Electronic Locking Systems for Cabinets and Housings

Product catalogue 2019
V1

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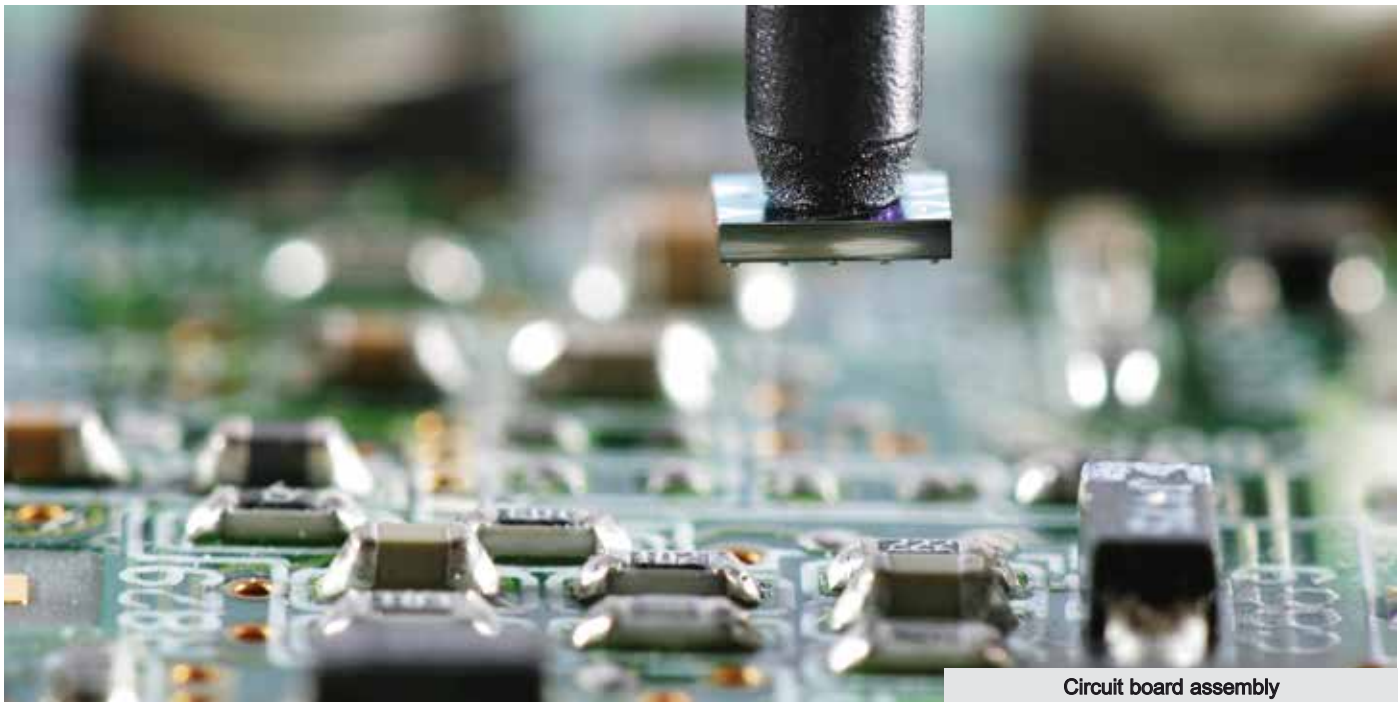


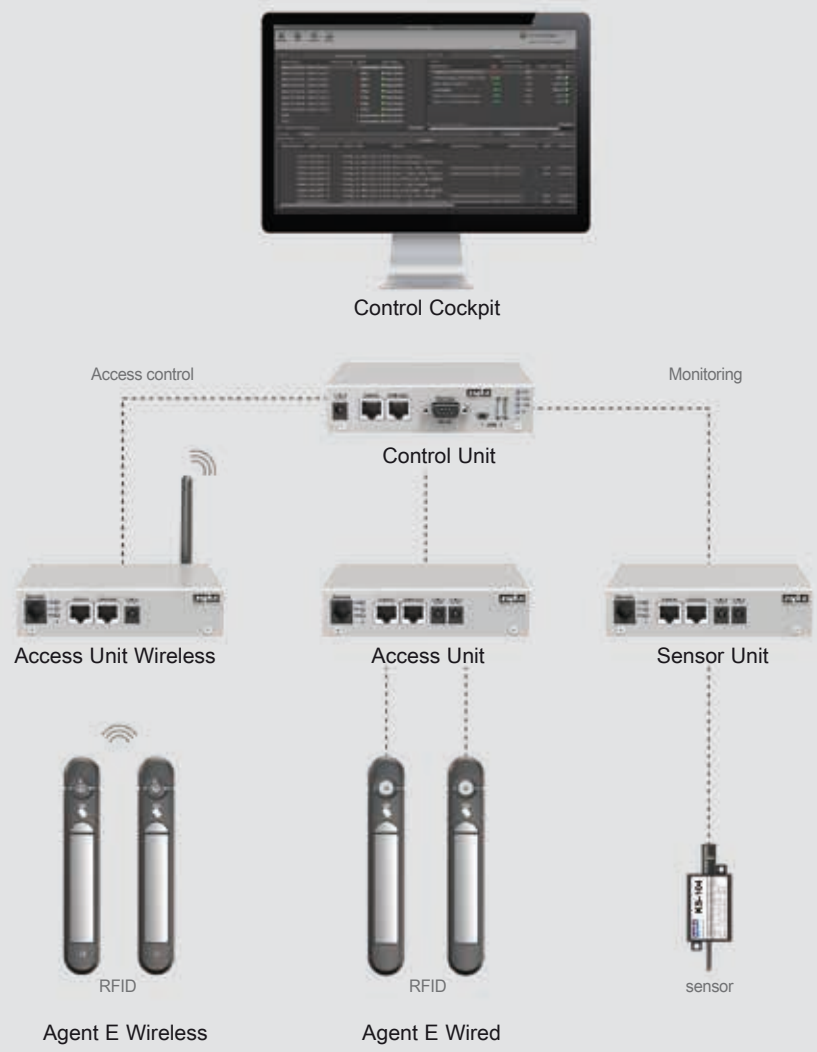
Circuit board assembly

Sales Worldwide

The EMKA group is the world market leader for locks, hinges and gasketing on switch and control cabinets. In the business division EMKA Electronics electronic access control systems are developed and produced. The EMKA Rack Management Systems are installed worldwide amongst others in data centres of banks and co-location centres.

In-House Production

The company is represented in 52 countries employing more than 2,100 employees. The more than 15,000 items are developed, manufactured, refined and assembled at eight production sites in Germany, France, England, Spain, Bosnia-Herzegovina and Serbia.



Intelligent systematic rack management

The Rack Management System by EMKA Electronics guarantees unambiguous logging and backtracking due to its personified access control down to cabinet level. Moreover, the system monitors all physical parameters in the rack and thus increases the operational reliability of the entire installation. It consists of a database-driven control software, high-capacity modules and electromechanical handles.

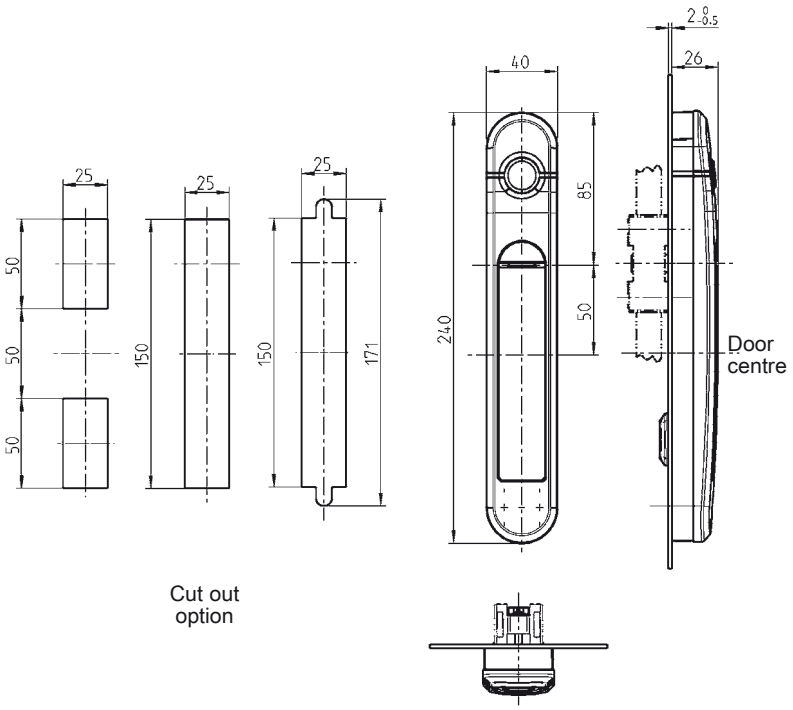
The modular structure and the standardised connection technology enable a simple installation and a fast start-up. Wireless handles reduce the time and effort for mounting significantly and cut the investment costs.
The functionality of the system can be enhanced and complemented any time by adding further modules.

Control access reliably

With the software Control Cockpit you can monitor all Control Units. The views of access control or operating status can be configured according to your requirements. All access attempts to server racks are logged and completely documented. All operating status are displayed and alarms directly transmitted to the operator. The open database structure with SQL interface enables a simple integration into higher level systems.

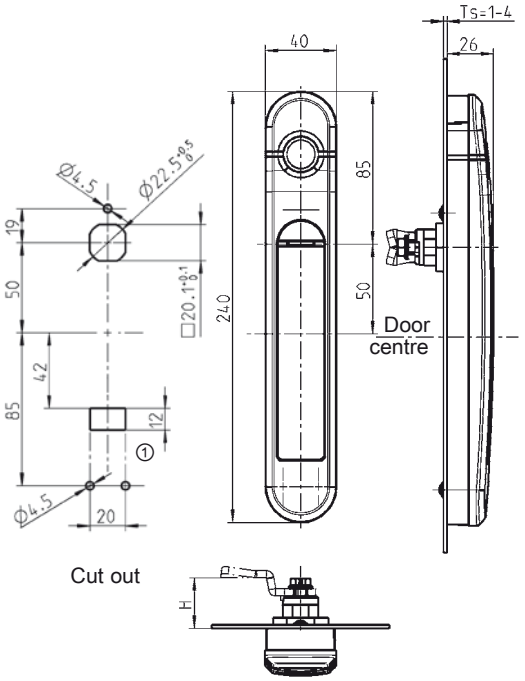
Swinghandle Agent E Wireless

Swinghandle for rod control or bearing bush



Cut out option

Swinghandle for cam



Cut out

Required for
① = door contact

Swinghandle Agent E Wireless - functions Tk = door contact

Mode of operation	Authentication	Power	Opening standard	Opening Optional	Connection option
Wireless	RFID card (125 kHz or 13.56 MHz)	Battery	immediately	--	Tk

max. 16 Access Units Wireless per Control Unit ≙ 1,200 handles Agent E Wireless

Agent E Wireless

Access Unit Wireless | Control Unit | Control Cockpit

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The Agent E Wireless is still the only swinghandle with wireless communication.
Due to its wireless an thus cost-saving mounting it is most suitable for retrofitting in data centres.
The authentication is done via RFID cards.
A highly-efficient power management guarantees a long battery life.

