Surpassing the sensitivity of RF technology, VRF™ provides superior level detection. The VRF™ series uses Variable Radio Frequency to detect the presence or absence of material in a vessel by compensating for the load of the probe, as well as the load induced by vessel environment, and automatically determining the optimal operating frequency for the greatest sensitivity and stability. At initial start-up the sensor detects the characteristics of air (no load) and calibrates to it. If installed in material, when the load is reduced (material leaves probe), the VRF™ senses this change and automatically recalibrates to its new condition without the need of an operator or technician. The VRF-1000 Remote is ideal for high temperature and vibration applications.

Binder® manufactures an array of VRF™ probes, each tailored for specific applications. When combined with our large selection of probes, we have a VRF™ sensor for virtually every application. Please consult one of our representatives or call the factory for application assistance.

### Features and Benefits

**Opti-Sense™**

Uses variable radio frequency (VRF™) technology to determine the optimal operating frequency for greatest sensitivity and stability

**Wide Variety of Probe Options**

Unequaled application versatility

**Pro-Guard™**

Probe design ignores material build-up on probe

**EZ-Cal® II**

No initial manual calibration required

**Explosion Proof & Stainless Steel Enclosures Available**

Provides more options for a wide range of applications

**Captive Screws**

No lost screws

### How to Order

**VRF-1000 Remote**

<table>
<thead>
<tr>
<th>E</th>
<th>1</th>
<th>1</th>
<th>Enclosure Type</th>
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</thead>
<tbody>
<tr>
<td>G = General Purpose NEMA 4X</td>
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<tr>
<td>X = Explosion Proof NEMA 4X/7/9 FM and CSA</td>
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<tr>
<td>A = ATEX Approved Explosion Proof</td>
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</tbody>
</table>

**Enclosure Style**

1 = Round, with Screw on Cover

**Voltage**

A = AC 85-265 VAC
D = DC 9-36 VDC

**Electronics Version**

1 = Standard

**Electronics Assembly**

**VRF-1000 Series - Remote**

*Note 1: Sensor cannot be more than 25 feet (8m) from electronics.*

**How to Order**

**VRF-1000 Series - Remote**

<table>
<thead>
<tr>
<th>P</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>Enclosure Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>G = General Purpose NEMA 4X</td>
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<td>X = Explosion Proof NEMA 4X/7/9 FM and CSA</td>
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<tr>
<td>S = Stainless Steel type 304 NEMA 4X</td>
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<tr>
<td>A = ATEX Approved Explosion Proof</td>
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<tr>
<td>D = Dust Ignition Proof for Jumbo Probe only</td>
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</tbody>
</table>

**Probe Type**

0 = Standard Ryton®
1 = Standard Kynar® Coated (Max. Length 60" or 1.524mm)
2 = Food Grade Polysulfone
3 = Ceramic
4 = Stub Polysulfone
5 = Heavy Duty Ryton®
6 = Heavy Duty Kynar® Coated
7 = Dome Flush (Use “A” Configuration Only) (Specify Thickness) (See Note 2)
8 = Flush (Use “A” Configuration Only)
A = Armored Food Grade (Use “A” Configuration Only)
J = Jumbo (Use “A” Configuration Only) (Enclosure Type G or D Only)
T = Teflon® Jacketed Standard
U = Teflon® Jacketed Heavy Duty
M = Mini Ceramic

**Probe Assembly**

*Note 1: For 3A Sanitary Connection Add “3A” at end of the model code. Configuration “S” must be used and either Type 2” Food Grade probe or “Type 4” Stub probe.*

*Note 2: Thickness of probe must be specified, 3/8”, 1/2”, 5/8” or 3/4” wall thickness.*
Specifications

Universal Input Power: 85 VAC - 265 VAC
DC input power: 9 VDC - 36 VDC

Power: 3 watts

Output Relay: DPDT 6 amp @ 240 VAC, 6 amps @ 30 VDC, Minimum load 12V/100mA

Temperature Range: -40° F to 158° F (-40° C to 70° C)

Sensitivity: Dip-switch selectable for 1pF, 2pF, 5pF or 10pF

Time Delay: Dip-switch selectable for 1, 4, 8 or 15 seconds

Fail Safe: High-Low level failsafe dip-switch

Calibration: Push-button, intelligent recalibration

Remote Distance: Sensor can be installed up to 25 feet (8m) from electronics

Approvals: FM and CSA listed for non-hazardous and hazardous locations Class I, Groups C, D; Class II, Groups E,F, G (pending) - enclosure types NEMA 4X/7/9

Dimensions

![Dimensions Diagram]

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