

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 (55.1bar).

- **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.

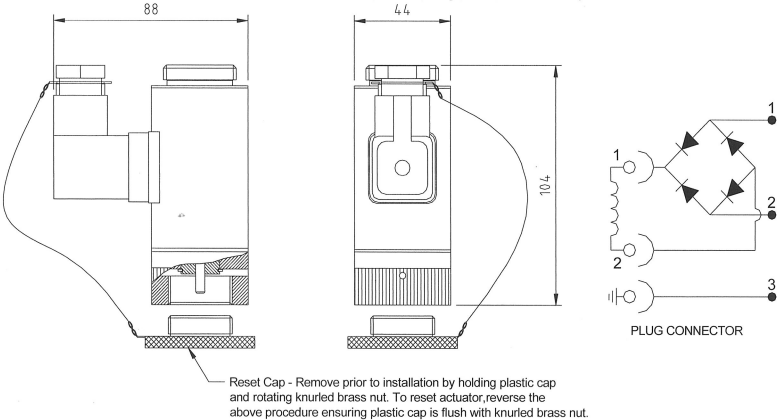
COMPONENT:	Removable Electrical Actuator (0.25A) UL	PART NO.	304.209.001
SIZE:	N/A	DATA SHEET NO.	DS03381
FM-200® & SAPPHIRE™ FIRE EXTINGUISHING SYSTEM		ISSUE :	C
		ISSUE DATE:	24-10-08
		SHEET NO.	2 / 2

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Description:

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Specification:

Body:	Mild Steel
Body Finish:	Electroless Nickel Plate
Actuation Pin:	Stainless Steel
Loose Nut:	Brass CZ121
Retaining Circlip:	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 / 0.33A
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:	0.95Kg
Life Span:	10 years from manufacture
Testing:	100% Check on start / finish position
Max Humidity:	80 to 90% RH, non condensing
Approvals:	LPCB, UL, FM
Certification:	EN12094-4
CE Certification No:	0832-CPD-2046
CE Body Certification No:	0832
Year of CE Marking:	2008
CE Marking Requirements:	Barnbrook Systems Limited, Serial No, 24 Vdc, 0.25 A, CE0832
Force: 66.4N @ 1mm from Unactivated	
Force: 60.7N @ 2mm from Unactivated	
Force: 55.0N @ 3mm from Unactivated	
Force: 49.3N @ 4mm from Unactivated	

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