VERTIV™

Vertiv™ Knürr @Lock

Solutions for racks

Access control for datacenters

Access control for data centers and technical rooms

Data centers are broken into on a regular basis. In many cases, the intention is simply to steal high-quality IT equipment. However, breaking in may only be a pretense for stealing data and/or putting in place a man-in-themiddle infrastructure.

On 28 February 2011 for example, an important data center belonging to a global telecommunications service provider was paralyzed by intruders. Only a few weeks previously, a DC service provider working on behalf of a major health care company became the victim of an attempted break-in, which resulted in the entire security concept undergoing a TÜV audit. Generally speaking, attacks of this kind go undetected.

Data centers are security areas and therefore need to be secured through various measures. An important part of this is controlling access to and in the data center. Controlling access to the data center is usually achieved through a combination of organizational measures, e.g. gates and turnstiles, besides a building access control system.

Working with various partners, Emerson Network Power has developed system concepts which not only improve physical security through access controls within the data center but also simplify operative processes, making them less susceptible to errors. These concepts are known as "Vertiv Knürr @ Lock".

Speed, power and precision – from the very beginning. It all starts with Knürr DCM®.

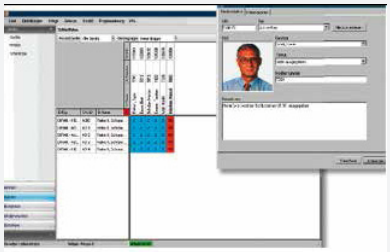
Option 1: Transponder card system

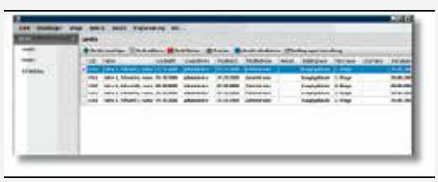
Vertiv Knürr @Lock "transponder card system" concept

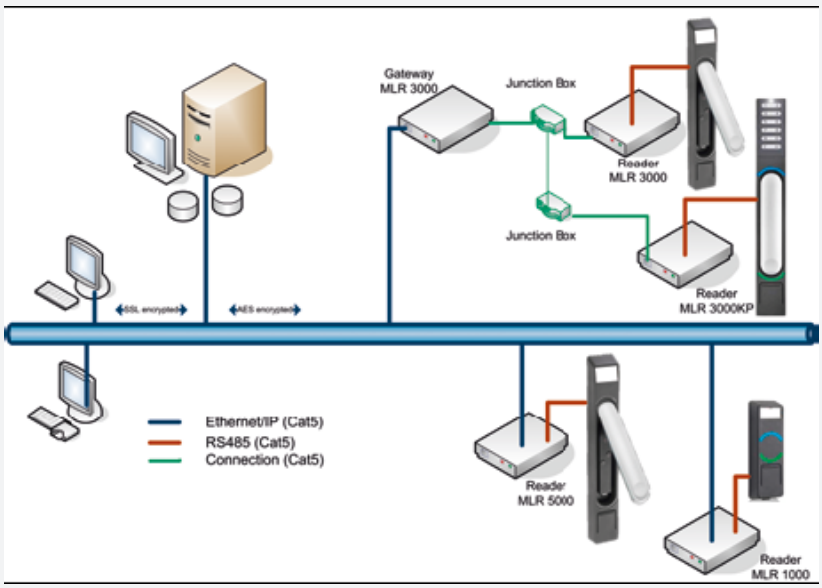
This system concept can be applied throughout – from the DC door and the cold aisle door to the individual cabinets. Besides the card readers and handles, the extensive "Administration Suite" management software is a key part of the system.

Thanks to its modular design and open infrastructure architecture, the new Administration Suite can be expanded as required and can also be implemented for third party providers.

- Encrypted data communication between the hardware, server and client.
- Runs on Windows 2000, Windows XP, Windows Vista, Windows Server 2003, Windows Server 2008, Citrix.
- Allows administration of various users with different types of authorization.
- Client/server capability.
- Web client-capable, SNMP alarming.
- Records changes made to the system by users.
- Straightforward user guidance in spite of extensive tools.
- Wide range of alarm messages.
- Automatic alarm notification via e-mail.
- Centralized locking plans and access management.
- Freely selectable four-eyes-principle.
- Support for the most common transponder types.
- Central management of various systems.
- Records all actions in "Log Events".
- Free replacement of the lock system if the authorizing medium is lost.
- Real-time visualization of the swing handle stations.
- Configuration of special days with different locking regimes.
- Allocation of time profiles for access.
- Able to export "Log Events".
- Multilingual software.







MLR 3000 and MLR 5000 handles are suitable for linking server or network cabinets to the transporter card system. The E-LINE by Dirak mechatronic swing handles and the Administration Suite software provide a convenient, reliable way of monitoring access to your data or server cabinet. With the Administration Suite software, security officers can conveniently monitor and manage access rights from a PC.

