



# 2-Way and 3-Way Technical Specs

### Mechanical Characteristics

Body: 303 Stainless Steel  
 Sleeve: Stainless Steel  
 Plunger: Stainless Steel  
 Seals: FKM (Viton™)  
 Shading Ring: Copper  
 Spring: Stainless Steel

### Standard Voltages & Part Number Codes:

12VDC	A
24VDC	B
24/60	E
110/50-120/60	F
220/50-240/60	G

### DC Media Temperature Range

\* 32°F (0°C) to 240°F (116°C)

*\* In the absence of moisture, applications as low as -20°F (-29°C) are possible.*

### Mounting

Any orientation is permissible

### Power Consumption

Power 8 to 10 Watts  
 See Page 6 for Coil details

### Compatible Fluids

Lubricated Air, non-Lubricated Air, Inert Gases, Water, Petroleum Products and additional fluids compatible with the materials of construction. Pressure ratings apply to all compatible fluids within stated temperature ranges.

### Electrical Characteristics

Encapsulated Coils are one piece molded units available with the choice of Flying Leads, ½" NPT Conduit, or DIN 43650A.

### Operating Characteristics

△ minimum 0  
 △ maximum see tables  
 Max. Fluid Viscosity (300 SSU)

### Optional Construction

Consult Fluid Control Division for alternate materials, alternate coil features including Class H 185°C , other voltage needs etc.

Conventional Coils are multiple piece units available with the coil as Flying Leads or ¼" Tabs plus the enclosure as Grommet or Yoke Frame as appropriate for the coil construction.

### Environmental Temperature Ranges

#### AC Ambient Temperature Range

\*32°F (0°C) to 135°F (57°C)

#### DC Ambient Temperature Range

\* 32°F (0°C) to 125°F (52°C)

#### Weight including Conduit Coil:

2-way normally closed 9oz/255g  
 3-way normally closed 10oz/284g

Class F 155°C is standard 100% Continuous Duty Rating

#### AC Media Temperature Range

\* 32°F (0°C) to 240°F (116°C)

#### Agency Approvals/Compliance



# 2-Way Series 204 Direct Acting Valves

ENGLISH UNITS						METRIC UNITS						
Port Size NPT	Orifice Size (in.)	Cv Factor	Operating Pressure Differential (psi) Maximum			Pressure Vessel Number	Orifice Size (mm)	Kv (m³/h)	Operating Pressure Differential (bar) Maximum			Const. Ref.
			Min.	Max. AC psi	Max. DC psi				Min.	Max. AC bar	Max. DC bar	
1/8	3/64	0.06	0	950	390	20CC02EV4	1.2	0.05	0	65	27	1
1/8	1/16	0.10	0	625	255	20CC02GV4	1.6	0.09	0	43	17.5	1
1/8	5/64	0.15	0	450	180	20CC02JV4	2.0	0.13	0	31	12.5	1
1/8	3/32	0.22	0	320	130	20CC02LV4	2.4	0.19	0	22	9	1
1/8	7/64	0.28	0	245	100	20CC02MV4	2.7	0.24	0	17	7	1
1/8	1/8	0.32	0	175	60	20CC02PV4	3.2	0.28	0	12	4	1
1/8	5/32	0.38	0	100	30	20CC02QV4	4.0	0.33	0	7	2	1

### NORMALLY CLOSED (NC)

1/8	3/64	0.06	0	950	390	20CC02EV4	1.2	0.05	0	65	27	1
1/8	1/16	0.10	0	625	255	20CC02GV4	1.6	0.09	0	43	17.5	1
1/8	5/64	0.15	0	450	180	20CC02JV4	2.0	0.13	0	31	12.5	1
1/8	3/32	0.22	0	320	130	20CC02LV4	2.4	0.19	0	22	9	1
1/8	7/64	0.28	0	245	100	20CC02MV4	2.7	0.24	0	17	7	1
1/8	1/8	0.32	0	175	60	20CC02PV4	3.2	0.28	0	12	4	1
1/8	5/32	0.38	0	100	30	20CC02QV4	4.0	0.33	0	7	2	1

### NORMALLY OPEN (NO)

1/8	1/32	0.02	0	375	375	20CF02AV4	0.8	0.02	0	26	26	2
1/8	3/64	0.06	0	230	230	20CF02EV4	1.2	0.05	0	16	16	2
1/8	1/16	0.10	0	150	150	20CF02GV4	1.6	0.09	0	10	10	2
1/8	5/64	0.14	0	105	105	20CF02JV4	2.0	0.12	0	7	7	2
1/8	3/32	0.20	0	80	80	20CF02LV4	2.4	0.17	0	5.5	5.5	2