Features

- Wireless communication for data exchange via wireless network with Access Units Wireless (industrial standard according to national regulations)
- One Control Unit can actuate up to 1,200 handles Agent E Wireless using Access Units Wireless in one wireless network
- The authentication can be effected by RFID cards with 125 kHz or 13.56 MHz. Remote opening is always possible in addition
- Extremely energy-efficient battery operation (battery life min. 3 years)
- 4 eyes principle for authentication with 2 authorised RFID cards
- The handle has a connector for adding a door contact
- An emergency power function is possible with the integrated USB port
- Agent E Wireless is most suitable for retrofitting due to its wireless mounting
- The installation in cabinets / racks of different manufacturers is solved with various adapters.
  On request

Swinghandle AGENT E consisting of: dish polyamide GF black; handle and shaft zinc-die powder-coated white aluminium; 2 batteries; mounting and operating instructions		
③ WIRELESS type for all EU countries plus Switzerland and Norway	**for rod control or bearing bush**	**for cam**
Wireless with RFID 125 kHz	on request	on request
Wireless with RFID 13.56 MHz	3000-U911-41	3000-U911-42
RFID Card		
125 kHz		3000-87
13.56 MHz		3000-88
Adapter set for bearing bush, adapter plate polyamide GF black; adapter m. s. precision casting zinc plated; fixing material m.s. zinc plated		
for door thickness 1.0 - 3.0		3000-U104-01
Adapter set for retrofitting		
various cabinet types		on request

③ Note:
Wireless types for other countries on request

Further parts see page

– Access Unit Wireless	11A-220
– Door contact	11A-400
– rod control	3YA-120
	3YA-140
– Bearing bush	3YB-120
– Cam (GH=18)	1C-120

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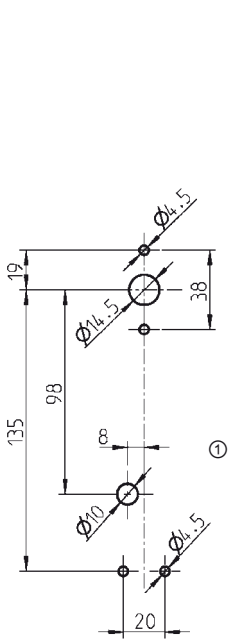
Swinghandle Agent E Wireless

Swinghandle for furniture doors



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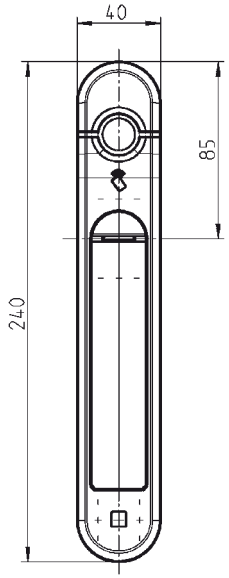

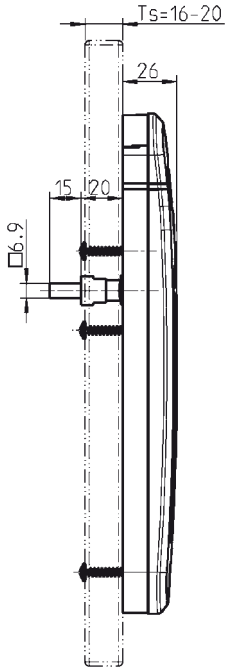

Required for
① = door contact

Swinghandle Agent E Wireless - functions Tk = door contact

Mode of operation	Authentication	Power	Opening standard	Opening Optional	Connection option
Wireless	RFID card (125 kHz or 13.56 MHz)	Battery	immediately	--	Tk

max. 16 Access Units Wireless per Control Unit ≙ 1,200 handles Agent E Wireless

Agent E Wireless

Access Unit Wireless

Control Unit

Control Cockpit

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The Agent E Wireless is still the only swinghandle with wireless communication.
Due to its wireless an thus cost-saving mounting it is most suitable for retrofitting in data centres.
The authentication is done via RFID cards.
A highly-efficient power management guarantees a long battery life.

Features

- Wireless communication for data exchange via wireless network with Access Units Wireless (industrial standard according to national regulations)
- One Control Unit can actuate up to 1,200 handles Agent E Wireless using Access Units Wireless in one wireless network
- The authentication can be effected by RFID cards with 125 kHz or 13.56 MHz. Remote opening is always possible in addition
- Extremely energy-efficient battery operation (battery life min. 3 years)
- 4 eyes principle for authentication with 2 authorised RFID cards
- The handle has a connector for adding a door contact
- An emergency power function is possible with the integrated USB port
- Agent E Wireless is most suitable for retrofitting due to its wireless mounting
- The installation in furniture doors, in conjunction with different lock manufacturers, is solved with various adapters.
  On request

Swinghandle AGENT E consisting of: dish polyamide GF black; handle and shaft zinc-die powder-coated white aluminium; 2 batteries; mounting and operating instructions	
③ WIRELESS type for all EU countries plus Switzerland and Norway	**for furniture doors**
Wireless with RFID 125 kHz	on request
Wireless with RFID 13.56 MHz	3000-U911-48
RFID Card	
125 kHz	3000-87
13.56 MHz	3000-88
Adapter AISI 303 for Agent E for furniture doors	
for □ 7 mm, 15 mm long	3000-115
other adapter	on request

③ Note:
Wireless types for other countries on request

Further parts see page
– Access Unit Wireless 11A-220
– Door contact 11A-400

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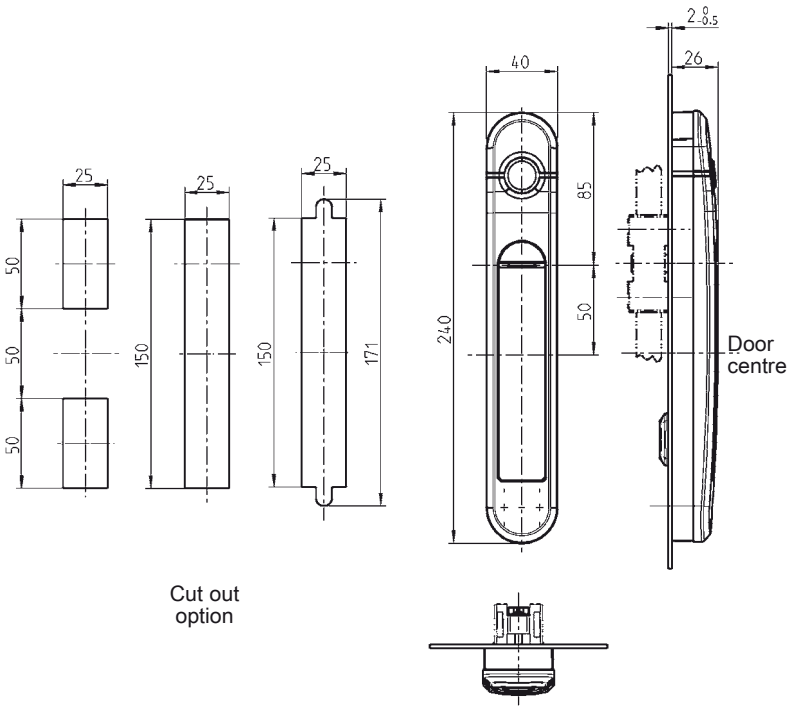
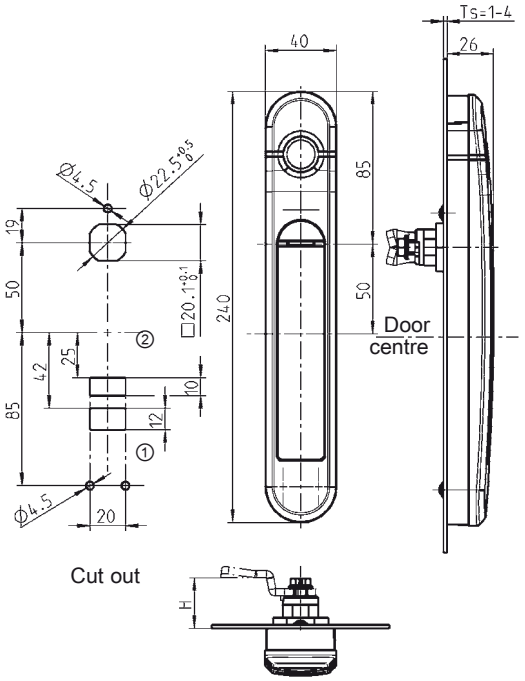
Swinghandle Agent E Wired

Swinghandle for rod control or bearing bush



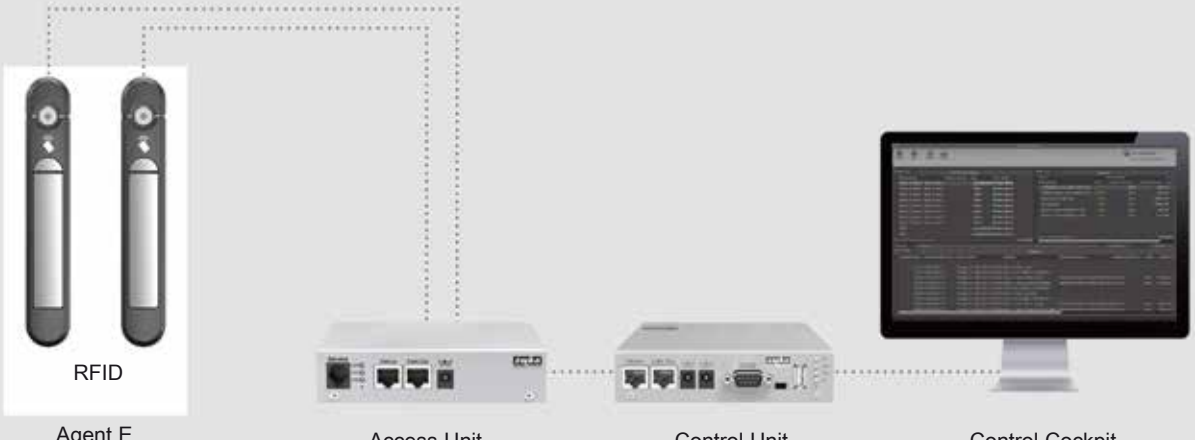
Swinghandle for cam



Required for
① = door contact
② = power cable

Swinghandle Agent E Wired - functions					Tk = door contact
Mode of operation	**Authentication**	**Power**	**Opening standard**	**Opening optional**	**Connection option**
Wired	RFID card (125 kHz or 13.56 MHz)	Cable	touch	--	Tk

max. 32 Access Units per Control Unit ≡ max. 64 handles Agent E Wired



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Agent E wired is the cabled version of the electromechanical swinghandle program.
It enables a central and complete logging of events.
The authentication is done via RFID cards.

Features

- Authentication by 125 kHz or 13.25 MHz RFID cards. Remote opening is always possible in addition
- Handle type Wired Slave does not have its own authentication and is released in combination with master handle, central keypad / central card reader or by remote opening. The opening is done by touching the sensor field
- 4 eyes principle for authentication with 2 authorised RFID cards
- The handle has a connector for adding a door contact
- In combination with the Access Unit the centre LED in the sensor field can be actuated in order to signal possible malfunctions in the rack such as increased temperature
- Two handles Agent E Wired can be connected to one Access Unit
- Max. 32 Access Units can be administered by one Control Unit
- An emergency opening is possible by using the integrated USB port
- The installation in cabinets / racks of different manufacturers is solved with various adapters.
  On request

Swinghandle AGENT E consisting of: dish polyamide GF black; handle and shaft zinc-die powder-coated white aluminium; cable with RJ45 plug 4 m; mounting and operating instructions		
	for rod control or bearing bush	**for cam**
Wired with RFID 125 kHz	on request	on request
Wired mit RFID 13.56 MHz	3000-U900-41	3000-U900-42
Wired Slave	on request	on request
RFID Card		
125 kHz		3000-87
13.56 MHz		3000-88
Adapter set for bearing bush, adapter plate polyamide GF black; adapter m. s. precision casting zinc plated; fixing material m.s. zinc plated		
for door thickness 1.0 - 3.0		3000-U104-01
Adapter set for retrofitting		
various cabinet types		on request
USB adapter cable		
USB Standard-A on USB Micro-B		3000-U102

Further parts see page

– Access Unit	11A-230
– Door contact	11A-400
– Rod control	3YA-120 3YA-140
– Bearing bush	3YB-120
– Cam (GH=18)	1C-120

