















# Ultra Low Carryover Valve Series Miniature Liquid Valve





# **Ultra Low Carryover Valve Series**

"Smaller Size, Greater Precision - Parker's Miniaturized Ultra Low Carryover Valve Series"

# **Highlights**

#### **Maximized Outcomes**

Increased Throughput
Minimized Reagent Waste
Simplified Fluidic Circuit
Reduced Instrument Size
Optimized Crystallization Elimination



1-Channel Design

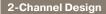
## **Cutting-Edge Technology**

Optimized Electromagnetic Circuit Patented Fluidic Path Design Friction Reducing Spring Design



## **Unmatched Performance**

Extended Reliability (50M Cycles)
Extremely Small Footprint
Enhanced Accuracy and Precision
Exceptional Response Time < 10ms
Reduced Carryover



## **Application Versatility**

45 psig Operating Pressure PEEK Body & FFKM/EPDM Seal 2, 3 and 4 Port Configurations Available Multiple Mounting Configurations 12 or 24 VDC Actuation



4-Channel Radial Design

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# **Product Specifications**

#### **Physical Properties**

Valve Type:
1-Channel, 2-Channel, & 4-Channel
Media: Liquid

## **Operating Temperature:**

39°F to 122°F (4°C to 50°C)

#### **Storage Temperature:**

-4°F to 158°F (-20°C to 70°C)

#### Weight:

1-Channel	0.69oz (19.6g)
2-Channel	1.19oz (33.7g)
4-Channel	2.56oz (72.5g)

#### Internal Volume (Port-to-Port µL):

	Face Seal	1/4-28
1-Channel	20.67	14.24
2-Channel	21.87	15.43
4-Channel		30.76

#### Internal Volume (Port-to-Seat µL):

	Face Seal	1/4-28
1-Channel	11.36	4.05
2-Channel	12.54	5.32
4-Channel		9.40

**Orifice Size:** 0.030" (0.76mm)

#### **Electrical**

Voltage (VDC):	12	24	
Power (Watts):	3.0	3.0	
Current (mA):	250	116	
Resistance (Ohms):	48	207	
Electrical Termination	Molex Series: #50-57-9402		

Note: For actuation exceeding 100ms Hit and Hold is required.

#### Wetted Materials

Seals: FFKM or EPDM

**Body: PEEK** 

#### Regulatory

**RoHS** directive (2002/95/EC) and REACH EC 1907/2006

#### **Performance Characteristics**

Leak Rate:			
0.150 sccm of Air			
Operating Pressure:			
45 psig (3.1 bar)			
Proof Pressure:			
120 psig (8.3 bar)			
Response Time:			
<2 ms at 2X rated Voltage			
<10 ms at rated Voltage			
<b>Recommended Filtration:</b>			

#### 16 μm

#### Reliability:

#### 1-Channel & 2-Channel:

10 Million Cycles 0.95 Reliability Factor 95% Confidence Interval

#### 4-Channel:

50 Million Cycles 0.90 Reliability Factor 90% Confidence Interval

## **Ordering Information**

ULC-	3	24	FF	3	R	F	-000
Series	Configurations	Voltage	Seal Manifold	Orifice	Mounting	Electrical Connection	Configuration
ULC-	2: 1-Channel	12: 12 VDC 24: 24 VDC	FF: FFKM EP: EPDM	3: 0.030" (0.76mm)	4: 1/4 - 28	F: Latching Connector	-000
ULC-	3: 2-Channel	12: 12 VDC 24: 24 VDC	FF: FFKM EP: EPDM	3: 0.030" (0.76mm)	4: 1/4 - 28	F: Latching Connector	-000
ULC-	5: 4-Channel	12: 12 VDC 24: 24 VDC	FF: FFKM EP: EPDM	3: 0.030" (0.76mm)	S: Panel Mount 1/4-28 R: Radial Body 1/4-28	F: Latching Connector	-000

Accessories		
Part Number	Description	
290-006061-005	19.5 in (495.3mm) Wire Extension with Flying Leads	
191-000112-417	18 - 8 Stainless Steel Mounting Screws, #2-56 x 3/4	
890-001198-001	1/4 - 28 Female Threaded Face Seal Manifold	

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#### Scan for more detailed information:



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#### Miniature Proportional Valves



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# Pressure and Flow Control



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# Customized Systems and Solutions

Our team of experienced engineers and technical support staff is dedicated to helping our customers find the right solutions for their specific needs. We work closely with our customers to understand their unique requirements and provide tailored solutions that meet their exact specifications.

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Parker Hannifin Corporation

Precision Fluidics Division
26 Clinton Drive
Hollis, NH 03049
Phone 603 595 1500
Fax 603 595 8080
Email ppf.support@support.parker.com
www.parker.com/ppf