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# 3-Way Series 304 Direct Acting Valves



Port Size NPT	ENGLISH UNITS								METRIC UNITS								Const. Ref.
	Body		Sleeve		Operating Pressure Differential (psi) Maximum			Pressure Vessel Number	Body		Sleeve		Operating Pressure Differential (bar) Maximum				
	Orifice Size (in.)	Cv Factor	Orifice Size (in.)	Cv Factor	Min.	Max. AC psi	Max. DC psi		Orifice Size (mm)	Kv (m <sup>3</sup> /h)	Orifice Size (mm)	Kv (m <sup>3</sup> /h)	Min.	Max. AC bar	Max. DC bar		

### NORMALLY CLOSED (NC)

1/8	1/32	0.02	1/32	0.02	0	250	250	30CC02AV4	0.8	0.02	0.8	0.02	0	17	17	3
1/8	3/64	0.05	3/64	0.05	0	200	200	30CC02EV4	1.2	0.04	1.2	0.04	0	14	14	3
1/8	1/16	0.09	1/16	0.10	0	130	130	30CC02GV4	1.6	0.08	1.6	0.08	0	9	9	3
1/8	5/64	0.15	5/64	0.14	0	90	90	30CC02JV4	2.0	0.13	2.0	0.12	0	6	6	3
1/8	3/32	0.19	3/32	0.20	0	75	75	30CC02LV4	2.4	0.16	2.4	0.17	0	5	5	3
1/8	7/64	0.25	3/32	0.20	0	50	50	30CC02MV4	2.7	0.22	2.4	0.17	0	3.5	3.5	3
1/8	1/8	0.32	3/32	0.20	0	40	40	30CC02PV4	3.2	0.28	2.4	0.17	0	3	3	3
1/8	5/32	0.38	3/32	0.20	0	25	25	30CC02QV4	4.0	0.33	2.4	0.17	0	1.5	1.5	3

### NORMALLY OPEN (NO)

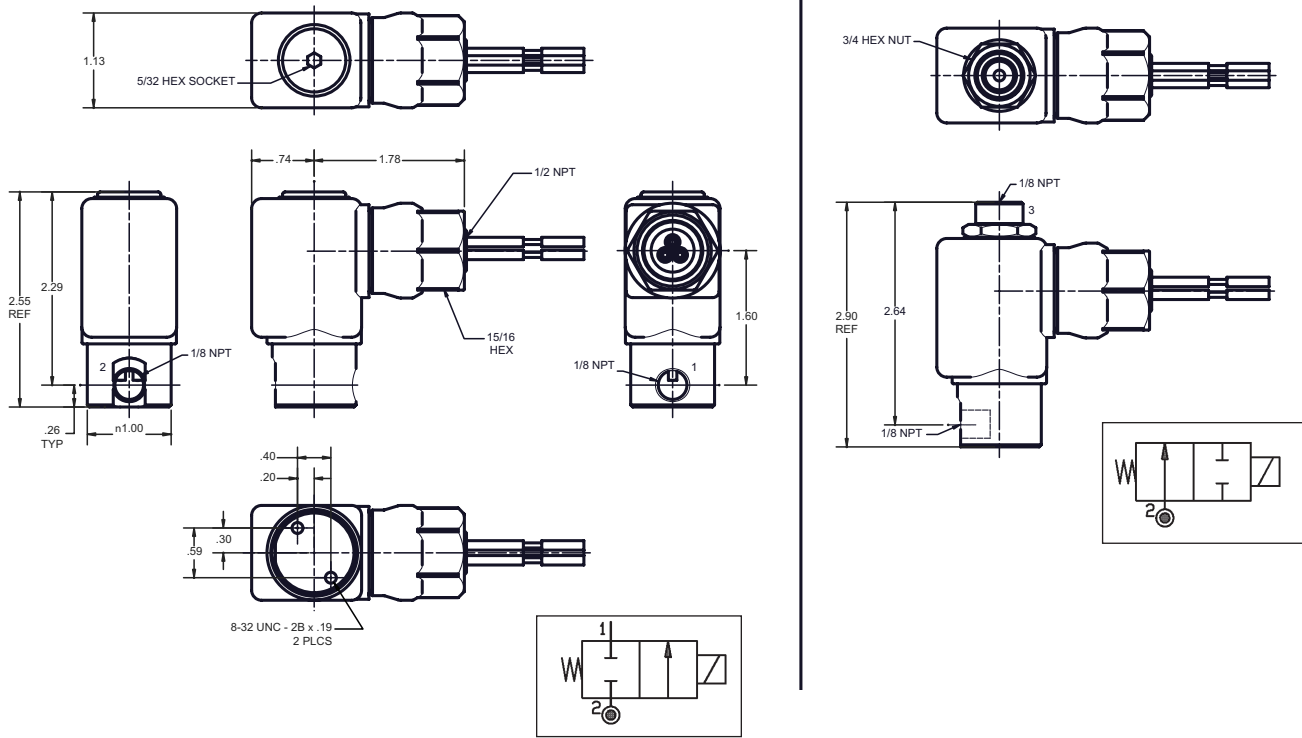
1/8	1/32	0.02	1/32	0.02	0	375	375	30CF02AV4	0.8	0.02	0.8	0.02	0	26	26	3
1/8	3/64	0.05	3/64	0.05	0	230	230	30CF02EV4	1.2	0.04	1.2	0.04	0	16	16	3
1/8	1/16	0.09	1/16	0.10	0	150	150	30CF02GV4	1.6	0.08	1.6	0.08	0	10	10	3
1/8	5/64	0.15	5/64	0.14	0	105	105	30CF02JV4	2.0	0.13	2.0	0.12	0	7	7	3
1/8	3/32	0.19	3/32	0.20	0	80	80	30CF02LV4	2.4	0.16	2.4	0.17	0	5.5	5.5	3

