Monitors

Warden 4173EX
Hazardous Area Monitors

Description

The Warden 4173EX is a 100mm remote controlled monitor made from cast bronze (LG2, C83600). The monitor is powered by 24 VDC and the motors are housed in brass/bronze enclosures. Hazardous area certified to IECEx for Class 1, Zone 1 areas, IP66.

The Warden 4173EX is a direct wired monitor for Zone 1 and Zone 2 areas. This monitor can use either NF 8005RE-EX or NF 9005RE-EX fog nozzles as well as aspirating and Foam Lord Nozzles.
Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Recommended Flow:</td>
<td>7,500 lpm</td>
</tr>
<tr>
<td>Horizontal Rotation:</td>
<td>-250° + 250°</td>
</tr>
<tr>
<td>Vertical Movement:</td>
<td>-75° + 90°</td>
</tr>
<tr>
<td>Inlet Connection:</td>
<td>Flanged</td>
</tr>
<tr>
<td>Outlet Connection:</td>
<td>80mm BSP Male (optional 100mm for high performance)</td>
</tr>
<tr>
<td>Weight (approx):</td>
<td>39 kg</td>
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</tbody>
</table>

Design Features

To ensure maximum monitor availability for many years this monitor incorporates some key design features:

- Fully enclosed swivels
- Metal balls for swivel races
- All external parts are bronze, brass or stainless steel. No external aluminium or steel components are used, thus minimising any possible corrosion problems.
- Dust seal on swivels

The monitor comes with optional parking and automatic oscillation features. The Monitor also comes with a self-test feature and feedback on critical system parameters through a serial computer interface at the control panel.

Materials of Construction

- Waterway: Bronze Alloy
- Swivels: Bronze Alloy
- Inlet Flange: Bronze Alloy
- Balls: Brass
- Grease Nipples: 316 Stainless Steel
- Fasteners: 316 Stainless Steel
- Motor Housing: Brass/Bronze

Operation

The monitor motors include all necessary control electronics. The joystick controller directly controls the monitors. As an option, the monitor can be controlled over an RS-485 network using the Modbus protocol. The nozzle motor is controlled from the elevation motor controller.

The monitor travel limits are field adjustable within the ranges specified in the table below.
Connections

**Inlet:** 100mm flat-face flange bronze flanges, multi-standard
or 100mm ASME Class 150 raised face stainless steel flange
or 100mm ASME Class 150 Composite flanges with galvanised steel backing flange.
Multi-standard flanges can be used for Table E and ASME Class 150 connections.

**Outlet:** 80mm BSP

Options

These monitors can also be manufactured in a range of alternative bronze alloys including nickel aluminium bronze.

Performance Data

*Friction Loss Curve*

![Friction Loss Curve Graph](image)