



# Miniature Solenoid Valves

G4 Series - G4 & G4c  
1/8" NPT | Cartridge



ENGINEERING YOUR SUCCESS.

# G4 Series

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1/8" NPT | Cartridge



## Introduction

### 1/8" NPT | CARTRIDGE-MOUNT

2-Way and 3-Way valves available in two compact forms: 1/8" NPT G4, or cartridge-mount G4c

## Features

### LONG LIFE

Proprietary internal corrosion resistance  
Life up to 20 million cycles\*  
Available water-tight solenoid coils\*\*  
Standard 303 stainless steel and FKM

### HIGH PERFORMANCE

Up to 950 psi operating pressure  
Up to 0.38 Cv flow factor  
Fast response times / cycle rates

### COMPACT & EFFICIENT

Miniature footprint, yet high performance  
Excellent direct current (DC) ratings  
Efficient power-to-performance ratio  
Cartridge design minimizes leak paths

\* demonstrated in laboratory conditions

\*\* NEMA 4, 4X; plus thermal shock-resistant technology



## Benefits

### MORE DESIGN FREEDOM

Develop more compact machines without compromising fluid control performance.

A compact design that doesn't sacrifice performance; G4 and G4c valves deliver industry-leading pressure and flow characteristics and give OEMs more design freedom, even in tight design envelopes.

G4c cartridge valves are easily integrated into OEM equipment, minimizing design complexity, leak paths, and optimizing total cost of ownership.

### TRUSTED SAFETY & RELIABILITY

UL approvals for US and Canada, life up to 20 million cycles\*, available NSF 169 certified models, a corrosion-resistant construction, water-tight solenoid coils, and various specialty configurations help OEMs deliver reliable solutions to market.

### FASTER PRODUCT DEVELOPMENT

Agency approvals, flexible electrical options, modular design scheme, and Parker's vast global network facilitate expedited development and approval cycles for OEMs. G4 Series is designed and assembled in USA and available globally.

## WARNING

The products described in this catalog can expose you to chemicals, including Lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.p65warnings.ca.gov](http://www.p65warnings.ca.gov).

# Small, but Mighty

Economical G4 and G4c valves deliver durability and reliability in a compact, easy-to-integrate package

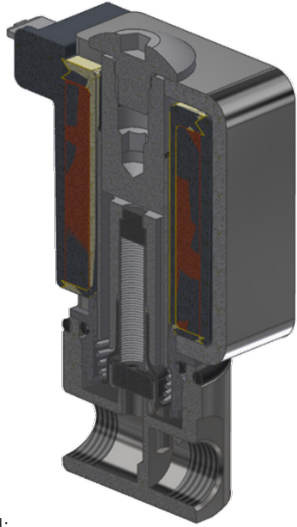
Diverse electrical connection and voltage options

No special tools required for maintenance

Short valve stroke for fast response time

Proprietary anti-corrosion flange design for media compatibility and life

NPT or cartridge standard; other options available for OEM needs



Standard 303 SS body

Water-tight\*\* solenoid coil options with integrated gland seals for moisture/thermal shock resistance

Laser-welded sleeve assembly for tight control of flow and consistent performance valve-to-valve, and over life cycle of valve

Standard FKM or NSF+ EPDM seals; diverse specialty seals available

Floating plunger seal design for self-adjusting, bubble-tight shutoff; up to 20 million cycles\*

CFD-optimized body footprint designed for optimal flow rates

Range	
Port Size	1/8"   Cartridge
Flow	Up to 0.38 Cv
Pressure	Up to 950 psi
Media Temp.	Up to 240 °F
Ambient Temp.	Up to 135 °F

**2-WAY | 3-WAY  
NORMALLY CLOSED  
NORMALLY OPEN  
UNIVERSAL  
NSF 169+**

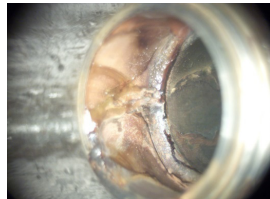
\* demonstrated in laboratory conditions  
 \*\* NEMA 4,4X; plus thermal shock-resistant technology  
 + available in NSF 169 certified configurations; consult factory

## Proprietary Corrosion-Resistant Design

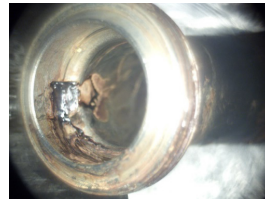
Enhanced internal corrosion resistance leads to better, cleaner, higher-performing OEM equipment.



