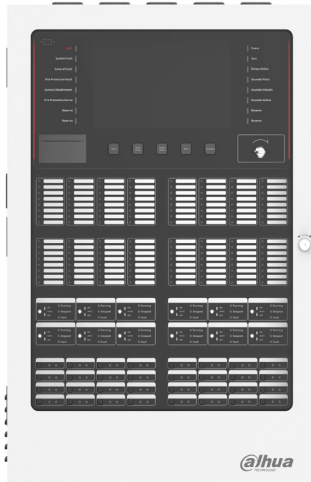


DHI-HY-AFP5010P

Addressable Fire Alarm Control Panel



- Sensor contamination monitoring ensures the cleanliness of the system
- Pre-alarm mechanism can effectively reduce the false alarm rate
- Extendable loop number from 1 to 10 loops, cover Max. 2540 points
- The IoT solution with DSS Pro platform and Wisualarm cloud platform
- Real-time monitoring of fire alarm incidents, immediate fire alarm events
- Editable alarm linkage function, support for custom linkage configuration
- 10-inch LCD touchscreen display, graphical interface, and simple operation
- Precise management of fire alarm devices and detailed location of incident sites
- 2-Wire and non-polar bus wiring design, support Class A and Class B topology
- Built-in power management module, covering main power supply and backup power supply monitoring
- Designed in accordance with EN54-2 and EN54-4 standards

System Overview

The multi-loop addressable fire alarm control panel serves as the central control unit of the next-generation intelligent fire automatic alarm system. Employing cutting-edge addressing technology, this control panel supports multiple loop connections and interfaces with a vast array of intelligent detectors, modules, and alarm devices. It finds extensive application in large-scale commercial complexes, industrial plants, metro systems, medical institutions, educational facilities, data centers, and similar infrastructures. The system facilitates accurate fire detection, intelligent analysis, and coordinated control, substantially elevating fire safety management standards.

Scene

- Large Public Venues: Including shopping malls, exhibition halls, stadiums, and convention centers;
- High-Rise Building;
- Complexes: Such as office towers, hotels, medical centers, and mixed-use developments;
- Industrial Facilities: Factories, warehouses, logistics hubs, and data centers;
- Transportation Infrastructure: Metro systems, tunnels, and underground passages with extended detection loops for specialized wiring needs;
- Educational & Residential Campuses: Centralized monitoring and control for multi-building facilities, including schools, universities, and residential communities.

Functions

Extendable Loop Design

Support extend loop number from 1 to 10 loops by loop board DHI-HY-LC01A and DHI-HY-LC02A, to cover Max. 2540 points, each loop can cover 254 points.

Intelligent Detection & Self-Diagnostics

The system incorporates an advanced self-diagnostic capability that continuously monitors equipment status, detecting critical issues including detector contamination, operational faults, and offline conditions. It automatically identifies circuit abnormalities such as short circuits, open circuits, device disconnections, and line contamination, while maintaining comprehensive historical event logs to facilitate post-event analysis and preventive maintenance operations.

10-Inch LCD Touch Screen

The fire alarm control panel features a 10-inch LCD touchscreen with intuitive graphical interface for simplified operation, providing real-time visualization of device status, alarm locations, and overall system performance.

Power Supply Management

Smart power supply management offers main power supply and backup power supply monitoring, automatically switch power supply, power supply fault reporting, and backup power supply protection.

Editable Alarm Linkage

The linkage strategy is flexible, meeting the fire linkage requirements of complex buildings. It can be edit by the Panel directly or by the configuration software.

Comprehensive Interface Options

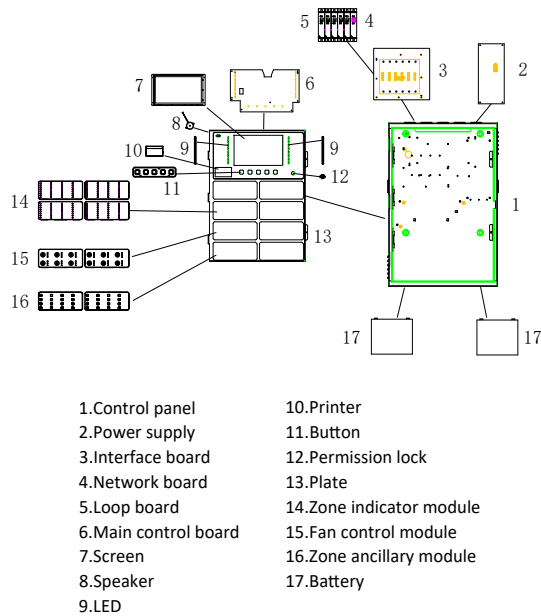
1*USB port, 1*network port, 1*fault interface (passive); 1*fire alarm interface (passive); 2*custom passive interface (passive); 1*wireless module interface; 1*DC24V 2A; 2*RS485; 1*AUX; 2*bell port.

Technical Specification

Control Panel Specification	
Loop Number	Extendable from 1 to 10 loops, 0 loop by default
Loop Capacity	254 points for each loop
Log Record	Max. 5120
Power Supply	AC 100-240V/50Hz, 60Hz
Backup Power	2*12V 40Ah Lead-acid battery (optional)
Power Supply Power	420W
Display	10-inch LCD touchscreen display
Printer	Built-in micro thermal printer
External Terminal	1*USB port, 1*network port, 1*fault interface (passive), 1*fire alarm interface (passive), 2*custom passive interface (passive), 1*wireless module interface, 1*DC24V 2A; 2*RS485, 1*AUX; 2*bell port
Product Size	776.0mm×525.0 mm×262.0 mm
Operating Temperature	−10°C to +55°C (+14°F to +131°F)
Storage Temperature	−20°C to +65°C
Operating Humidity	≤ 95% RH (no condensation)
BELL Port Output	DC28V/3A
24V Port Output	2A
Compliance Standard	EN54-2, EN54-4 (Applying)

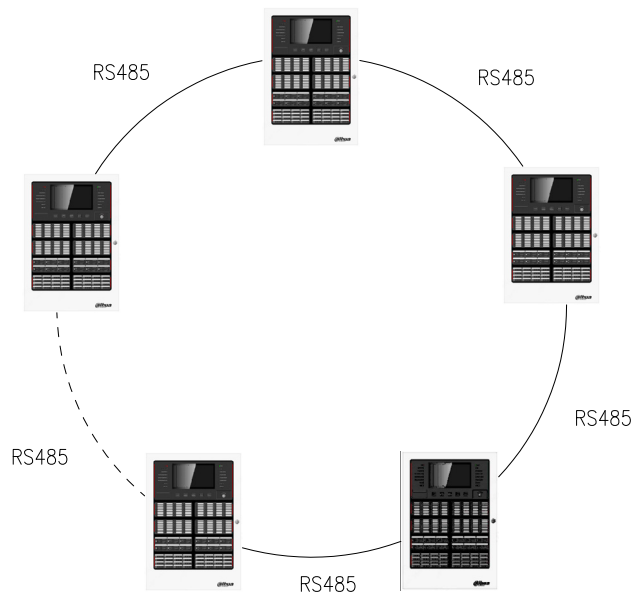
System Specification	
Loop Number	Max. 10 Loops for DHI-HY-5010P
Topology Mode	Both Class A and Class B
Loop Capability	Max. 254 sensors and modules for each loop
Optional Backup Power Supply	Without battery by default
Simulated Zone	Every editable 32 addresses form a zone
Panel Cascading	Max. 128 panels to cascade
Solution Verification	With the help of Dahua Fire (Wisualarm) Presale Tool Performance Limitations Communication Distance Required Battery Specifications
Configurable Alarm Linkage	With the help of ControlConfig Tool
Solution	Online Solution: Wisualarm Cloud Platform Local Solution: DSS Pro Platform V8.8 (Server is required)
Compatible Cable Specifications	2X1.5mm² /2X16AWG
Communication Distance	1500m (standard) - 3000m (extendable)
Telephone&Broadcast System	Optional peripheral system

