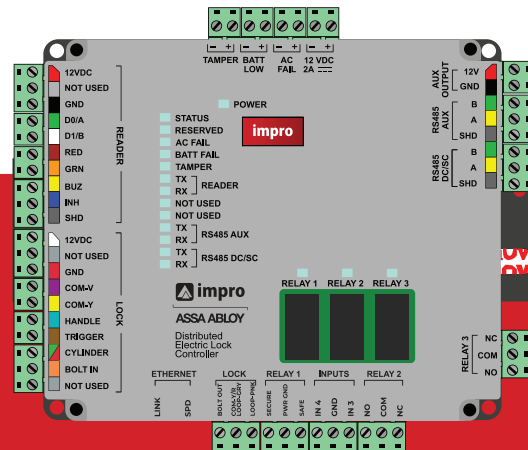![impro / ASSA ABLOY logo]

Distributed Electric Lock Controller

Precision control for Abloy electric locks

For Scalable PACS solutions with real-time monitoring

Seamless Integration:
Direct Abloy EL lock control, real-time monitoring

Advanced Access:
Supports anti-passback, zones, and threat levels.

Versatile Connectivity:
RS-485, Ethernet, OSDP, Wiegand, AES encryption.

Reliable & Secure:
Power monitoring, tamper alerts, offline support.

Easy Installation:
LED indicators, PoE++, remote firmware updates.

WHO SHOULD USE THE DISTRIBUTED CONTROLLER?

This controller is ideal for security integrators, facility managers, and enterprises requiring seamless electric lock integration, real-time monitoring, advanced access control, and scalable, encrypted security solutions.

Product Benefits

Seamless electric lock integration:
• Direct connection with Abloy's EL range for enhanced control and monitoring.

Real-time monitoring:
• Instant reporting of door state changes, Including forced entry or open / closed state.

Convenience:
• Enable mobile support only when needed.

Scalable architecture:
• Configure as a door controller or full system controller.

OSDP and Wiegand support:
• Secure and flexible reader connectivity.

Offline validation:
• Stores 10,000 credential and 100,000 transactions per channel.

Zero down-time upgrades:
• Remote firmware updates without system interruption.

Enhanced security:
• AES encryption, battery health monitoring, and real-time power alerts.

Versatile installation options:
• Available instand alone, ABS plastic, or steel enclosures.
• DIN Rail mountable: Simplifies installation in control panels.

The Electric Lock variant of the Distributed Controller is specifically designed to integrate seamlessly with Abloy's EL range of electric locks—offering a level of control and monitoring not available in other controllers.

Equipped with a dedicated lock interface port, the controller enables direct wiring of lock inputs and outputs to corresponding terminals. This ensures real-time state monitoring, allowing the access control system to detect and report any changes instantly.

In addition to lock control, the controller features a reader port that supports both legacy Wiegand and secure Open Supervised Device Protocol (OSDP) communication. Connected readers work in sync with the electric lock to regulate door access.

The controller supports:

• Anti-passback (APB) door control, using OSDP-connected entry and exit readers with an electric lock managing both directions.

• Single-reader door control, where electronic access is enforced at entry, while exit is mechanically controlled. The reader can be connected via Wiegand or OSDP.

This direct integration allows the access control system to distinguish between different door states, including whether access was granted via a key or credential. The system can also detect and respond to actions such as the lock handle being pushed down as a request to exit, bolt lock position changes, and whether the door is open or closed. This enables precise monitoring of events like door forced, door open too long,

and door closed securely. With its specialized design, this controller enhances electric lock management by delivering seamless integration, real-time monitoring, and improved security.

Beyond electric lock integration, the Distributed Controller offers flexible connectivity with RS-485 or Ethernet communication to access control software. Secure AES encryption protects data transmission. Offline operation is supported with storage for 10,000 credentials and 100,000 buffered transactions per channel.

The controller can enforce advanced validation rules such as Zone Counting, Visitor Hosting, Man Traps, and Worker Safety Lockouts. Multiple Threat Levels provide instant access adjustments during lockdowns or security incidents. Terminal modes enable edge devices to adapt behaviour based on scheduled configurations, aligning access control with operational needs.For enhanced system resilience, some variants of the controller include three 12VDC outputs with resettable fuses and battery health monitoring. Real-time power status alerts and dual tamper protection ensure security and system uptime, while a PoE ++ variant eliminates AC power dependencies.

Designed for optimized installation, it features 22 LED indicators for real-time system feedback, remote firmware updates with zero downtime, and color-coded connections for simplified setup. Available in a standalone module, ABS plastic enclosure, or metal enclosure with integrated power options, the controller is engineered for durability and reliability in various deployment environments.

ACCESS CONTROL

www.impro.net

Model Name	Distributed Controller Electric Lock Standalone	Distributed Controller Electric Lock w/ PSU (Metal Enclosure)	Distributed Controller Electric Lock w/ PoE (Metal enclosure)	Distributed Controller Electric Lock Plastic Enclosure
Part number(s)	HCD910	HCD911/12	HCD913	HCD915
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				
	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 AperioTM wireless lock hubs			
OSDP & Wiegand	1 hardware selectable port 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			