

E·LINE
by DIRAK

E·LINE
by DIRAK

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installed.

MLR

Mechatronic Locks for Racks

MLE

Mechatronic Locks for Enclosures

MLI

Mechatronic Locks for Industrial Applications

MLU

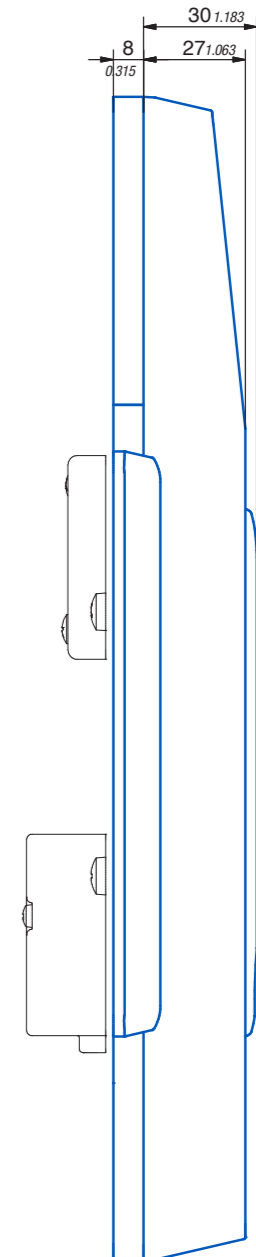
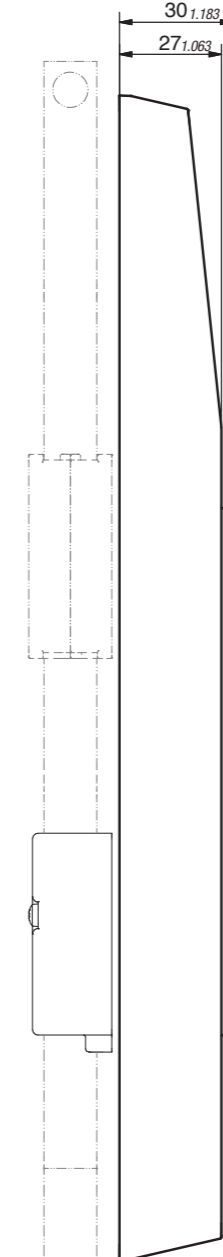
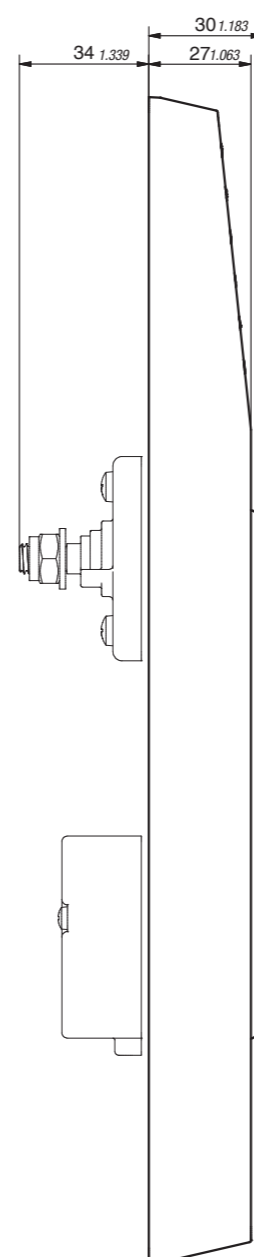
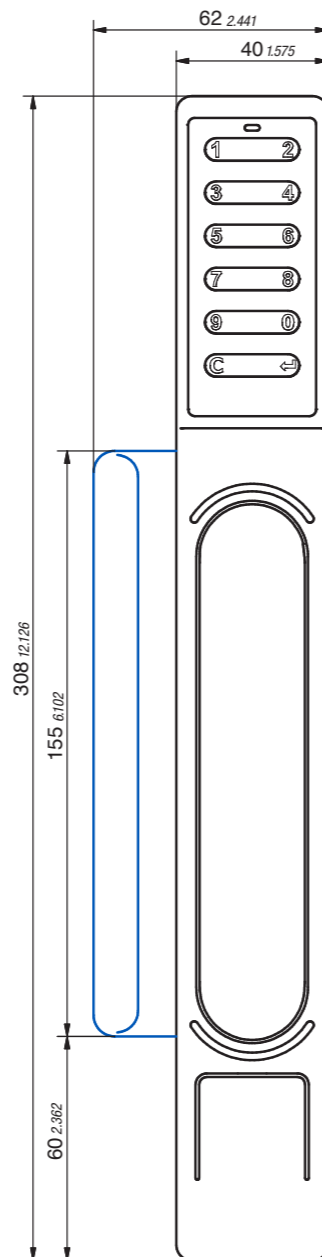
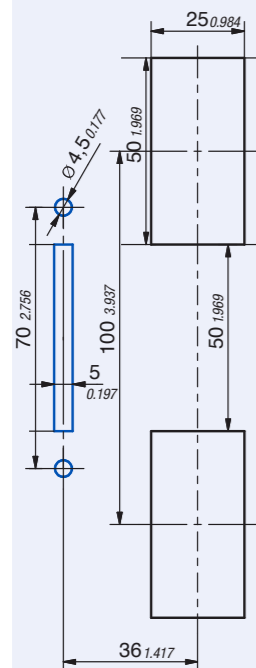
Mechatronic Locks for Universal Applications

MLM

Mechatronic Locks Management

MLR

Mechatronic Locks for Racks



- LED handle status
- Keypad with LED keypad status
- LED temperature status
- LED sabotage alarm/ready for opening
- Conditional Relay
- Reader 125 kHz
- Reader 13.56 MHz
- Relay output (via screw terminal) 2,5 mm², can be connected from the plug-in side
- Door contact input (screw terminal on plug-in side), 2,5 mm², terminal 1 and 2
- Interface
- Storage space for transponder
- Storage space PIN
- Storage for 500 events and 30 time profiles
- Integrated real-time clock with buffering up to 60 min. at 25 °C
- Temperature range -20 °C ... +70 °C
- Sheet thickness plus powder-coating
- Torque mechanism screw connection (top)
- Torque cap screw connection (bottom)
- Power supply ±10% (DC) / standby current (DC) / max. current consumption (DC)
- Stand-alone
- Illuminated info field
- Power over Ethernet capable