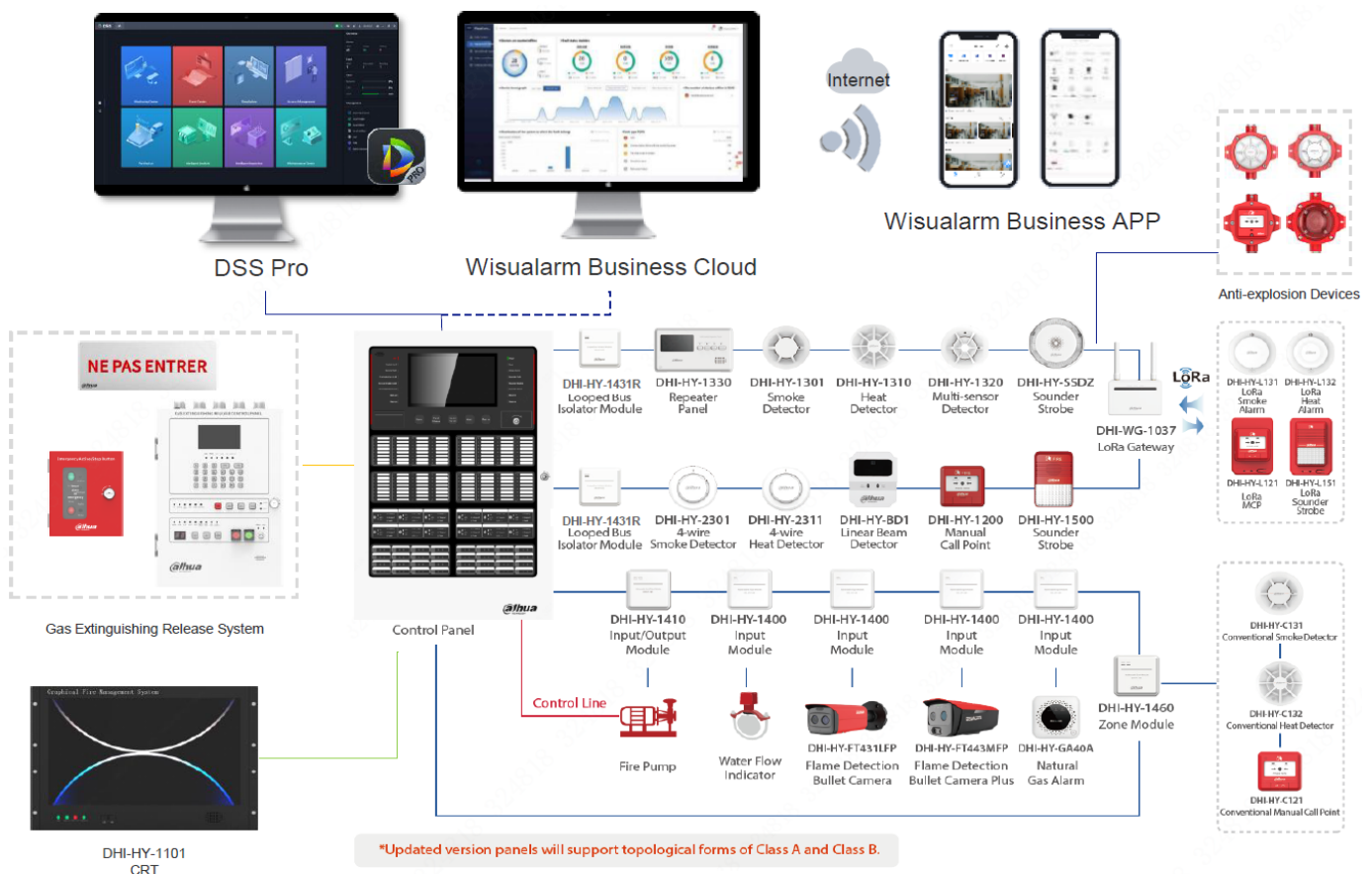
Panel Overview



Cascading

Fire alarm control panels are cascaded through RS-485 ports, with a maximum of 128 panels that can be cascaded.





