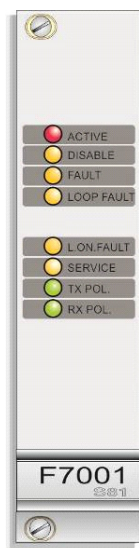


F7001 Card, Control of Addressable & Analog Devices, DCP Protocol

This card manages the addressable devices that adopt the DCP (Digital Communication Protocol) protocol of HOCHIKI America.

A wide range of fire detectors, push buttons, optical-acoustic indicators and input/command modules UL Listed and FM APPROVED are available.



Main Characteristics

- Non redundant (note 1)
- Can be hot-swapped (note 2)
- 127 addresses with 3 I/O channels each
- Loop connection (farthest point at 1500 m)
- Selectable sensitivity of detectors
- Able to control UL Listed and FM Approved devices:
 - Smoke detectors
 - Combined detectors (smoke/temperature)
 - Temperature detectors
 - Short circuit isolators
 - Addressable signaling units
 - Mini-zone addressable modules
 - Addressable push buttons
- Periodic auto-test of the card operation and of all connected devices
- Communication management by FPGA
- Front plug-in on 19" rack, with locking screws

LED Indications

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
Legend: ⊗ = led on ; ⊘ = led blinking		

Operations

The card communicates, through the DCP 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.


Programmable Features

Status conditions	Operations
Normal operating mode	Normally open or normally closed in the normal status
Channel logic status (note 3)	Latching/non latching
Smoke detectors sensibility	predetermined
Alarm thresholds	Input pre-alarm / alarm
Signaling on outputs for alarm	Programmable depending on the type of actuator
Output activation way	Programmable depending on the type of actuator
Time (impulsive and periodic way only)	Programmable depending on the type of actuator
Optical acoustic signals	As for UL864 standard, with synchronization

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.

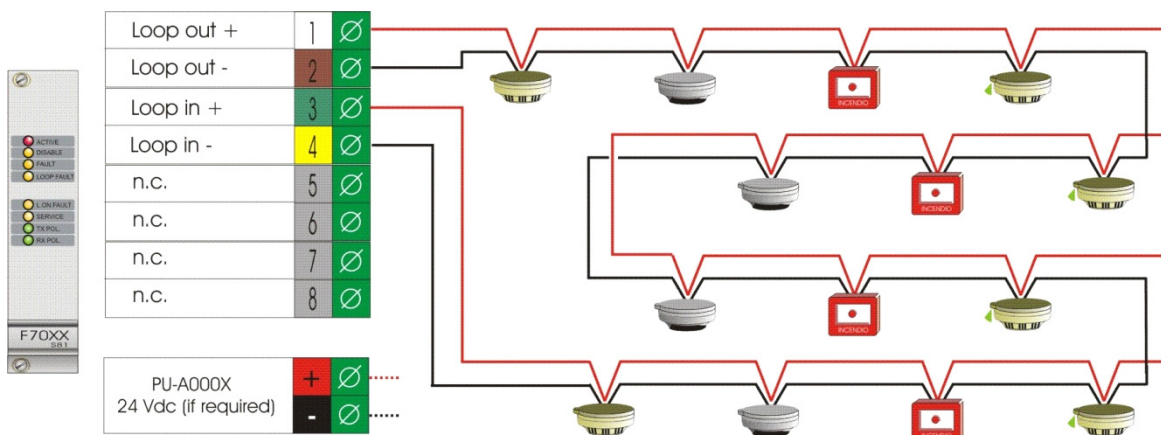
Function		Connection with PLUG CABLE	
Positive loop out	+	1	White
Negative loop out	-	2	Brown
Positive loop in	+	3	Green
Negative loop in	-	4	Yellow
--		5	
--		6	
--		7	
--		8	



CCT4

Connection example

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.

DCP compatibility

This card is compatible with the DCP protocol HOCHIKI AMERICA. For further information, refer to the H-S81-HS documentation. As example, below there are some devices of the protocol:

