Electronic Water Detection Systems

How They Work:

Racor offers a wide selection of water-in-fuel (WIF) detection systems, each designed for specific filter assemblies and installation requirements (see chart on other side).

**Water Probes**
Water probes simply provide metal pin tip entry into a water collection bowl. They contain no active electronics and require an external electronic detection module to detect water.

**Electronic Detection Modules**
Detection modules have internal electronics that pass a small current across special metal pins. When water bridges the pin tips, a solid state switch is activated allowing a larger current to flow to drive a light or provide a signal to an engine computer. Electronic detection modules will automatically reset once water is drained away from the probe tips.

Detailed instructions are supplied with every WIF sensor and electronic detection module.

Product Features:

- 1/2”-20 UNF threads with a SAE J1926 o-ring seal design.
- Probe tips are constructed of corrosion resistant material.
- Hermetically sealed to keep out moisture and fuel.
- Rugged and reliable.
- 12 or 24 volt versions available.
- Easy to install.

Contact Information:

Parker Hannifin Corporation
Racor Division
P.O. Box 3208
3400 Finch Road
Modesto, CA 95353

phone 800 344 3286
209 521 7860
fax 209 529 3278
racor@parker.com
www.parker.com/racor
www.parker.com/racorproducts
**WIF Probes**

**Specifications**

<table>
<thead>
<tr>
<th>Specifications</th>
<th>RK32262-02</th>
<th>RK 55484</th>
<th>56140</th>
<th>RK56140-01</th>
<th>Delphi Packard 12162000</th>
<th>Delphi Packard 12162000</th>
<th>Delphi Packard 12162000</th>
<th>N/A</th>
<th>Racor 22556</th>
<th>Yazaki 7283-7031-10</th>
<th>None</th>
<th>None</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mating Connector</td>
<td>None</td>
<td>Delphi Packard 12162000</td>
<td>Delphi Packard 12162000</td>
<td>Delphi Packard 12162000</td>
<td>N/A</td>
<td>Racor 22556</td>
<td>Yazaki 7283-7031-10</td>
<td>None</td>
<td>None</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thread Size</td>
<td>1/2&quot;-20 UNF</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Volts</td>
<td>12 or 24</td>
<td>12</td>
<td>12</td>
<td>12</td>
<td>12 or 24</td>
<td>12 or 24</td>
<td>12 or 24</td>
<td>12 or 24</td>
<td>12 or 24</td>
<td>12 or 24</td>
<td>12 or 24</td>
<td>12 or 24</td>
</tr>
<tr>
<td>Probe Tips</td>
<td>Beryllium Copper</td>
<td>Gold Plated Nickel</td>
<td>Beryllium Copper</td>
<td>Beryllium Copper</td>
<td>Beryllium Copper</td>
<td>Beryllium Copper</td>
<td>Beryllium Copper</td>
<td>Stainless Steel</td>
<td>Stainless Steel</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wire Length (L)</td>
<td>7.0 in. (17.8 cm)</td>
<td>8.0 in. (20.3 cm)</td>
<td>6.0 in. (15.2 cm)</td>
<td>6.0 in. (15.2 cm)</td>
<td>8.7 in. (22.1 cm)</td>
<td>8.0 in. (20.3 cm)</td>
<td>11.0 in. (27.9 cm)</td>
<td>8.0 in. (20.3 cm)</td>
<td>8.5 in. (21.6 cm)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internal Resistor</td>
<td>83K ohm</td>
<td>220K ohm</td>
<td>220K ohm</td>
<td>220K ohm</td>
<td>82.5K ohm</td>
<td>Amplifier</td>
<td>Amplifier</td>
<td>None</td>
<td>None</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Application</td>
<td>Cummins ISC03/ISC03</td>
<td>Cummins</td>
<td>John Deere</td>
<td>Cummins</td>
<td>Volvo, Freightliner</td>
<td>Hino</td>
<td>All</td>
<td>All</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Output</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>To Ground</td>
<td>To Ground</td>
<td>-</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Probe Tips**

- Beryllium Copper
- Gold Plated Nickel
- Beryllium Copper
- Beryllium Copper
- Beryllium Copper
- Beryllium Copper
- Stainless Steel
- Stainless Steel

**Application**

- Cummins ISC03/ISC03
- Cummins
- John Deere
- Cummins
- Volvo, Freightliner
- Hino
- All
- All

**Output**

- To Ground
- To Ground

**Additional Information**

- **Under-dash Module.** Light and sound when water is detected. Water must be drained to reset light and stop horn. Enclosure measures: 1.38” square x 1.25” deep.
- **Under-dash Module.** Light only. Green ‘ON’ lamp illuminates with power on. Red ‘DRAIN’ lamp illuminates when water is detected. Initial power-up self diagnosis feature and circuit protection included. Enclosure measures: 2.75” x 1” x 1.5”.
- **2” Gauge Module.** Light and audio. Red ‘DRAIN’ lamp illuminates and horn sounds when water is detected. Initial power-up self diagnosis feature and circuit protection included. Plastic case, satin black dial with white lettering.
- **2” Gauge Module.** Includes pre-set vacuum switch (7in.Hg.), connector and outlet adapter fitting. Red ‘DRAIN’ or ‘CHANGE FILTER’ lamp illuminate and horn sounds when water is detected. Water probe is not included.
- **Remote Detection Module.** Sends 12 or 24 vdc hot (+) signal when an input ground signal (from a water probe or a vacuum switch – not included) is received. Must be used with a relay to power a horn or indicator lamp (if draw is over 1 amp). Enclosure measures: 3” x 2.5” x .75”.
- **Under-dash Module.** Same as RK14329 but sends a ground (–) signal. Enclosure size is same as RK 20725.

**Electronic Water Detection Modules**

**Volts**

<table>
<thead>
<tr>
<th>Volts</th>
<th>RK 12870</th>
<th>RK 20725-24</th>
<th>RK 20726</th>
<th>RK 11-1570</th>
<th>RK 14329</th>
<th>RK 14321</th>
<th>RK 20725</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td></td>
<td>RK 12871</td>
<td>RK 20725</td>
<td>RK 20726</td>
<td>RK 11-1570</td>
<td>RK 14329</td>
<td>RK 14321</td>
</tr>
<tr>
<td>24</td>
<td>RK 12871</td>
<td>RK 20725-24</td>
<td>RK 20726</td>
<td>RK 11-1570</td>
<td>RK 14329</td>
<td>RK 14321</td>
<td></td>
</tr>
</tbody>
</table>

© 2009 Parker Hannifin Corporation 7699 Rev F (April 2009)