	MLR5000 KP	MLR3000 KP
LED handle status	■	■
Keypad with LED keypad status	■	■
LED temperature status	■	■
LED sabotage alarm/ready for opening	■	■
Conditional Relay	■	■
Reader 125 kHz	■	■
Reader 13.56 MHz	■	■
Relay output (via screw terminal) 2,5 mm ² , can be connected from the plug-in side	■	■
Door contact input (screw terminal on plug-in side), 2,5 mm ² , terminal 1 and 2	■	■
Interface	Ethernet	RS485
Storage space for transponder	1.000	1.000
Storage space PIN	1.000	1.000
Storage for 500 events and 30 time profiles	■	■
Integrated real-time clock with buffering up to 60 min. at 25 °C	■	■
Temperature range -20 °C ... +70 °C	■	■
Sheet thickness plus powder-coating	1,5-2 mm	1,5-2 mm
Torque mechanism screw connection (top)	1,0/1,2 Nm	1,0/1,2 Nm
Torque cap screw connection (bottom)	0,4 Nm	0,4 Nm
Power supply ±10% (DC) / standby current (DC) / max. current consumption (DC)	12 V / 45 mA / 440 mA	12 V / 45 mA / 440 mA
Stand-alone	possible	possible
Illuminated info field	-	-
Power over Ethernet capable	■	-

We offer a variety of mechanical adapters for all major rack manufacturers or we can design a customized solution.

MULTI-POINT CAMS

The swinghandle can be combined with a multi-point cam. Optionally, a round rod system can contribute to multi-point locking.

ROD LATCH

In the rod latch system, the revolving pull handle drives the mechanism in the rod latch housing. Flat rods run vertically to the doorframe.

OFFSET

The revolving pull handle drives the locking slide on the side of the handle. The laterally operated rod system is typical for the offset version.

SCOPE OF SUPPLY

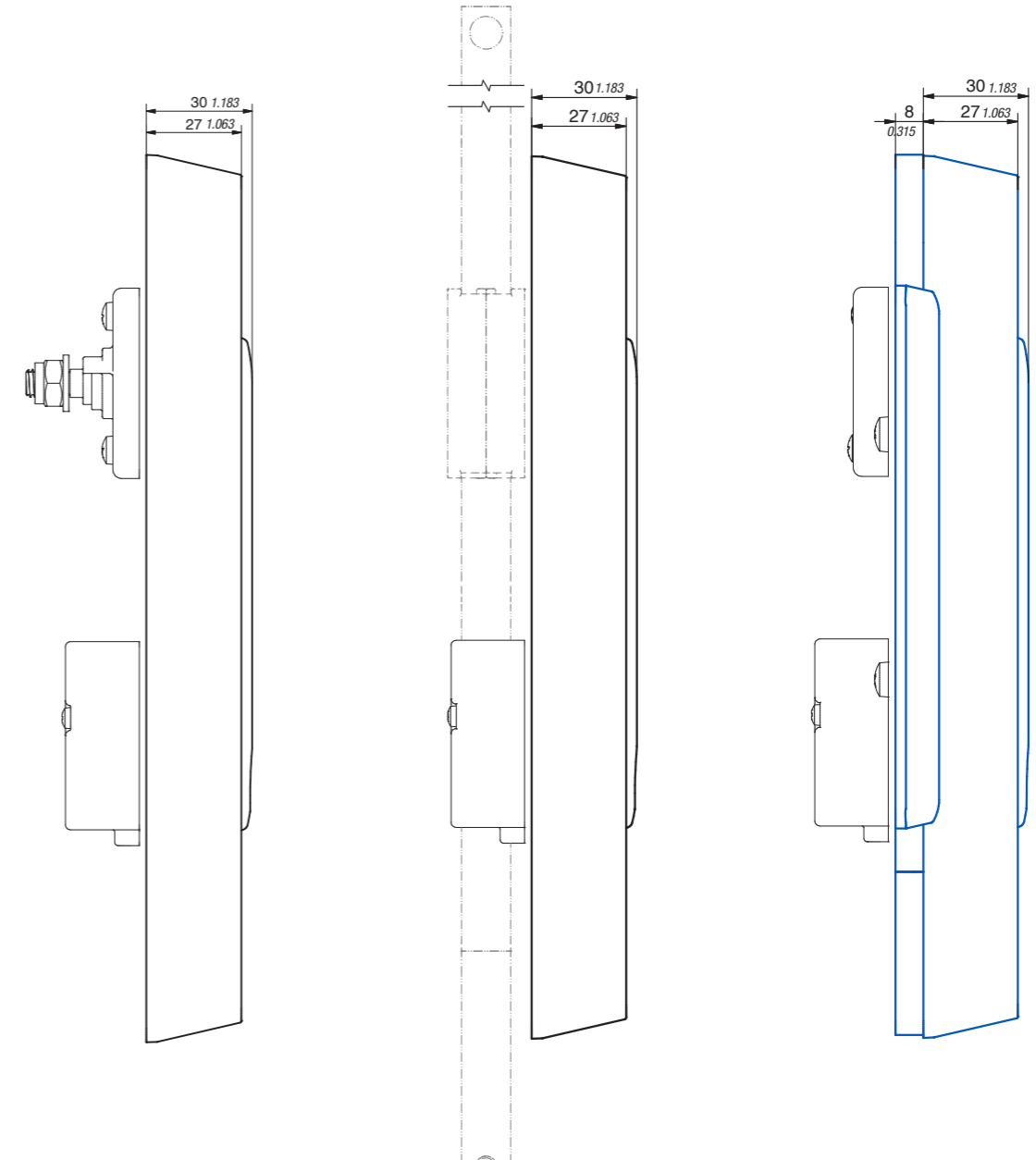
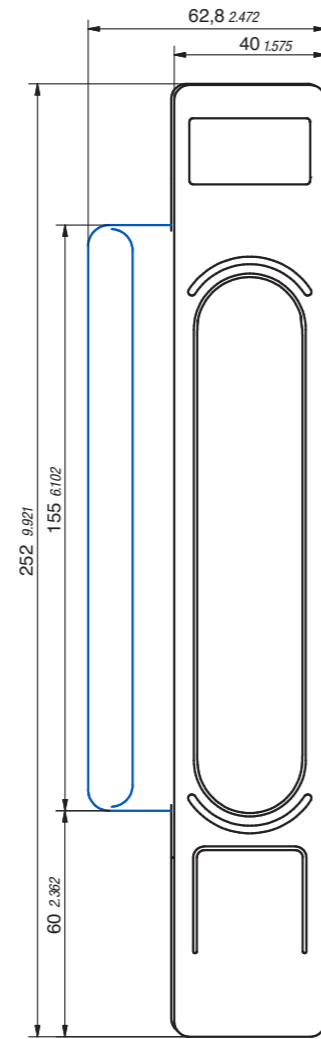
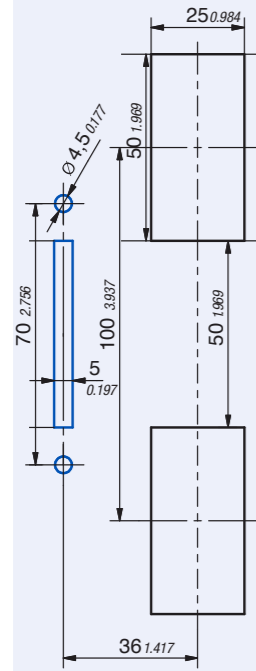
- Swinghandle** black plastic recess, zinc diecast handle mat chromeplated
- Control unit** plastic enclosure, can be fixed with screws or selfadhesive pad
- Connection Cable** 8-pin; 350 cm; UL-approved, 26 AWG stranded wire; RJ45 connector molded onto one end; crimped JST ZHR-8 connector on other end