Device List

2W-B Multi-spectral Photoelectric Smoke Detector (DHI-HY-1301)

1. Adjustable sensitivity from high or low
2. Multi-spectral technology for better effect
3. Certified to EN54-7
4. Max. Number of Device Connections for a Loop: 254

2W-B Heat Detector (A2R) (DHI-HY-1310)

1. Fixed temperature detection threshold: 62°C
2. Class A2 rate-of-rise detection: K-linear response
3. Certified to EN54-5
4. Max. Number of Device Connections for a Loop: 254

2W-B Multi-sensor Detector (Smoke&Heat) (DHI-HY-1320)

1. A2R heat detection
2. Combines Split-spectrum optical smoke sensor and sensitive thermistor, detect smoke and heat in the same time
3. Certified to EN54-5 & EN54-7
4. Max. Number of Device Connections for a Loop: 254

4W-B Multi-spectral Photoelectric Smoke Detector (Remote Indicator) (DHI-HY-2301)

1. Adjustable sensitivity from high or low
2. Multi-spectral technology for better effect
3. Compatible with remote indicator
4. Certified to EN54-5
5. Max. Number of Device Connections for a Loop: 254

4W-B Heat Detector (A2R) (Remote Indicator) (DHI-HY-2311)

1. Fixed temperature detection threshold: 62°C
2. Class A2 rate-of-rise detection: K-linear response
3. Compatible with remote indicator
4. Certified to EN54-7 (applying)
5. Max. Number of Device Connections for a Loop: 254

4W-B Multi-spectral Photoelectric Smoke Detector (Relay) (DHI-HY-2301-RE)

1. Adjustable sensitivity from high or low
2. Multi-spectral technology for better effect
3. Optional dry contact signal with selectable NO/NC
4. Certified to EN54-5
5. Max. Number of Device Connections for a Loop: 76

4W-B Heat Detector (A2R) (Relay) (DHI-HY-2311-RE)

1. Fixed temperature detection threshold: 62°C
2. Class A2 rate-of-rise detection: K-linear response
3. Optional dry contact signal with selectable NO/NC
4. Certified to EN54-7 (applying)
5. Max. Number of Device Connections for a Loop: 66

4W-B NG&LPG Detector (Relay) (DHI-HY-AA340R)

1. Optional dry contact signal with selectable NO/NC
2. Optional gas type with selectable Natural Gas/LPG
3. Non-loosening screws on base terminal for easy installation
4. Contacts material is highly acid-resistant and rust-resistant
5. Detection range of 0% to 100% LEL, Alarm threshold: 8% ± 3% LEL
6. Certified to CE
7. Max. Number of Device Connections for a Loop: 14

4W-B CO Detector (Relay) (DHI-HY-AF640R)

1. Optional dry contact signal with selectable NO/NC
2. Non-loosening screws on base terminal for easy installation
3. Contacts material is highly acid-resistant and rust-resistant
4. Detection range: 0-1000 ppm CO
5. Certified to CE
6. Max. Number of Device Connections for a Loop: 100

Explosion-proof Multi-spectral Photoelectric Smoke Detector (DHI-HY-A0120E)

1. Adjustable sensitivity from high or low
2. Multi-spectral technology for better effect
3. Explosion-proof Rating: Exd ib IIC T6 Gb
4. Certified to CE
5. Max. Number of Device Connections for a Loop: 254

Explosion-proof Heat Detector (DHI-HY-A0220E)

1. Fixed temperature detection threshold: 62°C
2. Class A2 rate-of-rise detection: K-linear response
3. Explosion-proof Rating: Exd ib IIC T6 Gb
4. Certified to CE
5. Max. Number of Device Connections for a Loop: 254

Explosion-proof Sounder Strobe (DHI-HY-A0520E)

1. Alarm Method: Light alarm and sound alarm
2. Alarm Volume: 75 dB–115 dB @ 3 m (A)
3. Flash Rate: 1.5 Hz-2 Hz
4. Explosion-proof Rating: Exd ib IIC T6 Gb
5. Protection Level: IP66
6. Certified to CE
7. Max. Number of Device Connections for a Loop: 71

