Knürr @Lock®

2.92 to 2.95

MIR20107

Problems with locking systems

- **Unauthorized access**
  - By own employees
  - By external companies
  - Uncontrolled access
  - Decentralized access authorizations
  - Key problem
  - Loss of key
  - Single key system
  - Many different keys

The mechanical/electro-mechanical comparison

- **Cylinder lock systems**
  - + Simple technical version
  - + Cost-effective with individual locking
  - + No power supply required
  - - Easily duplicated
  - - Replacement (among other factors) problematic
  - - Code conversion expensive with locking systems
  - - Key-connected, which means transferable with key hand-over (theft)
  - - Logging and monitoring very expensive/ time-consuming
- **Electronic systems**
  - + Various locking options
  - + Opening permission possible without a key being required
  - + Opening permission can be granted/ withdrawn almost immediately
  - + Lock control / logging possible
  - + Remote opening per PC / Internet / mobile phone / SMS
  - + Expandable and easy code conversion lock system
  - - Power supply required

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Locking solutions
Control components to choose from

- **Electronic locking systems**
- **Mechanical combination lock**
- **Standard locking with half-cylinder**

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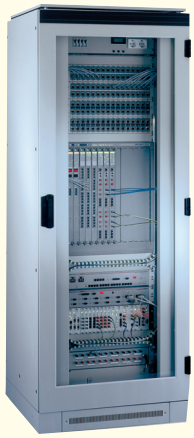
Modules
Control components for electronic locking systems



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– Interlocking: security with multi-point interlocking mechanism

- **Transponder**
- **Network (server)**

Decentralized rack suite

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- Each rack/each door can be opened separately – via its own address

- **Access authorization administration**
- **Access monitoring**
- **Locking mechanism control**
- **Access logging**

Embedded solution

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- **Administration**
- **Monitoring**
- **Logging**
- **Remote access**

Individual Locking / Stand-Alone Solution

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- **Access authorization administration**
- **Monitored access**
- **Locking mechanism control**
- **Access logging**

Knürr @Lock®
Strong points

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- The very small and modular design means that no additional space or greater installation depths are required in the rack.
- Contacts for emergency power supply that can be activated externally using trade standard batteries are integrated into each swing handle.
- An integrated light-emitting diode signals with different colors to inform whether or not the current access is authorized.
- Each device of the series can be networked with the other devices, which results in numerous possible combinations and options.
- Every opening process can be logged in the network. Existing network structures can be used for networking.

Knürr @Lock® Swing Handle – Security for racks in the data and networking area

MIR20284

– Conventional keys are replaced by electro-mechanical locking components.
– A servomotor pulls the retaining awl back and releases the handle.
– Actively opening the door is, however, made with the hand as before.
– Easy exchange of the swing handle with later installation using unchanged installation opening.
– Intended for standardized installation openings of conventional swing handle.
– Can be quickly and easily upgraded to locking system.
– Convenient administration of access authorizations.

- **@Lock Swing Handle, HID/IP**
  - The swing handle opens after a registered transponder card has been read.
  - With the HID variant, the communication between swing handle and PC runs via a junction box and a server.
  - The IP swing handle, by contrast, is configured via an IP address and is connected directly via the network to the PC.
  - Up to 2,048 HID cards per swing handle can be configured using a registered master card.
  - Configuration of the cards via the network is also possible with the included software.