Parker G4 Series



Other Valve A



Other Valve B



Other Valve C

| 720 hours salt spray - ASTM B117 |

## Online Resources



Configure,  
CAD, Manuals



Competitor Cross  
Reference



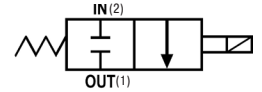
Locate a  
Distributor





# G4 Series - G4 & G4c - 2 Way

2-Way Normally Closed - Direct Acting - 303 SS

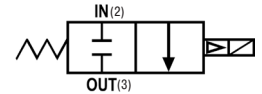


	Port Size	Orifice Dia.	Flow Factor Cv	Operating Pressure Differential (MOPD) psi				Max. Media Temp.	Seal Mat'l	Power AC / DC	Ordering No. Mechanical Prefix		Elect. Agency Suffix Chart
				Min	Air, Inert Gas	Water	Light Oil				°F	Watts	
<b>AC</b>	1/8	3/64	0.06	0	950	950	950	240	FKM	8.5	20CC02EV4	209CL5EV4	9 ■
	1/8	1/16	0.10	0	625	625	625	240	FKM	8.5	20CC02GV4	209CL5GV4	9 ■
	1/8	5/64	0.15	0	450	450	450	240	FKM	8.5	20CC02JV4	209CL5JV4	9 ■
	1/8	3/32	0.22	0	320	320	320	240	FKM	8.5	20CC02LV4	209CL5LV4	9 ■
	1/8	7/64	0.28	0	245	245	245	240	FKM	8.5	20CC02MV4	209CL5MV4	9 ■
	1/8	1/8	0.32	0	175	175	175	240	FKM	8.5	20CC02PV4	209CL5PV4	9 ■
	1/8	5/32	0.38	0	100	100	100	240	FKM	8.5	20CC02QV4	209CL5QV4	9 ■
Max. Ambient Temp. 135°F													
<b>DC</b>	1/8	3/64	0.06	0	390	390	390	240	FKM	8	20CC02EV4	209CL5EV4	9 ■
	1/8	1/16	0.10	0	255	255	255	240	FKM	8	20CC02GV4	209CL5GV4	9 ■
	1/8	5/64	0.15	0	180	180	180	240	FKM	8	20CC02JV4	209CL5JV4	9 ■
	1/8	3/32	0.22	0	130	130	130	240	FKM	8	20CC02LV4	209CL5LV4	9 ■
	1/8	7/64	0.28	0	100	100	100	240	FKM	8	20CC02MV4	209CL5MV4	9 ■
	1/8	1/8	0.32	0	60	60	60	240	FKM	8	20CC02PV4	209CL5PV4	9 ■
	1/8	5/32	0.38	0	30	30	30	240	FKM	8	20CC02QV4	209CL5QV4	9 ■
Max. Ambient Temp. 125°F													

■ Safety Shutoff: C-UL-US "Listed" with described seal material and conduit solenoid coil; C-UR-US "Recognized" in other coil configurations

# 2-Way Normally Open PIBOS - Direct Acting - 303 SS

PIBOS- Pressure In Body, Out Sleeve



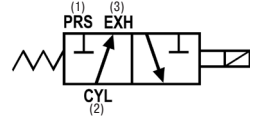
	Port Size	Orifice Dia.	Flow Factor Cv	Operating Pressure Differential (MOPD) psi				Max. Media Temp.	Seal Mat'l	Power AC / DC	Ordering No. Mechanical Prefix		Elect. Agency Suffix Chart
				Min	Air, Inert Gas	Water	Light Oil				°F	Watts	
<b>AC DC</b>	1/8	1/32	0.02	0	375	375	375	240	FKM	10 / 8	20CF02AV4	209FL5AV4	9 ●
	1/8	3/64	0.06	0	230	230	230	240	FKM	10 / 8	20CF02EV4	209FL5EV4	9 ●
	1/8	1/16	0.10	0	150	150	150	240	FKM	10 / 8	20CF02GV4	209FL5GV4	9 ●
	1/8	5/64	0.14	0	105	105	105	240	FKM	10 / 8	20CF02JV4	209FL5JV4	9 ●
	1/8	3/32	0.20	0	80	80	80	240	FKM	10 / 8	20CF02LV4	209FL5LV4	9 ●
Max. Ambient Temp. 135°F (AC), 125°F (DC)													