Explosion-proof Manual Call Point (DHI-HY-A0320E)

1. Push-type manual alarm button
2. Explosion-proof Rating: Exd ib IIC T6 Gb
3. Protection Level: IP67
4. Certified to CE
5. Max. Number of Device Connections for a Loop: 254

Sounder Strobe (Ceiling-mounted) (DHI-HY-1502)

1. Alarm Method: Light alarm and sound alarm
2. Alarm Volume: 75 dB–80 dB @ 3 m (A)
3. White color, ceiling-mounted
4. Certified to EN54-3 & EN54-23 (applying)
5. Max. Number of Device Connections for a Loop: 29

Sounder Strobe Base (DHI-HY-SSDZ)

1. Alarm Method: Light alarm and sound alarm
2. Alarm Volume: ≥60 dB @ 3 m (A)
3. Illumination: 58 lux
4. Compatible with 4-wire detectors
5. Certified to EN54-3 & EN54-23 (applying)
6. Max. Number of Device Connections for a Loop: 26

Manual Call Point (with Cover) (DHI-HY-A0321)

1. Push-type manual alarm button with cover to prevent accidental touch
2. Independent output: A pair of normally open contacts
3. Certified to EN54-11 (applying)
4. Max. Number of Device Connections for a Loop: 254

Manual Call Point (DHI-HY-1200)

1. Push-type manual alarm button
2. Independent output: A pair of normally open contacts

3. Independent telephone line terminals
4. Certified to EN54-11
5. Max. Number of Device Connections for a Loop: 254

Sounder Strobe (Wall-mounted) (DHI-HY-1500)

1. Alarm Method: Light alarm and sound alarm
2. Alarm Volume: 75 dB–115 dB @ 3 m (A)
3. Flash Rate: 1.5Hz–2.0Hz
4. Red color, wall-mounted
5. Certified to EN54-11
6. Max. Number of Device Connections for a Loop: 71

Repeater Panel (DHI-HY-1330)

1. Repeat the real-time and historical fire events by 64×128 LCD screen
2. Display capacity is up to 999 pieces of alarm event information
3. Built-in sounder with 65dB–115dB (A) @ 1m alarm volume
4. Certified to EN54-2
5. Max. Number of Device Connections for a Loop: 50

Input Module (DHI-HY-1400)

1. Input module with one relay input signal from NO/NC
2. Support customized alarm linkage by linkage formula
3. Support offline checking for third-party devices by EOL resistor
4. Certified to EN54-18
5. Max. Number of Device Connections for a Loop: 254

I/O Module (Passive Signal) (DHI-HY-1410)

1. Input/Output module with one feedback relay input and one relay output from NO/NC
2. Support customized alarm linkage by linkage formula
3. Support offline checking for third-party devices by EOL resistor
4. Certified to EN54-18
5. Max. Number of Device Connections for a Loop: 76

I/O Module (Pulse Signal) (DHI-HY-1410C)

1. Input/Output module with one feedback relay input and one 24V/2A/25ms pulse signal output
2. Support customized alarm linkage by linkage formula
3. Support offline checking for third-party devices by EOL resistor
4. Certified to CE
5. Max. Number of Device Connections for a Loop: 19

I/O Module (Pulse Signal) (DHI-HY-1410E)

1. Input/Output module with one feedback relay input and one DC24V Active level output
2. Support customized alarm linkage by linkage formula
3. Support offline checking for third-party devices by EOL resistor
4. Certified to CE
5. Max. Number of Device Connections for a Loop: 11

Isolator Module (Class B) (DHI-HY-1431)

1. Protect the sensors in the loop from short circuit
2. Compatible with DHI-HY-1022/ DHI-HY-1025
3. Certified to EN54-17

Isolator Module (Class A&B) (DHI-HY-1431R)

1. Protect the sensors in the loop from short circuit
2. Compatible with DHI-HY-1022/ DHI-HY-1025/ DHI-HY-1022R/ DHI-HY-1025R
3. Certified to EN54-17

Switch Module (Class B) (DHI-HY-1450)

