

**BrayLINE**  
ACCESSORIES

**SERIES 63** NEMA 4 & NEMA 4,4x,7,9  
SINGLE & DUAL COIL NPT & DIN  
CONVERTIBLE 3-WAY & 4-WAY

**SOLENOIDS**  
PILOT OPERATED SPOOL CONTROL VALVES

Far superior in performance when compared to the commonly used poppet type valves, the rugged Series 63 delivers long, trouble-free service.

**FEATURES**

Bray Controls offers the high flow Brayline Series 63 Solenoid Valve. The compact, modular, pilot operated spool control valve is convertible from 3-Way (3/2) to 4-Way (5/2). These units can be used with either spring return or double acting actuators where on/off electrical operation is required. Three standard coil housings/connectors are available: General Purpose Watertight (NEMA 4,4x) and Explosion Proof (NEMA 4,4x,7&9) units have 1/2" NPT connections, and IP65 DIN units have cable gland PG9 connectors. All housings types are offered with single or dual coils. The coils are UL recognized and CSA certified. All Series 63 solenoids carry the CE mark.

**MANUAL OVERRIDE**

Each unit contains as standard a mechanical manual override located on the solenoid valve block. In the event of electrical power failure, overriding is simply a matter of rotating the manual override screw which will divert the air from one chamber of the pneumatic actuator to the other.

**DIRECT MOUNTING**

Meeting NAMUR (VDI/VDE 3845) standards, all Brayline Series 63 solenoid valves direct mount to the integral porting system of Bray Series 92/93 pneumatic actuators. No external piping is required. Bray's direct mounting permits quick and simple field installation.

**SERIES 55 SPEED CONTROL**

Speed controls that allow independent control of speed in both directions of actuator travel are optionally available.

**CONVERTIBLE 3 & 4 WAY**

Solenoid is shipped with both 3-Way (marked 3/2) and 4-Way (marked 5/2) flow plates, flow gaskets, O-rings that mount between flow plate and actuator, and mounting bolts.

**OPTIONS**

The Series 63 is available in the following options: stainless steel housings, low-powered units and intrinsically safe units. Intelligent, digital Bus solenoids are offered in DeviceNet and Profibus-PA protocols, and AS-I Interface solenoids with IP65 DIN/PG9 cable gland connectors are available. All direct mount to Bray pneumatic actuators.



# SPECIFICATIONS

## COIL HOUSINGS

Three standard coil housings are offered. The watertight (NEMA 4, 4x) housing offers a molded and potted coil with UL recognized components and CSA certification. The watertight and explosion proof (NEMA 4, 4x, 7, 9) housing is UL listed and C.S.A. certified for hazardous locations Class I, Div.1 (Groups A-D) and Class II, Div.1 (Groups E-G).

The IP65 DIN housing has UL recognized components and CSA certification.

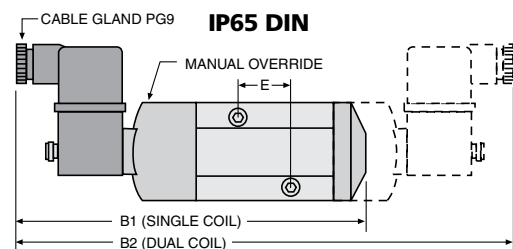
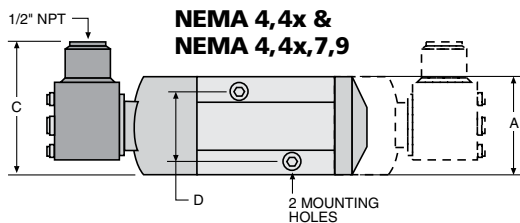
Standard solenoid valves are supplied as single coil units. Double coil units are also available for customers who require actuators to remain in last position during electrical power failure.

## VALVE DESIGN Pilot Operated Spool

## MEDIA Dry or lubricated air or inert gases

## SPRING RETURN ACTUATORS

The Series 63 Solenoid Valve fills the spring chamber with supply air rather than drawing air from the surrounding atmosphere. This keeps the spring chamber clean and dry, and improves the performance and service life of the actuator.