An external power unit is not included in the scope of supply, but can be ordered as an accessory.

- Configurable LED
- Ready for operation
- Unauthorized Access / "Blocking Period"
- Alarm
- Handle open
- Door open
- Access authorized
- "Green Period"
- Temperature okay
- Temperature alarm

MLR

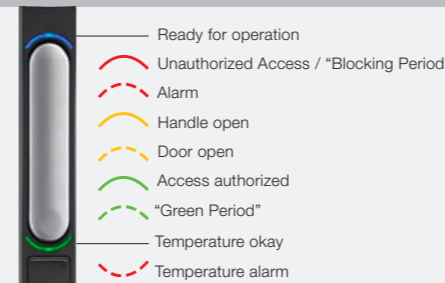
Mechatronic Locks for Racks



	MLR5000	MLR3000	MLR1000
LED handle status	■	■	■
LED temperature status	■	■	■
LED sabotage alarm	■	■	■
Conditional Relay	■	■	■
Reader 125 kHz	■	■	■
Reader 13,56 MHz	■	■	■
Relay output (via screw terminal) 2,5 mm ² , can be connected from the plug-in side	■	■	■
Door contact input (screw terminal on plug-in side), 2,5 mm ² , terminal 1 and 2	■	■	■
Interface	Ethernet	RS485	—
Storage space for transponder	2.000	—	—
Stand-alone	possible	—	—
Storage for 500 events and 30 time profiles	■	■	■
Integrated real-time clock with buffering up to 60 min. at 25 °C	■	■	■
Temperature range -20 °C ... +70 °C	■	■	■
Sheet thickness plus powder-coating	—	1,5–2 mm	■
Torque mechanism screw connection (top)	—	1,0/1,2Nm	—
Torque cap screw connection (bottom)	—	0,4Nm	—
Power supply ±10% (DC) / standby current (DC) / max. current consumption (DC)	—	12V/40mA/440mA	—
Illuminated info field	—	Color configurable	—
Power over Ethernet capable	■	—	—

We offer a variety of mechanical adapters for all major rack manufacturers or we can design a customized solution.

MULTI-POINT CAMS	ROD LATCH	OFFSET
<p>The swinghandle can be combined with a multi-point cam. Optionally, a round rod system can contribute to multi-point locking.</p>	<p>In the rod latch system, the revolving pull handle drives the mechanism in the rod latch housing. Flat rods run vertically to the doorframe.</p>	<p>The revolving pull handle drives the locking slide on the side of the handle. The laterally operated rod system is typical for the offset version.</p>
SCOPE OF SUPPLY		
<p>Swinghandle black plastic recess, zinc diecast handle mat chromeplated</p> <p>Control unit plastic enclosure, can be fixed with screws or selfadhesive pad</p> <p>Connection Cable 8-pin; 350 cm; UL-approved, 26 AWG stranded wire; RJ45 connector molded onto one end; crimped JST ZHR-8 connector on other end</p> <p>An external power unit is not included in the scope of supply, but can be ordered as an accessory.</p>		