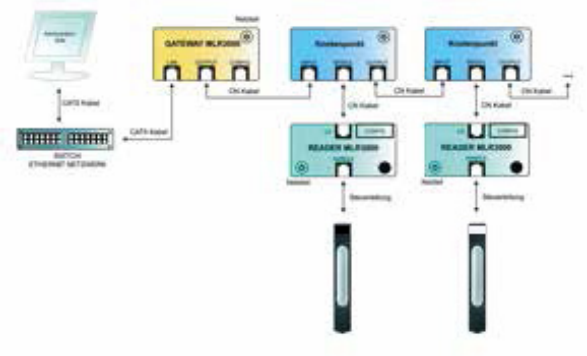
The integrated LEDs visualize alarm messages and types of authorization on the handle itself. As a result, technicians on site are given the same information that the Administration Suite software provides at the headquarters. The LEDs at the top and bottom of the handle offer permanently high luminosity with a low power consumption. As a result, the lock status can be determined quickly, even from a distance of several meters.

The top LED can indicate various statuses, such as indicating that the handle is ready to be opened or locked.

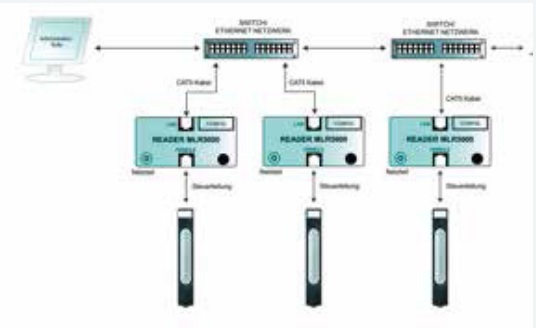
The bottom LED shows whether the handle is within or outside the temperature range for the cabinet selected by the customer. As a result, irregularities can be identified quickly and appropriate action taken.

The information display integrated into the handle is backlit and allows customer-specific information such as the cabinet row, cabinet number etc. to be added for extra clarity.

Vertiv Knürr @LockMLR3000



Vertiv Knürr @LockMLR5000



Technical data – Vertiv Knürr@Lock MLR3000/5000

HANDLE ELECTRONICS	
Two-part hardware design	Swing handle and reader unit
Visualization	Multicolored status LED
Reader	For 125 kHz transponders (HID 26 bit system), alternatively 13.56 MHz (MIFARE)
READER	
Housing	Reader unit in plastic housing, can be fixed with screws or self-adhesive pad
Power supply	12 V ± 10 % (DC) via low voltage socket
Standby current (system ready)	40 mA (DC)
Max. current consumption (with connector tightening)	440 mA (DC)
RS232 interface for MLR3000	RS232 cable (RXD, TXD, GND, Reader present, PC present), 38,400 baud
Current increase for MLR5000 via Ethernet interface	125 mA (DC)
TCP/IP interface	Ethernet, 10100 Autosense, up to 100 Mbaud
Connecting cable (reader - handle electronics)	8-pole, 350 cm, UL stranded wire AWG 26, one side with gated RJ45 plug, one side with crimped JST ZH connector ZHR-8
Relay output (via screw clamps)	2.5 mm2, can be screwed in from plug side, relay contact: 12 V, 3 A, 60 W, 120
Door contact input (via screw clamps)	2.5 mm2, can be screwed in from plug side, terminals 1 and 2
RS485 interface	RS485 cable to the E-LINE by DIRAK Gateway, (+/A, -/B), 38,400 baud
Memory capacity for transponder cards	2000 + 1 master transponder
Memory capacity for events	500 (ring memory)
Memory capacity for time profiles	30
Integrated real-time clock	With buffering of up to 60 min at 25 °C
Temperature range	-20°C – +70°C

Order numbers

TYPE	MODAL	ORDER NO.	UP
@LockMLR3000	for Miracel and DCM front door	01.180.226.9	1 unit
@LockMLR3000	for twin door (e.g. DCM rear door)	01.180.227.9	1 unit
@LockMLR5000	for Miracel and DCM front door	01.180.228.9	1 unit
@LockMLR5000	for twin door (e.g. DCM rear door)	01.180.229.9	1 unit
@LockMLR5000KP	for Miracel and DCM front door	01.180.240.9	1 unit
@LockMLR5000KP	for twin door (e.g. DCM rear door)	01.180.241.9	1 unit

Accessories

MODAL	ORDER NO.	UP
Door contact	06.108.115.9	1 unit
HID transponder card	01.180.040.9	1 unit
Desktop reader for the initial reading of transponder cards	01.180.128.9	1 unit
MLR3000 Gateway	01.180.111.9	1 unit
Plug-in power supply (Europe)	01.180.035.9	1 unit

MLU card readers can be used to connect a room door with existing electromechanical locking or a motorized cold aisle door (Coolfex)

Technical data – MLU3000/5000

- Three-part hardware design
- MLU3000 set comprising: external MLU reader, network reader unit and MLU1000 lock.
- Visualization on MLU reader: 2 x multicolored status LEDs as well as 1 x backlit information display.
- Antenna for 125 kHz transponders (HID 26 bit system).

