Electro Mechanical Control & Monitoring System
Actionair Actionpac EMB Bespoke Electro-Mechanical Control and Monitoring System

Example Actionpac EMB Panel Shown
Introduction
The Actionpac EMB Control System, consists of a number of smoke/fire dampers hard wired individually or in groups to a central control panel. The dampers may be individually or collectively controlled and continuously monitored. Dampers and control modes may have differing control and monitoring requirements and therefore will be connected to the site wiring, which when installed by the contractor, shall provide the relevant specified functions.

Specification
The Actionair Actionpac EMB Control Panel typically consists of the appropriate number of switches to provide individual or group control, LED indication for status monitoring and all necessary relays and timers to comply with the customers needs for fully or semi-automatic damper operation.

Interface with the Fire Alarm panel is via volt-free contacts which are normally closed and open upon alarm, the Actionair Actionpac EMB damper control panel will then activate relevant dampers to their alarm status.

Actionair Damper Control Panels are purposely manufactured for any particular project to suit specific customer requirements.

Actionpac EMB, as supplied by Actionair

Product Features
• EMB Bespoke Damper control panels are purposely manufactured for any particular project to suit specific customer requirements.
• Dampers can be individually or collectively controlled and continually monitored.
• Wall mounted enclosures to IP55.
• Finished in RAL 7035.
• Custom engraved traffolyte fascia.
• LED indication of damper status.
• Zonal inputs.
• Door interlocking isolator.
• Miniature circuit breaker protection.

Commissioning
Actionair offers a comprehensive after sales service to include for precommissioning checks, complete commissioning service of all our products in line with and to encompass CIBSE guidelines and planned preventive maintenance visits.

For damper quantities in excess of 50, please refer to Actionair Actionpac LNS 60/120, or Actionair Actionpac LNS3 brochures on our website, or contact our Technical Sales Office.

Options
• Lockable glazed door.
• Special paint finish to BS standard colour reference numbers.
• Flush mounting flanges.
• Latching push buttons.
• Fireman's override key switches.
• Test switch.
• Lamp test.
• Audible alarm with mute facility.
• B.M.S common fault relay interface.
• B.M.S output.
• Delay timers.
• Battery backup.

Panel Enclosure Sizes

<table>
<thead>
<tr>
<th>No. of Dampers</th>
<th>Estimated Enclosure Size (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>W x H x D</td>
</tr>
<tr>
<td>1 - 4</td>
<td>400 x 400 x 210</td>
</tr>
<tr>
<td>5 - 8</td>
<td>400 x 400 x 210</td>
</tr>
<tr>
<td>9 - 12</td>
<td>500 x 500 x 210</td>
</tr>
<tr>
<td>13 - 16</td>
<td>500 x 500 x 210</td>
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<tr>
<td>17 - 20</td>
<td>600 x 600 x 210</td>
</tr>
<tr>
<td>21 - 30</td>
<td>600 x 600 x 210</td>
</tr>
<tr>
<td>31 - 40</td>
<td>600 x 800 x 210</td>
</tr>
<tr>
<td>41 - 50</td>
<td>800 x 800 x 210</td>
</tr>
</tbody>
</table>

Panel Enclosure Sizes

Specialist panels available
• Fan Control Panel
• Fireman’s Control Panel
• Mimic (Repeater) Panel
• Fire damper monitor (indication) panel

Accessories
DCB Damper Connection Box
For Control Modes. (Can be factory prewired to Control Mode, all voltages.)
Size: 100 x 100 x 50mm.

<table>
<thead>
<tr>
<th>Description</th>
<th>Voltage</th>
<th>Part Number Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>DCB</td>
<td>24V – 230V AC/DC</td>
<td>XNNN00312</td>
</tr>
</tbody>
</table>
Typical Actionpaca EMB Electro-Mechanical System Schematic

Incorporating SmokeShield PTC™ (Control Mode 5 illustrated)

For wiring and application details on the various Actionair damper and control options, please refer to relevant product brochure on our website at www.actionair.co.uk
Typical Network Schematic

1. SmokeShield PTC Control Mode (must specify if Mode 5 = 24 VAC or Mode 6 = 230 VAC). 1m flying leads supplied with mode.

2. Junction Box (by others) or Actionair DCB (Optional).

3. 2 core and 3 core site wiring (by others). Typically, 1.5mm² - 2.5mm² solid core wiring.
Other Actionpac Damper Control Systems

Electro Mechanical Systems

EMS - Standard
- Control and monitoring system.
- Actionpac Electro Mechanical smoke and fire damper control system.
- Automatic damper operation utilising relay logic and LED indication of damper status.
- Standard Modular Construction.
- LED indication of damper status.
- Mains isolator.
- Test/Normal/Override Keyswitch.
- Lamp test facility.
- 2 Versions (Mode 5 and Mode 6) available in 2 sizes from stock.

Features
- Dampers control panels are standard manufacture.
- Wall mount enclosures to IP20.
- Vinyl overlay facia.
- Damper Controlled in zone(s) and individually monitored.
- Top cable gland entry.
- Fire Interface required per zone.
- BMS common fault relay output per panel.
- Test/Normal/Override keyswitch.
- Keyswitch mains isolator.
- Lamp test.
- Hinged on Right.

Note:
Actionpac EMS (Standard) for up to 30 Dampers,
Actionpac EMB (Bespoke) less than 45 Dampers.

Our Addressable Systems cater for Damper quantities of 1 – 80 on Actionpac Lite 80 and 1 – 512 on Actionpac LSN4.
Actionpac Lite 80

The Actionpac Lite 80 system represents a new generation of standard cost effective damper control. The system has been designed with the user in mind, simplifying installation and commissioning of SmokeShield CE Marked ‘ES’ Rated Fire Dampers. The embedded PC operates on an embedded platform and utilises solid state technology for optimum reliability.

Actionpac LNS4

The Actionpac LNS4 system represents the latest evolution of damper control. The system has been designed with the user in mind, providing an advanced tool that simplifies installation and commissioning of dampers and peripheral devices. The embedded panel PC operates on an embedded platform and utilises solid state technology for optimum reliability. It’s server architecture delivers benefits such as reduced commissioning time, simplified operation and scope for future growth and flexibility.

Actionpac Lite 80 or Actionpac LNS4 are recommended when there are more than 30 smoke/fire dampers to be controlled and monitored. Refer to Actionpac Lite 80 or LNS4 brochure for full details.
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Due to policy of continuous product development the specification and details contained herein are subject to alteration without prior notice.