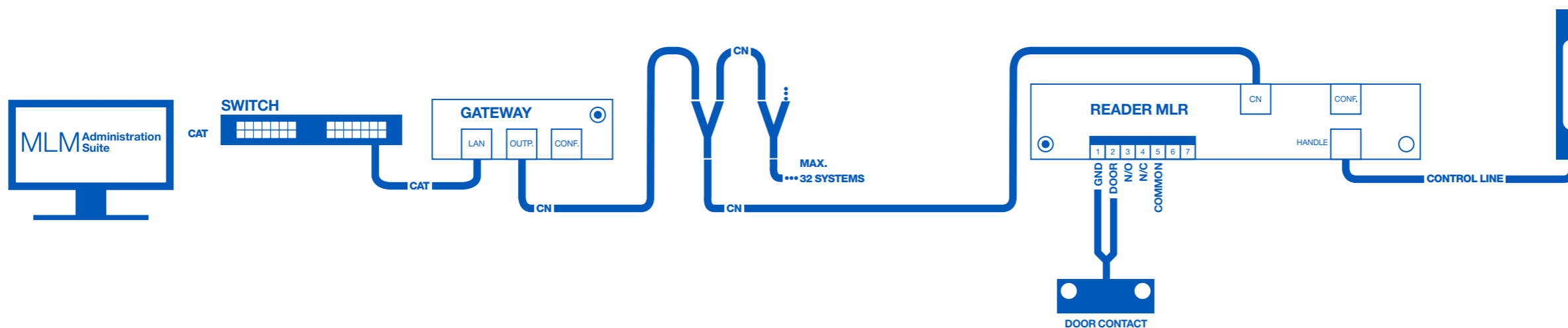
MLR

Mechatronic Locks for Racks



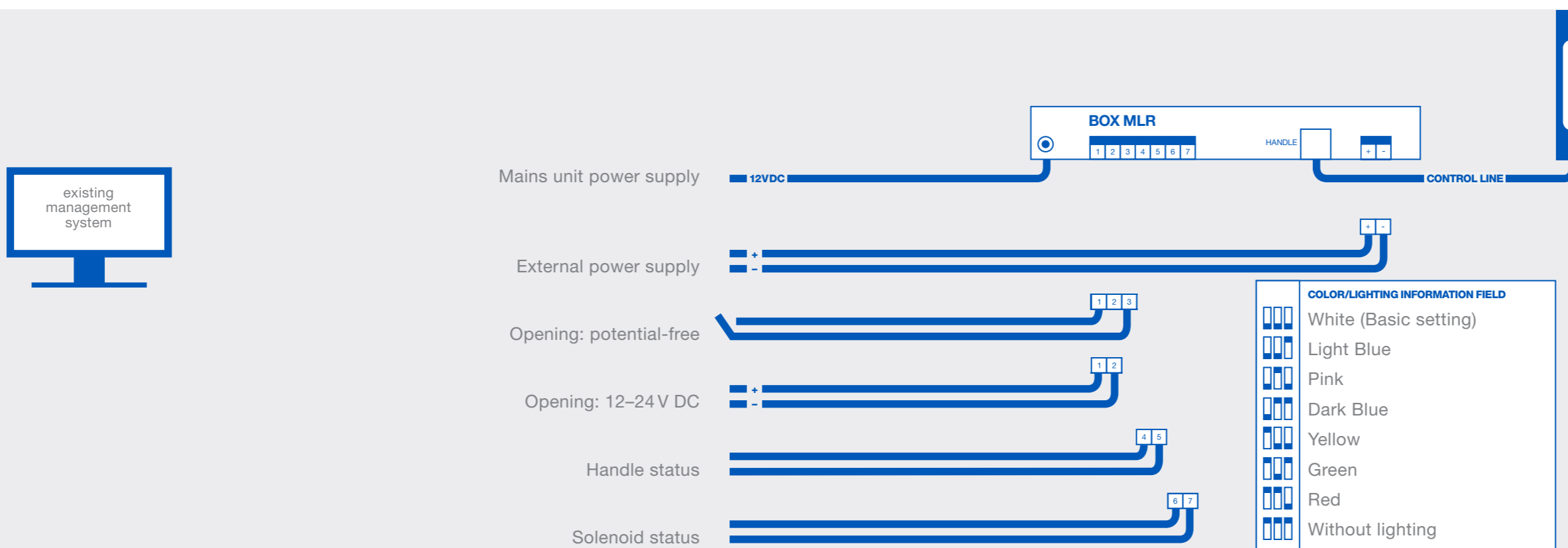
MLR5000 (KP)

Designed to facilitate convenient central monitoring and administration of decentralized server racks. The swinghandles are assigned unique IP addresses.



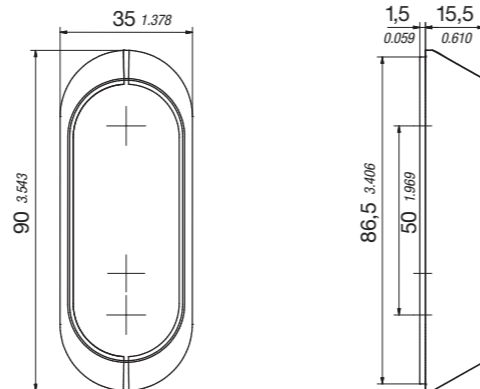
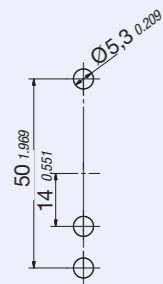
MLR3000 (KP)

Particularly well suited for rooms containing a large number of server racks (central server rack structure). With just one IP address it is possible to manage up to 32 swinghandles in one E-LINE by DIRAK gateway.