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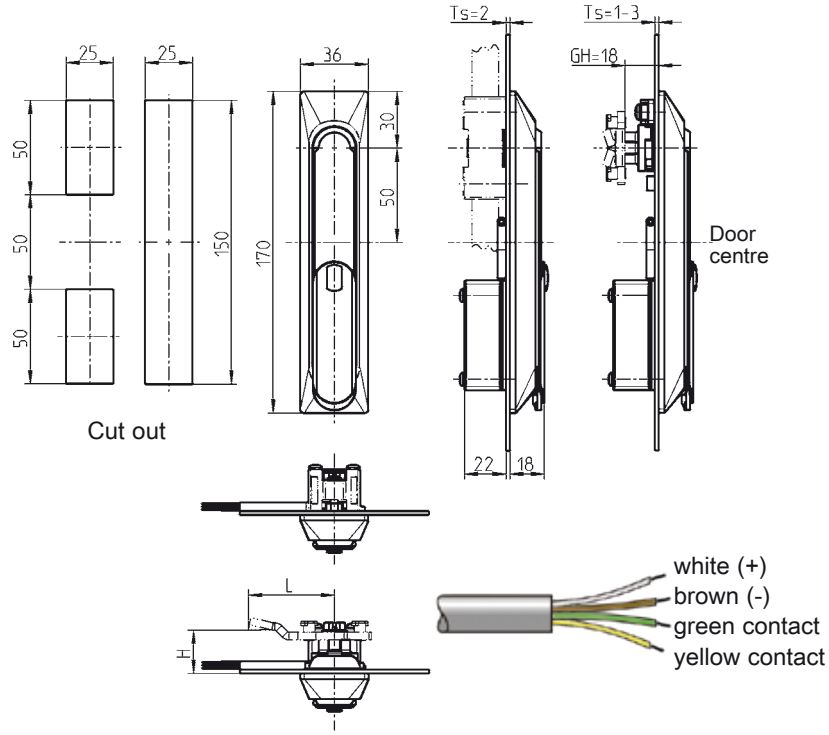
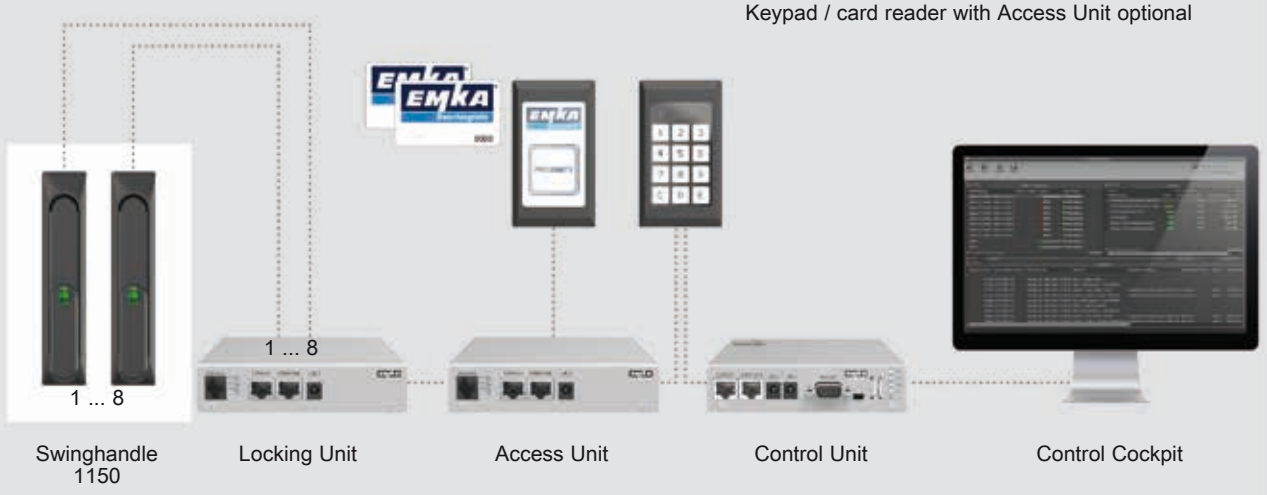
Swinghandle 1150 with electromechanical release and emergency opening



Swinghandle 1150-U56-x / 1150-U58-x Tk = door contact

Mode of operation	Authentication	Power	Opening standard	Opening Optional	Connection option
Wired	Central RFID card reader (125 kHz or 13.56 MHz)	by Locking Unit	release, actuate	Key	Tk; external
Wired	Central keypad	by Locking Unit	release, actuate	Key	Tk; external

per Control Unit max. 64 Locking Units ≡ max. 512 handles or door contacts
Keypad / card reader with Access Unit optional



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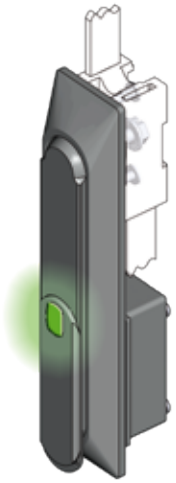
This handle is suitable for locking indoor cabinets.

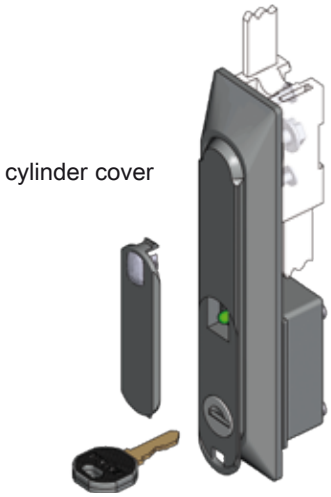
The release is effected by applying a voltage signal of 12 V or 24 V DC. After pushing the handle briefly into the dish, it can be opened.

Features

- Integrated LED for signalling a released handle
- Potential-free reed contact for remote monitoring of handle statues
- Emergency opening with key possible in case of power failure
- Dust cap will be destroyed in case of an emergency opening via key and needs to be replaced
- Connection option to Locking Unit 3000-U32-x or Access Unit 3000-U47-x connector plug optional



During release of handle the LED is illuminated.



Handle zinc die black powder coated;
dish and cap polyamide GF black; cylinder cover Bio-Flex black; shaft AISI 303,
round cylinder with stainless steel cap and dust cap; solenoid with electronics;
reed contact and LED; connecting cable (4 m); fixing material m.s. zinc plated.
Each round cylinder has one silver steel key with polyamide grip GF black.
Contact switching power: 48 VDC, 0.5 A

	Keyed EK 333	Keyed different
Handle 12 V, for rod control or cam	1150-U56	1150-U56-V
Handle 24 V, for rod control or cam	1150-U56-01	1150-U56-01V
Cylinder cover Bio-Flex black (spare part)		
		1150-B33

Further parts see page

– Access Unit 11A-230
– Locking Unit 11A-240
– Cams (GH = 18) 3YC-120
– Rod control 3YA-110
3YA-120
3YA-140
– Spare key 12B-140

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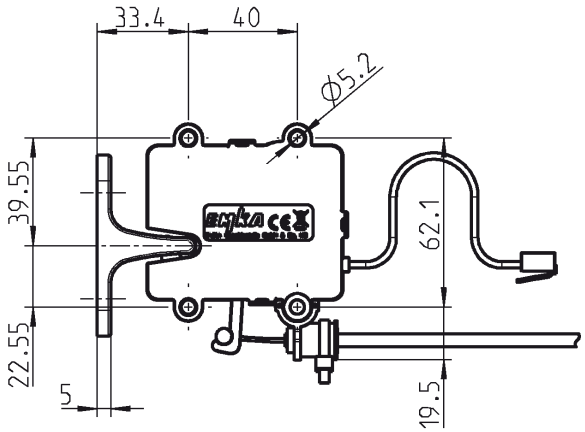
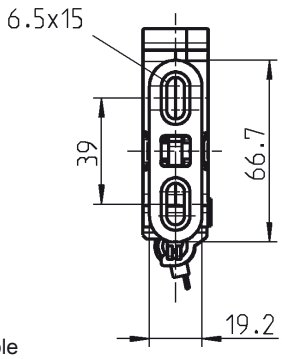
Single point latch with emergency opening

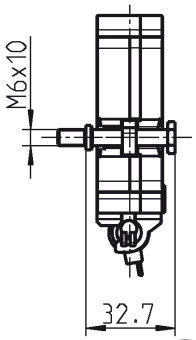


Lever for mechanic unlock, e.g. bowden cable

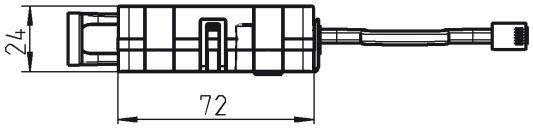
Single point latch with catch



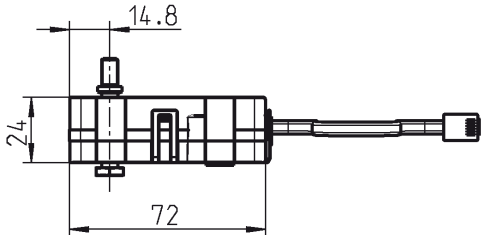
Single point latch with locking bolt

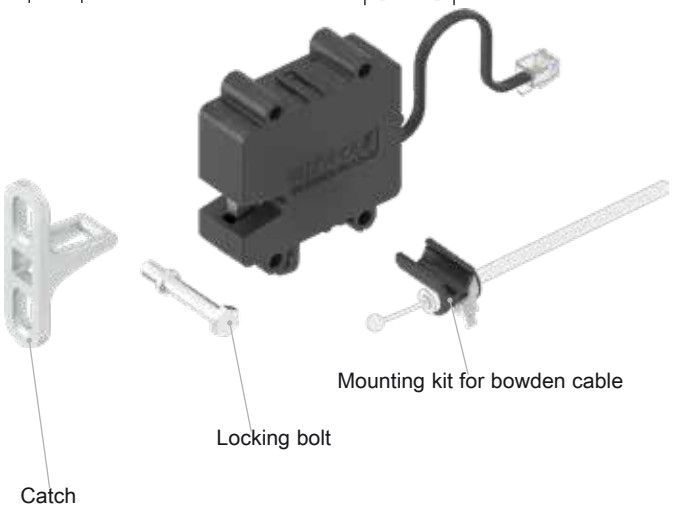


Single point latch with catch



Single point latch with locking bolt





Single Point Latch 3000-U301-x			Tk = door contact		
Mode of operation	**Authentication**	**Power**	**Opening standard**	**Opening Optional**	**Connection option**
Wired	Central RFID card reader (125 kHz or 13.56 MHz)	by Locking Unit	immediately	Bowden cable	--
Wired	Central keypad	by Locking Unit	immediately	Bowden cable	--

per Control Unit max. 64 Locking Units ≡ max. 512 single point latches
Keypad / card reader with Access Unit optional

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The single point latch is used in various applications as concealed lock.

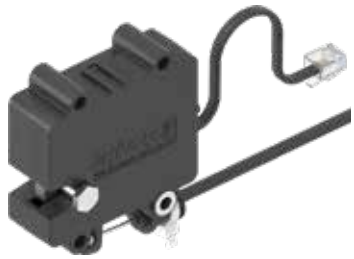
The following types are available:

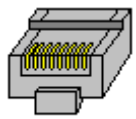
- Basic = latch is opened by switching on the power supply and locked as soon as the door is closed again
- Basic delayed Re-Lock = latch is opened by switching on the power supply and remains in the position 'open' as long as the power supply is applied
- Energy store = latch opens when switching off of the power supply (alternative to magnetic locks)
- Battery backup = latch is permanently powered and opened via electrical pulse; with UL508 approval, Ex approval to UL HazLoc; protection class IP 44

Features

- Wide supply voltage range from 9 ... 32 V
- Potential-free switch for remote monitoring of latch status
- Emergency opening via bowden cable in case of power failure
- Connection possible to Locking Unit 3000-U32-x or Access Unit 3000-U47-x; adapter cable optional
- UL508, Ex (UL HazLoc), IP 44 (only at version „Battery Backup")

Wiring information for



RJ45 plug front view	PIN	Basic Basic delayed Re-Lock Energy store	Battery backup	wire colours
 87654321	2	—	V -	white
	3	contact	contact	black
	4	V -	Release -	red
	5	V +	Release +	green
	6	contact	contact	yellow
	7	—	V +	blue

Single point lath with integrated status contact, housing polyamide GF black; ratch and pawl steel lubricant varnished; cable 150 mm with RJ45 plug; catch in zinc die (1 piece enclosed) with mounting and operating instructions Power supply: 9 ... 32 VDC, 100 mA Contact switching power: max. 30 VDC, min. 1 mA, max. 100 mA	
Basic	3000-U301-01
Basic delayed Re-Lock	3000-U301-02
Energy store; automatic unlock in case of power failure	3000-U301-03
Battery backup, UL508, Ex (UL HazLoc), IP 44	3000-U301-04
Catch material of your choice	
AISI 316	3000-78-PH
GD-Zn	3000-78-01KA
Striker bolt m.s. zinc plated	
	3000-102-JB
Mounting kit for bowden cable polyamide GF black; washer m.s. zinc plated and cable tie	
	3000-U303