## ELECTRICAL CHARACTERISTICS

### COIL ELECTRICAL:

NEMA Housings:  
24, 120, 220, 240 Volts AC, 50-60 HZ  
6, 12, 24, 120 Volts DC, 50-60 HZ  
IP65 DIN Housings:  
24, 120, 240 Volts AC, 50-60 HZ  
12, 24, 120 Volts DC, 50-60 HZ  
Insulation-Class F Coils Maximum  
Temperature Rating: 311°F (155°C)

### FLOW - 1/4" PIPE: $C_v = .7$

Flow = 30 scfm, 150 psi max.

**Note:** Bray S92/93 actuation times are very dependent on the flow capacity of their air supply. It is strongly recommended that only the Bray S63 high flow solenoid be used with the Bray S92/93 actuators. The use of smaller port solenoids, solenoid manifolds, small I.D. air supply tubing and/or extended lengths of tubing can significantly reduce the actuation time and/or the initial response to the command signal.

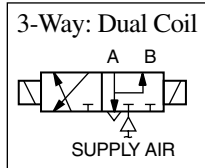
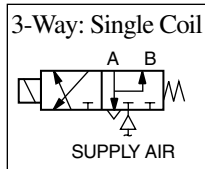
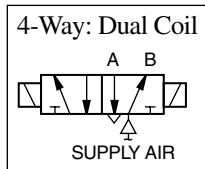
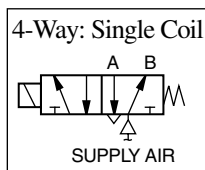
### NOMINAL POWER (Watts)

NEMA Housings: A.C - 6.3, DC - 6.9  
DIN Housing: A.C - 2.5, DC - 3.0

**OPERATING SPEED:** 10 cycles per minute - with more if needed

**DUTY CYCLE:** Continuous

## FLOW SCHEMATICS



## MECHANICAL CHARACTERISTICS

### MOUNTING:

NAMUR (VDI/VDE 3845), mountable in any position, hardware included

### MATERIALS:

Body: Anodized Aluminum  
Spring: Phosphate treated black steel  
Shading Coil: Copper  
Seals: NBR + PUR  
Core / Tube: Stainless / Brass  
End Covers & Plate: 6/6 gpsi filled polyamide (PA/FV)  
Spool: Aluminum  
Internal Parts: Zamak, Steel, Acetal

### PNEUMATIC PORTS: 1/4" NPT

### CONNECTIONS:

NEMA Housings: Electrical: 1/2" NPT  
DIN Housing: Electrical: Cable Gland PG9

### CONSTRUCTION:

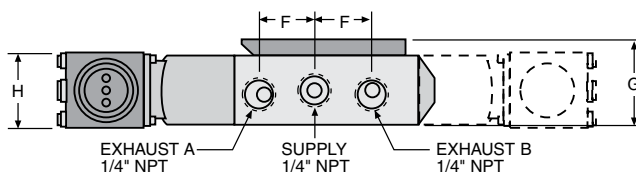
Standard construction is molded and potted coil with 18" leads, Class F Insulation. Other insulation classes available. The IP65 DIN coil and magnet structure are epoxy encased. Molded Cordsets and connectors are available for IP65 DIN coil housings, please consult Bray representative or factory for further information.

### NORMAL AMBIENT TEMPERATURE RANGE

NEMA Housings:  
AC: -13°F (-25°C) to +140°F (+67°C)  
DC: -13°F (-25°C) to +77°F (+25°C)  
DIN Housing: AC & DC:  
-13°F (-25°C) to +140°F (+67°C)

### OPTIONAL ENCLOSURE:

Low power, intrinsically safe DIN Housing, CENELEC (Ex d,m,em & i) listed.



## DIMENSIONS

Valve Size	Coil Housing	A	B1	B2	C	D	E	F	G	H
1/4"	NEMA 4, 4x	1.77	5.75	7.84	2.40	1.26	0.95	0.87	1.31	1.18
1/4"	NEMA 4, 4x, 7, 9	1.77	5.75	7.84	2.40	1.26	0.95	0.87	1.31	1.18
1/4"	IP65 DIN	1.77	6.28	8.90	2.82	1.26	0.95	0.87	1.31	—

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Bray Controls is certified to ISO 9001 standards.



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