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Three & Four Zone Oil Leak Detection Alarm type ODS4-2



The ODS4-2 has been designed to monitor four independent zones for fuel oil leaks including but not limited to, Diesel, Heating and Hydraulic oils via optical sensors.

With no oil leaks being detected, the screen will display “The System is Clear No Alarms to Display”. When one of the detection sensor comes into contact with oil, the audible warning device will sound, the common alarm relay will close and the display will change to advise the sensor zone i.e. “OIL LEAK DETECTED AT ZONE 1”. A mute “Mute Alarm” button is provided to cancel the audible warning. The system will remain in this state until the Oil has been removed from the sensor. If more than one zones detects an oil leak at the same time, the display will latch on to the lowest numbered zone. Once muted, the display will latch onto the next zone in alarm and start the audible warning device again requiring the “Mute Alarm” button to be pressed again. When the system is clear from alarms, the screen back light will turn off. Once the unit detects an oil leak the backlight it will automatically turn on and remain on until the leak has been cleared. A “Screen Light” push button has been provided to allow the back light to be turned on when the system has no alarms to report and will automatically turn off again after five minutes.

Features

- * **The unit can be supplied as a 3 or 4 zone system**
- * **A maximum of two sensors can be fitted to each zone**
- * **Large back lit alpha numeric display**
- * **Internal Zone Alarm lamps**
- * **With the exception of mains power, all terminals are of the plug and socket type**
- * **On board audible warning device to alert local operators of a problem**
- * **Alarms latched until Mute operated**
- * **Common alarm relay contact for onward signalling to a BMS**
- * **Mains power fault relay contact for onward signalling to a BMS**
- * **Optional individual zone alarm relay contacts for onward signal to a BMS**
- * **Optional alarm output to a flashing Beacon**
- * **Optional alarm output to a flashing Beacon and Mutable Sounder**
- * **Optional SMS text messaging to two phone numbers**
- * **Optional battery backup**

The ODS4-2 as standard has a common alarm and common fault relay which can be used for onward signal to a Building Management Systems, telephone dialler or control systems. The unit if required can also be fitted with individual Alarm relays that will advise a BMS system which zone is in alarm. Battery backup for up to six hours can be provided, however if requested, longer backup times can be provided.

The sensor is housed in a stainless steel brackets and are available in wall or floor mounted versions. The mode of operation is the principle of total internal reflection. An LED and phototransistor are housed in a plastic (Polysulfone) dome. When no liquid is present, light from the LED is internally reflected from the dome to the photo-transistor. When a liquid covers the dome, the effective refractive index at the dome-oil boundary changes allowing some light from the LED to escape. Thus the amount of light received by the photo-transistor is reduced indicating the presents of a liquid.

Because CMR Electrical design and build all their own equipment in house, we are able to modify the standard design to suite customers requirements, if you need a special application please call or send an email.



Leak Sensor



Specification

Housing type	ABS, colour light grey similar to RAL7035
Mounting	Wall, flush or surface
Access into Housing	Bottom or bottom back
Size Standard unit	180mm wide x 180mm high x 80mm deep
Input power	50 Hz single phase 230VAC +10% - 6%
Burden	< 4VA
Power termination	Internal 3 way terminal block
Voltage to sensor	5VDC
Connections to sensor	Internal plug-in terminal block
Common Alarm output contacts	Changeover contact rated at 1 amp 30VAC/DC
Power Fault output contacts	Changeover contact rated at 1 amp 30VAC/DC
Individual Alarm output contacts	Changeover contacts rated at 1 amp 30VAC/DC
Display character size	White backlit 5.95mm high x 3.2mm wide