● General Purpose: C-UL-US "Listed" with described seal material and conduit solenoid coil; C-UR-US "Recognized" in other coil configurations



# G4 Series - G4 & G4c - 3 Way

## 3-Way Normally Closed - Direct Acting - 303 SS

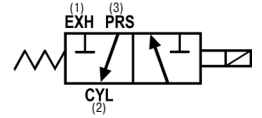


AC DC	Port Size	Orifice Dia. IN	Orifice Dia. IN	Flow Factor IN	Flow Factor EXH	Operating Pressure Differential (MOPD) psi				Max. Media Temp.	Seal Mat'l	Power AC / DC	Ordering No. Mechanical Prefix		Elect. Agency Suffix Chart
	NPT	Inch	Inch	Cv	Cv	Min	Air, Inert Gas	Water	Light Oil	°F		Watts	G4 Conventional	G4c Cartridge	
	1/8	1/32	1/32	0.02	0.02	0	250	250	250	240	FKM	10 / 8	30CC02AV4	309CL5AV4	9
1/8	3/64	3/64	0.05	0.05	0	200	200	200	240	FKM	10 / 8	30CC02EV4	309CL5EV4	9	●
1/8	1/16	1/16	0.09	0.10	0	130	130	130	240	FKM	10 / 8	30CC02GV4	309CL5GV4	9	●
1/8	5/64	5/64	0.15	0.14	0	90	90	90	240	FKM	10 / 8	30CC02JV4	309CL5JV4	9	●
1/8	3/32	3/32	0.19	0.20	0	75	75	75	240	FKM	10 / 8	30CC02LV4	309CL5LV4	9	●
1/8	7/64	3/32	0.25	0.20	0	50	50	50	240	FKM	10 / 8	30CC02MV4	309CL5MV4	9	●
1/8	1/8	3/32	0.32	0.20	0	40	40	40	240	FKM	10 / 8	30CC02PV4	309CL5PV4	9	●
1/8	5/32	3/32	0.38	0.20	0	25	25	25	240	FKM	10 / 8	30CC02QV4	309CL5QV4	9	●

Max. Ambient Temp. 135°F (AC), 125°F (DC)

- General Purpose: C-UL-US "Listed" with described seal material and conduit solenoid coil; C-UR-US "Recognized" in other coil configurations

## 3-Way Normally Open - Direct Acting - 303 SS

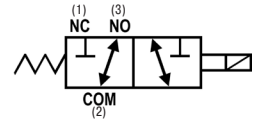


AC DC	Port Size	Orifice Dia. IN	Orifice Dia. IN	Flow Factor IN	Flow Factor EXH	Operating Pressure Differential (MOPD) psi				Max. Media Temp.	Seal Mat'l	Power AC / DC	Ordering No. Mechanical Prefix		Elect. Agency Suffix Chart
	NPT	Inch	Inch	Cv	Cv	Min	Air, Inert Gas	Water	Light Oil	°F		Watts	G4 Conventional	G4c Cartridge	
	1/8	1/32	1/32	0.02	0.02	0	375	375	375	240	FKM	10 / 8	30CF02AV4	309FL5AV4	9
1/8	3/64	3/64	0.05	0.05	0	230	230	230	240	FKM	10 / 8	30CF02EV4	309FL5EV4	9	●
1/8	1/16	1/16	0.10	0.09	0	150	150	150	240	FKM	10 / 8	30CF02GV4	309FL5GV4	9	●
1/8	5/64	5/64	0.14	0.15	0	105	105	105	240	FKM	10 / 8	30CF02JV4	309FL5JV4	9	●
1/8	3/32	3/32	0.20	0.19	0	80	80	80	240	FKM	10 / 8	30CF02LV4	309FL5LV4	9	●

Max. Ambient Temp. 135°F (AC), 125°F (DC)

- General Purpose: C-UL-US "Listed" with described seal material and conduit solenoid coil; C-UR-US "Recognized" in other coil configurations

