7	113	37-2	42NC	42NO	9-4	46-3	41A

size	A	B	C	wt
1/8	7	6.19	2.75	7
1/4	7	6.19	2.75	7
3/8	7	6.19	2.75	7
1/2	7	6.19	2.75	7
3/4	7.38	6.38	3.25	8
1	7.63	6.44	3.81	9
1-1/4	8.38	6.88	4.25	10
1-1/2	8.88	7.25	4.88	12
2	9.81	7.69	5.88	17
2-1/2	10.13	8.25	7	22
3	11.19	8.38	8.25	31

Physical Dimensions of Normally Closed Valves

The Explosionproof housing is constructed of two (2) machined, sand-cast gray iron parts bolted together, threaded onto the bonnet assembly and rigidly cemented in place. Once assembled the housing will *not* rotate. NEMA 4, NEMA 5, or NEMA 7 ratings are available with this housing.

* Also for -3B, -3EP, & -3T Valves

size	A	B	C	wt
1/8	8.13	7.31	2.75	8
1/4	8.13	7.31	2.75	8
3/8	8.13	7.31	2.75	8
1/2	8.13	7.31	2.75	8
3/4	8.50	7.50	3.25	8
1	8.75	7.56	3.81	9
1-1/4	9.50	8.00	4.25	11
1-1/2	10.00	8.38	4.88	13
2	10.94	8.81	5.88	18
2-1/2	11.25	9.38	7	22
3	12.31	9.50	8.25	31

Physical Dimensions of Normally Open Valves

