



Ultra Low Carryover Valve Series

Miniature Liquid Valve



ENGINEERING YOUR SUCCESS.

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



2-Channel 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
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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
Recommended Filtration:
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:



Parker Hannifin Precision Fluidics Division

The Precision Fluidics Division of Parker Hannifin is a leading supplier of miniature fluidic components and system solutions integral to the world's life sciences, life safety and high technology markets. Our innovations allow people to get more out of life. Our product portfolio includes miniature pneumatic, proportional and liquid control valves, diaphragm pumps, thermal mass flow and electronic pressure controllers, high-precision regulators and rotameters.

Miniature Solenoid Valves



For more information about our miniature solenoid valve offerings, [visit our website](#).

Miniature Liquid Valves



For more information about our miniature liquid valve offerings, [visit our website](#).

Miniature Proportional Valves



For more information about our miniature proportional valve offerings, [visit our website](#).

Miniature Pumps



For more information about our miniature liquid valve offerings, [visit our website](#).

Pressure and Flow Control



For more information about our miniature liquid valve offerings, [visit our website](#).

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.

