

Borealis KB Controller 2D

Data Sheet



BOREALIS

Borealis KB Controller 2D

The Borealis KB Controller is designed to simplify the adoption of cloud-hosted access control. It is a cost-effective solution tailored specifically for Borealis installations.

The Borealis KB Controller 2D is designed to be highly intelligent with minimal reliance on network traffic for decision-making, allowing it to conserve valuable bandwidth. The controller comes with built-in Ethernet functionality.

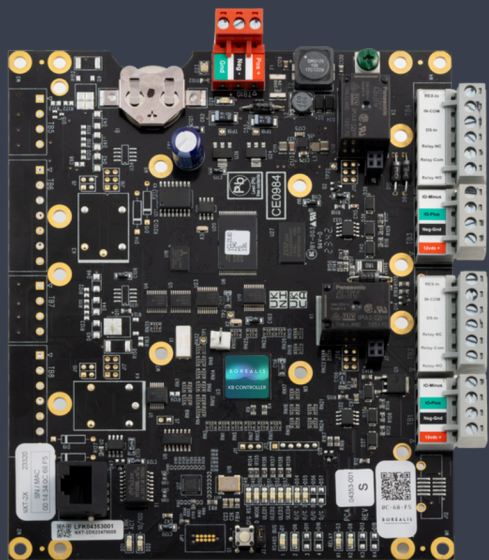
The Borealis KB Controller offers all the essential features needed for a secure access control solution, all hosted and securely backed up in the cloud.

To enhance the system's capabilities, up to two NXT 4x4 Input/Output boards (NXT-4x4) can be added to each of the controller's RS-485 trunks (buses).

Customers can choose from Keri's highly secure 4-wire NXT Series proximity readers with reader supervision or use a Reader Interface Module to connect and convert any existing legacy solution with a standard Wiegand output or Keri's MS Series proximity readers. This option will save the need to repurchase credentials and reduce the costs of restructuring your access control solution.

To manage the KB Controllers, Borealis provides a modern, streamlined, and intuitive user interface that can be accessed from any internet browser with no software or SQL requirements.

Note: Controller shown without included enclosure



Key Features

Borealis Connect App - QR Code Controller Enrollment - Scan and Go, The fast and easy way to the cloud. Manage Doors, cardholder status, and inputs/outputs

2 Door/2 Reader Controller for Keri's Borealis Solution

On-board TCP/IP connectivity – no network adapters required

Utilize existing LAN/WAN/Ethernet or pull your own dedicated CAT-5/6 Network

Embedded MAC address for easy controller importing

Re-assignable Inputs and Outputs

Quick Disconnect Connectors

10,000 Cardholders, 10,000 Event Buffer

Fits in Locking Metal Enclosure



Scan & Go Ready

	Borealis KB Controller 2D Specifications
KB-2D	Supports a typical access control feature set for 2 doors/2 readers
Features	Storage for up to 10,000 cardholders and 10,000 events
	Door Control - up to 2
	Borealis supports 1 access-group per cardholder
	Hardware
Controller Voltage	10 - 14VDC @ 1.2 A (maximum current draw for a fully loaded 2D controller)
Current Draw (maximums)	Per Controller: 570 mA
	Per Bus: 250 mA @ 12 VDC (1)
	Per 4x4: 50 mA static, 200 mA with all four relays energized
	Per NXT Reader: 85 mA
	Per NXT-6RK Reader: 115 mA
	Per RM3/WI-Plus: 50 mA (plus the current of the attached reader)
	(1) A separate power source is required for the peripherals if the cumulative peripheral current draw exceeds the bus max of 250 mA.
Battery	Lithium, 5-year memory retention, CR2032
2 Door/ 2 Reader TCP/IP Controller	Readers: 2 (Keri NXT) or Keri MS and Wiegand <u>when used with a NXT-RM3/NXT-WIPLUS adapter</u>
Inputs	4, reassignable, 2 - Door Contact, 2 - Request to Exit, expandable to 10 Inputs when using 4x4 I/O Expansion Modules
Output Relays	2, reassignable, 1.0 A, 24 VDC maximum, dry circuit, Form C - expandable to 10 Outputs when using 4x4 I/O Expansion Modules
Host Communication	Ethernet, 10-BaseT/100BaseTX
	Cabling
Control Power	18 AWG, 2 conductor, stranded, 250 ft. (75 m) maximum run
Earth Ground	18 AWG, 1 conductor, solid, shortest path to earth ground
Inputs/Outputs	22 AWG, 2 conductor, stranded, 500 ft. (150 m) maximum run
Bus to Reader Only - Power	18 AWG, 2 conductor, stranded, 1,000 ft. (300 m) maximum run
Bus to Reader Only - Data	22 AWG, 2 conductor, stranded, shielded, twisted pair, 1,000 ft. (300 m) maximum run
Bus to Reader/ Peripherals - Power	18 AWG, 2 conductor, stranded, 500 ft. (150 m) maximum run
Bus to Reader/ Peripherals - Data	22 AWG, 2 conductor, stranded, shielded, twisted pair, 500 ft. (150 m) maximum run
Ethernet	CAT-5, minimum

Borealis KB Controller 2D Specifications	
Operating Environment	
Temperature	-40° F to 140° F (-40° C to 60° C)
Humidity	0-90%, Non Condensing
Mechanical Specifications	
Dimensions	In Enclosure - 13.125 in H x 10.625 in W x 3.06 in D (33.34 cm H x 27 cm W x 7.77 cm D)
	Board Only - 6.6 in H x 5.6 in W x 2.55 in D (16.83 cm H x 14.26 cm W x 2.55 cm D)
Weight	Including Enclosure - 5 Lbs (2.27 Kgs) -- Board Only - 6.72 oz (190.5 g)
Compliance and Product Warranty	
Certifications	CE, FCC, CSA Std. C22.2
Warranty	Two year, no questions asked, replacement warranty
Ordering Information & Related Products	
Model Number	Description
KB-2D	2 door / 2 reader with enclosure
KB-2D-NE	2 door / 2 reader without enclosure
KPS-3	Power supply - 12VDC @2.8A, with enclosure, output battery ready
KPS-3NE	Power supply - 12VDC @2.8A, no enclosure, output battery ready
ENC-KE1	Single controller enclosure
KE-8	4 panel enclosure
NXT-4X4	4 input / 4 output auxiliary I/O and local door control module with enclosure
NXT-4X4-NE	4 input /4 output auxiliary I/O and local door control module without enclosure
NXT-3R	Mullion mount NXT proximity reader for NXT controllers, access/entry version
NXT-5R	Wall mount NXT proximity reader for NXT controllers, access/entry version
NXT-6RK	NXT proximity reader and keypad for NXT controllers
NXT-RM3	Reader interface module - Wiegand and MS reader compatibility
NXT-WI-Plus	Wiegand interface module - Wiegand reader only compatibility
* Specifications are subject to change without notice.	

Note: Keri MS or Wiegand readers require an NXT Reader Interface Module (RM3 or WI Plus)

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