

C Series – High Flow

- ▶ MOPD: 28 Bar (400 PSI)
- ▶ K_v Range: 0.016 to 0.357 (C_v Range: 0.019 to 0.420)
- ▶ 7 Watts

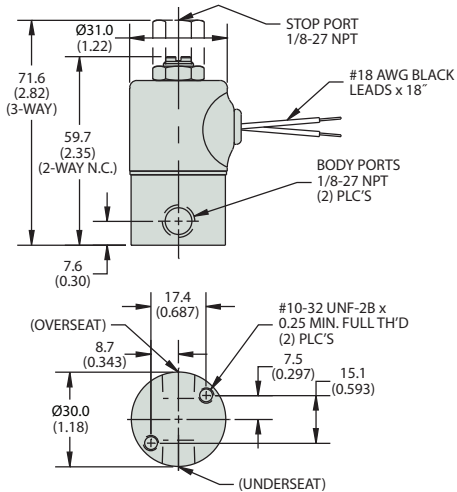
The C Series, available only in brass, is a highly durable miniature 2- or 3-way direct acting valve for applications that require a higher flow control. The C Series also utilizes a larger diameter body and larger port connections for higher K_v (C_v) valve rates. The free machining brass body allows for fast and precise machining, translating into lower product costs as compared to stainless steel. Design engineers appreciate the quality inherent in solid brass components.

Typical Applications

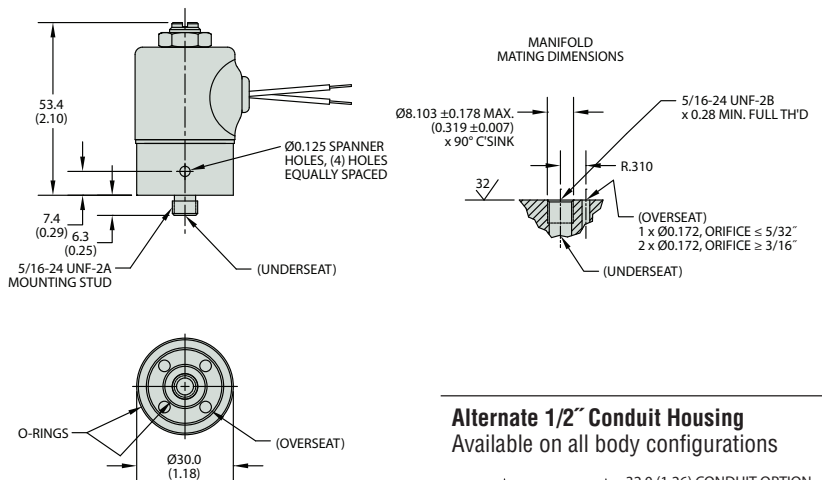
- Therapeutic Beds
- Automotive Applications
- Packaging Equipment

Dimensions

Threaded Port Body

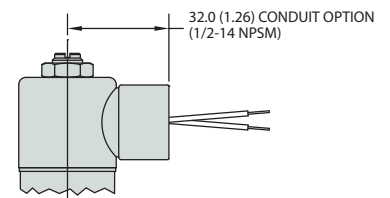


Manifold Mount Body



Alternate 1/2" Conduit Housing

Available on all body configurations



Materials

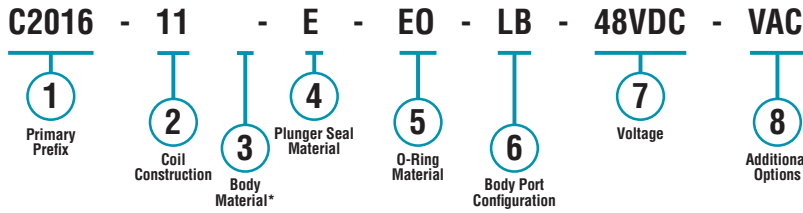
Body	Brass
Guide Assembly	430FR, 304, 430FR S.S. (2-way N.C.) 303, 430FR S.S. (2-way N.O. & 3-ways)
Adapter	430F S.S.
Plunger	430FR S.S.
Return Spring	302 S.S.
Shading Ring	Copper
Plunger Seals	Nitrile
O-Rings	Nitrile



CE
Contact Gems for UL and CSA approved options

How To Order

Use the **Bold** characters from the choices listed on the following page to construct a product code.



* Blank entry indicates a "Standard" selection (Brass, in this case).

Example:

C2016-11-E-EO-LB-48VDC-VAC

2-Way N.C. solenoid valve, with tape-wrapped coil, Class-H, lead-wires, brass body, EPR plunger seal, EPR o-ring, 1/4-18 NPT female thread, operating at 48 VDC, and includes a vacuum application (0 to 1000mBar (0 to 29.5" Hg)) option.

Part Prefix Table ①

	Orifice				MOPD		K _v		C _v		① Primary Prefix	
	Body		Stop		bar	psig	Body	Stop	Body	Stop	Grommet Housing	Conduit Housing
	mm	inches	mm	inches								
2-WAY N.C.	1.59	1/16	—	—	28	400	0.068	—	0.080	—	C2011	C2021
	2.78	7/64	—	—	14	200	0.153	—	0.180	—	C2012	C2022
	3.18	1/18	—	—	10	150	0.204	—	0.240	—	C2013	C2023
	3.97	5/32	—	—	6.9	100	0.255	—	0.300	—	C2014	C2024
	4.76	3/16	—	—	5.2	75	0.306	—	0.360	—	C2015	C2025
	5.56	7/32	—	—	2.8	40	0.357	—	0.420	—	C2016	C2026
2-WAY N.O.	—	—	0.79	1/32	28	400	—	0.016	—	0.019	C2211	C2221
	—	—	1.19	3/64	21	300	—	0.034	—	0.040	C2212	C2222
	—	—	1.59	1/16	14	200	—	0.064	—	0.075	C2213	C2223
	—	—	1.98	5/64	10	150	—	0.089	—	0.105	C2214	C2224
3-WAY N.C. Free Vent	1.59	1/16	1.59	1/16	8.6	125	0.068	0.064	0.080	0.075	C3011	C3021
	1.98	5/64	1.98	5/64	6.9	100	0.089	0.089	0.105	0.105	C3012	C3022
	3.18	1/8	1.98	5/64	3.4	50	0.204	0.089	0.240	0.105	C3013	C3023
	4.76	3/16	1.98	5/64	1.7	25	0.306	0.089	0.360	0.105	C3014	C3024
	5.56	7/32	1.98	5/64	1000 mbar	VAC	0.357	0.089	0.420	0.105	C3015	C3025
3-WAY N.C. Line Connection	1.59	1/16	1.59	1/16	8.6	125	0.068	0.064	0.080	0.075	C3111	C3121
	1.98	5/64	1.98	5/64	6.9	100	0.089	0.089	0.105	0.105	C3112	C3122
	3.18	1/8	1.98	5/64	3.4	50	0.204	0.089	0.240	0.105	C3113	C3123
	4.76	3/16	1.98	5/64	1.7	25	0.306	0.089	0.360	0.105	C3114	C3124
	5.56	7/32	1.98	5/64	1000 mbar	VAC	0.357	0.089	0.420	0.105	C3115	C3125
3-WAY N.O.	1.59	1/16	1.59	1/16	8.6	125	0.068	0.064	0.080	0.075	C3211	C3221
	1.98	5/64	1.98	5/64	6.9	100	0.089	0.089	0.105	0.105	C3212	C3222
	3.18	1/8	1.98	5/64	5.2	75	0.204	0.089	0.240	0.105	C3213	C3223
	4.76	3/16	1.98	5/64	3.4	40	0.306	0.089	0.360	0.105	C3214	C3224
	5.56	7/32	1.98	5/64	1000 mbar	VAC	0.357	0.089	0.420	0.105	C3215	C3225
3-WAY Multi Purpose	1.59	1/16	1.59	1/16	6.9	100	0.068	0.064	0.080	0.075	C3311	C3321
	1.98	5/64	1.98	5/64	5.2	75	0.089	0.089	0.105	0.105	C3312	C3322
	3.18	1/8	1.98	5/64	1.7	25	0.204	0.089	0.240	0.105	C3313	C3323
	4.76	3/16	1.98	5/64	0.7	10	0.306	0.089	0.360	0.105	C3314	C3324
	5.56	7/32	1.98	5/64	0.3	5	0.357	0.089	0.420	0.105	C3315	C3325
3-WAY Directional Control	1.59	1/16	1.59	1/16	10	150	0.068	0.064	0.080	0.075	C3411	C3421
	1.98	5/64	1.98	5/64	6.9	100	0.089	0.089	0.105	0.105	C3412	C3422
	3.18	1/8	1.98	5/64	3.4	50	0.204	0.089	0.240	0.105	C3413	C3423
	4.76	3/16	1.98	5/64	1.7	25	0.306	0.089	0.360	0.105	C3414	C3424
	5.56	7/32	1.98	5/64	0.3	5	0.357	0.089	0.420	0.105	C3415	C3425