On request:
– Mounting plate
– Bowden cable

Further parts see page
– Access Unit 11A-230
– Locking Unit 11A-240

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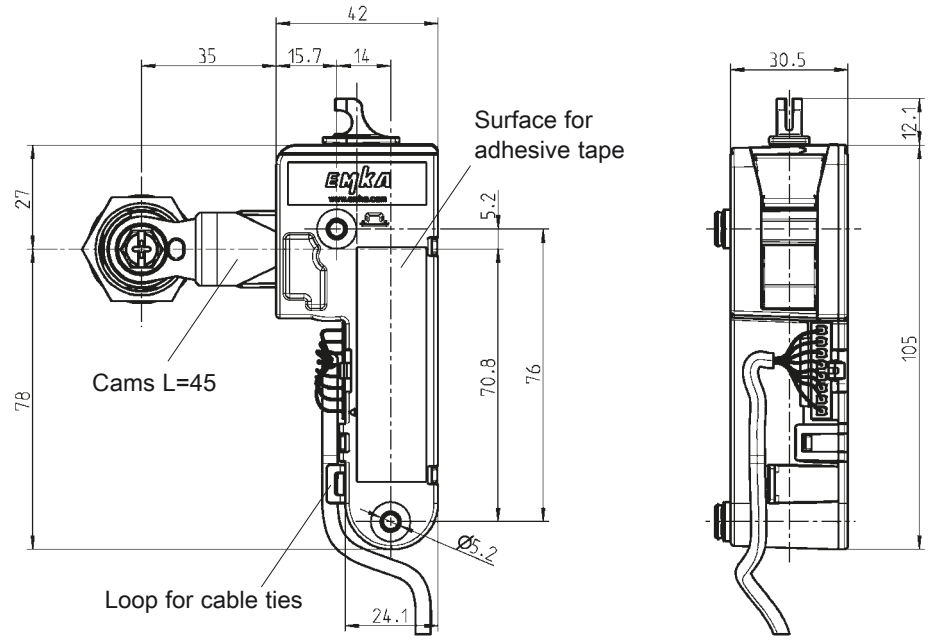
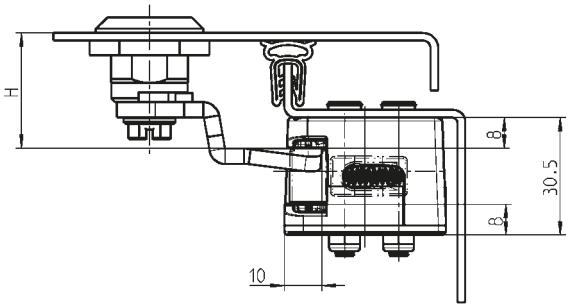
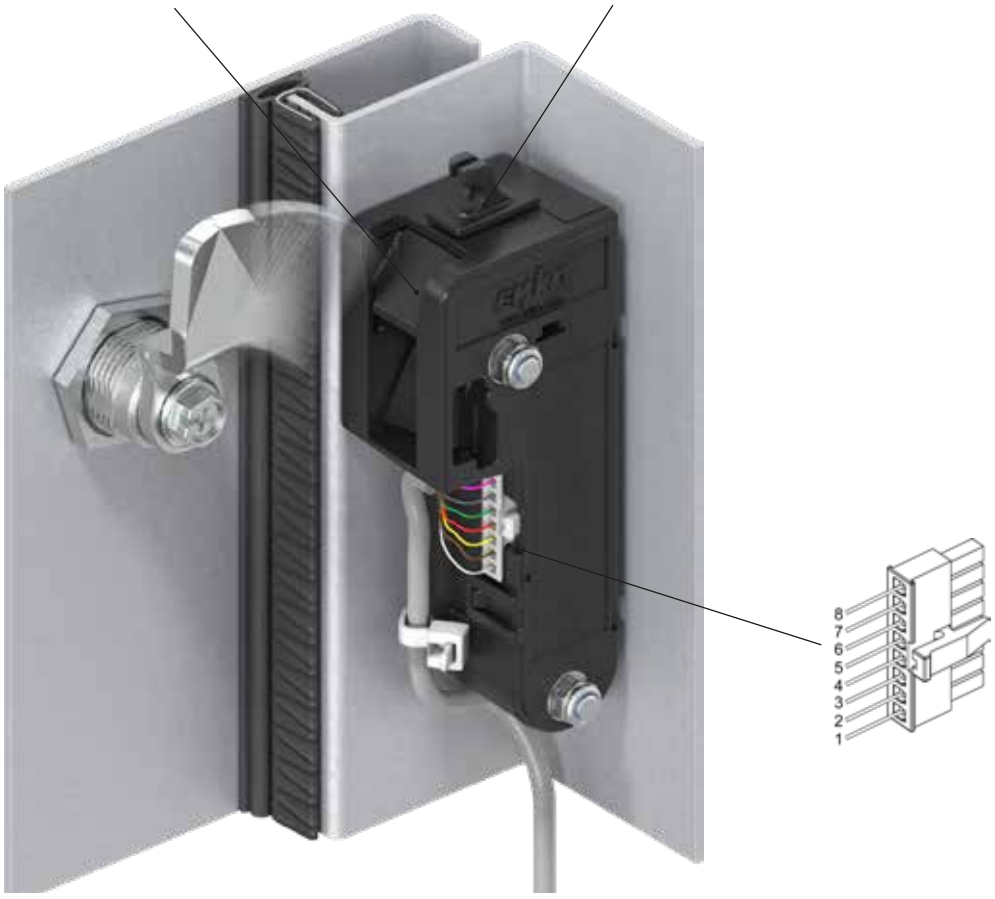
eCam
Electromechanical lock for cams





Catch

Bowden cabel bracket



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The electromechanical lock for cams is used as concealed lock in different applications.

The following types are available:

– Basic: lock for cam without status feedback, UL508 certified

– Basic Plus: lock for cam with status feedback, UL508 certified
Open collector output A1 indicates if cam is engaged in the catch

– Energy store: lock for cam with status feedback and automatic unlock of the catch in case of power failure, UL508 certified
Open collector output A1 indicates if cam is engaged in the catch

– Safety: Type approved as “position switch, design type 1” acc. to EN ISO 14119 (Machine Directive) and as “monitoring device with performance level d” acc. to EN ISO 13849

Features

- Wide supply voltage range from 9 ... 32 V
- Open collector output for remote monitoring of lock status
- Emergency opening via bowden cable in case of power failure

Wiring information for version

PIN	Basic	Basic Plus	Energy store	Safety
1	—	Output A1	Output A1	NC R1
2	—	—	—	NC R2
3	Control input	Control input	Control input	Control input
4	V -	V -	V -	V -
5	V +	V +	V +	V +
6	—	—	—	—
7	—	Door contact A1	Door contact A1	COM R2
8	—	Door contact A2	Door contact A2	COM R1

eCam **Housing, catch, cam disc, plunger polyamide GF;** **magnet; gear motor; with springs; installation and operating manual** **Power supply: 9 ... 32 VDC, max. 100 mA, stand-by 3 mA** **Output signal Open collector (max. 30 V, 50 mA)**	
Basic: lock for cam without status feedback	3000-U304-01
Basic Plus: lock for cam with status feedback	3000-U304-02
Energy store: lock for cam with status feedback	3000-U304-03
Safety: lock for cam with status feedback	3000-U304-04
Connection cable 2 m with connector and open wire ends	
	3000-111
Adhesive tape for quick assembly	
	2834
Mounting kit for bowden cable	
	on request

Further parts see page
– Power supply plug 11B-210
– further components please ask.

– Cam 1B-140
3YA-820
3YA-840
3YB-420
3YB-440
3YC-120
3YC-140

Fitting quarter turns, escutcheons or swinghandles can be found on the cam catalog pages

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Swinghandle 1317 with RC2; mechanical or electromechanical release

Resistance class:	RC2 DIN EN 1630, achieved by profile half-cylinder according to DIN EN 18252-BZ or DIN EN 1303 with resistance class 2 with protection against drilling and pulling. The profile half-cylinder should be certified and monitored by PIV CERT or alternatively by a certifying body according to DIN EN ISO/IEC 17065.
Size:	‚long' (189.5 mm; cut out 130 mm) or ‚short' (164.5 mm; cut out 105 mm)
Material:	Zinc die black powder coated or zinc die gray powder coated (RAL 7038) or GD-Zn gray powder coated (RAL 7038) and anti-graffiti coated

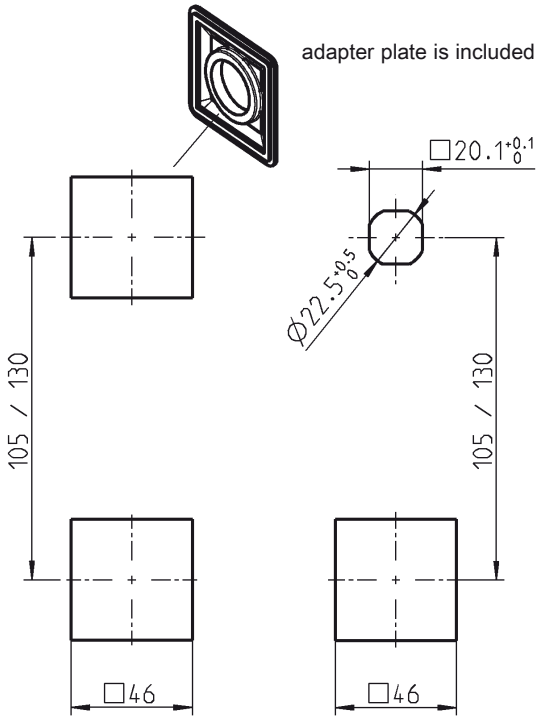
Mechanical version:

Profile half cylinder:	40 and 45 mm; adjust locking cam on 6 or 7 o'clock. On 3 or 5 o'clock push-to-close is not possible
Sealable:	yes

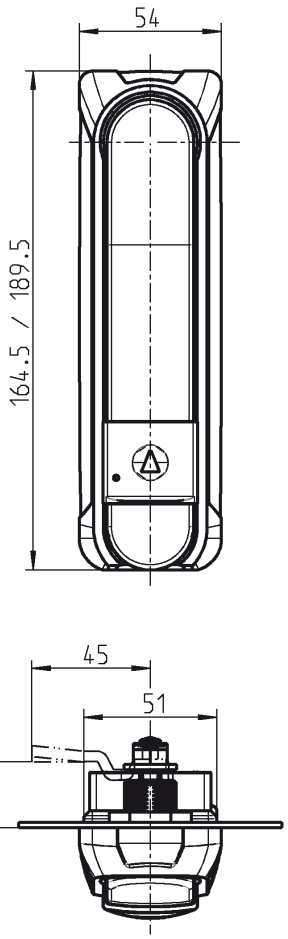
Electromagnetic version (EL):

Application:	Indoor and outdoor at -30°C to +80°C
Release:	by inputting a 48 V DC signal
Power-on time:	up to 1 minute
Display:	optional by LED; on request
Remote monitoring:	status indication via reed contact
Close:	Push the handle into the escutcheon until the locking mechanism engages
Emergency opening:	optional with 40 mm or 45 mm profile half cylinder

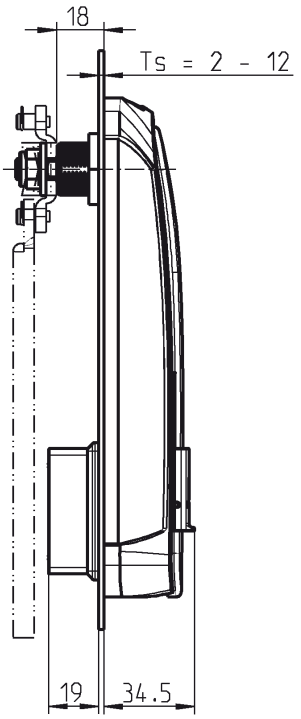
adapter plate is included in the delivery



Version A **Version B**



* Ts > 6 mm -12 mm on request



Note:
Without profile half-cylinder, opening is only possible by temporary key 1004-44-01AA

Attention:
With use of an adapter plate the maximum door gauge (Ts) is 6 mm.
Note:
The use of circular standard rod is not possible with a door gauge (Ts) > 6 mm!

** In case of the mechanical and the electromechanical model, only the profile half-cylinder according to DIN EN 18252 and DIN EN 1303 can be used.