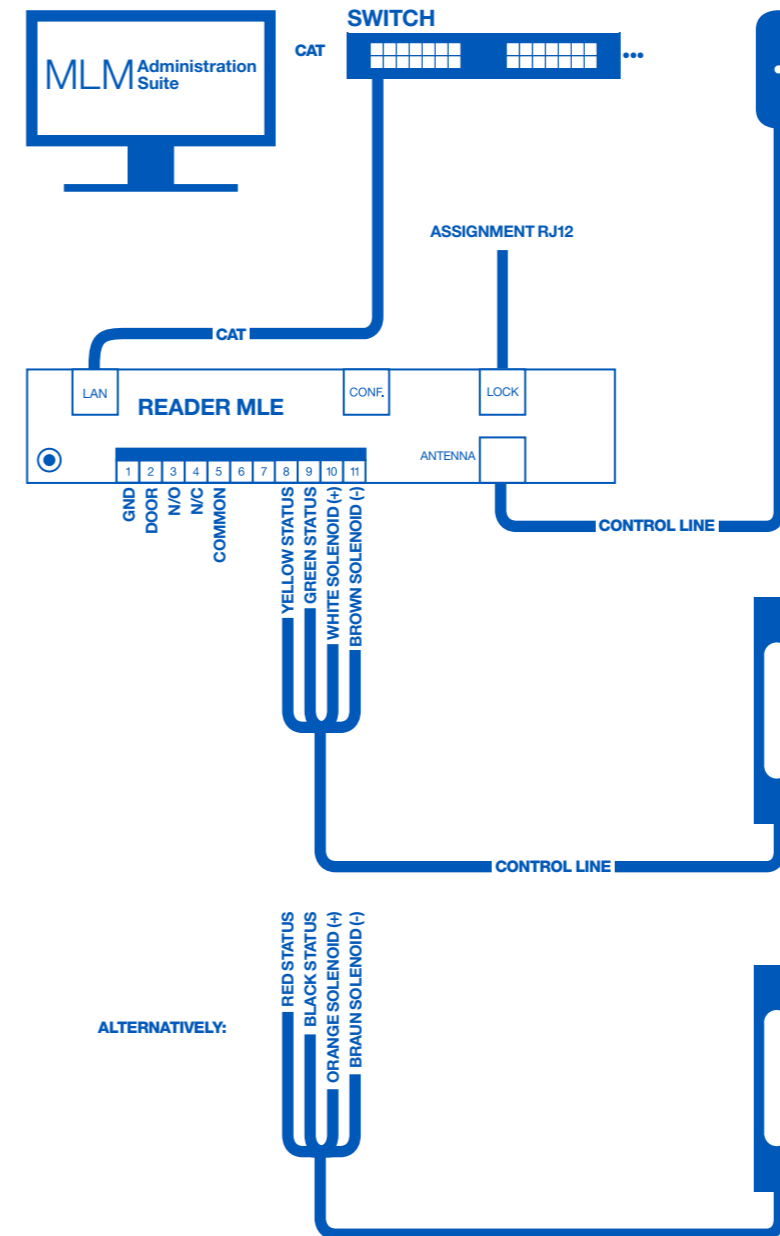


MLR1000

The MLR1000 offers a hardware interface, to facilitate integration in the existing management. Following activation of the potential-free contacts or an input voltage of 12-24V DC, the system switches to readiness for opening. Only after a manual prompt at the lever does this open.

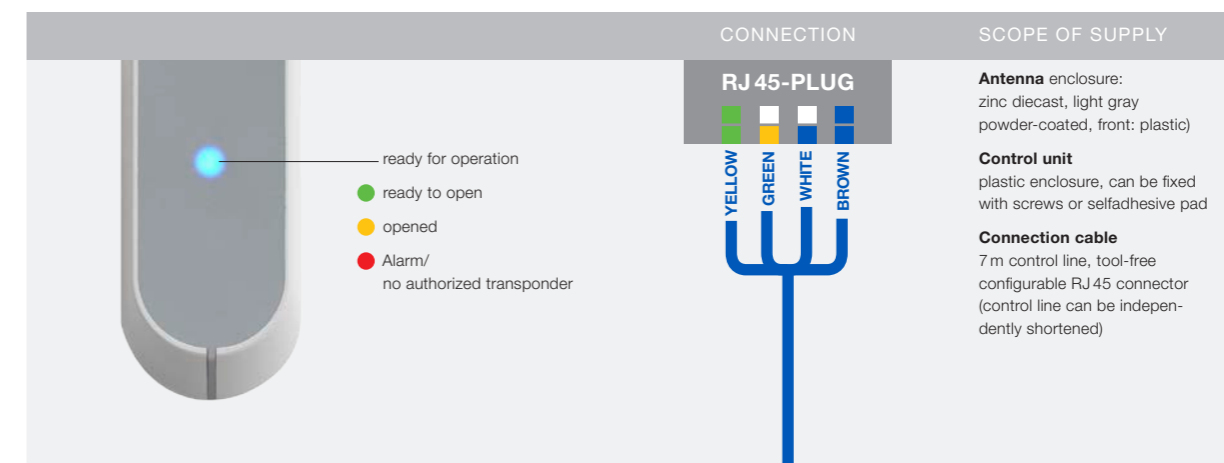


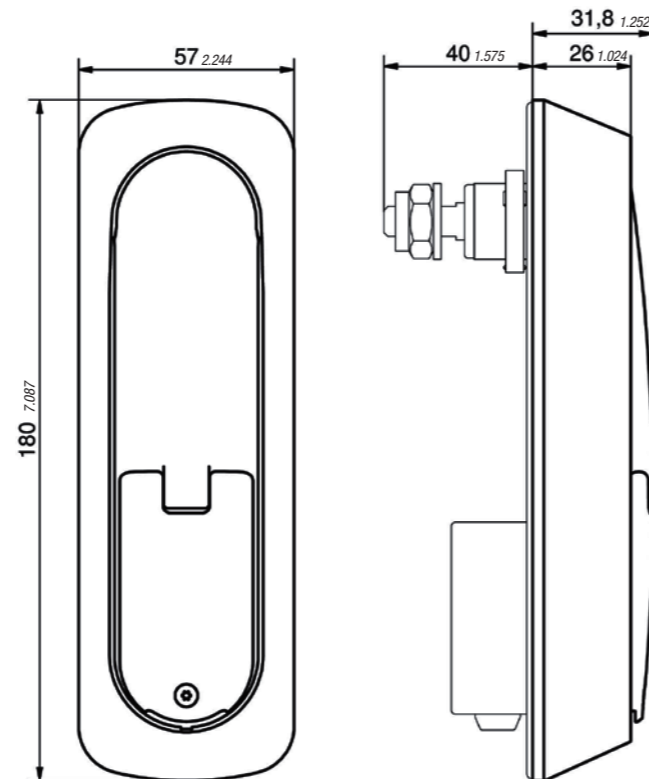
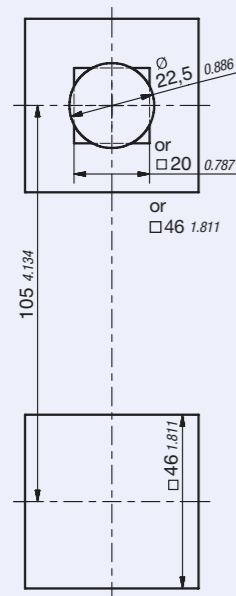
MLE5000 RFID ANTENNA
Interface TCP/IP, Ethernet, RS 232
RS 232 line (RXD, TXD, GDN, reader present, PC present), 38,400 Baud
Storage space for transponder (125 kHz) 2,000; 13,56 MHz on request / with Key Pad on request 1 master
Storage space for 500 events (ring memory) + 30 time profiles
Stand-alone possible
Relay output and door contact input
Standby current (DC) 40 mA
Max. current consumption (DC), RJ 12/Lock 1.4 A
Max. current consumption (when engaging the coupling) 3.0 A (DC), terminal 10-11
Multicolored status LED can be deactivated
Material Zinc diecast powder-coated and plastic
Temperature range -20 °C ... +70 °C
Integrated real-time clock with buffering up to 60 min. at 25 °C
Watertight and dust-tight IP65
Nominal input voltage 12 V / 24 V / 48 V (DC) ±10% 120mA, (depending on lock connected)
Power over Ethernet capable



MLE5000 RFID ANTENNA

Communication with the MLE5000 RFID Antenna takes place via TCP/IP protocol. Each antenna receives a static IP address and is reachable in the network at all times. The advantage: No separate bus system is required for the MLE5000 RFID Antenna because the existing Ethernet LAN is used here. This system is therefore quick and easy to install.

