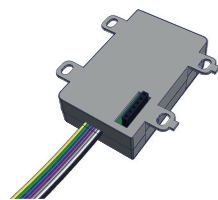


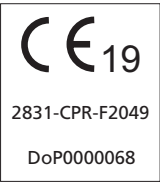
HP734/HP735 MINI IO MODULES
INSTALLATION INSTRUCTIONS

Hush-Pro

Product Description



The Hush-Pro HP734 & HP735 Mini IO Modules are compatible with C-TEC's Hush-Pro fire BS5839-6 Grade C Controller. The modules incorporate a monitored switch input and a changeover relay output. A compact design allows it to fit into equipment with limited space.

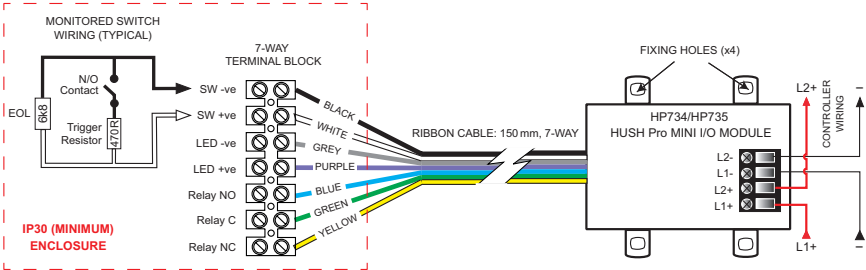


HP734	HP Mini I/O Module (Fire Level 1)
HP735	HP Mini I/O Module (Fire Level 2/EVAC)

The modules have the following features:

- Fully compliant by the LPCB to EN 54-17 and EN 54-18 9 (pending).
- On-board, bi-directional, short-circuit isolator (SC-Isolator).
- Monitored switch input.
- Changeover relay and fire LED outputs.
- Levels reportable to the controller from the input: normal, fire, S/C fault and O/C fault.
- 2 levels issuable from the controller to the output: active and normal.
- Module supplied with a 7 way ribbon cable (150 mm length), 7 way terminal block, trigger resistor and EOL resistor.

Connections



Terminal	Function
L1 +	+Ve
L2 +	+Ve
L1 -	-Ve
L2 -	-Ve

- All wiring must conform to local and/or national regulations.
- Correct polarity must be observed.
- Terminals can accept 0.25 mm² to 2.5 mm² wiring.
- 7-way terminal block (supplied) can accept up to 1.5 mm² wiring < 3 m length.
- 470R trigger resistor (supplied) and 6k8 EOL resistor (supplied) for monitored switch. EOL device and terminal block must be fitted inside a suitable enclosure with a minimum IP30 rating (not supplied).

Installation

Ensure the module is installed in accordance with applicable local and/or national regulations. The module may be surface fixed using suitable screws (not supplied) in the four fixing holes. The mounting enclosure is also designed to be mounted in a secondary unit such as a single gang back box.
Note: Cables connected to the 7-way terminal block must be less than 3 metres in length.

Technical Specification

Description:	HP734 & HP735 HP Mini IO Modules
Certified Standards:	EN 54-18: 2005 (Input Output Devices); EN 54-17: 2005 (Short-circuit isolator)
LPCB Certificate Number:	176j/01 *
CPR Certificate Number:	2831-CPR-F2049 *
Declaration of Performance (DoP):	DoP0000068 *
Communication Protocol:	'Hush-Pro' (C-TEC)
Operating Voltage:	22-40 Vdc
Quiescent Current (Typical):	1 mA
Active Current (Typical):	2.2 mA
Fault Current (Typical):	2.3 mA
Input:	Single monitored, normally-open switch (SW -ve, SW +ve) triggered by a 470R with 6k8 EOL resistor.
Outputs:	One single-pole, changeover relay (C/NO/NC), non-monitored. Relay rating: 1 A @ 30 Vdc or 0.3 A @ 125 Vac. 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. Single 2-wire fire LED drive output (LED -ve, LED +ve). Single Red (Relay Active & Polling).
LED Indicators:	Single Yellow (Monitored Input Fault).
Body Material:	Clear ABS polycarbonate enclosure
Dimensions:	65 mm x 60 mm x 20 mm (excluding terminal block & ribbon cable)
Weight:	47 g (including terminal block & ribbon cable)
IP Rating (EN 60529):	IP40
Operating Temp.:	-10°C to +55°C
Humidity:	Maximum 95% RH (non-condensing)

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

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

Maximum Voltage (V max):	40 Vdc
Nominal Voltage (V nom):	40 Vdc
Minimum Voltage (V min):	22 Vdc
Maximum Current Device Isolates, switches from closed to open (I _{so} max):	55 mA
Minimum Current Device Isolates, switches from closed to open (I _{so} min):	15 mA
Maximum Rated Continuous Current with switch closed (I _c max):	1 A
Maximum Rated Switching Current under short circuit conditions (I _s max):	1.6 A
Maximum Leakage Current with switch open (I _L max):	20 µA
Maximum Series Impedance with switch closed (Z _c 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.