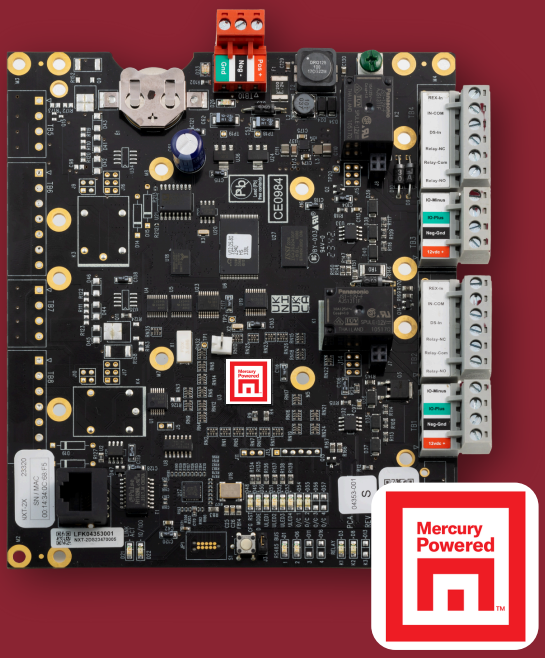
# NXT-2D-MSC Controller

Data Sheet




## Key Features

Provides more functionality, and more features than standard NXT controllers

Doubles controller capacity with NXT readers when in/out reading is required

Advanced Local Linkage allows design of sophisticated I/O  linkage macros

Provides advanced Elevator Control with Floor Select reporting

Allows for Area Control, Anti-Passback and Occupancy

Temporary cards by use count, supervisor cards, man-trap, and 2-man rule

Support for select Integrated Electronic Locks from Assa Abloy, Allegion, and dormakaba

Credential Types “format builder” to handle any Wiegand format

OSDP Reader Support

## Mercury Powered NXT Controllers

Keri Systems has partnered with Mercury Security to bring enhanced capabilities to its Doors.NET customers that use the NXT hardware platform of TCP/IP-based controllers. By embedding Mercury Firmware in NXT Controllers a whole new set of features become available for applications with more sophisticated and customized requirements. This broadens the scope of NXT hardware capability such that it makes it a good choice for high-end and Enterprise applications as well as mid-sized projects that demand high end features.

The NXT-MSC controller has all of the hardware advantages the Standard NXT controller has. By using an existing TCP/IP network, controller cabling costs can be eliminated. Or, if building a new network, they can be reduced up to 50% over traditional hard-wired access systems.

The NXT-MSC 2D/4D is designed to be extremely intelligent with little reliance on network traffic for decision making, allowing it to be thrifty with any network’s valuable bandwidth. With Ethernet functionality built directly into the controller, Keri’s proprietary MAC addressing scheme allows for reliable hardware discovery and true one-button auto-configuration.

For applications that require more specialized or sophisticated features, NXT Controllers are available with Mercury firmware to provide a higher level of functionality than standard NXT controllers.

For installations requiring UL294 certification, add -UL to each model number.

Note:  Controller shown without enclosure

| NXT-MSC-2D Controller Specifications | |
|---|---|
| **NXT-MSC-2D** | Supports a typical access control feature set for 2 doors and 2 readers (4 including exit readers) using a Mercury-powered firmware |
| **Features** | Storage for up to 100,000 credentials and 10,000 events depending upon software |
| | 128-bit Encryption |
| | Door Control - up to 2 |
| | Access Groups - up to 32 per cardholder |
| | 255 Time Schedules and Holidays per list, supports Vacation Days and Special Event Days |
| | Support for select Integrated Electronic Locks from Assa Abloy, Allegion and dormakaba |
| | **Hardware** |
| **Controller Voltage** | +12 VDC nominal (10 to 14 VDC) @ 1.2A (maximum current draw for a fully loaded 4D controller) |
| **Current Draw (maximums)** | Per Controller Fully Loaded: 1.2A |
| | No busses loaded; 570mA |
| | Current draw available per bus of an NXT controller: up to 250mA @12VDC |
| | 4X4; 250mA, (assumes a 4X4 with RIM loaded, reader attached and 4 relays energized) |
| | RIM; 50mA with no reader attached. Attached reader draw would need to be added |
| | NXT reader; 85mA (All NXT R readers) |
| **Battery** | Lithium, 5-year memory retention, CR2032 |
| **Reader Capacity (MSC controller only)** | 4 when using NXT Readers or OSDP Readers (2 entrance, 2 exit), 2 when using Wiegand or Keri MS readers (requires a RM3 or WI-Plus module per Reader) |
| **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** | 122 AWG, 2 conductor, stranded, shielded, twisted pair, 500 ft. (150 m) maximum run |
| **Ethernet** | CAT-5, minimum |

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| NXT-MSC-2D Controller 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, UL294 |
| **Warranty** | Two year, no questions asked, replacement warranty |
| | **Ordering Information & Related Products** |
| **Model Number** | **Description** |
| NXT-2D-MSC | 2 Door/4 Reader NXT Controller with Mercury firmware with Enclosure |
| NXT-2D-MSC-NE | 2 Door/4 Reader NXT Controller with Mercury firmware 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-1R | EuroMount NXT Proximity Reader for NXT Controllers, access/entry version |
| NXT-1RE | EuroMount NXT Proximity Reader, exit/egress version |
| NXT-3R | Mullion Mount NXT Proximity Reader for NXT Controllers, access/entry version |
| NXT-3RE | Mullion Mount NXT Proximity Reader for NXT Controllers, exit/egress version |
| NXT-5R | Wall Mount NXT Proximity Reader for NXT Controllers, access/entry version |
| NXT-5RE | Wall Mount NXT Proximity Reader for NXT Controllers, exit/egress 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** |
| *NXT-XD-MSC-UL* | *For installations requiring UL294 certification, add -UL to each model number.* |

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