Marine Fuel Selector Valves

Unique in design, the Marine Fuel Selector Valve permits continuous engine operation during tank switching from the helm.
Marine Fuel Selector Valves

For use with multiple gasoline or diesel fuel tanks

The Marine Selector Valve is manufactured with six ports for fuel return in diesel tanks and three ports for petrol, and comes with a two-year warranty. Constructed of aluminum, the new valve has a flow capacity of 180 GPH and fuel line connections of ½” Female NPT. Electrical specifications include a molded coil enclosure with yoke, 18” lead connections and 12 or 24 VDC voltage. Additionally, the valve can operate with a maximum ambient temperature of 77ºC (or 170°F) and a maximum media temperature of 71ºC (or 160°F). Maximum operating pressure differential is 0.2 bar when used with a 10 watt class F coil.

Why should you upgrade your boat to Parker’s new Marine Fuel Selector Valve?

**Innovative Design:**
Electronic fuel tank selection for boats with two fuel tanks.

**Safety:**
Remotely switch between two fuel tanks without shutting down the engine.

**Increased Convenience:**
Tank selection is controlled at the helm, no need to enter the engine compartment to switch a manual valve’s position.

**Added Security:**
Manual override is a standard feature, as a backup to electrical operation.

**Enhanced Comfort:**
Balance fuel levels in both tanks, aiding stability of the boat.
Introducing Parker Fluid Control's Marine Selector Valve

Applications

For use on multiple fuel tank applications that allows remote selection of desired fuel tank:

- Diesel and petrol fuel versatility
- Continuous engine function during tank switching
- Applications include: Engines, Generator sets and Cross Over Piping arrangements

Specifications

<table>
<thead>
<tr>
<th>Valve type</th>
<th>2 ways, NC with manual override</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kv Factor</td>
<td>1.93 m³/h</td>
</tr>
<tr>
<td>Orifice diameter</td>
<td>11.1 mm (7/16&quot;)</td>
</tr>
<tr>
<td>Process connection</td>
<td>1/2&quot; Female NPT</td>
</tr>
<tr>
<td>Electrical enclosure</td>
<td>Molded coil with yoke</td>
</tr>
<tr>
<td>Electrical connection</td>
<td>457 mm (18” Leads)</td>
</tr>
<tr>
<td>Voltage</td>
<td>12 VDC / 24 VDC</td>
</tr>
<tr>
<td>Power consumption</td>
<td>10 Watts</td>
</tr>
<tr>
<td>Current draw</td>
<td>0.83 A (10 watt coil)</td>
</tr>
<tr>
<td>MOPD</td>
<td>0.2 bar with 10 watt class F coil</td>
</tr>
<tr>
<td>Maximum ambient temp</td>
<td>77°C / 170°F</td>
</tr>
<tr>
<td>Maximum media temp</td>
<td>71°C / 160°F</td>
</tr>
<tr>
<td>Orifice seat material</td>
<td>FKM</td>
</tr>
<tr>
<td>Body material</td>
<td>Aluminium, 6061-T6</td>
</tr>
<tr>
<td>Internal leakage</td>
<td>2cc/minute</td>
</tr>
<tr>
<td>Warranty</td>
<td>2 years</td>
</tr>
<tr>
<td>Agency approvals</td>
<td>UL Marine (Petrol valve)</td>
</tr>
<tr>
<td>Weight</td>
<td>3 ports: 1.750 kg</td>
</tr>
<tr>
<td></td>
<td>6 ports: 4 kg</td>
</tr>
</tbody>
</table>

Product Availability

<table>
<thead>
<tr>
<th>Part number</th>
<th>Fuel type</th>
<th>Number of ports</th>
<th>Voltage</th>
<th>Watts</th>
</tr>
</thead>
<tbody>
<tr>
<td>7121Z027F1J111C1</td>
<td>Diesel</td>
<td>6</td>
<td>12 VDC</td>
<td>10</td>
</tr>
<tr>
<td>7121Z028F1J111C1</td>
<td>Petrol</td>
<td>3</td>
<td>12 VDC</td>
<td>10</td>
</tr>
<tr>
<td>7121Z027F1J111C2</td>
<td>Diesel</td>
<td>6</td>
<td>24 VDC</td>
<td>10</td>
</tr>
<tr>
<td>7121Z028F1J111C2</td>
<td>Petrol</td>
<td>3</td>
<td>24 VDC</td>
<td>10</td>
</tr>
</tbody>
</table>
Product Descriptions

- Electrically controlled fuel selector valve
- 3-port version for petrol systems
- 6-port version for diesel systems fitted with 0.34 bar check valve
- Safety shut-off valve, when no power is applied to the solenoids, the valve prevents flow from either tank
- Manual override to mechanically switch from tank to tank in case of power loss
- UL Marine Approval on petrol model
- ½” NPT plumbing connections

Dimensional Drawings and Piping Schematic for the petrol 3 port valve

3 ports Marine selector valve with common manual override.

Dimensional Drawings and Piping Schematic for the diesel 6 port valve

6 ports Marine selector valve with common manual override.

Weight: 1.750 kg

Weight: 4 kg
Functional Need

Provide remote, uninterrupted control of fuel when switching from one tank to another.

Eliminate the need to:

• Shut down the engine,
• Leave the helm,
• Change the position on the manual valve,
• Return to the helm,
• Prime and restart the engine.