1. Realize Class A topology in DHI-HY-1022/ DHI-HY-1025 (Class B as default)
2. Compatible with DHI-HY-1022/ DHI-HY-1025
3. Certified to CE

Zone Module (DHI-HY-1460)

1. Realize to access conventional sensors into addressable system
2. Compatible with third-party conventional sensors
3. Certified to CE
4. Max. Number of Device Connections for a Loop: 50

Repeater Module (DHI-HY-1462)

1. Extend the communication distance of loop up to Max. 3000m
2. Support both topology-series and topology-parallel
3. Certified to CE

Wireless System (DHI-WG-1037)

1. Realize wired&wireless hybrid solution in addressable system
2. Access the wireless sensors into addressable system
3. RF Frequency: 470 MHz-510 MHz
4. System capacity: Up to 32 wireless sensors for each gateway
5. Communication Distance: Free space: a maximum of 1500 metres, ordinary walls: 3-5
6. Certified to CE
7. Max. Number of Device Connections for a Panel: 19

Wireless System (DHI-HY-L131)

1. Wireless multi-spectral photoelectric smoke detector including built-in sounder with Over 80 dB (A) at 3 m (9.84 ft) alarm volume
2. RF frequency: 470 MHz-510 MHz
3. Battery Life: About 3 years
4. Communication distance: Free space: a maximum of 1500 metres, ordinary walls: 3-5
5. Certified to CE
6. Max. Number of Device Connections for a Panel: 512

Wireless System (DHI-HY-L132)

1. Wireless heat detector including built-in sounder with 45 dB-75 dB (A) at 3 m (9.84 ft)
2. RF frequency: 470 MHz-510 MHz
3. Battery Life: About 5 years
4. Communication distance: Free space: a maximum of 1500 metres, ordinary walls: 3-5
5. Certified to CE
6. Max. Number of Device Connections for a Panel: 512

Wireless System (DHI-HY-L121)

1. Wireless push-type manual alarm button
2. RF frequency: 470 MHz-510 MHz
3. Battery Life: About 5 years
4. Communication distance: Free space: a maximum of 1500 metres, ordinary walls: 3-5
5. Certified to CE
6. Max. Number of Device Connections for a Panel: 512

Wireless System (DHI-HY-L151)

1. Wireless sounder strobe
2. Light alarm and sound alarm
3. Alarm Volume: 75 dB-115 dB (A) at 3 m (9.84 ft)
4. RF frequency: 470 MHz-510 MHz
5. Battery Life: standby for 1 year, alarm continuously for 12 hours

6. Communication distance: Free space: a maximum of 1500 metres, ordinary walls: 3-5
7. Certified to CE
8. Max. Number of Device Connections for a Panel: 512

Linear Beam Detector (DH-YJ104)

1. Calibration Method: Manual calibration
2. Optical path length: 10 m-100 m
3. Max. Optical Path Direction Deviation: $\pm 0.5^\circ$
4. Communication Method: Relay
5. Certified to CE

Linear Beam Detector (DHI-HY-BD1)

1. Calibration Method: Automatical or manual calibration
2. Optical path length: 10 m-100 m
3. Max. Optical Path Direction Deviation: $\pm 0.5^\circ$
4. Alert Events: Fire alarm and obstruction alarm
5. Communication Method: Dahua addressable protocol or relay
6. Certified to CE
7. Max. Number of Device Connections for a Loop: 200

Graphical Fire Management System (CRT) (DHI-HY-1101)

1. Full site map navigation to remotely monitor alarm systems, support third-party panels to integrate
2. 18.5" TFT-LCD, 1366×768, 250 cd/m²
3. History Logs Capacity: Max.10000 for a single event
4. Build-in speak, 2*10/100/1000 adaptive Ethernet ports, 1*HDMI, 2*USB3.0, 2*USB2.0 Type A, 2*RS485, 2*RS232, 2*CAN
5. Certified to CE

Encoder (DHI-HY-BM-1712)

1. DHI-HY-BM-1712 is designed to read/write logic address of sensors, helping to deploy the addressable system conveniently
2. Automatically address +1 when addressing devices consecutively
3. LCD display: Intuitive and user-friendly screen to write/read address
4. Manually calibration for linear beam detector DHI-HY-BD1
5. Certified to CE

