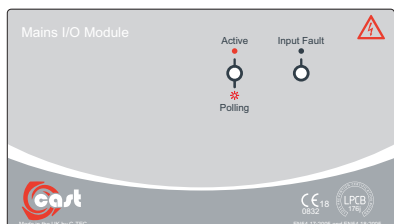


CA731 ADDRESSABLE MAINS SWITCHING I/O MODULE INSTALLATION INSTRUCTIONS



Product Description

The CAST CA731 addressable Mains Switching Input/Output (I/O) module is compatible with C-TEC's CAST ZFP/XFP panels and other 'CAST' compatible fire panels. The module has the following features:

- Fully compliant with EN 54-17 and EN 54-18.
- Programmed and addressed via the fire panel or CAPROG programmer.
- On-board, bi-directional, short-circuit loop isolator (SC-Isolator).
- Double-gang back box mounting.
- Incorporates a single connector switch output, capable of switching Mains and DC voltages.
- A single zone monitor to support up to 20 ActiV detectors and ten MCPs. Alternatively, can be used a single switch monitor.

Operation

When a fire alarm is triggered on the monitored zone, the Mains Switching I/O module sends a signal to the fire panel. Depending upon programming, the fire panel then returns a signal to the module to change state on the clean contact relay output.

The Mains Switching I/O module monitors the following inputs: open circuit fault, short circuit fault, fire, normal and detector head out (if detector base has a diode fitted).

Installation



CAUTION: Components, such as capacitors, are exposed on the PCB. Take extreme care not to damage or dislodge any components when handling or wiring to the unit.

Ensure the Mains Switching I/O modules are installed in accordance with applicable local and/or national regulations. The module is designed for indoor use only and may be flush or surface mounted in a place where the status of the LED indicators are clearly visible.

Two mounting holes are provided on the I/O module for fixing to a standard UK double-gang back box with minimum 35 mm depth. DO NOT OVERTIGHTEN THE FIXING SCREWS.

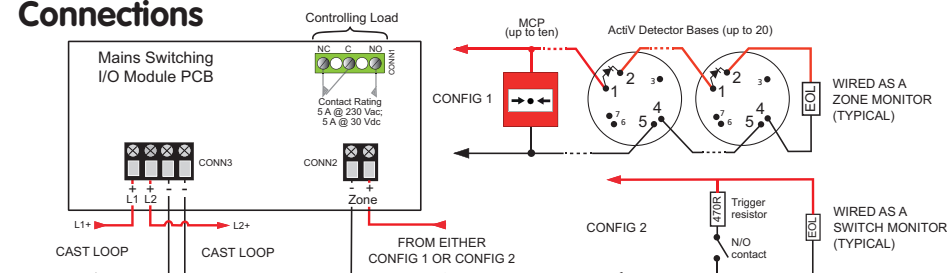
Isolate Mains supply before installation.



Mains wiring (if used), must be installed in accordance with all applicable national, regional or local standards. In the UK this is BS 7671 IEE Wiring Regulations and BS5839-1, Fire detection and alarm systems for buildings: Code of practice for system design, installation and maintenance.

For PERMANENTLY CONNECTED equipment, a readily accessible disconnect device shall be incorporated external to the equipment. The general requirement for the Mains supply to the CA731 is fixed wiring, using 3 core cable, (no less than 1mm² and no more than 2.5mm²), or a suitable three conductor system fed from an isolating switched fused spur, fused at 5A. The Mains supply must be exclusive to the CA731.

Connections



Terminal (CONN3)	Function
L1 +	+Ve
L2 +	+Ve
-	-Ve
-	-Ve

- All wiring must conform to local and/or national regulations.
- Correct polarity must be observed.
- CA731 terminals can accept 0.25 mm² to 2.5 mm² wiring.
- 470R trigger resistor (supplied) and EOL capacitor (supplied). Ensure EOL capacitor is fitted across the terminals of the last device on the conventional zone.

Technical Specification

Description:	CA731 Addressable Mains Switching I/O Module
Certified Standards:	EN 54-18: 2005 (Input Output Devices); EN 54-17: 2005 (Short-circuit isolator)
LPCB Certificate Number:	176j *
LPCB Reference Number:	176j/03 *
CPR Certificate Number:	2831-CPR-F1383 *
UKCA Certificate Number:	0832-UKCA-CPR-F0793 *
Declaration of Performance (DoP):	DoP0000048 *
Communication Protocol:	CAST (C-TEC)
Operating Voltage:	22-40 Vdc (loop powered)
Quiescent Current (Typical):	1.7 mA
Active Current (Typical):	< 6.0 mA
Input (CONN2):	Single monitored input with 2 modes of operation: either, a single zone monitor, to support up to 20 ActiV detectors and ten MCPs with EOL or, a monitored normally-open switch, triggered by a 470R with EOL.
Output (CONN1):	Single switching connection. Clean contact (NC/C/NO) rated at 5 A @ 230 Vac, or 5 A @ 30 Vdc. Note: In exposed environments, this device may be subject to mechanical shocks which are likely to occur, albeit infrequently, in the anticipated service environment. Sufficient anti-glitch protection should be taken to ensure a temporary changeover of the relay contacts, of up to 1 sec, does not activate connected equipment. In non-exposed environments, such protection may not be necessary.
LED Indicators:	Active (Steady Red) - either monitored zone triggered, or monitored switch closed. Polling (Flashing Red) - communication check with the fire panel. Input Fault (Steady Yellow) - a fault detected on the monitored zone/switch.
Dimensions (WxHxD):	147 x 87 x 23 mm (without a back box)
Weight:	122 g (without a back box)
IP Rating (EN 60529):	IP40 when correctly installed (NOT APPROVED)
Body Material:	PVC
Operating Temp.:	-10°C to +55°C
Humidity:	Max. 95% RH (non-condensing)

* Certificates and DoPs available for download on C-TEC's website

EN 54-17 SC-Isolator Specification (Controllable Isolator)

Maximum Loop Voltage (V max):	40 Vdc
Nominal Loop Voltage (V nom):	40 Vdc
Minimum Loop Voltage (V min):	22 Vdc
Maximum Current Device Isolates, switches from closed to open (Iso max):	55 mA
Minimum Current Device Isolates, switches from closed to open (Iso min):	15 mA
Maximum Rated Continuous Current with switch closed (Ic max):	1 A
Maximum Rated Switching Current under short circuit conditions (Is max):	1.6 A
Maximum Leakage Current with switch open (IL max):	20 µA
Maximum Series Impedance with switch closed (Zc max):	100 mohms



Manufacturer: Computationics 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 manufacturers policy is one of continuous improvement and we reserve the right to make changes to product specifications at our discretion and without prior notice.