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Standards

- Test according to RC2 DIN EN 1630
- Rating IK 10 following DIN EN 50102
- Integrated scratch protection prevents surface damage (handle / dish)

Features

- Zinc die type fulfills the requirements of resistance level RC2 (protection against vandalism) according to DIN EN 1630
- great flexibility regarding cost / benefit due to the big variety of types
- tested and approved by Deutsche Telekom

OUTDOOR

Swing handle 'long' or 'short' dish and handle zinc die, surface on request
shaft brass;
cylinder cover polyamide black or grey (RAL 7038);
cap zinc die black powder coated;
adapter plate polyamide GF black for cut out version A;
blind plug polyamide GF black (loose), spring, data sheet and assembling instruction included in the electromechanical version;
fixing m.s. zinc plated; with seal

Swinghandle 'long' (189.5) GD-Zn black powder coated	
electromechanical version optional for 40 and 45 mm profile half cylinder	1317-U161-02
Swinghandle 'long' (189.5) GD-Zn grey powder coated (RAL 7038) and anti-graffiti coated	
electromechanical version optional for 40 and 45 mm profile half cylinder	1317-U161-02HJ
Swinghandle 'short' (164.5) GD-Zn black powder coated	
electromechanical version optional for 40 and 45 mm profile half cylinder	1317-U151-02
Swinghandle 'short' (164.5) GD-Zn grey powder coated (RAL 7038) and anti-graffiti coated	
electromechanical version optional for 40 and 45 mm profile half cylinder	1317-U151-02HJ
Building key polyamide black	
	1004-44-01AA

Note:
The electromechanical version is also available in 12 V DC on request.

Further parts see page

– Cam	3YC-120
– 3-point cam	3YC-180
– ** Profile half cylinder	3XB-120

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Swinghandle 1154 with electromechanical release and emergency opening

EMKA Beschlagteile

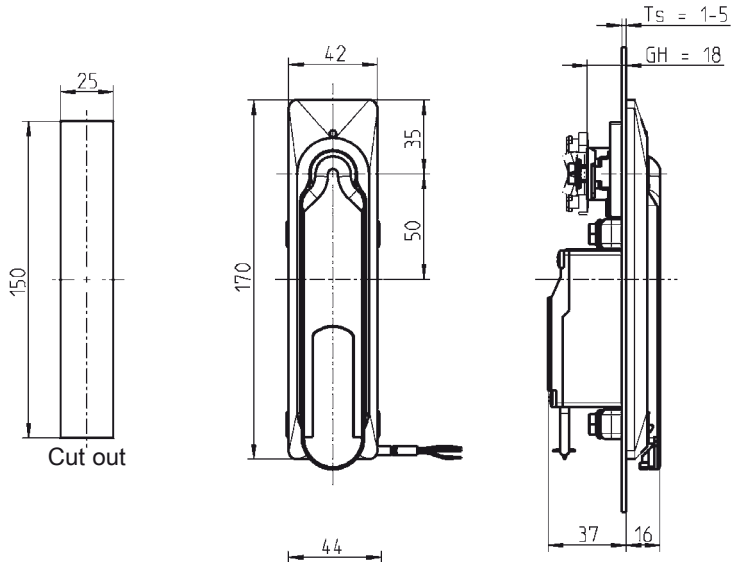
This handle is suitable for locking outdoor cabinets.
By applying a 12 V, 24 V or 48 V DC signal, the handle can be released. After pushing the handle briefly into the dish, it can be opened.
The integrated reed contact is for monitoring the handle status remotely. To lock the handle it must be pressed into the dish until the closing mechanism engages. The key provided is used to open the handle in case of power failure. To open the cylinder cover the screw M3 has to be removed. Then it is possible to unlock by means of round / pin cylinder.

OUTDOOR

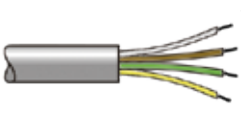
Round cylinder EK

During release of handle the LED is illuminated.

max. power-on time: 1 minute

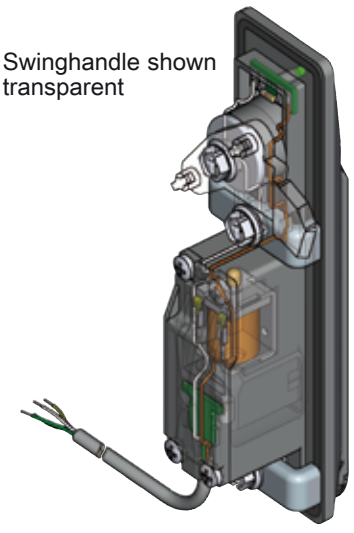


H-dimension starting at 33 mm



white (+)
brown (-)
green contact
yellow contact

Swinghandle shown transparent



Swinghandle zinc die black powder coated, cap and dust cap polyamide GF black, shaft zinc die zinc plated, holder AISI 304, round cylinder EK with stainless steel cap and shutter, solenoid with electronics, reed contact and LED, cable (4 m), screw M3 for cylinder cover AISI 304, fixing material m.s. zinc plated, with seal.
Each cylinder EK with one key silver steel with grip polyamide GF black
Contact switching power: 48 VDC, 0.5 A

	keyed EK 333	Keyed different
Round cylinder EK ; 48V	1154-U6	1154-U6-V
Round cylinder EK ; 24V	1154-U6-02	1154-U6-02V
Round cylinder EK ; 12V	1154-U6-03	1154-U6-03V

Further parts see page
– Cam (stroke 26) H-dimension as of 33 mm 3YC-120
– Connecting rod on request
– Spare key EK 12B-140

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Notes:

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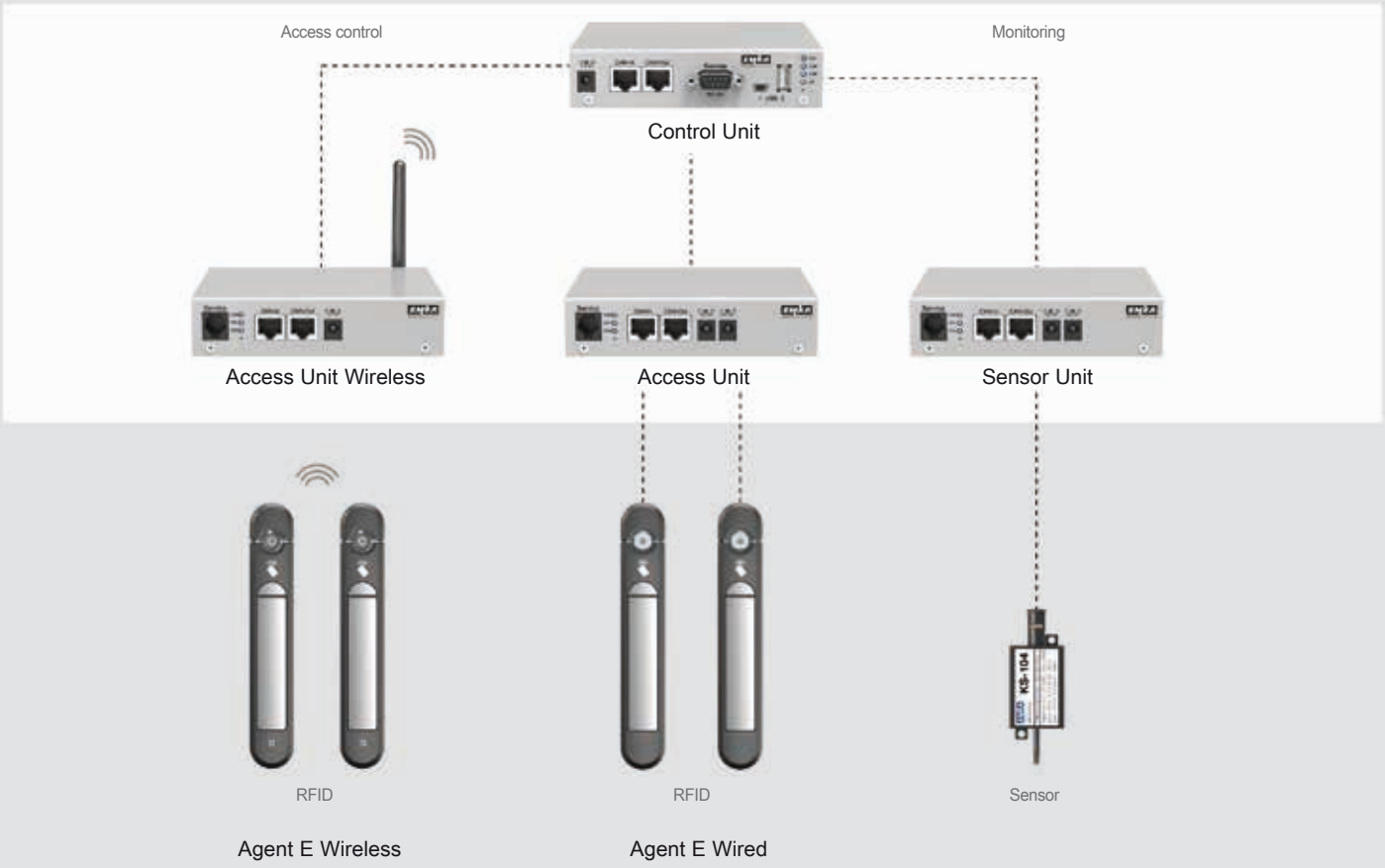
Units

System for access control and rack monitoring

The Rack Management System by EMKA Electronics consists of the central Control Unit and the connected components for access control and rack monitoring. Due to its modular structure it is scalable for any application: from a single cabinet in stand-alone operation up to centrally administered server racks in data centres.

Control Cockpit



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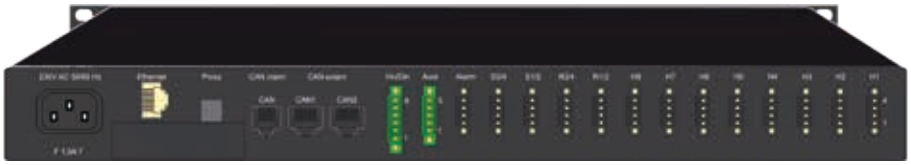
19’ plug-in box RMS 490

- The EMKA 19“ rack includes several function units in one compact housing:
- one Control Unit
- one Locking Unit for eight locks or door contacts
- one Sensor Unit for four sensors
- optionally one Access Unit
- optionally one GSM Unit
- To control the temperature there are two continuous control outputs available which control the speed of fans or the output of the airconditioning unit following different control strategies.
- The two-line display can be configured according to customer specifications
- All components can be connected quickly by plugs
- Using the CAN bus the functionality can be enhanced by further units almost infinitely



Power supply:	85 ... 264 VAC, 47 ... 63 Hz
Handle / lock inputs:	8 (12 V, max 1 A)
Sensor inputs:	4 (with sensor feed)
Relay outputs:	4 (30 VDC, max. 1.0 A; 48 VAC, max. 0.5 A)
Control outputs:	2 (max. 10 VDC, 1 mA)
Interfaces:	serial RS 232C and USB interface (front)
network interface:	Ethernet, 100 Mbit, RJ45 (back)
Communication protocols:	SNMP 1.0 and 2c, http
CAN bus ports:	3, for external modules
Operating temperature:	+5 ... +50° C
Dimensions (L x W x H):	210 x 481 x 43.5 (1 HE) mm
Scope of supply:	2 terminating resistors; power cord
	on request

Further parts see page
– EMKA Control Cockpit 11A-510

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Control Unit;
Access Unit Wireless

Control Unit

- Central Control Unit of the EMKA Rack Management System for wired and wireless systems
- Configuration and operation of all connected Units is effected by the network interface using a standard webbrowser or the software EMKA Control Cockpit
- Fail-safe and tamper-proof logging of all events in the system with real-time clock and additional memory
- Time synchronisation via NTP server
- Two ports for different alarm states on the back of the housing
- Simple integragration into higher level management systems via SNMP protocol
- Redundant power supply possible

Power supply:	**12 ... 24 VDC, 325 mA**
Relay outputs:	**2 (30 VDC, max. 1.0 A; 48 VAC, max. 0.5 A)**
Interfaces:	**serial RS 232C interface (front)**
network interface:	**Ethernet, 100 Mbit, RJ45 (back)**
Communication protocols:	**SNMP 1.0 and 2c**
CAN bus ports:	**2**
Operating temperature:	**+5 ... +45° C**
Dimensions (L x W x H):	**123 x 140 x 33 mm**
Scope of supply:	**2 terminating resistors, assembly bracket**
	3000-U141-02

Further parts see page

– Access Unit Wireless 11A-220
– Locking Unit 11A-240
– Sensor Unit 11A-250
– EMKA Control Cockpit 11A-510
– Power supply 11A-400

Access Unit Wireless

- In combination with a Control Unit Wireless up to 1,200 Agent E Wireless handles can be administered under one IP address with one Access Unit Wireless.
- To improve the range of the wireless signal max. 15 further Access Units Wireless can be connected to the Access Unit Wireless
- Frequency 868 MHz (Europe) or 922 MHz (US, Singapore)

Power supply:	**12 ... 24 VDC, 200 mA**
RS 485 ports:	**2 for connecting further Access Units Wireless**
CAN bus ports:	**2**
Operating temperature:	**+5 ... +45° C**
Dimensions (L x W x H):	**126 x 135 x 33 mm**
Scope of supply:	**Assembly bracket**
Access Unit Wireless Europe	3000-U980-02
other regions	on request

Further parts see page

– AGENT E Wireless 11A-110
– Control Unit 11A-210
– Power supply 11A-400

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Access unit for 2 handles and / or card readers HID

- Direct connection of 2 swinghandles of the line Agent E Wired
- Actuation of the central LED in the handle via terminal block on the back
- Alternative connection of 2 electromechanical locks and 2 external card readers
- Max. 32 Access Units per Control Unit:
- Administration of up to 64 handles under one IP address

Power supply:	**12 ... 24 VDC, 200 mA + outputs**
Handle outputs:	**2 (RJ45), max. 12 V / 1,000 mA, or max. 24 V / 500 mA per output**
Ports for card reader:	**2 (RJ45), HID**
Relay outputs:	**2 (max. 10 VDC, 1 mA)**
CAN bus ports:	**2**
Operating temperature:	**+5 ... +45° C**
Dimensions (L x W x H):	**107 x 135 x 33 mm**
Scope of supply:	**Assembly bracket**

Access Unit HID for installation in RMS 490	3000-U47-01
Access Unit HID in metal housing	3000-U47-02
RFID Card	
125 kHz	3000-87
13.56 MHz	3000-88

Note:
The handle outputs are not available in case of the versions for mounting in RMS 490.