- **Technical data @Lock Swing Handle, HID (optional IP remote connection)**
  - 100...240VAC, power supply not included in the supply schedule
  - Operation with 12VDC/40mA (max. 430mA)
  - Multi-color status – LED
  - Real-time clock
  - Network communication is made via external server (gateway)
  - Up to 250 handles can be administered per server (IP address)

- **@Lock Swing Handle IP**
  - 100...240VAC, power supply not included in the supply schedule
  - Operation with 12VDC/40mA (max. 430mA)
  - Multi-color status – LED
  - Real-time clock
  - Network communication with cabled connection via integrated Ethernet 10/100 Base T

- **Function**
  - Opens after reading a registered card
  - Memory for 32 time segments
  - Memory for 2,048 cards per handle
  - Integrated logbook for 500 events
  - Result-related communication
  - 125 kHz transponder with unique code (HID 26 bit system)

- **Supply schedule**
  @Lock Swing Handle, HID
  1 swing handle, HID
  1 reader
  1 reader connection cable
  1 network node, CX2001
  1 network cable, CN2001

- **Supply schedule**
  @Lock Swing Handle, IP
  1 swing handle, IP
  1 reader
  1 reader connection cable
  1 data CD

Knürr @Lock®
Swing Handle Basic/Basic plus

MIR20284

- Conventional swing handles are replaced by electro-mechanical locking components.
- A servomotor pulls the retaining awl back and releases the handle.
- Actively opening the door is, however, made with the hand as before.
- Easy exchange of the swing handle with later installation using unchanged installation opening.
- Intended for standardized installation openings of conventional swing handle.
- Can be quickly and easily upgraded to locking system.
- Convenient administration of access authorizations.

@Lock Swing Handle Basic/Basic plus
- The swing handle opens when an externally activated potential-free contact is closed (@Lock Basic)
- With the @lock Basic plus variant the external contact releases the swing handle for an opening. This is show with an LED. The opening can be made by pressing a button.

Application scenarios
- @Lock Basic or Basic plus are activated on the switching outputs of existing rack lock systems.
- @Lock Basic or Basic plus are activated on RMS switching outputs per SNMP or operated with alarm states.
- @Lock Basic or Basic plus are activated on the switching outputs of other rack lock systems.

Technical data
- @Lock Swing Handle Basic/Basic plus
- 100...240 VAC, power supply not included in supply schedule
- Operation with 12 VDC / 40 mA (max. 430 mA)
- Multi-color status LED

Supply schedule
1 Swing Handle Basic/Basic plus
1 Basic Box/Basic Box plus
1 control cable

How supplied
Flat-packed kit

Variant	For rack type	Order no.	UP
Basic	Knürr Miracel®	**01.180.024.9**	1 unit
Basic	Knürr DCM® (also Miracel® with double door)	**01.180.051.9**	1 unit
Basic plus	Knürr Miracel®	**01.180.026.9**	1 unit
Basic plus	Knürr DCM® (also Miracel® with double door)	**01.180.061.9**	1 unit

Knürr @Lock®
Swing Lever, HID

MIR20284

- On the basis and networking of an RS485 BUS system, the @lock HID solution is ideal for use in big server rooms and data centers with numerous IT racks.
- The communication with the swing handle is via the @lock Gateway.
- The Gateway provides the interface between the RS485 bus and the Ethernet/LAN.

This performs both the forwarding and conversion of all information in the RS485 bus.
- The nodes always form the branch off for another swing handle.
- One Gateway can manage a maximum of 32 @Lock HID handles.

Technical data
- Two-piece hardware setup: @Lock Swing Handle and Reader Unit
- Visualization: Multi-color status LED
- Reader: for 125 kHz transponder (HID 26 bit system), alternatively 13.56 MHz (MIFARE) on request
- 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 power (system is ready to operate): 40 mA (DC)
- Max. power consumption (with connector tightening): 440 mA (DC)
- RS232 interface: RS 232 cable (RXD, TXD, GND, Reader present, PC present), 38,400 baud
- Connection 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 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 interface: RS485 cable to the @Lock Gateway, (+/A, -/B), 38,400 baud
- Memory space for transponder cards: 2000 + 1 master transponders
- Memory space for incidents: 500 (ring memory)
- Memory space for time profiles: 30
- Integ. real-time clock: with buffering of up to 60 min at 25 °C
- Temperature range: -20 °C ... +70 °C

Supply schedule
1 swing handle, HID
1 terminal box
1 RS485 network node
1 connection cable

