FEATURES

- Self contained unit with oil level sensor and integral solenoid to manage oil level supply
- Hall-effect sensor for precise measurement of oil level
- Alarm and status indication by LEDs
- SPDT output contact for compressor shutdown or alarming
- Easy installation by sightglass replacement
- Adapters suitable for various types of compressors including conventional and scroll compressors
- Signal generated by gravity based float – not prone to errors from foaming like optical sensors
- Sacrificial magnet for reliable operation

SAFETY INSTRUCTIONS

WARNING: Before opening any system, make sure the pressure in the system is brought to and remains at atmospheric pressure. Failure to comply can result in personal injury and/or system damage.

WARNING: The OMB/C operates by using a strong magnetic sensor. It is important to keep the control free of any steel or iron particles which could accumulate on it during installation. These may hamper or prevent the control from operating.

1. Read installation instructions thoroughly. Failure to follow instructions may result in product failure, system damage, or personal injury.
2. Do not open system under pressure.
3. Ensure supply voltage is within specified OMB/C limits.
4. Disconnect supply voltage from system/OMB/C before installation/service. Comply with local electrical regulations when wiring OMB/C.
5. Do not exceed maximum working pressure.
7. Work should be performed by qualified service personnel or a licensed contractor.

SPECIFICATIONS

<table>
<thead>
<tr>
<th>Feature</th>
<th>OMB</th>
<th>OMC</th>
<th>OMC NH₃</th>
<th>OMC CO₂</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Working Pressure</td>
<td>870 psig</td>
<td>1885 psig</td>
<td></td>
<td></td>
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<tr>
<td>Solenoid Min/Max OPD</td>
<td>0/350 psig</td>
<td>0/1450 psig</td>
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<tr>
<td>Supply Voltage</td>
<td>24V, 50/60 Hz</td>
<td>120V, 220-240V</td>
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<tr>
<td>Refrigerant Co2</td>
<td>EMF</td>
<td></td>
<td></td>
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<tr>
<td>Current Consumption</td>
<td>0.6 Amp (24V)</td>
<td>0.15 Amp (120V), 0.07 Amp (220-240V)</td>
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<tr>
<td>Time Delay for Low Level Signal</td>
<td>10 seconds</td>
<td></td>
<td></td>
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<tr>
<td>Time Delay After Setpoint Recovery</td>
<td>5 seconds</td>
<td></td>
<td></td>
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<tr>
<td>Alarm Delay Time (Including Alarm Contact)</td>
<td>120 seconds</td>
<td></td>
<td></td>
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<tr>
<td>Alarm Switch</td>
<td>SPDT</td>
<td></td>
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<tr>
<td>Alarm Contact Rating</td>
<td>10A @ 120VAC 50/60 Hz, 5A @ 250VAC 50/60 Hz, 3A @ 30VDC</td>
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<tr>
<td>Refrigerant Compatibility</td>
<td>Class A1 (incl. subcritical CO₂)</td>
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<tr>
<td>Refrigerant Temperature</td>
<td>-40°F to 180°F Maximum</td>
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<tr>
<td>Ambient Temperature - Storage</td>
<td>-40°F to 120°F Maximum</td>
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<tr>
<td>Ambient Temperature - Intermittent Duty</td>
<td>-40°F to 120°F Maximum</td>
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<tr>
<td>Oil Supply Fitting</td>
<td>1/4&quot; Male SAE</td>
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</table>

INSTALLATION INSTRUCTIONS

1. Read installation instructions thoroughly.
2. Assure that you have the appropriate mounting adapter kit for the compressor. See adapter kit instruction sheet (PA-00316) for choosing proper adapter and installation instructions.
3. O-ring replacement kit (KS-30368) can be used on the OMB, OMC, and W-OLC controls.
4. If replacement of OMB or OMC is required, replace like for like.
C. Disconnect the oil supply line. Note: A new one may need to be fabricated, or an adapter required, if replacing an OMB with an OMC.
D. Remove the flange mounting bolts which hold the control to the adapter and remove existing control.

9. Install supplied O-ring in the O-ring groove of the new control. Remove "knockout plugs" from the junction box or electrical enclosure of the new control.

On OMC units installed with adapter kits, install injection tube per diagram – note that it installs at a slight angle (Figure 2). Thread tube in hand tight and tighten ½ turn (20-30 in-lb) with a wrench or pliers.

10. With the solenoid off, mount and level the new control to existing adapter using 1/4 - 20 UNC-2A x 3/4" long bolts:
A. If replacing an OMB or an OMC, turn the ringed adapter flange approximately 1/4 turn counterclockwise to provide the correct three (3) hole alignment since the holes are not equidistant.
(Important: If the current adapter has an O-ring groove, replace with the correct adapter for the application - see catalog.)
B. If replacing an OMC CO₂, all five (5) holes between the adapter and control should be aligned correctly.
Be sure that the O-ring has not fallen out of the groove and tighten bolts evenly to 40 in.-lbs.

11. Reconnect the oil inlet line.

12. With pressure valved off, remove gauge manifold, cap ports, open service valves and check for leaks.

13. If reconnecting an OMB refer to step A, if connecting an OMC refer to step B
A. (OMB) Reconnect electrical power following color code and install solenoid coil and power plugs. Note: Do not energize solenoid coil before replacing on enclosing tube.
B. (OMC) Remove cover and refer to wiring schematic below to reconnect power following color codes. Replace cover and assemble screws to hand tight using #1 Phillips screwdriver. Note: Do not use electric screwdriver.

14. Check that the green LED is on. Yellow LED should come on after about 10 seconds.

15. Check that the solenoid is energized and that the control is filling.
   (Note: If crankcase does not fill in 2 minutes, the red LED should come on.) (Solenoid remains on to continue filling.) If the alarm trips before the crankcase is filled to ½ sight glass, remove power to oil control for several seconds and reinstall to reset alarm. If OMB, disconnect power by removing power plug. If OMC, refer to wiring schematic below. Compressor should then fill to 1/2 sight glass and yellow "fill" LED should go out.

16. Restart the compressor using the reverse procedure to shutting it down.

17. Recheck for leaks and repair if necessary.

Important: Injection tube is not used on reciprocating compressors where the control is mounted directly to the crankcase.

LED Codes When Lit:

Green – Power is supplied to OMB/C.
Yellow – Float sensor determined that the oil level has been below ½ sight glass for over 10 seconds. Fill solenoid has been activated.
Red (continually lit) – Oil level has remained below ½ sight glass for over two minutes after fill solenoid has been activated. Alarm has been activated and compressor is prevented from operating until oil level reaches ½ sight glass when alarm automatically resets.
Red (flashing) – There have been five auto reset alarms registered within a 30 minute period. Alarm circuit is now locked on and compressor locked off. Fill solenoid is de-energized. Alarm remains locked in until power lead is manually unplugged and again plugged back into device.

Note: OMB/C units used on scroll compressors require the use of an injection tube - this tube is shipped wired to the unit but not installed. It is to be screwed into the rear of the unit, and tightened hand tight plus one half turn (20-30 in-lb). When properly installed, the tube will be at a slight angle relative to the OMB/C. See figure 2 below.

Note: Use of crimp type wiring connectors is highly recommended. If wire nuts must be used, taping joint after assembly with electrical tape is required.