Further parts see page
– Card reader 11A-260
– Power supply 11A-400

Access Unit for 2 handles and / or card readers Legic®

- Direct connection of 2 swinghandles of the line Agent E Wired
- Actuation of the central LED in the handle via terminal block on the back
- Alternative connection of 2 electromechanical locks and 2 external card readers
- Max. 32 Access Units per Control Unit:
- Administration of up to 64 handles under one IP address

Power supply:	**12 ... 24 VDC, 200 mA + outputs**
Handle outputs:	**2 (RJ45), max. 12 V / 1,000 mA, or max. 24 V / 500 mA per output**
Port for card reader:	**1 (round connector) Legic®**
CAN bus ports:	**2**
Operating temperature:	**+5 ... +45° C**
Dimensions (L x W x H):	**107 x 135 x 33 mm**
Scope of supply:	**Reader antenna with two RFID cards; assembly bracket**

Access Unit Legic® for installation in RMS 490	3000-U47-07
Access Unit Legic® for metal housing	3000-U47-08
RFID Card	
Legic®	1417

Note:
The handle outputs are not available in case of the versions for mounting in RMS 490.

Further parts see page
– Power supply 11A-400

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Locking Unit; Sensor Unit

Locking unit for 8 releasable handles and single point latches

- This unit can actuate up to 8 single point locking systems or handles of the program 1150 and read 8 status contacts
- It is possible to activate several locks simultaneously. In this case it is recommended to connect a power-supply unit to each Locking Unit
- The opening signal for the respective lock is triggered by keypad, RFID card or management software - EMKA Control Cockpit
- Using the existing inputs the states (open/closed) of locking systems, doors and side walls can be evaluated
- For supplying the locking systems with 24 V operating voltage a suitable power-supply unit can be connected in addition at the input 'ext. DC'

Power supply:	**12 VDC, 140 mA + outputs**
Handle outputs:	**8, max. 12 V / 1.000 mA, or max. 24 V / 500 mA per output**
Maximum current:	**2,000 mA**
CAN bus ports:	**2**
Operating temperature:	**+5 ... +45° C**
Dimensions (L x W x H):	**235 x 135 x 33 mm**
Scope of supply:	**Assembly bracket**

3000-U32-02

Further parts see page

– Swinghandle 1150 11A-130
– Single Point Latch 11A-140
– Control Unit 11A-210
– Door contact 11A-400
– Power supply 11A-400

Sensor Unit

- Capturing and analysing of different measurements such as temperature, humidity, smoke or electrical parameters
- Connection of max. 4 sensors
- Switching of max. 4 alarm relay outputs (e. g. switching on or off of fans) depending on the set limits

Power supply:	**12 VDC, 200 mA**
Sensor inputs:	**4 (with sensor feed)**
Relay outputs:	**4 (30 VDC, max. 1.0 A; 48 VAC, max. 0.5 A)**
CAN bus ports:	**2**
Operating temperature:	**+5 ... +45° C**
Dimensions (L x W x H):	**235 x 135 x 33 mm**
Scope of supply:	**Assembly bracket**

3000-U13-02

Further parts see page

– Control Unit 11A-210
– Sensors 11A-310 to 11A-330
– Power supply 11A-400

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Card reader for wall / door mounting

- The card reader is connected to the Access Unit 3000-U47-01 or 3000-U47-02 as an external reader and can read various contactless cards on the basis of HID and other card technologies
- The reader has terminals and is connected to the Access Unit using a 4-core cable. The maximum cable length between the Unit and reader amounts to 10 m

Power supply:	**5 ... 16 VDC, 45 mA** **75 mA during the reading process**
Port	**Screw terminals**
Operating temperature:	**+5 ... +45° C**
Dimensions (L x W x H):	**235 x 135 x 33 mm**
Scope of supply:	**Fixing frame for wall or door mounting**
	on request
RFID Card	
125 kHz	3000-87
13.56 MHz	3000-88

keypad

- The keypad in combination with a Locking Unit is used for locally opening selected locks by entering a PIN code
- In combination with the Access Unit the lock number is entered via the keypad while the RFID card receives the authentication
- Alternatively a two-factor authentication for opening a lock is possible in this constellation
(personal PIN code + RFID card)

Power supply:	**12 VDC, 50 mA**
CAN bus ports:	**2**
Operating temperature:	**+5 ... +45° C**
Dimensions (L x W x H):	**113 x 64 x 12 mm**
Scope of supply:	**Connection cable 3 m RJ11**
	3000-U08-01

Locking System Unit with Reed Contact Switch

- This set is activated via a Locking Unit 3000-U11-XX
- This set is used for opening spring-loaded handles. It is used instead of a mechanical push button or locking cylinder set

Lock system component with reed contact PC+ABS-FR(40) black; solenoid; electronics; fixing material m.s. zinc plated	
Control:	**via Lock Unit 3000-U11-XX**
Contact switching power:	**max. 48 VDC, 0.5 A**
Scope of supply	**Connection cable 3 m**
Connection cable with open cable ends	on request
Connection cable with plug for Locking Unit 3000-U11-02	on request

Further parts see page
– Swinghandle 1151 3C-420
– Swinghandle 1180 3E-320
– Swinghandle 1185 3E-520
– Locking Unit 11A-240

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Sensors

Process stability in operation by monitoring the operating states

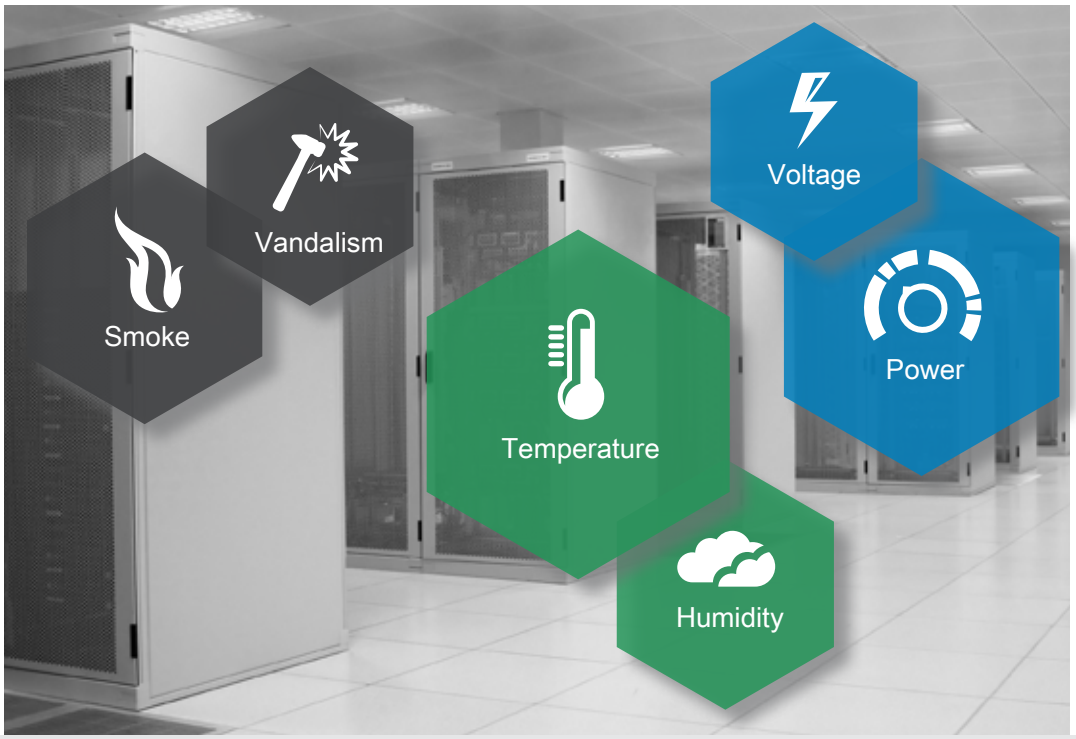
By means of specific sensors by EMKA Electronics a wide range of different parameters is monitored in the server racks. The measured values are captured centrally and evaluated. When limit values are exceeded, they can trigger alarms, switch on fans or air-conditioning units or effect emergency openings of the rack doors.

In combination with the software EMKA Control Cockpit, the data provide a basis for increasing the energy efficiency of data centres.
The sensor program of EMKA Electronics includes all relevant parameters for measuring and monitoring the operating status of server racks.

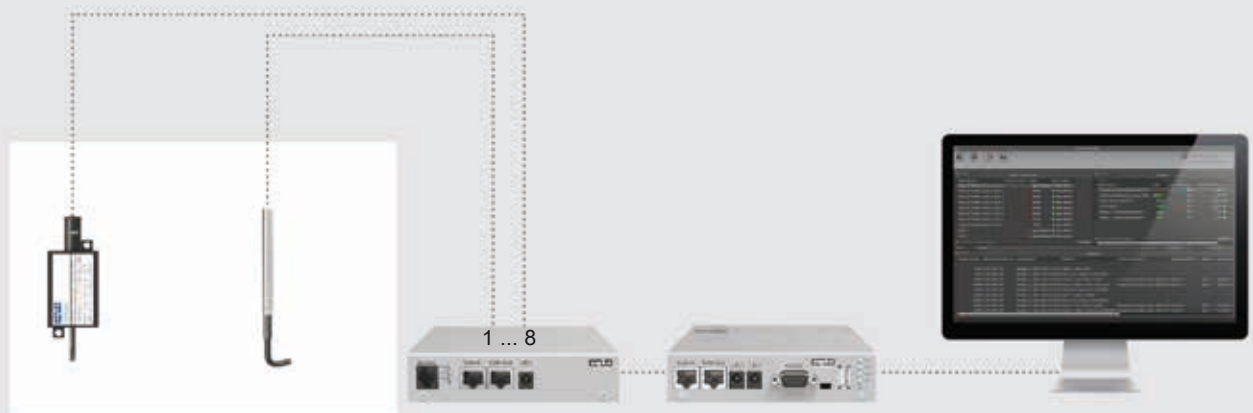
Danger
Smoke detector and vandalism sensor for signalling immediate danger

Power
Sensors for electrical parameters (current, voltage, output) for measuring and optimising the power consumption

HVACR
Temperature, humidity and leakage sensor for climatic parameters



per Control Unit max. 32 Sensor Units ≡ max. 256 Sensors



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Climatic sensor - temperature and humidity

- The analog climate sensor measures both, air humidity and the ambient temperature
- The sensor is connected to the Sensor Unit 3000-U13-0X and occupies two inputs of this unit

Operating voltage:	**7.5 ... 27 VDC (provided by the system)**
Current consumption:	**approx. 0.8 mA**
Measuring range humidity:	**0...100 % relative humidity**
Deviation:	**± 3.5 % (20...80 % relative humidity)**
Response time:	**< 4 sec.**
Output humidity:	**0.5 ... 5.5 V**
Measuring element:	**capacitive (non-condensing)**
Measuring range temperature:	**–20 ... +80° C**
Deviation:	**± 0.5 K at 25° C**
Response time:	**< 20 sec**
Output temperature:	**0.5 ... 5.5 V**
Measuring element:	**Semiconductor**
Dimensions L x W x H:	**65 x 31 x 22 mm**
Cable length:	**2 m**
Plastic housing with two fixing bore holes	