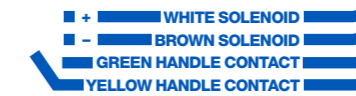




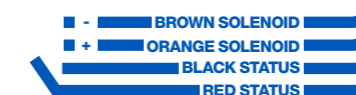
MLE1102
LED handle status on request
Closing "Or"
Power supply (DC) 12/24/48 V + 10 % 250 mA/140 mA/100 mA
Opening Key Cylinder
Status request Proximity switch (potential-free)
Color light gray/black, powder-coated (customer-specific colors on request)
Wall/sheet thickness (plus powder-coating) up to 10mm
For electronic opening power supply established
One suitable cylinder
Watertight and dust-tight IP65
Vandalism class RC2

SCOPE OF SUPPLY

swing handle
zinc diecast

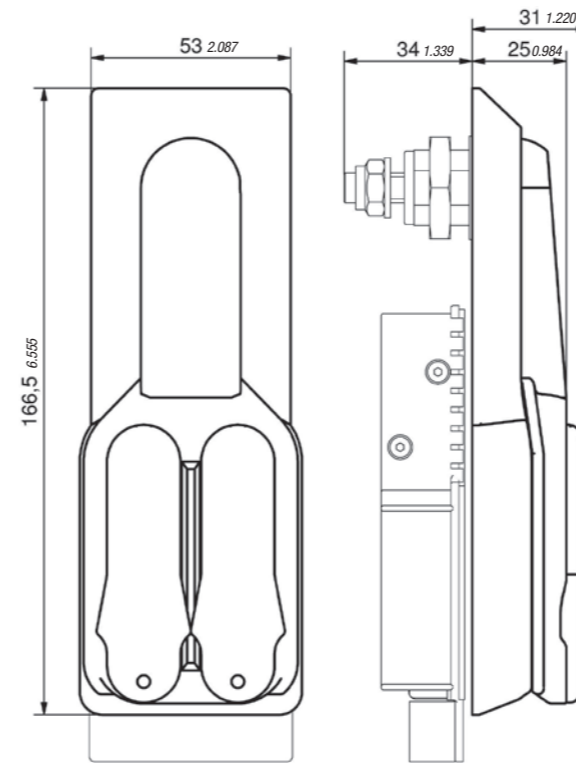
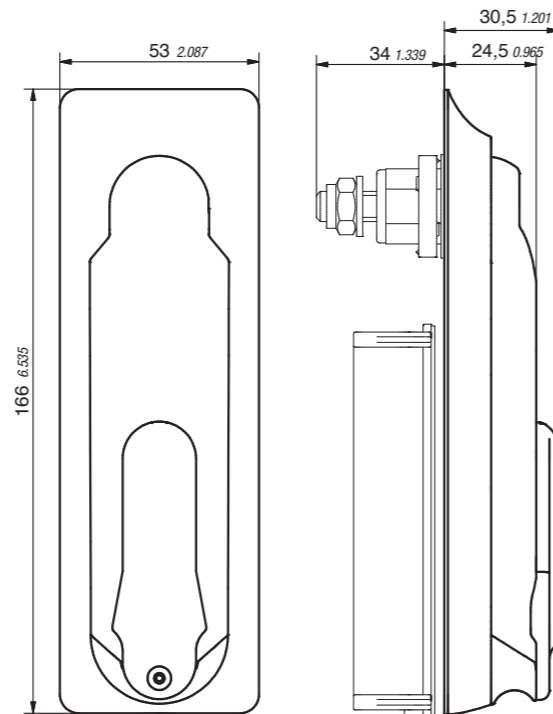
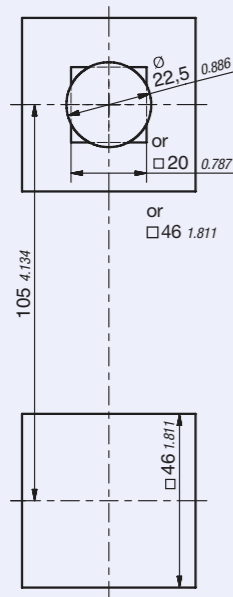


ALTERNATIVELY:



MLE1102

The MLE 1102 can be connected to all existing management systems for lock control. The positive/negative contacts for the electronic opening function of the swinghandle are therefore connected with the control module of the respective system. Together with the transferred status of the lever positions (open/closed) this can enable further evaluations. Whilst the management systems usually only display whether the cabinet door is "open" or "closed", with the MLE1102 you have further possibilities.



	MLE2100	MLE1200	MLE2200
Closing	"And"	"Or"	"And"
LED handle status	■	-	-
Power supply (DC)	24V ±10% / 120mA	48V ±10% / 120mA	24V ±10% / 120mA
Opening	-	Key / Cylinder established	Key / Cylinder interrupted
for electronic opening Power supply	interrupted	established	interrupted
Status request	Inductive sensor	Proximity switch (potential-free)	Inductive sensor
Color*	black powder-coated	black powder-coated	
Wall/sheet thickness	2 mm	2 mm	
installable cylinder	1	2	
Watertight and dust-tight (IP65)	■	■	
Vandalism class RC2	■	■	