Applications:

• Yachts typically 30’-70’ in length, and deep sea fishing boats,
• Fuel systems with crossover piping,
• A typical application would be for boats with two fuel tanks and one engine, or two fuel tanks and two engines.

Value to the boat owner:

The Parker Marine Fuel Selector Valve provides a safe, convenient method of switching between multiple tanks for engine fuel supply.
# Features and Benefits

## Features

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>The valve is electrically controlled by a switch, typically located at the helm.</td>
<td></td>
</tr>
<tr>
<td>The Parker Marine Fuel Selector Valve changes position in milliseconds.</td>
<td></td>
</tr>
<tr>
<td>The Parker Marine Fuel Selector valve is designed to meet or exceed the standards set by Underwriters Laboratories, Inc., for marine fuel equipment valves.</td>
<td></td>
</tr>
<tr>
<td>The 3-port petrol model of the Parker Marine Fuel Selector Valve is UL Marine Listed.</td>
<td></td>
</tr>
<tr>
<td>An easy to operate manual override is included in the valve design.</td>
<td></td>
</tr>
<tr>
<td>The Parker Marine Fuel Selector Valve has a flow capacity of 3 gpm at 0.2 bar of differential pressure.</td>
<td></td>
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<tr>
<td>The 3-port and 6-port models are CE labelled.</td>
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</tbody>
</table>

## Benefits

<table>
<thead>
<tr>
<th>Benefit</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>The boat operator is not required to leave the helm to select fuel tanks.</td>
<td></td>
</tr>
<tr>
<td>Instantaneous switching does not interrupt the flow of fuel from the tanks to the engine, so there is no need to shut down the engine while switching the fuel source from one tank to another.</td>
<td></td>
</tr>
<tr>
<td>The boat owner can have complete confidence in the quality of the design.</td>
<td></td>
</tr>
<tr>
<td>An independent testing lab has evaluated the product to confirm it meets specifications and standards.</td>
<td></td>
</tr>
<tr>
<td>The valve can be operated manually when necessary to either switch or shut down fuel flow.</td>
<td></td>
</tr>
<tr>
<td>Most boat engines used for 30 to 70 foot vessels are assured of adequate fuel flow.</td>
<td></td>
</tr>
<tr>
<td>A tangible &quot;passport&quot; document for the European market.</td>
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</tr>
</tbody>
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**WARNING - USER RESPONSIBILITY**

Failure or improper selection or improper use of the products described herein or related items can cause death, personal injury and property damage.

- This document and other information from Parker-Hannifin Corporation, its subsidiaries and authorized distributors provide product or system options for further investigation by users having technical expertise.
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Key Markets
- Aerospace
- Agriculture
- Construction machinery
- Food & beverage
- Fuel & gas delivery
- Industrial machinery
- Mobile
- Oil & gas
- Transportation
- Welding

Key Products
- Brass fittings & valves
- Diagnostic equipment
- Fluid conveyance systems
- Industrial hose
- PTFE & FPA hose, tubing & plastic fittings
- Rubber & thermoplastic hose & couplings
- Tube fittings & adapters
- Quick disconnects

FLUID & GAS HANDLING

HYDRAULICS
Key Markets
- Aerospace
- Agriculture
- Construction machinery
- Forestry
- Industrial machinery
- Mining
- Oil & gas
- Power generation & energy
- Truck hydraulics

Key Products
- Diagnostic equipment
- Hydraulic cylinders & accumulators
- Hydraulic motors & pumps
- Hydraulic systems
- Hydraulic valves & controls
- Power take-offs
- Rubber & thermoplastic hose & couplings
- Tube fittings & adapters
- Quick disconnects

AEROSPACE

CLIMATE CONTROL
Key Markets
- Agriculture
- Air conditioning
- Food, beverage & dairy
- Life sciences & medical
- Processing
- Transportation

Key Products
- Air preparation
- Compact cylinders
- Field bus valving systems
- Grippers
- Guided cylinders
- Manifolds
- Miniature fluids
- Pneumatic accessories
- Pneumatic actuators & grippers
- Pneumatic valves & controls
- Rodless cylinders
- Rotary actuators
- Tie rod cylinders
- Vacuum generators, cups & sensors

PNEUMATICS

ELECTROMECHANICAL
Key Markets
- Aerospace
- Factory automation
- Food & beverage
- Life science & medical
- Machine tools
- Packaging machinery
- Paper machinery
- Plastics machinery & converting
- Primary metals
- Semiconductor & electronics
- Textile
- Wire & cable

Key Products
- AC/DC drives & systems
- Electric actuators
- Controllers
- Gastronomy robots
- Gearheads
- Human machine interfaces
- Industrial PCs
- Inverters
- Linear motors, slides & stages
- Precision stages
- Stepper motors
- Servo motors, drives & controls
- Structural extrusions

PROCESS CONTROL

SEALING & SHIELDING
Key Markets
- Aerospace
- Chemical processing
- Consumer
- Energy, oil & gas
- Fluid power
- General industrial
- Information technology
- Life sciences
- Military
- Semiconductor
- Telecommunications
- Transportation

Key Products
- Dynamic seals
- Elastomeric o-rings
- EMI shielding
- Extruded & precision cut, fabricated elastomeric seals
- Homogeneous & inserted elastomeric shapes
- High temperature metal seals
- Metal & plastic retained composite seals
- Thermal management