Connection cable with open cable ends for module type Kit	3000-U25-00
Connection cable with plug for Sensor Unit 3000-U13-02 and 19“ rack RMS 490	3000-U25-01

Further parts see page
– Sensor Unit 11A-250

Temperature Sensor

- The sensor is suitable for monitoring temperatures of both gaseous and liquid media
- The sensor is connected to the Sensor Unit 3000-U13-0X

Operating voltage:	**+12 V ±10 % (provided by the system)**
Current consumption:	**approx. 0.8 mA**
Measuring range temperature:	**–50 ...150 °C**
Deviation:	**< 2 %**
Output voltage at -50° C:	**0.25 V**
Output voltage at 150° C:	**4.75 V**
Dimensions diameter x L:	**Ø 6 mm x 50 mm**
Cable length:	**2 m**
Housing stainless steel	

Connection cable with open cable ends for module type Kit	3000-U39-00
Connection cable with plug for Sensor Unit 3000-U13-02 and 19“ rack RMS 490	3000-U39-01

Further parts see page
– Sensor Unit 11A-250

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Acceleration sensor

Acceleration sensor

- This sensor is suitable in safety-relevant applications to protect against vandalism, destruction and theft. It measures the accelerations in one axis
- The sensor is connected to the Sensor Unit 3000-U13-0X

Operating voltage:	**7.5 ... 15 VDC (provided by the system)**
Current consumption:	**ca. 2 mA**
Measuring axis:	**Z-axis**
Measuring range:	**± 5 g**
Output voltage at 0 g:	**2.5V ± 0.25V**
Sensitiveness:	**0.4 ± 0.02) V/g**
Non-linearity:	**±1.0 % FSO**
Band width:	**50 Hz**
Protection against overload:	**up to 1,500 g**
Measuring element:	**capacitive**
Operating temperature:	**–40 ... +70° C**
Dimensions L x W x H:	**65 x 31 x 22 mm**
Cable length:	**2 m**
IP rating:	**IP 65**
EMC and ESD tested acc. to	**EN 50082-1** **EN 50082-2**

Plastic housing with two fixing bore holes

Connection cable with open cable ends for module type Kit	on request
Connection cable with plug for Sensor Unit 3000-U13-02 and 19“ rack RMS 490	on request

Further parts see page
– Sensor Unit 11A-250

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Notes:

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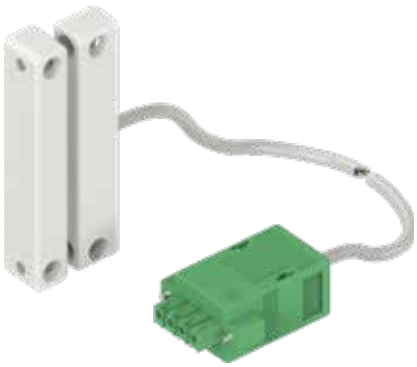
Accessories

Door contact with connection cable

- This sensor is used to monitor the status of a door or side panel
- It is designed for the connection to the Units 3000-U11-02 and 3000-U33-02



Dimensions L x W x H: **60 x 11 x 9 mm** **Cable length:** **6 m** **Plastic housing with two fixing bore holes; loose side with permanent magnet**	
Connection cable with open cable ends for module type Kit	3000-U35-00
Connection cable with plug for Sensor Unit 3000-U13-02 and 19“ rack RMS 490	3000-U35-01
Connection cable with connector for Agent E, cable length 2 m	on request

Door contact with screw connectors

- This sensor is used to monitor the status of a door or side panel
- Suitable for connection cables up to 1.5 mm²
- Use cable 2807 to connect to Agent E swing handles

Dimensions L x W x H: **50 x 9.5 x 7 mm** **Plastic housing with two fixing bore holes and special adhesive tape**	
Door contact with screw connectors	3000-U35-05
Connection cable with connector for Agent E, cable length 2 m	2807

Power supply plug

Power supply plug, stabilised with Euro plug (Schuko), housing made of plastic black **Output:** **12 VDC 2,000 mA stabilised**	
Connection cable with open cable ends for modular system kit	3000-03-00
Connection cable with plug for all Units	3000-03-02

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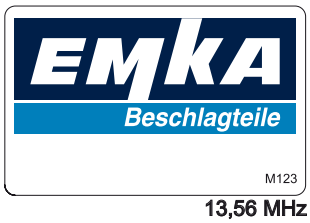
RFID Card

125 kHz



13,56 MHz

Further parts see page

– AGENT E Wireless 11A-110
– AGENT E Wired 11A-120
– Access Unit HiD 11A-230
– Card reader HID 11A-260
– Agent E RFID Stand-Alone 11B-110

ISO 7816 ID-1	
125 kHz	3000-87
13,56 MHz	3000-88

RFID Card

Further parts see page

– Access Unit Legic® 11A-230

ISO 7816 ID-1	
Legic®	1417

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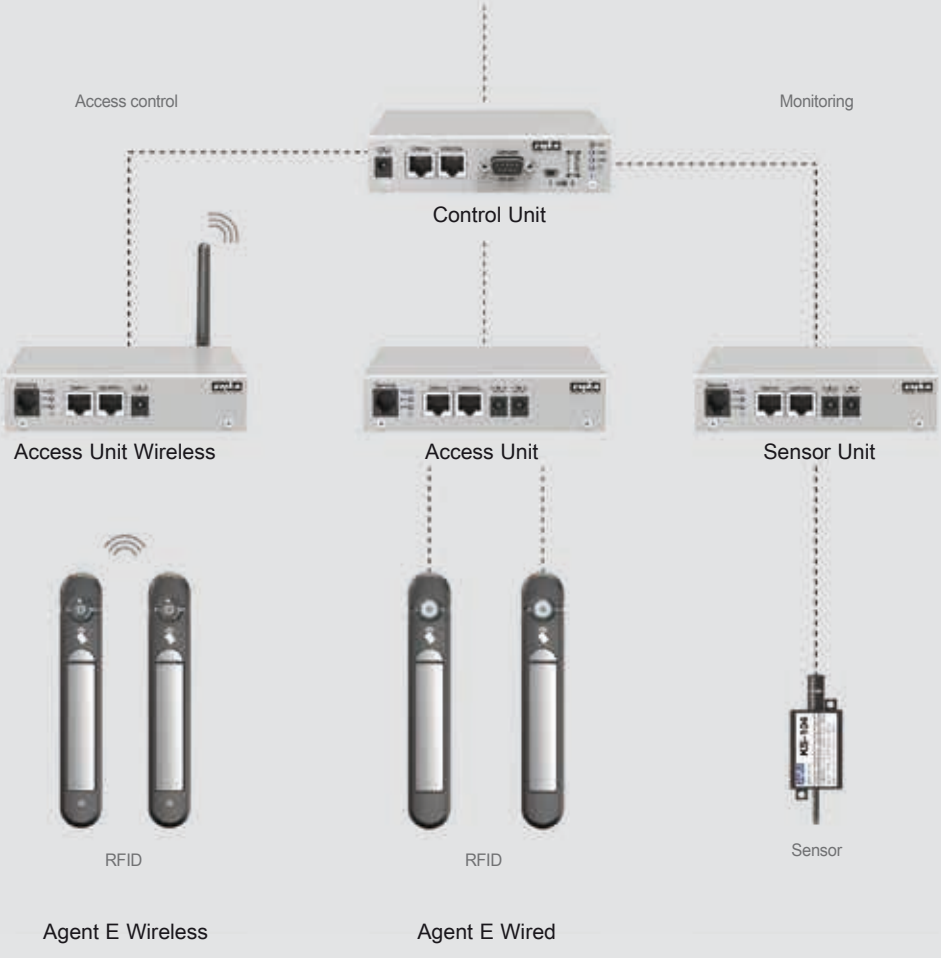
EMKA Control Cockpit

Control Cockpit



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EMKA Control Cockpit

The databased software EMKA Control Cockpit administers the access authorisations. It logs ad documents all accesses to server racks. Measured variables of sensors are continuously captured and monitored with respect to limit violations.
The integration in superordinate systems is effected via an SQL interface.

Larger IT systems are often controlled by several different rack management systems. This might be necessary due to the great number of server racks or the distribution across several rooms or locations.
Such systems are often linked to higher-level control or management systems. This covers central operation, control and configuration of critical importance.

Features

User administration
- Easy addition of users and assignment of user groups
- Individual allocation of authorisations and personal PIN codes

System administration
- Administration of up to 50 rack management systems with the connected components such as handles, sensors or card readers
- Basic functions:
  - Reading of RFID cards
  - Rights management for RFID cards with discretionary assignment
  - Access rights management for locks
  - Allocation of rack groups
  - Setting of limit values for sensors and activation of alarms

Real-time features
- Convenient opening of handles after entering a PIN code
- Comprehensive control and monitoring functions
- Display of alarm states of handles or sensors by colour change
- Comprehensive filter functions for displaying the most important information

Configurable screen views
- Individual design of the screen views in different windows

Measured value storage
- Monitoring and logging of temperature values to identify the thermal strain
- Graphic trend display of the measurements of historical or life data in user-definable time slots
- Simple storage or print out of the diagrams using the export function

Logging and analysis
- Archiving of events of all connected systems in one common database
- Creation of costumer-specific reports with comprehensive filter and export functions

Remote access
- Installation of the client software in any number of places
- Access to central database as client
- Encrypted data transfer within the network

Integration into external systems
- Open database structure enables the simple integration in superordinate systems via SQL interface

EMKA Control Cockpit	
Basic package for 2 systems	3000-U68
Extension for 1 further system	3000-U68-101
Extension for 10 further systems	3000-U68-102
Extension for 20 further systems	3000-U68-103
Extension for 48 further systems	3000-U68-104

Further parts see page
– Control Unit 11A-210

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1154-U6-02V	11A-160
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3000-U25-00	11A-310
3000-U25-01	11A-310
3000-U32-02	11A-240
3000-U35-00	11A-400
3000-U35-01	11A-400
3000-U35-03	11A-400
3000-U35-05	11A-400
3000-U39-00	11A-310
3000-U39-01	11A-310
3000-U47-01	11A-230
3000-U47-02	11A-230
3000-U47-07	11A-230
3000-U47-08	11A-230
3000-U68	11A-510
3000-U68-101	11A-510
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Notes:

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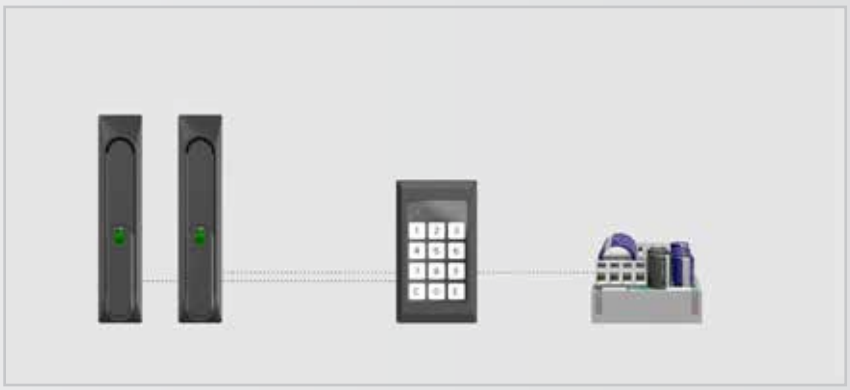
Electronic Locking & Monitoring Systems

Stand-alone solutions

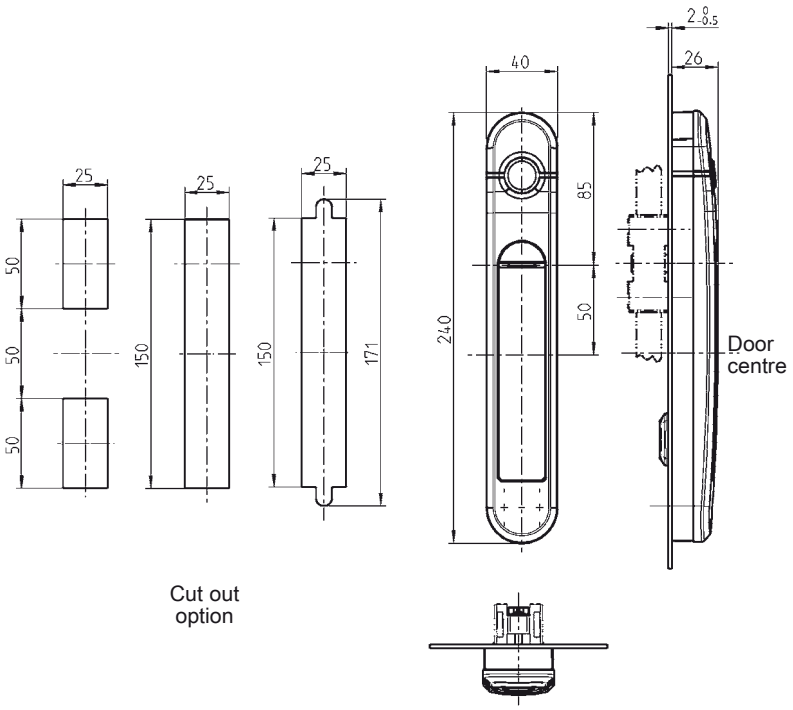


Stand-alone systems are electronic locks with their own intelligence for accessing up to two electromechanical locks.
They are suitable for access control for individual racks not requiring central monitoring.

