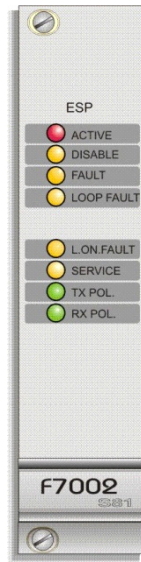


F7002 Analog Addressable Device Control Card - ESP Protocol

Control card for devices that are addressable through the HOCHIKI ESP protocol. SMOKE, TEMPERATURE and COMBINED fire detectors, as well as PUSHBUTTONS and CONTROL MODULES, with monitored and non-monitored lines, are available with the ESP protocol. This type of card is used only for fire fighting system control.



Main Characteristics

- Non-redundant (Note 1)
- Can be hot-swapped (Note 2)
- Up to 127 addresses, 3 channels each
- Loop connection (farthest point at 1500 m)
- Detector sensitivity can be set as HIGH/MEDIUM/LOW
- Can control detectors of the ASX series, certified to EN 54-7 and EN 54-9
 - Smoke detector ALG (photoelectric) and AIE (ionization)
 - Combined detectors (smoke/temperature) ACA-E
 - Temperature detectors ATG-E
 - Short-circuit isolators YBO and YBO-R/SCI (with socket)
 - Addressable sounders CHQ-WS and CHQ-BS (with socket)
 - CHQ-MZ mini-zone, CHQ-R double relay, CHQ-S double input addressable modules
 - MCP-E addressable call points (pushbuttons)
- Periodical functionality self-testing of card and all connected devices
- Communication management by FPGA
- Front plug-in on 19" rack, with locking screws.

LED	Status	Indication
ACTIVE	⊗	One or more inputs in alarm or active condition
DISABLED	⊗	One input or output disabled
FAULT	∅	Fault condition
LOOP FAULT	∅	Loop short-circuit or opening
LOG ON FAULT	∅	Discrepancy between read and expected devices
SERVICE	∅	Optical smoke detector(s) dirty
TX POL	∅	Data transmission to devices on loop
RX POL	∅	Data receipt from devices on loop
<i>LED status legend</i>		⊗ = on ∅ = blinking

Operation

The card communicates, through the ESP protocol, with all the devices on a loop, periodically polling them or receiving calls (interrupts) from the devices that have detected a status variation. Alarming occurs after the information has been processed, through specific algorithms for the devices; e.g. smoke detectors can provide dynamic alarm thresholds that adjust themselves to compensate for optic sensing element contamination.


Parameter Configuration Via Software

Input operating mode	NO/NC
Channel logic status	Latching/Non-latching (Note 3)
Smoke detector sensitivity	High/Medium/Low
Alarm thresholds	Pre-alarm/Alarm
Alarm output	Normal/Silent/Buzzer only
Output activation mode	Steady energized, steady de-energized, periodical, pulsing
Period (pulsing and periodic mode only)	Output settable between 1 and 15 seconds
Tone of sounders on loop	7 different tones settable
Volume of sounders on loop	55 to 98 dBA, settable on 13 steps

Connection Via Cable Plug CCT4

Connection between the card and the field is carried out by means of a special cable, provided with a plug-in connector at one of its ends. Cable conductors are wired directly onto a marshaling terminal block, while the connector is plugged into the back of the rack.

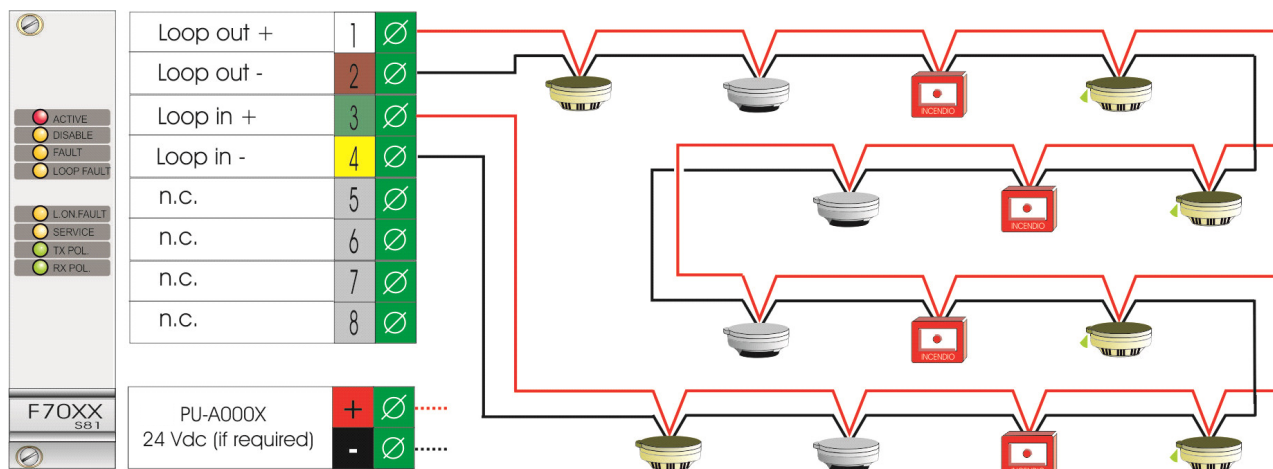
Function			Connection with PLUG CABLE
Positive loop out	+	1	White
Negative loop out	-	2	Brown
Positive loop in	+	3	Green
Negative loop in	-	4	Yellow
--		5	
--		6	
--		7	
--		8	



CCT4

Connection Examples

The connection between the card and the devices takes place through two wires (positive and negative line) which return to the tab forming a ring. This connection is allowed if the devices do not exceed the maximum current allowed for the loop. In case the devices require a separate power supply, this will consist of a further connection of two conductors to carry the positive and negative of the 24 VDC.



NOTE:

- 1. **Redundancy** - In fault-tolerant systems, this card has to be duplicated, i.e. two cards are to be used, which must be installed in two contiguous racks. Each input line from the field has to be connected to both cards and its exclusion is only possible from both of them.
 - 2. **Hot Swap** - The card can be removed and replaced without switching off the panel.
 - 3. **Latching Mode** - An alarm status persists until reset.
- ESP compatibility** - This card is compatible with HOCHIKI's ESP Protocol.

