INSTRUCTIONS

BF391 24V Isolated Failsafe Monitoring Unit

THIS EQUIPMENT MUST BE INSTALLED AND MAINTAINED BY A SUITABLY SKILLED AND TECHNICALLY COMPETENT PERSON. REMOVE ALL POWER BEFORE INSTALLATION.

Product Description

The BF391 24V Isolated Failsafe Monitoring Unit (shown right) enables fire alarm I/O devices, e.g. the CAST CA730 and third-party I/O devices that may not be compatible with the PSU failure requirements of BS 7273-4 Cat A, to provide compliance per this door release standard. The BF391 also detects when there are multiple loop failures to the I/O device, which specific standards may stipulate.

BF391

The BF391 is supplied on a single-gang plate with an onboard isolating end-of-line (EOL) for direct connection to the I/O device. An onboard normally energised 24V 3A rated relay is provided and the BF391 can be mounted inside the auxiliary 24V PSU enclosure if required. A separate EOL module (order code BF390) may be mounted inside the I/O device enclosure itself, where the I/O device is sited remotely from the BF391, facilitating remote failsafe monitoring to BS 7273-4 Cat A, B & C.

See Fig.1, 2 & 3 overleaf for typical BF391 wiring diagrams.

Features

- Provides failsafe operation per BS 7273-4 Cat A, B & C requirements for all compatible I/O devices including all C-TEC CAST protocol devices.
- Provides failsafe operation per BS 7273-4 Cat A, B & C requirements for multiple coincidental loop failures (may be required in specific standards, above and beyond the requirements of BS 7273-4) for all compatible I/O devices including all C-TEC CAST protocol devices.
- Accommodates I/O devices mounted inside or outside the auxiliary 24V PSU enclosure (I/O devices sited remotely from the BF391 require a BF390 EOL module to maintain failsafe function).
- Provides complete galvanic isolation between the fire detection & alarm system (FDAS) and the door release system.
- Provides (where allowed) failsafe manual door release monitoring to BS 7273-4 Cat A utilising a single T&E cable for multiple manual operating points such as free swing doors.

Specification

Order Codes:	BF391 - 24V Isolated Failsafe Monitoring Unit BF390 - EOL Module
Operating Voltages:	FDAS side 20V to 40V @100µA; Door Release side 20V to 30V @ 25mA
Relay Contacts:	Nominal rating 24V 3A; max. switching voltage 60V; max. switching current 5A.
EOL Isolation:	>2kVAC rms (fire alarm to door closing mechanism)
Isolating EOL:	100µA constant quiescent drain from the I/O device. Operating voltage 20V to 40V.
Indicators:	Energised/OK LED (Green) - Indicates the door release system is in a normal, energised, door-retained state. Energised/OK LED (Off) - Indicates the door release system is in a de-energised, door-released state. Fault LED (Yellow) - Indicates the I/O device has entered the door-released state or there is a short/open circuit fault on the monitored wiring. This LED also indicates when there is a complete power failure of the FDAS.
Dimensions (mm):	86 (W) x 86 (H) x 30 (D) (without a back box)
Weight:	80g (without a back box)

Wiring and Connections (see Fig.1, 2 & 3)

All wiring must be installed in accordance with applicable national, regional or local standards. In the UK, this is BS 7671 (IET Wiring Regulations). All BF391 terminals can accept cables up to 1.5mmØ.

Fig.1 – Typical wiring of the BF391 sited adjacent to the I/O device

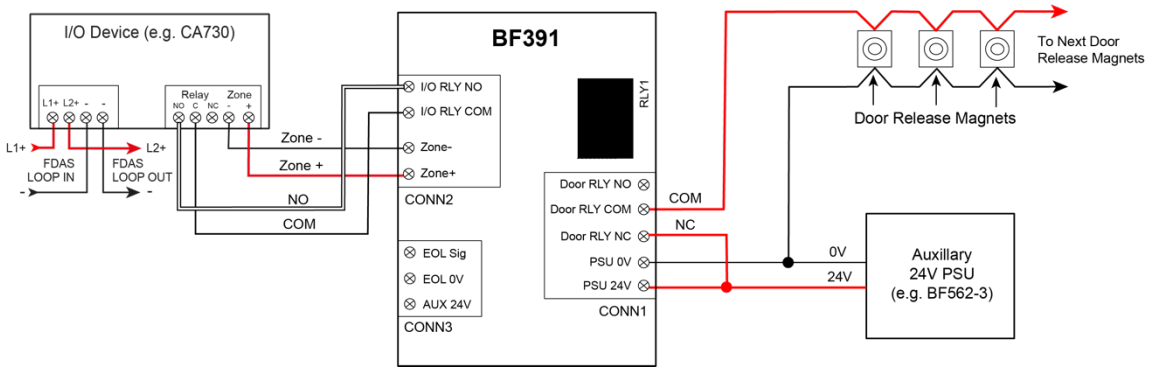


Fig.2 – Typical wiring of the BF391 sited remote from the I/O device

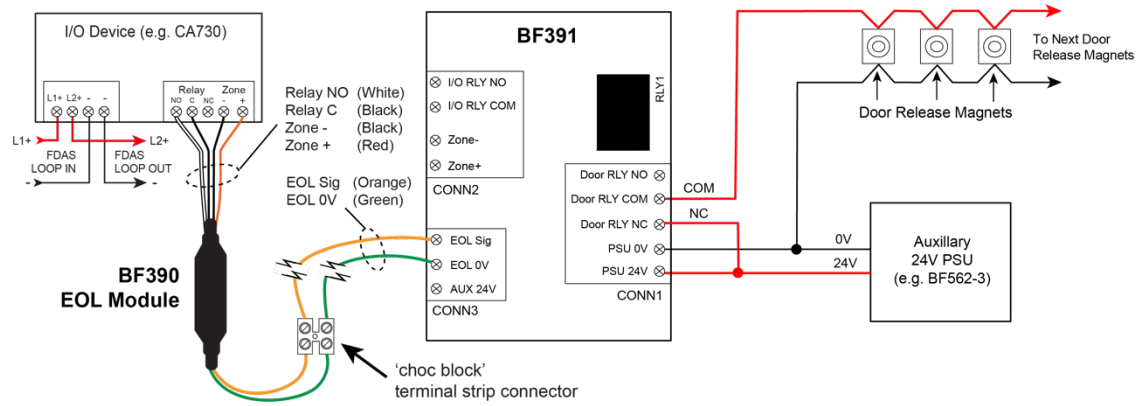
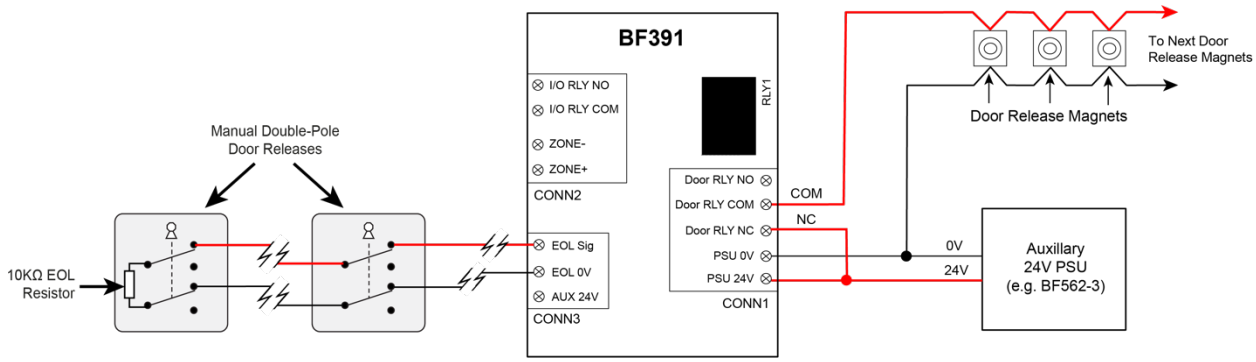


Fig.3 – Typical wiring of the BF391 Failsafe Manual Door Release



Installation and Testing

This product must be installed and tested in accordance with applicable national, regional or local standards. The BF391 is designed for indoor use only and may be flush or surface mounted where the status of the LED indicators are clearly visible.

Two mounting holes are provided on the I/O module which can be fitted to a standard UK single-gang back box with a minimum 35mm depth. DO NOT OVERTIGHTEN THE FIXING SCREWS.

Manufacturer: Computionics Limited (C-TEC), Challenge Way, Martland Park, Wigan, Lancashire WN5 0LD. www.c-tec.com

E&OE. No responsibility can be accepted by the manufacturer or distributors of these devices for any misinterpretation of this instruction, or for the compliance of the system as a whole. The manufacturer's policy is one of continuous improvement and we reserve the right to make changes to product specifications at our discretion and without prior notice.