- **Optional MLU1000 lock**
  - Die-cast zinc (GDZn), color: matt chrome
  - 4 m control cable
  - Power supply 24 V DC +/- 10 % 100 mA
  - Proximity sensor status contact
  - Wall/sheeting thickness independent
  - Electronic opening by interrupting the power supply

- **MLU3000/MLU5000 Network reader**
  - Housing reader unit in plastic housing, can be fixed with screws or with a self-adhesive pad
  - Nominal input voltage 12/24/48 V ± 10 % (DC) depending on the electronic lock connected.
  - Stand-by current (system ready) 40 mA (DC)
  - Max. current consumption RJ12 (LOCK) 1.5 A (DC)
  - Max. current consumption via relay clamp 3.0 A (DC), clamps 10-11.
  - RS232 interface RS 232 cable (RXD, TXD, GND, Reader present, PC present), 38,400 baud.
  - Connecting cable (reader - external MLU antenna) 8-pole, 350 cm, UL stranded wire AWG 26, one side with gated RJ45 plug, one side with crimped JST ZH connector ZHR-8.
  - Relay output (via screw clamps) 2.5 mm, can be screwed on from plug side, relay contact: 12 V, 3 A, 60 W, 120 VA, terminals 3 - 5.
  - Door contact input (via screw clamps) 2.5 mm2, can be screwed from plug side, terminals 1 and 2.
  - RS485 - RS485 interface - cable to the E-LINE by DIRAK Gateway, (+/A, -/B), 38,400 baud (MLU3000).
  - TCP/IP Ethernet interface, 10/100 Autosense, up to 100 MBit/s (MLU5000).
  - Power off when open/closed: depending on the electronic lock connected, this is configured in the Administration Suite Config Tool.
  - Memory capacity for transponder cards 2000: + 1 master transponder.
  - Memory capacity for events: 500 (ring memory).
  - Memory capacity for time profiles: 30.
  - Integrated real-time clock with buffering of up to 60 min at 25°C.
  - Temperature range -20°C – +70°Technical data – MLU3000/5000 °C.

Option 3: Potential-free contacts

Vertiv Knürr @Lock "potential-free contacts" system concept

Swing handles from the Vertiv Knürr @Lock MLR1000 range are suitable for connecting electromechanical swing handles to existing building management systems or local identification systems as well as complementing @LockBlueID or rack monitoring systems.

The handle can be opened as soon as its potential-free contacts are activated or a voltage of 12-24 V DC is supplied. Following activation, the MLR1000 switches to ready-to-open status. During this period, the user can open the MLR1000 by pressing a button.

The LED at the top of the handle offers permanently high luminosity with a low power consumption. As a result, the lock status can be determined quickly, even from a distance of several meters.

The information display integrated into the handle is backlit and allows customer-specific information such as the cabinet row, cabinet number etc. to be added for extra clarity.

HANDLE ELECTRONICS	
Two-part hardware design	MLR1000 and MLR1000 Box
Visualization	Status LED
MLR1000 BOX	
Housing	Interface unit, plastic housing, can be fixed with screws or self-adhesive pad
Power supply	12 V DC ± 10 % via screw clamps
Standby current (system ready)	40 mA (DC)
Max. current consumption (with connector tightening)	410 mA (DC)
Operating mode	100 % ED
Relay control	12V DC
Operating time	Max. 3 seconds
Contact output	250 V AC, 2 A
Installation position	Vertical
Connection type	Screw clamps, 2.5mm2
Connecting cable (reader - handle electronics)	8-pole, 350 cm, UL stranded wire AWG 26, one side with gated RJ45 plug, one side with crimped JST ZH connector ZHR-8
Temperature range	-20°C – +70°C

	@LOCK MLR500 MLR5000kp	@LOCK MLR3000 MLR3000kp	@LOCK MLR1000
Software necessary	Admin Suite	Admin Suite	Custom
E-Line Administration Suite Software	Yes	Yes	No
External emergency power supply connector	Yes	Yes	Yes
Identification	Transponder card with (kp) or without Keypad	Transponder card with (kp) or without Keypad	Dependent on customers equipment and software
IP support	Yes	Gateway	No
Log files	Yes (in combination w. Administration Suite)	Yes (in combination w. Administration Suite)	Dependent on customers equipment and software
User profiles	Yes (in combination w. Administration Suite)	Yes (in combination w. Administration Suite)	Dependent on customers equipment and software
Four-eyes-principle	Yes (in combination w. Administration Suite)	Yes (in combination w. Administration Suite)	Dependent on customers equipment and software
Off-line mode	No	No	No

Order numbers

TYPE	MODAL	ORDER NO.	UP
@LockMLR1000	for Miracel and DCM front door	01.180.224.9	1 unit
@LockMLR1000	for twin door (e.g. DCM rear door)	01.180.251.9	1 unit

Vertiv.com/en-in | E-mail : marketing.india@vertiv.com | Toll free : 1-800-2096070

Vertiv Energy Private Limited | **Plot C-20, Rd No.19, Wagle Ind Estate, Thane (W), 400604. India**