MACRON DATA SHEET

Description: Removable Electrical Actuator (0.25A) UL (Bridge Rectifier)

- **Location on System**
  Connected to the top of the container discharge valve (between valve and manual actuator) or pilot cylinder valve (between valve and manual actuator).

- **Installation Instructions**
  Mechanical installation: Install the electrical actuator onto the discharge valve hand tight only. Ensure the unit is reset in the non fire position (height from end of pin to base 4.8 to 5.2mm) before fitting.

  Electrical Installation: The electrical actuator is supplied with a DIN plug. Due to the design of the bridge rectifier, positive supply from control panel can be connected to either terminal 1 or 2 with the reverse for the negative supply. Nominal supply is 24v dc, maximum monitoring current 25mA.

- **Operating Instructions**
  The electrical actuator will operate after receiving a 24v dc nominal voltage signal from the panel. The electrical actuator will latch in the fire position after the signal terminates. The electrical actuator will require to be manually reset by removing the unit from the valve and inserting (screwing in) the reset tool.

- **Works Instructions**
  This is a purchased item and as such does not fall under any works instructions used in the manufacturing.

- **Maintenance Instructions**
  Remove actuator from valve assembly. Apply 24v dc and observe correct functionality (energised pin position 0.3mm to 0.5mm from base of actuator). Terminate supply voltage and reset electrical actuator by fitting (screwing in) plastic reset tool into base. Once reset, remove reset tool and reinstall on valve assembly. In case of faults or suspected faults contact the Macron customer services to organize replacement.

- **System Operating Conditions (temp range)**
  FM-200® 0°C (20.2bar) to 50°C (33.4bar),
  Sapphire® -20°C (20.2bar) to 50°C (28.6bar),
  Sapphire® -20°C (34.3bar) to 50°C (47.8bar),
  Nitrogen -20°C (43.2bar) to 50°C (50.1bar).

- **Functional Description**
  The electrical actuator is activated by a voltage signal from the control panel. The voltage signal de-energises the permanent magnet, allowing the spring to push and latch the actuator pin into the fire position. The electrical actuator can be reset using the supplied reset tool once the voltage signal is terminated.

<table>
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<tr>
<th>COMPONENT:</th>
<th>Removable Electrical Actuator (0.25A) UL</th>
<th>PART NO.</th>
<th>304.209.001</th>
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<td>DS03381</td>
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<td><strong>FM-200® &amp; SAPPHIRE® FIRE EXTINGUISHING SYSTEM</strong></td>
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</table>
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Description: Removable Electrical Actuator (0.25A) UL (Bridge Rectifier)

Specification:
- Body: Mild Steel
- Body Finish: Electroless Nickel Plate
- Actuation Pin: Stainless Steel
- Loose Nut: Brass C2121
- Retaining Circle: Beryllium Copper
- Actuation Type: Latching
- Reset Method: Manually via Reset Tool supplied
- Connection: 1"BSPP Brass
- Nominal Voltage: 24V dc
- Minimum Firing Voltage: 65% of Nominal Voltage (15.6V dc)
- Min / Nom / Max Current: 0.20A / 0.25A / 0.30A
- Min Duration of Trigger Signal: 1sec
- Max Monitoring Current: 25mA
- Manual Actuation Force: 50N
- Nominal Pin Travel: 4.4mm
- Electrical Connection: 3 pin PG 9.5 mm Hirschmann DIN plug connector
- Back EMF protection: Bridge Rectifier
- Working Temperature Range: Various (see system operating conditions)
- Weight: 0.99Kg
- Life Span: 10 years from manufacture
- Testing: 100% Check on start / finish position
- Max Humidity: 80 to 90% RH, non condensing
- Approvals: LPCRB, UL, FM
- Certification: EN12094-4
- CE Certification No: 0832-CFD-2046
- CE Body Certification No: 0832
- Year of CE Marking: 2008
- CE Marking Requirements: Bembrook Systems Limited, Serial No, 24 Vdc, 0.25 A, CE433

Force: 66.4N @ 1mm from Unactivated
Force: 66.7N @ 2mm from Unactivated
Force: 55.0N @ 3mm from Unactivated
Force: 49.3N @ 4mm from Unactivated

FM-200/NOVEC FIRE EXTINGUISHING SYSTEM
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