*Customer-specific colors on request



MLE1200

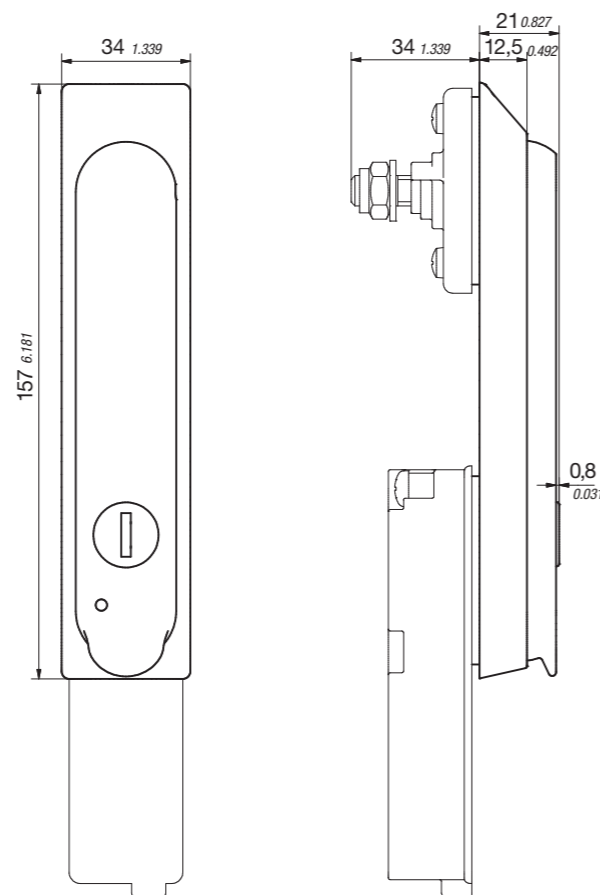
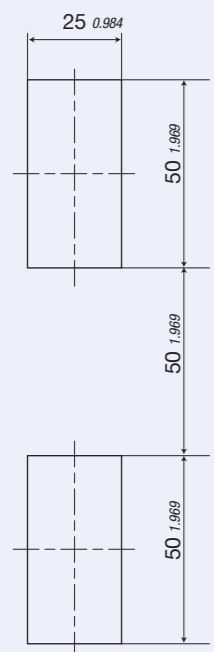
Connect the positive and negative contacts for the electronic opening function of the swinghandle with the control module of your authorization or monitoring system. For evaluation purposes, use the status issued by the swinghandle (open or closed).



MLE2100 und 2200

Simply integrate the MLE 2100/2200 in an existing management system. Connect the positive and negative contacts for the electronic opening function of the swinghandle with the control module of your authorization/monitoring system. The lever position (open or closed) is signaled by means of data transfer and enables further evaluations. In this way the MLE 2100/2200 expands the status control of conventional management systems.

SCOPE OF SUPPLY
swing handle zinc diecast



MLI1101
Black plastic (PA6) singlecolor
LED Ready for opening
Power supply 24 V ±10 % (DC), 220 mA
Status request: Proximity switch (potentialfree)
Plate cylinder
"Or" closing
for electronic opening power supply established
Wall/sheet thickness 2 mm (plus powder-coating)



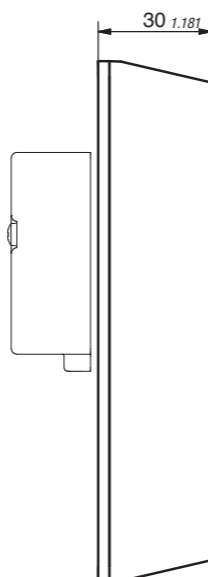
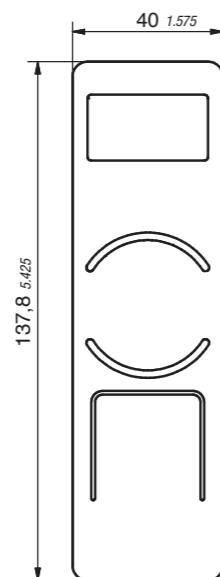
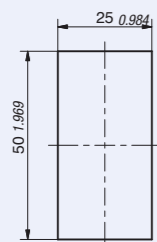
MLI1101

Connect the positive and negative contacts for the electronic opening function of the swinghandle with the control module of your authorization or monitoring system. For evaluation purposes, use the status issued by the swinghandle (open or closed). You can detect at any time whether a fault is present or sabotage took place.

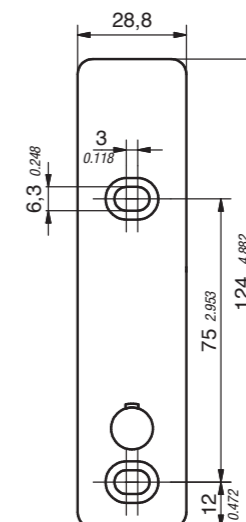
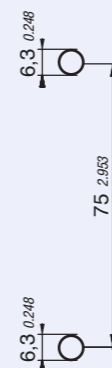
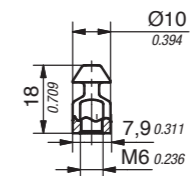


SCOPE OF SUPPLY

Swinghandle
zinc diecast, black



Locking stub



Interface
Nominal input voltage (DC)
Storage space for transponder
Stand-alone
LED lock status
LED sabotage alarm/ready for opening
Illuminated info field
Reader 125 kHz
Reader 13,56 MHz
Relay output (via screw terminal) 2,5 mm², can be connected from the plug-in side
Door contact input
Integrated real-time clock with buffering up to 60 min. at 25 °C
Temperature range -20 °C ... +70 °C
Storage for 500 events and 30 time profiles
Standby current (DC)
Max. current consumption (DC), RJ 12/Lock
Max. current consumption (DC) on relay terminals
current-free open/closed
Power over Ethernet capable

	MLU5000	MLU3000
Interface	Ethernet	RS 485
Nominal input voltage (DC)	12/24/48V ±10% (resp. depending on lock connected)	
Storage space for transponder	2.000	
Stand-alone	possible	
LED lock status	■	
LED sabotage alarm/ready for opening	■	
Illuminated info field	■	
Reader 125 kHz	■	
Reader 13,56 MHz	on request	
Relay output (via screw terminal) 2,5 mm ² , can be connected from the plug-in side	Relay contact: 12V, 3A, 60W, 120VA, terminals 3-5	
Door contact input	■	
Integrated real-time clock with buffering up to 60 min. at 25 °C	■	
Temperature range -20 °C ... +70 °C	■	
Storage for 500 events and 30 time profiles	■	
Standby current (DC)	40 mA	
Max. current consumption (DC), RJ 12/Lock	1,5A	
Max. current consumption (DC) on relay terminals	3 A (terminals 10-11)	
current-free open/closed	can be configured depending on connected	
Power over Ethernet capable	■	-

SCOPE OF SUPPLY

MLU reader

Black plastic

Reader unit

plastic enclosure, can be fixed with screws or self-adhesive pad

Connection cable

8-pole, 350 cm, UL strand AWG 26, one end with molded RJ45 connector, one end with crimped JST ZH connector ZHR-8



- Unauthorized Access / "Blocking Period"
- Alarm
- Handle open
- Door open
- Ready for operation
- Access authorized
- "Green Period"
- Temperature okay
- Temperature alarm

MLU1000

Proximity switch status
for electronic opening
voltage supply interrupted or connected
independent of wall/sheet metal thickness
Color mat chrome-plated
Power supply 12/24/48 + 10% (DC) with 140/90/50 mA
locking pressure ca. 200 kg