## 3-Way Universal - Direct Acting - 303 SS







AC DC	Port Size	Orifice Dia. NC	Orifice Dia. NO	Flow Factor NC	Flow Factor NO	Operating Pressure Differential (MOPD) psi				Max. Media Temp.	Seal Mat'l	Power AC / DC	Ordering No. Mechanical Prefix		Elect. Agency Suffix Chart
	NPT	Inch	Inch	Cv	Cv	Min	Air, Inert Gas	Water	Light Oil	°F		Watts	G4 Conventional	G4c Cartridge	
	1/8	1/32	1/32	0.02	0.02	0	200	200	200	240	FKM	10 / 8	30CU02AV4	309UL5AV4	9
1/8	3/64	3/64	0.05	0.05	0	150	150	150	240	FKM	10 / 8	30CU02EV4	309UL5EV4	9	●
1/8	1/16	1/16	0.09	0.10	0	100	100	100	240	FKM	10 / 8	30CU02GV4	309UL5GV4	9	●
1/8	5/64	5/64	0.15	0.14	0	70	70	70	240	FKM	10 / 8	30CU02JV4	309UL5JV4	9	●
1/8	3/32	3/32	0.19	0.20	0	50	50	50	240	FKM	10 / 8	30CU02LV4	309UL5LV4	9	●
1/8	7/64	3/32	0.25	0.20	0	40	40	40	240	FKM	10 / 8	30CU02MV4	309UL5MV4	9	●
1/8	1/8	3/32	0.32	0.20	0	30	30	30	240	FKM	10 / 8	30CU02PV4	309UL5PV4	9	●
1/8	5/32	3/32	0.38	0.20	0	20	20	20	240	FKM	10 / 8	30CU02QV4	309UL5QV4	9	●

Max. Ambient Temp. 135°F (AC), 125°F (DC)

- General Purpose: C-UL-US "Listed" with described seal material and conduit solenoid coil; C-UR-US "Recognized" in other coil configurations

# G4 & G4c - Electrical Suffix

## Chart 9 Solenoid Coils

	Ordering No. Electrical Suffix	Voltage	Enclosure Electrical Termination	Enclosure Rating	Insulation Class
	D6A	12 VDC	Integrated DIN 43650A/ ISO 4400	NEMA 4, 4X + integrated gland seals	H
	D6B	24 VDC			
	D6E	24/60			
	D6F	120/60, 110/50			
	D6G	240/60, 220/50			
	C4A	12 VDC	Integrated 1/2" Conduit with 18" Leads	NEMA 4, 4X + integrated gland seals	F
	C4B	24 VDC			
	C4E	24/60			
	C4F	120/60, 110/50			
	C4G	240/60, 220/50			
	B4A	12 VDC	Integrated 18" Leads	integrated gland seals	F
	B4B	24 VDC			
	B4E	24/60			
	B4F	120/60, 110/50			
	B4G	240/60, 220/50			
	L2A	12 VDC	Open Frame 18" Leads	N/A	F
	L2B	24 VDC			
	L2E	24/60			
	L2F	120/60, 110/50			
	L2G	240/60, 220/50			
	T2A	12 VDC	Open Frame 1/4" Tab/ Spade	N/A	F
	T2B	24 VDC			
	T2E	24/60			
	T2F	120/60, 110/50			
	T2G	240/60, 220/50			

## Chart 9 Electrical Accessories



**DIN 43650A / ISO 4400 – Cable Gland**

**Ordering No.** ELECD1

Gasket Included




**DIN 43650A / ISO 4400 – 1/2" Conduit**

**Ordering No.** ELECD2

Gasket Included

# G4c - Manifolds

## Factory Manifolds for G4c Cartridge-Mount Valves

	Ordering No.	Stations	Flow Pattern	Material
	4C204	4	2 Way Normally Closed	303 Stainless Steel
	4C206	6		
	4A204	4	2 Way Normally Closed	6061-T6 Aluminum
	4A206	6		
	4A304	4	3 Way Normally Closed	6061-T6 Aluminum

CAD models available at [www.parker.com/fcd](http://www.parker.com/fcd) | G4c Cartridge Valve Manifolds

## Integrate G4c valves directly into your equipment

E-mail Parker FCD Technical Support/ Applications Engineering for cavity drawings and models!



FCD.Technical@support.parker.com

## Manifold Accessories

### Isolation Plug (5 pieces kit)



**Ordering No.** 4K008

Seals valve inlet and manifold outlet  
303 SS, FKM

### Sensor Port Adapter (5 pieces kit)



**Ordering No.** 4K009

Adapts to 1/4" NPT for accessories/ sensors  
303 SS, FKM