How supplied
Flat-packed kit

Note
- Not included in supply schedule: Power supply, Ethernet cable, software (Administration Suite 2.0)
- Accessories required: @Lock HID Gateway art. no. 01.180.111.9

Variant	For rack type	Order no.	UP
HID	Knürr Miracel®	**01.180.122.9**	1 unit
HID	Knürr DCM® (also Miracel® with double door)	**01.180.050.9**	1 unit

Knürr @Lock®
Swing lever, IP

MIR20284

- @Lock provides you a new and comprehensive option for convenient and reliable access monitoring for server/data racks.
- The @Lock IP is especially suitable for access to server racks that are distributed in different rooms or buildings.
- Every handle is configured with an own IP address and can therefore be controlled directly via the network.
- With easy integration without setting up a BUS systems, this variant is the solution for monitoring IT racks that are set up on different floors or in different buildings.
- The communication with the swing handle is via TCP/IP.
- Every handle is configured with a static IP address and connected directly with the network.
- The @Lock IP does not require a separate BUS system setup. The very low cabling input means this system is installed quickly and easily.

Technical data
- Two-piece hardware setup: @Lock Swing Handle and Reader Unit
- Visualization: Multi-color status LED
- Reader: for 125 kHz transponder (HID 26 bit system), alternatively 13.56 MHz (MIFARE) on request
- Reader: 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 power (system is ready to operate): 40 mA (DC)
- Max. power consumption (with connector tightening, without XPort operation): 440 mA (DC)
- Power increase with X-Port: 125 mA (DC) RS232 interface: RS 232 cable (RXD, TXD, GND, Reader present, PC present), 38,400 baud
- Connection 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 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
- TCP/IP interface: Ethernet, 10/100 Autosense, up to 100 MBaud
- Memory space for transponder cards: 2000 + 1 master transponder
- Memory space for incidents: 500 (ring memory)
- Memory space for time profiles: 30 Integ. real-time clock: with buffering of up to 60 min. at 25 °C
- Temperature range: -20 °C ... +70 °C

Supply schedule
1 swing handle, IP
1 terminal box
1 connection cable

How supplied
Flat-packed kit

Note
- Not included in supply schedule: Power supply, Ethernet cable, software (Administration Suite 2.0)

Variant	For rack type	Order no.	UP
IP	Knürr Miracel®	**01.180.123.9**	1 unit
HID	Knürr DCM® (also Miracel® with double door)	**01.180.060.9**	1 unit

Knürr @Lock®
Transponder card

■ **Supply schedule**
1 transponder card

■ **How supplied**
Flat-packed kit

	Order no.		UP
Knürr @Lock®	Transponder Card	**01.180.040.9**	1 unit

Knürr @Lock®
Gateway HID

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– The @lock Gateway is used for the communication between the Swing Handle HID and the administration software.
– The Gateway provides the interface between the RS485 bus and the Ethernet/LAN.
– This performs both the forwarding and conversion of all information in the RS485 bus.
– The nodes always form the branch off for another swing handle.
– One Gateway can manage a maximum of 32 @Lock HID handles.

■ **Technical data**
- Power supply: 12 V ± 10 % (DC) via low voltage socket
- Standby power (system is ready to operate): 40 mA (DC)
- Max. power consumption (with connector tightening): 440 mA (DC)
- RS232 interface: RS 232 cable (RXD, TXD, GND, Reader present, PC present), 38,400 Baud
- Connection 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 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 interface: RS485 cable to the @Lock Gateway, (+/A, -/B), 38, 400 Baud
- Memory space for transponder cards: 2000 + 1 master transponders
- Memory space for incidents: 500 (ring memory)
- Memory space for time profiles: 30 Integ. real-time clock: with buffering of up to 60 min. at 25 °C
- Temperature range: -20 °C ... +70 °C

■ **Supply schedule**
1 @Lock-Gateway HIDl

■ **How supplied**
Flat-packed kit

	Order no.		UP
Knürr @Lock®	Gateway HID	**01.180.111.9**	1 unit

Knürr @Lock®
Desktop Reader, HID

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The transponder cards are read into the administration software using the desktop reader. This enables the later configuration of the access media in the system (lock plan creation). The desktop reader is connected via the RS-232 interface with the PC on which the administration software is installed. The transponder card is inserted in the read-out unit for reading the transponder ID. The reading process can then be initiated in the administration software by hitting a key.