SCOPE OF SUPPLY

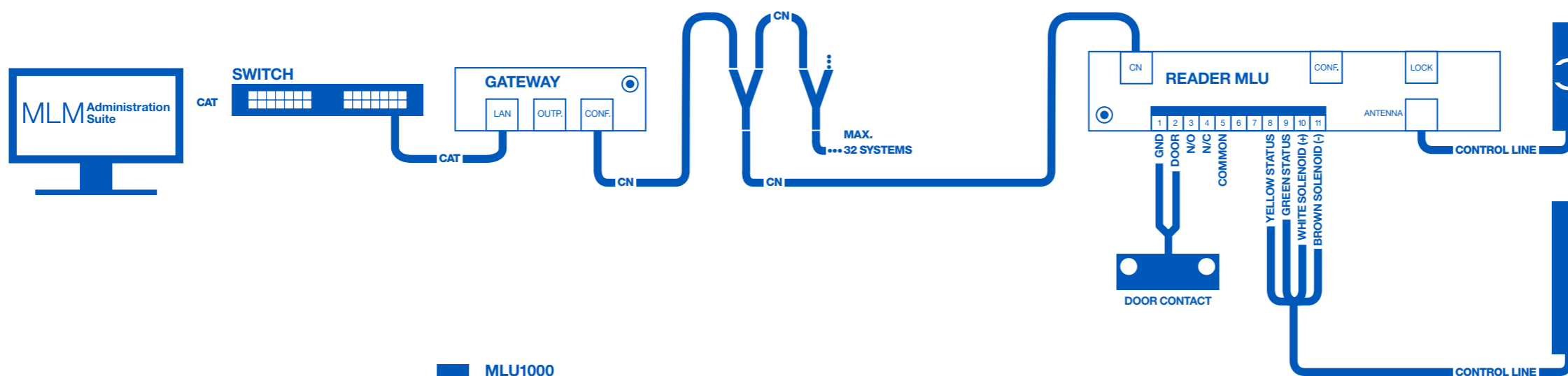
Lock
zinc diecast,
mat chromeplated

Control line 4 m



MLU5000

Communication with the MLU 5000 takes place via the TCP/IP protocol. Each reader receives a static IP address and is reachable in the network at all times. No separate bus system is required for the MLU 5000. The MLU5000 system with the associated Administration Suite Software guarantees convenient and reliable access monitoring.

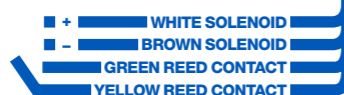


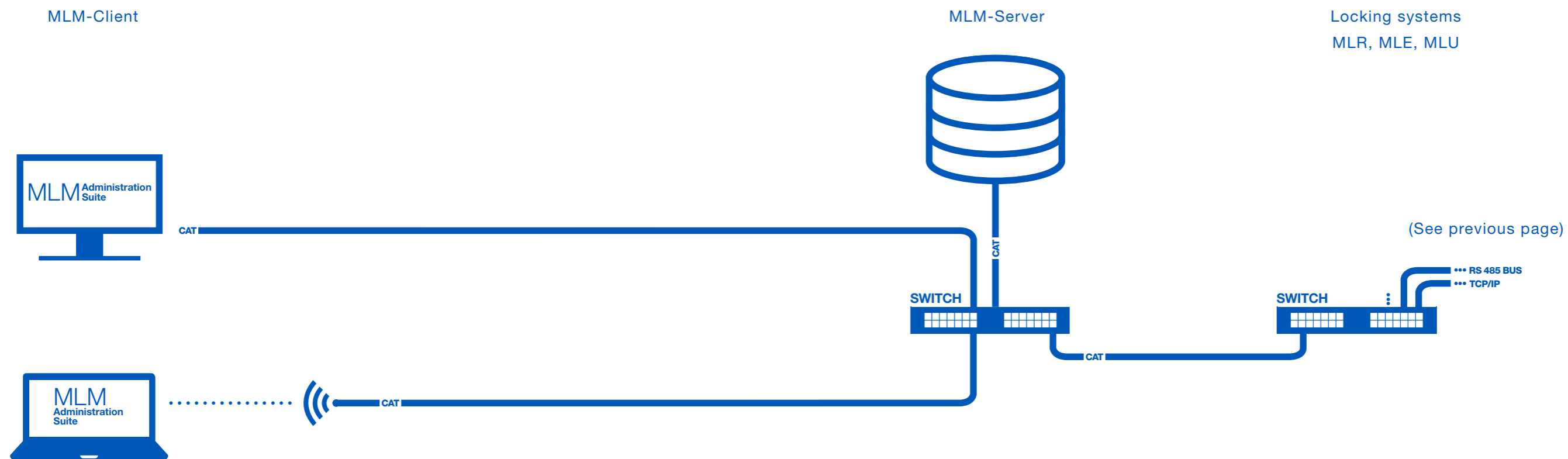
MLU3000

Communication with the MLU 3000 takes place via the ELINE by DIRAK-Gateway. It forms an interface between the RS485 bus and the Ethernet/LAN and performs the transfer and conversion of the information in the RS485 bus. The nodes always form the junction for a further MLU3000 reader unit. One gateway can manage a maximum of 32 MLU3000 and MLU 1000. The MLU3000 system with the associated Administration Suite Software guarantees convenient and reliable access monitoring.

MLU1000

The MLU1000 can be connected to existing management systems for lock control and is therefore optimally suited for combination with the MLU 3000/5000. The positive/negative contacts for the electronic opening function of the MLU1000 are therefore connected with the control module of the respective system. This can enable further evaluations with the transferred status (open/closed).





MLM ADMINISTRATION SUITE

- Seamless documentation
- Server Client Application
- Display of the handle status in real-time
- Automated task management
- Release time (permanently ready to open) /
Lock time (no accidental re-patching on
the server possible during ongoing data backup)
- Comprehensive alarm management
- Active directory integration
- Interfaces for 3rd party systems
- Four-eyes principle for higher security levels
- Assignment of rights to different users
- Planned access
- Super user card (always authorized)
- Colored configuration of the information field
simplifies the management of rack groups
- Management of device groups
for better overview
- Temperature monitoring
- Data communication between the hardware,
server and client is encrypted