Telephone&Broadcast System

1. The system includes fire telephone panel DHI-HY-1901, fixed fire telephone handset DHI-HY-1910, bus-type fire telephone jack DHI-HY-1930, fire telephone mobile handset DHI-HY-1920, multi-line fire telephone jack DHI-HY-1931, fire emergency evacuation broadcast panel DHI-HY-1801, surface-mounted ceiling speaker DHI-HY-1820, ceiling-mounted speaker DHI-HY-1821, wall-mounted speaker DHI-HY-1822, fire telephone & emergency evacuation broadcast panel integrated panel DHI-HY-1802
2. Certified to CE (applying)

Water-proof Box for Sounder Strobe (DH-HSG01)

1. Material of Enclosure: ABS
2. Protection Level: IP65

Water-proof Box for Manual Call Point and Modules (DH-HAN01)

1. Material of Enclosure: ABS
2. Protection Level: IP65

Accessories List

Loop Board (DHI-HY-LC01A)

- 1. One loop board with 1 loop
- 2. Certified to CE
- 3. Max. Number of Device Connections for a Panel: 5

Loop Board (DHI-HY-LC02A)

- 1. One loop board with 2 loops
- 2. Certified to CE
- 3. Max. Number of Device Connections for a Panel: 5

Network Board (DHI-HY-NB01)

- 1. Compatible with the fourth generation Dahua private protocol
- 2. Applied in the IOT solution of the DSS Pro platform
- 3. Max. Number of Device Connections for a Panel: 1

Backup Battery (DC12-40)

- 1. 12V 40Ah Lead-acid battery
- 2. Compatible with DHI-HY-AFP5010P
- 3. Max. Number of Device Connections for a Panel: 2

Bracket for the Battery (DHI-HY-B40)

- 1. Compatible with DHI-HY-AFP5010P, to fix the position of the battery DC12-40
- 2. Required number for a panel: 1

Zone Indicator Module (DHI-HY-ZIM32)

- 1. Selectable to indicate the status of simulated zone which is editable
- 2. Support to define the indication event from fire alarm or fault
- 3. Support to access 32 zones for each Zone Indicator Module
- 4. Max. Number of Device Connections for a Panel: 8

Zone Ancillary Module (DHI-HY-ZAM16)

- 1. Selectable to indicate the status of simulated zone which is editable
- 2. Support to define the indication status from shielded status &unshielded status or activated alarm status &stopped alarm status
- 3.Support to access 16 zones for each Zone Ancillary Module
- 4. Max. Number of Device Connections for a Panel: 8

Fan Control Module (DHI-HY-FCM06)

- 1. Selectable to indicate the status of fan system and operate by I/O module in the loop
- 2. Support to Indicate the Running, Stopped and Fault status of the fan system
- 3. Support to access 6 modules for each Fan Control Module
- 4. Max. Number of Device Connections for a Panel: 8

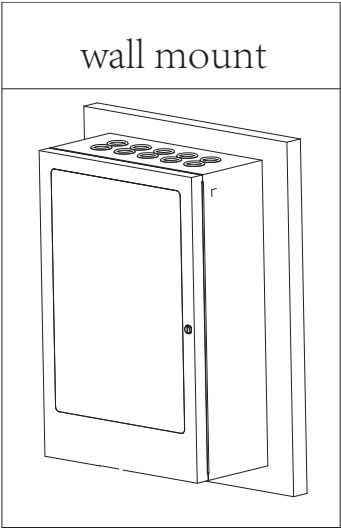
Protective Faceplate Cover (DHI-HY-PFC01)

- 1. Selectable to cover the surface of the panel
- 2. Max. Number of Device Connections for a Panel: 8

Ordering Information

Type	Model	Description
Addressable Fire Alarm Control Panel	DHI-HY-AFP5010P	Addressable Fire Alarm Control Panel without Battery and Loop Board (0 Loop as Default)

Installation



Dimensions (mm/inch)