### UNIVERSAL (U)

1/8	1/32	0.02	1/32	0.02	0	200	200	30CU02AV4	0.8	0.02	0.8	0.02	0	14	14	3
1/8	3/64	0.05	3/64	0.05	0	150	150	30CU02EV4	1.2	0.05	1.2	0.04	0	10	10	3
1/8	1/16	0.09	1/16	0.10	0	100	100	30CU02GV4	1.6	0.08	1.6	0.08	0	7	7	3
1/8	5/64	0.15	5/64	0.14	0	70	70	30CU02JV4	2.0	0.13	2.0	0.12	0	5	5	3
1/8	3/32	0.19	3/32	0.20	0	50	50	30CU02LV4	2.4	0.16	2.4	0.17	0	3.5	3.5	3
1/8	7/64	0.25	3/32	0.20	0	40	40	30CU02MV4	2.7	0.22	2.4	0.17	0	3	3	3
1/8	1/8	0.32	3/32	0.20	0	30	30	30CU02PV4	3.2	0.28	2.4	0.17	0	2	2	3
1/8	5/32	0.38	3/32	0.20	0	20	20	30CU02QV4	4.0	0.33	2.4	0.17	0	1.5	1.5	3

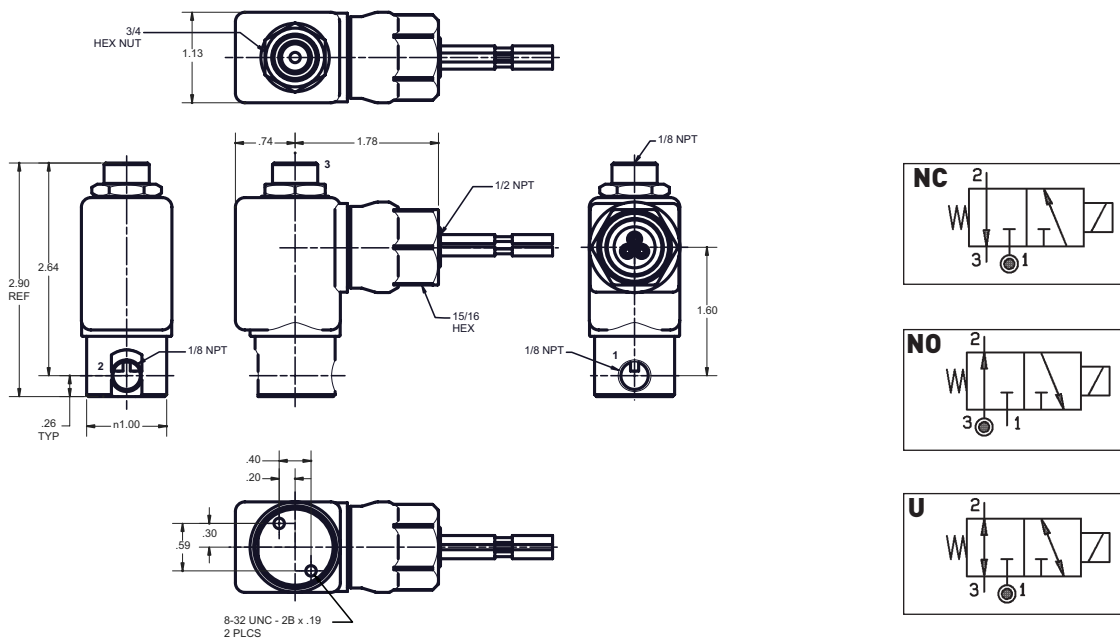


# Dimensional Drawings



**Construction Reference: 1**  
2-Way Normally Closed

**Construction Reference: 2**  
2-Way Normally Open



**Construction Reference: 3**  
3-Way Normally Closed (NC), 3-Way Normally Opened (NO) and 3-Way Universal (U)



# Coil Information

Encapsulated Watertight Designs. Available as Modular Coils or for Fully Assembled Valves.

