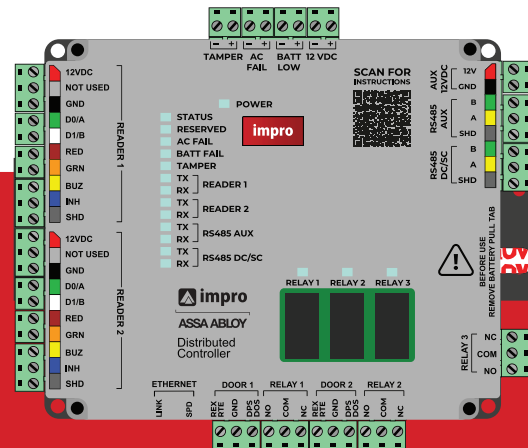


Distributed Controller

Controller to suit your security requirements

For flexible deployment of Scalable PACS solutions



Scalable:

Variants for alternative installation options.

Intelligent:

Can manage several doors with advanced configurations.

Enhanced Security:

Encryption, anti-passback & tamper detection.

Versatile Communication:

Ethernet or RS-485 for system, Wiegand or OSDP for readers.

WHO SHOULD USE THE DISTRIBUTED CONTROLLER?

The controller is ideal for installers and system integrators, who require security, performance and flexibility combined with the convenience of a distributed installation architecture.

Product Benefits

Scalable architecture:

- Configurable as a door controller, Lite controller, or full system controller.

Versatile installation options:

- Available in standalone, ABS plastic, or metal enclosures.

DIN Rail mountable:

- Simplifies installation in control panels.

Zero down-time firmware upgrades:

- Remote updates without system interruption.

OSDP and Wiegand support:

- Secure and flexible reader connectivity.

Long-distance communication:

- 150m for Wiegand, 1000m for OSDP.

Offline validation:

- Stores 10,000 credentials and 100,000 transactions per channel.

Dual tamper protection:

- Alerts for enclosure lid opening or removal from the wall.

Advanced door management:

- Supports up to 2 doors with 4 inputs and 2 relay outputs.

Auxiliary 3rd relay:

- Additional relay for software-controlled automation.

The Distributed Controller is a multifunction, scalable controller designed for flexible access control deployments. It can function as a door controller, a Lite controller with embedded access control software, or a full-featured system controller, configurable at the flick of a switch. System controller mode enables control of up to 64 downstream devices.

Storage for 10,000 credentials, a full set of validation rules and 100,000 buffered transactions per channel ensure full offline operation.

This controller can enforce complex validation rules such as Zone Counting, Zone Routing, Visitor Hosting, Man Traps and Worker Safety Lockouts. Support for multiple Threat levels instantaneously adjust user access during lockdowns or lockouts. The Terminal modes feature enables edge devices connected to the controller to adapt their behavior throughout the day based on a scheduled configuration that aligns with the organization's requirements.

With two reader inputs supporting secure Open Supervised Device Control (OSDP) or legacy Wiegand interfaces, four end-of-line sensing inputs, and two controllable relays, the Distributed Controller enables anti-passback (APB) on a single door or single-entry control on two doors. A third relay is available for additional software-controlled functions, while additional inputs monitor input power, battery health and tamper alerts.

The Distributed Controller ensures flexible connectivity with RS-485 or Ethernet

communication to access control software. Secure AES encryption protects all data between controllers, modules, and servers. A seamless integration with the Aperio RS-485 hub provides a premium wireless locking solution, while support for RF transmitters and receivers adds to the supported technology options. Enhanced security and threat detection, features offline anti-passback to prevent improper card usage and duress signal support for rapid security responses. The controller monitors supervised input wiring for faults or tampering, while data-at-rest encryption ensures stored data privacy.

Multiple variants of the Distributed Controller feature intelligent power management. It is available as a standalone module, in an ABS plastic enclosure, or a metal enclosure with integrated power options. Its PoE++ module supports PoE, PoE+, and PoE++, eliminating AC power needs. With a dedicated controller channel, three 12VDC outputs with resettable fuses, and battery health monitoring, it ensures reliable operation. Real-time power status alerts and dual tamper protection enhance system resilience and security.

The Distributed Controller is designed for optimized installation and diagnostics, featuring 22 LED indicators for real-time system feedback and remote firmware updates with zero downtime. Clearly marked, color-coded connections simplify setup, while the standalone module supports DIN rail mounting for control panel installation. Its compact, durable design ensures reliable performance even in harsh environments with industry-leading temperature tolerance.

Specifications - Distributed Controller

Model Name	Distributed Controller Stand-alone	Distributed Controller w/ PSU (Metal Enclosure)	Distributed Controller w/ PoE (Metal enclosure)	Distributed Controller Plastic Enclosure
Part number(s)	HCD900	HCD901/2	HCD903	HCD905
Product description	Standalone Module (No PSU)	Module in steel housing with legacy / intelligent PSU	Module in steel housing with PoE++ intelligent PSU module	Module in plastic enclosure (No PSU)
Colour	Grey	Black	Black	Black & White Enclosure
Dimensions (d-w-h)	164mm x 140mm x 28mm	8.2cm x 38.3cm x 31.3cm	8.2cm x 38.3cm x 31.3cm	100mm x 230mm x 260mm
Approximate product weight	0.35kg	3.60kg	3.50kg	1.15kg
Material	PC Plastic	Mild Steel housing	Mild Steel housing	PC Plastic Module in ABS Plastic Enclosure
Electrical Specifications				
Input voltage	12VDC	100-230Vac via IEC320 or Terminal block	802.15.4bt compliant	12VDC
Power requirements at 12 VDC Relays off	120mA	120mA	120mA	120mA
Relay power requirements at 12VDC	0.45W/Relay	0.45W/Relay	0.45W/Relay	0.45W/Relay
Controller Power input protection	Reverse polarity and over-current protection	Reverse polarity and over-current protection	Reverse polarity and over-current protection	Reverse polarity and over-current protection
Outputs	N/A	3 monitored 12VDC aux o/p	3 monitored 12VDC aux o/p	N/A
Interconnectivity				
Ethernet	10/100 Base-T			
RS-485	RS-485 port for controller networking - RS-485 port for Aperio™ wireless lock hubs			
OSDP & Wiegand	2 hardware selectable ports for selection of OSDP and legacy Wiegand			
Input Specification				
Door Inputs	2 Door Open Sensor inputs and 2 Request to Exit Button inputs			
Input Type	Dry contact inputs with end-of-line (EOL) sensing			
Monitored Inputs	Tamper detection, Input power and Battery health			
Output Specification				
Number of relays outputs	3			
Output type	3 independent, single-pole, double-throw (SPDT) dry contact relays			
Relay contacts	Normally Open, Common, Normally Closed			
Contact ratings	5A @ 28VDC (TV-5 Rated) 100k operations minimum			
Environmental specifications				
Operating temperature	-25° to +60°C or -13° to +140°F			
Storage temperature	-40 ° to 85 °C or -40° to +176°F			
Operating humidity	0 to 95% relative humidity non-condensing (at +40°C / +104°F)			
Ingress Protection	IP10	IP20	IP20	IP40
Certifications				
Certifications	CE (EU), RoHS 3 compliant with UL available upon request			