– The Desktop Reader is recommended with the Administration Suite.
– The DesktopReader reads the transponder codes from the access media.

■ **Supply schedule**
1 desktop reader HID
1 USB cable

■ **How supplied**
Flat-packed kit

	Order no.		UP
Knürr @Lock®	Desktop Reader HID	**01.180.128.9**	1 unit

Knürr @Lock® Power Supplies

■ **Supply schedule**
1 PMI power supply

■ **How supplied**
Flat-packed kit

Variant	Order no.	UP
Power Supply, PMI 2001 EU	**01.180.035.9**	1 unit
Power Supply, PMI 2001UK	**01.180.036.9**	1 unit
Power Supply, PMI 2001 US	**01.180.037.9**	1 unit
Power Supply, PMI 2001 Japan	**01.180.038.9**	1 unit
Power Supply, PMI 2001 Australia	**01.180.039.9**	1 unit

Knürr @Lock®
Network cable, CN2001

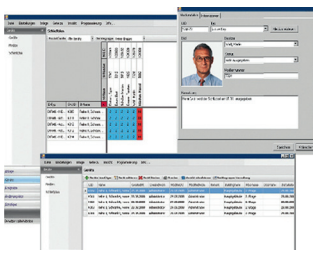
– Used for setting up connections with the CX2001 network node

■ **Supply schedule**
1 network cable, CN2001

■ **How supplied**
Flat-packed kit

	Order no.		UP
Knürr @Lock®	Network Cable, CN2001	**01.180.031.9**	1 unit

Knürr @Lock®
"Administration Suite 2.0" Software



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The @Lock software is the user interface for controlling and configuring the @Lock Swing Handle. Using this software, the administrator can create access codes and HID cards and assign users. The handle can be controlled in real-time from the software platform. All actions that are directly related with the swing handles are stored in an SQL database (e.g. opening, closing, granted accesses and accesses rejected on the basis of non-authorization).

■ **Technical data**
- MS-Windows 2000/NT etc.
- SQL database
- TCP/IP network connection to the swing handles
- The number of handles and gateways is only restricted by the capacity of the computer
- Communication with swing handle via server (gateways) or directly with @ Lock Swing Handle, IP

■ **Functions/applications**
- Client-server-based administration program for the @Lock system
- Requires max. 3-4 seconds for a status update
- Administration of users and rights
- Administration of HID cards, opening of active keys and access codes, closing, activation or deactivation of swing handles
- Observation of authorized and unauthorized access attempts
- Recording of all events connected with swing handles
- Central observation of swing handle
- Combination of all swing handles and servers
- Events recording
- Optional web interface
- Supports Sarbanes/Oxley and HIPPA requirements

	Order no.		UP
Knürr @Lock®	Software "Administration Suite 2.0"	**01.180.049.9**	1 unit

Knürr CombiLock
Desktop Reader, HID

MIR20095

– This additional lock, the aptly named "Override", produces a combination swing handle with particularly special advantages.

– Innovative combination swing handle with two activation options
– Independent opening and closing of the swing handle via combination or cylinder lock
– General key function possible with rack suites
– Can be used for right and left closing doors

Installation
In the standard installation opening of Knürr Miracel® rack doors. Quick mounting with plug-in connections and screw fittings.

Technical data
- Cylinder lock
- Combination lock can be individually set with 3 digits
- Independent activation

Supply schedule
1 swing handle with combi lock
1 mounting material set

	Order no.	UP
Knürr CombiLock	**01.137.013.9**	1 unit