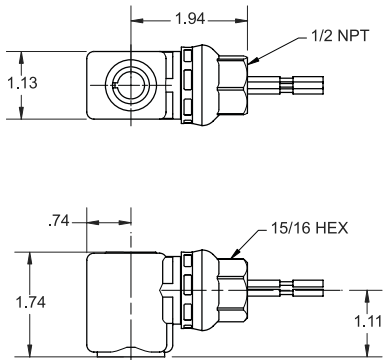
## Conduit Coil Coil Code: C4\*



Construction:

- Class F
- 18" lead wires
- Ground wire
- 1/2" NPT conduit hub
- NEMA 4X, IP65 protection

AC: 10 Watts **except 2 Way**  
Normally Closed is 8.5 Watts  
DC: 8 Watts



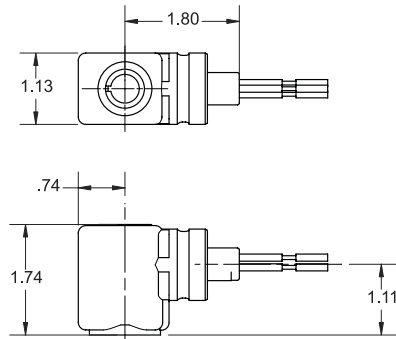
## Leaded Coil Coil Code: B4\*



Construction:

- Class F
- 18" lead wires
- Ground wire

AC: 10 Watts **except 2 Way**  
Normally Closed is 8.5 Watts  
DC: 8 Watts



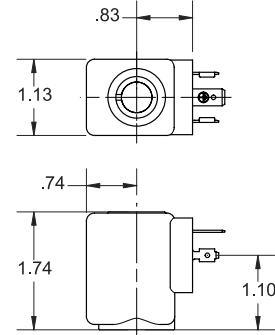
## DIN Coil Coil Code: D6\*



Construction:

- Class H
- DIN 43650A/ISO 4400 configuration
- NEMA 4X, IP65 protection with a suitable plug and gasket

AC: 10 Watts **except 2 Way**  
Normally Closed is 8.5 Watts  
DC: 8 Watts



# Coil Information

Conventional Coil & Enclosures for Fully Assembled Valves Only

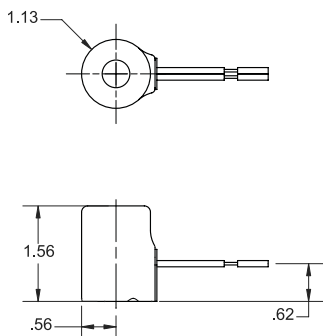
## Grommet Coil Coil Code: B2\*



Construction:

- Grommet enclosure
- Taped wrapped coil
- Class F
- 18" leads- 2 wire

AC: 7 Watts  
DC: 8 Watts



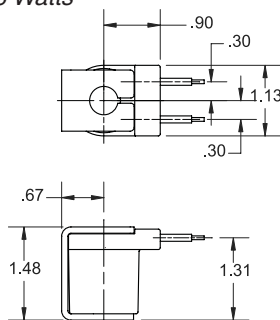
## Leaded Coil Coil Code: L2\*



Construction:

- Open frame enclosure
- Molded leaded coil
- Class F
- 18" leads- 2 wire

AC: 10 Watts **except 2 Way**  
Normally Closed is 8.5 Watts  
DC: 8 Watts



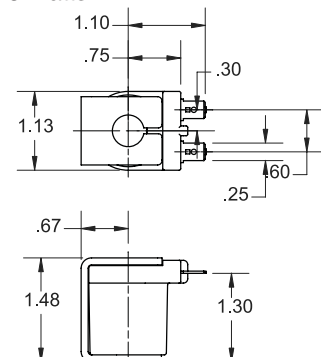
## Tab Coil Coil Code: T2\*



Construction:

- Open frame enclosure
- 1/4" tab terminals
- Class F

AC: 10 Watts **except 2 Way**  
Normally Closed is 8.5 Watts  
DC: 8 Watts



\* ADD VOLTAGE CODE: A= 12VDC B= 24VDC E= 24/60 F= 120/60, 110/50 G= 240/60, 220/50