

Standalone Controller

Anti-Vandal Backlit PIN AC-Q42HB & AC-Q42SB

Datasheet



AC-Q42HB / AC-Q42SB

1. Introduction

The AC-Q42 series represents advanced anti-vandal standalone access control technology with dual credential capabilities. These controllers support up to 500 users and feature illuminated blue metal keys for PIN code entry combined with a built-in proximity reader for RFID user credentials. Both models in the series offer all-weather operation, flexible programming capabilities including a unique code search function for simplified user management, and non-volatile memory that protects the storage of the user database, modes, and parameters.

The series combines large backlit metal keys with built-in heaters, providing enhanced accessibility in low-light conditions and cold temperatures. The controllers feature attractive profiles with no sharp edges. Available in two versions to suit different installation requirements, the AC-Q42 series delivers robust performance with advanced programming options where reliability and durability are essential.

The **AC-Q42HB** features a rugged metal construction ideal for high-traffic environments. This model includes removable terminal blocks for quick installation.

The **AC-Q42SB** features a slim, rugged metal construction suitable for high-traffic environments. The fully sealed design is epoxy-filled for enhanced durability in outdoor conditions.

2. Main Features

Feature	AC-Q42HB	AC-Q42SB
RFID Reader	Built-in 125 kHz RFID card reader	
User Capacity	500 users can have PIN and/or RFID user credentials to grant access.	
Design	Smooth, attractive design with anti-vandal construction	
Keypad	Highly-visible blue backlit keypad	
Security Levels	3 operational Security Levels can be selected with special PIN codes	
PIN Code Support	Supports up to 8-digit PIN codes, with timed wrong code lockout after 3 wrong attempts	
Indicators	2 tri-colored LEDs and integral sounder for programming and operation	
Additional Features	Removable terminal blocks are used for connecting the wires to the unit	---

3. Professional-Grade Features

- Optical tamper detection
- An automatic internal heater prevents key freeze at -20 °C (4 °F).
- 10 programmable modes for auxiliary input and output (2 Amp Form C Relay)
- 2 Amp Form C Lock Strike Relays, for fail-safe and fail-secure, with input for REX
- Supports: Door Ajar, Forced, Shunt, Monitor, and Secure modes
- Doorbell key feature operation (from the '*' key), with Rosslare's BL-D40 accessory

4. Specifications

Electricity	AC-Q42HB	AC-Q42SB
Operating Voltage Range	12 to 24 VDC, from a regulated power supply	
Input Current: Heater Off Standby	85 mA, Maximum: 145 mA, at 12 VDC	
Input Current: Heater On Standby	565 mA, Maximum: 625 mA, at 12 VDC	
Relay Outputs	Lock Strike: 2 A, N.O. and N.C. Auxiliary: 2 A, N.O. and N.C.	
Tamper	Optical back tamper sensor, O.C. active low 32 mA max sink current	
Inputs	REX: N.O. Dry Contact Auxiliary (In/Monitor): N.O. Dry Contact, 10 programmable modes	
Proximity Card Reader	Maximum read range ¹ : 65 mm (2.5 in.) Modulation: ASK at 125 kHz Compatible cards: All 26-bit EM cards	

Operations	AC-Q42HB	AC-Q42SB
Capacity	500 users, single/dual code each	
Keypad	3x4 keys for local programming and 4-to-8-digit PIN code entry	
User Levels	Normal, Secure, Master	
Security Modes	Normal, Bypass, Secure	
Audio/Visual	Interface for BL-D40 (bell, chime, and siren annunciator) Two tri-color LED indicators, built-in sounder	
Design	Suitable for extremely harsh environments.	
	Rugged metal enclosure, highly strong construction, blue backlit metallic keys.	Epoxy potted, fully sealed in a rugged metal slim enclosure, highly strong construction, blue backlit metallic keys.

¹ Measured using a Rosslare proximity card or equivalent. Range also depends on the electrical environment and proximity to metal.

Environment	AC-Q42HB	AC-Q42SB
Operating Environment Water resistant, suitable for outdoor use	IP54	IP65
Operating Temperature	Built-in heater to prevent key freezing: -20 °C to 60 °C (-4 °F to 140 °F)	
Operating Humidity	0 to 95 % (non-condensing)	

Hardware	AC-Q42HB	AC-Q42SB
Dimensions (H x W x D)	120 x 76 x 27 mm (4.72 x 3 x 1.06 in.)	120 x 76 x 22 mm (4.72 x 3 x 0.85 in.)
Weight	440 g (1 lb)	521 g (1.18 lb)

5. System Components

Component Type	AC-Q42HB	Q42SB
Proximity Cards/Tags	---	Selection of Rosslare's proximity cards and tags
Compatible Accessories	BL-D40 alarm, chime and doorbell enunciator/strobe unit EX-01 Push to Exit button	

6. Product Warranty

Model	Warranty
AC-Q42HB	2-Year Limited Product Warranty
AC-Q42SB	5-Year Limited Product Warranty



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