② Coil Construction

(blank) = Class 130°C (B), tape-wrapped, lead-wires
– 45.7cm (18") long*

W = Lead-wires, non-standard length (specify in centimeters)

10 = Externally rectified (AC voltage and lead-wires only)

1 = Class 130°C (B), encapsulated, lead-wires

4 = Class 130°C (B), encapsulated, 6.35mm (1/4")
spade terminals – 4.76mm (3/16") spade optional

HC2 = Class 130°C (B), encapsulated, 9.4mm DIN
(EN175301-803 Style C Industrial 2+1 poles)

2M = Class 155°C (F), over-molded, lead-wires

5M = Class 155°C (F), over-molded, 6.35mm (1/4")
spade terminals

11 = Class 180°C (H), tape-wrapped, lead-wires

3 = Class 180°C (H), encapsulated, lead-wires

3M = Class 180°C (H), over-molded, lead-wires

6M = Class 180°C (H), over-molded, 6.35mm (1/4")
spade terminals

③ Body Material

(blank) = Brass*

SB = 304 Stainless Steel

SB1 = 303 Stainless Steel

SB5 = 316 Stainless Steel

SBF = 430F Stainless Steel

④ Plunger Seal Material

(blank) = Nitrile*

E = EPR

GV = Gasoline Viton® (2-way N.C. only)

N = Neoprene

NS = Nitrile (NSF/FDA material)

PF = Perfluoroelastomer

R = Rulon® (2-way N.C. only)

T = PTFE

V = Viton®

⑤ O-Ring Material

(blank) = Nitrile*

EO = EPR

NO = Neoprene

NSO = Nitrile (NSF/FDA material)

PFO = Perfluoroelastomer

TO = PTFE

VO = Viton®

⑥ Body Port Configuration

(blank) = 1/8-27 NPT female thread*

LB = 1/4-18 NPT female thread

BD = #10-32 female straight thread

– 2-way N.C. only, max. orifice = 3.18mm (1/8")

LU = 1/4-19 BSPT female thread with #8-32 mounting threads
(2-way N.C. only)

OB = Omit body (operator style)

BO = Bottom under-seat port, female thread

RL = 90° porting - left hand

RR = 90° porting - right hand

MM4 = Manifold mount (5/16-24 UNF-2A mounting stud)¹

BS = Stop port, #10-32 female straight thread

⑦ Voltage²

— **VDC** = DC (specify voltage)

— **VAC** = AC (specify voltage; includes copper shading ring)

⑧ Additional Options

WM = Mounting bracket

TP = PTFE coated plunger

S = Silver shading ring

OC = Cleaned for oxygen use

VAC = Vacuum application – 0 to 1000 mBar (0 to 29.5" Hg)³

G1 = One-piece 303 Stainless Steel guide assembly

(standard on 2-way normally open and all 3-way valves)

G5 = One piece 316 Stainless Steel guide assembly

* Standard selection; will be used unless otherwise specified.
Standard selections are not referenced in final part number.

Notes

1. Teflon® o-ring not suitable for manifold mount.

2. Can be AC rectified without shading ring. Use coil construction Code 10.

3. For VAC option, a VAC rated valve will have vacuum rating of 1000mbar (29.5" Hg), a 0.7 bar (10 psi) rated valve will have vacuum rating of 690mbar (20.4" Hg) and a 0.3 bar (5 psi) rated valve will have vacuum rating of 345 mbar (10.2" Hg).