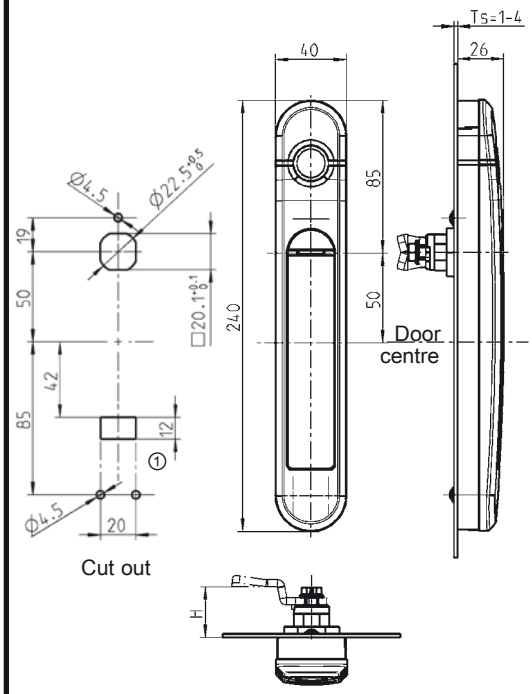
Depending on the chosen lock the opening is either effected by RFID cards or by entering a PIN code on a keypad.
Systems with RFID cards are specially easy to install as no further wiring in the rack is required.

Stand-alone version with swinghandle Agent E RFID Stand-alone

Swinghandle for rod control or bearing bush



Swinghandle for cam



Required for
① = door contact

Schwenkgriff Agent E RFID Stand-alone - functions

Tk = door contact ; SA = status display

Mode of operation	Authentication	Power	Opening standard	Opening optional	Connection option
Stand-alone	RFID card (125 kHz or 13.56 MHz)	Battery	immediately		Tk

max. 128 RFID cards per handle
Card management via USB with software tool

Agent E RFID Stand-alone
This version consist of a battery-operated AGENT E handle with integrated card reader for 125 kHz or 13.56 MHz RFID cards.
By holding an authorised RFID card in front the integrated reader, the handle will open.
Easy to configure by software.

This handle does not require any external cabling to work.

Features

- Battery-operated handled with integrated RFID reader
- Authentication by 125 kHz or 13.56 MHz RFID cards
- Extremely energy-efficient battery operation (battery life min. 3 years)
- Configuration via USB port with Agent E configuration software (card administration, time profiles, reading out event logs)
- All handles has a connector for adding a door contact
- Data storage for 2,000 events
- Emergency power function and emergence opening via integrated USB port
- The installation in cabinets / racks of different manufacturers is solved with various adapters. On request

Swinghandle AGENT E consisting of: dish polyamide GF black; handle and shaft zinc-die powder-coated white aluminium; 2 batteries, mounting and operating instructions		
	for rod control or bearing bush	**for cams**
Stand-alone with RFID 125 kHz	on request	on request
Stand-alone with RFID 13.56 MHz	3000-U910-21	3000-U910-22
RFID Card		
125 kHz		3000-87
13.56 MHz		3000-88
Adapter set for bearing bush, adapter plate polyamide GF black; adapter m. s. precision casting zinc plated; fixing material m.s. zinc plated		
for door thickness 1.0 - 3.0		3000-U104-01
Adapter set for retrofitting		
various cabinet types		on request
USB adapter cable		
USB Standard-A on USB Micro-B		3000-U102

Further parts see page
– Rod control 3YA-120
3YA-140
– Bearing bush 3YB-120
– Cam (GH=18) 1C-120
– Door contact 11A-400

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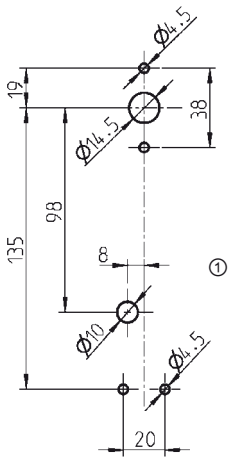
Stand-alone version with swinghandle Agent E RFID Stand-alone

Swinghandle for furniture doors



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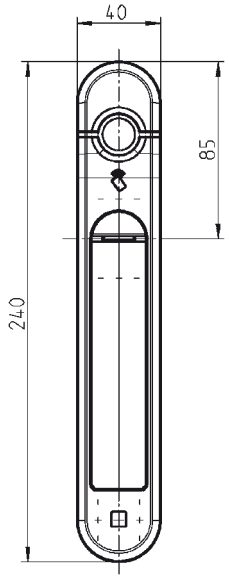

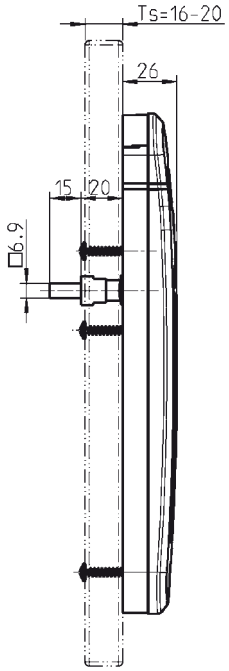

Required for
① = door contact

Schwenkgriff Agent E RFID Stand-alone - functions

Tk = door contact ; SA = status display

Mode of operation	Authentication	Power	Opening standard	Opening optional	Connection option
Stand-alone	RFID card (125 kHz or 13.56 MHz)	Battery	immediately		Tk

max. 128 RFID cards per handle
Card management via USB with software tool

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Agent E RFID Stand-alone
This version consist of a battery-operated AGENT E handle with integrated card reader for 125 kHz or 13.56 MHz RFID cards.
By holding an authorised RFID card in front the integrated reader, the handle will open.
Easy to configure by software.

This handle does not require any external cabling to work.

Features

- Battery-operated handled with integrated RFID reader
- Authentication by 125 kHz or 13.56 MHz RFID cards
- Extremely energy-efficient battery operation (battery life min. 3 years)
- Configuration via USB port with Agent E configuration software (card administration, time profiles, reading out event logs)
- All handles has a connector for adding a door contact
- Data storage for 2,000 events
- Emergency power function and emergence opening via integrated USB port
- The installation in furniture doors, in conjunction with different lock manufacturers, is solved with various adapters.
  On request

Swinghandle AGENT E consisting of: dish polyamide GF black; handle and shaft zinc-die powder-coated white aluminium; 2 batteries, mounting and operating instructions	
	for furniture doors
Wireless with RFID 125 kHz	on request
Wireless with RFID 13.56 MHz	3000-U910-28
RFID Card	
125 kHz	3000-87
13.56 MHz	3000-88
Adapter AISI 303 for Agent E for furniture doors	
for □ 7 mm, 15 mm long	3000-115
other adapter	on request
USB adapter cable	
USB Standard-A on USB Micro-B	3000-U102

Further parts see page
– Door contact 11A-400

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Stand-alone version with keypad lock

Electronic keypad lock for spring-loaded handles

Description:
Two handles can be connected to the electronic keypad lock systems. By entering a correct PIN code the respective handle will open.

Features

- Up to 5 PIN codes per handle, can be set by master code
- Blocking function in case of repeated failed attempts
- Simple to mount solenoid for spring-loaded handles
- Central control module for connecting all components
- Compact solution for single cabinets

Note:
Stabilised power supply unit 12 V at least 500 mA required (see page 11B-210).

Handle series suitable for the installation of solenoids

Program 1150

Program 1180

Program 2100

Program 2400

Technical Data

– Protection Class	IP 40
– Temperature Range	0-60 °C

Stand-alone version **numeric keypad with electronics;** **terminal strip with voltage conditioning unit for connecting the number keypad;** **control module for actuating up to two solenoids;** **fixing material;** **operating and mounting instructions**	
and 1 solenoid for spring-loaded handles (connection cable open 4 m)	3000-U01
and 2 solenoids for spring-loaded handles (connection cable open 4 m)	3000-U02

Further parts see page

Program 1150
– Swinghandle 1151 3C-420 3C-440

Program 1180
– Swing handle 3E-120 to 3E-520

Program 2100
– Swing handle 3H-320

Program 2400
– Swing handle 3K-220

– Power supply 11B-210

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Combination handle with keypad lock

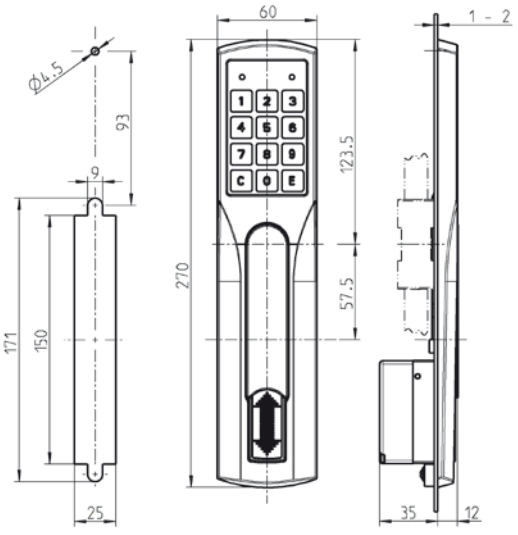
Description:
The integration of the keypad in the handle module of the handle series 2100 facilitates the mounting on the rack

One further handle can be connected to the electronic keypad locking system. By entering a correct PIN code the respective handle will open.

Features

- Up to 5 PIN codes per handle, can be set by master code
- Blocking function in case of repeated failed attempts
- Simple to mount solenoid for spring-loaded handles
- Central control module for connecting all components
- Compact solution for single cabinets

Note:
Stabilised power supply unit 12 V at least 500 mA required
(see page 11B-210).



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Technical Data
– Protection Class IP 40
– Temperature Range 0-60 °C

Further parts see page
– Rod control 3YA-520
3YA-540

For the second solenoid
Program 1150
– Swinghandle 1151 3C-420
3C-440

Program 1180
– Swing handle 3E-120
to 3E-320

Program 2100
– Swing handle 3H-320

Program 2400
– Swing handle 3K-220

– Power supply 11B-210

Stand-alone version **swinghandle polyamide GF black; handle and shaft zinc-die black powder-coated;** **solenoid and numeric keypad installed with electronics;** **connection cable 4 m;** **fixing material St zinc-plated;** **terminal strip with voltage conditioning unit for connecting the number keypad;** **control module with holder for DIN rail mounting**	
	2100-U151
and 1 solenoid for spring-loaded handles (connection cable open 4 m)	2100-U152

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Stand-alone version with keypad lock

Electronic keypad lock for releasable handles and latches

Description:
Two handles or latches can be connected to the electronical keypad locking system. By entering a correct PIN code the respective lock will open. Alternatively both locks can be released simultaneously.
The release time is programmable.

Features

- Up to 5 PIN codes per handle, can be set by master code
- Blocking function in case of repeated failed attempts
- Simple to mount solenoid for spring-loaded handles
- Central control module for connecting all components
- Compact solution for single cabinets

Program 1150

Program 3000

Technical Data

– Protection Class	IP 40
– Temperature Range	0-60 °C

Stand-alone version **numeric keypad with electronics;** **terminal strip with voltage conditioning unit for connecting the number keypad;** **control module for actuating up to two handles or locking devices;** **power supply unit;** **fixing material;** **operating and mounting instructions**	
Set for releasable handles and single-point latches	3000-U200

Further parts see page

Program 1150

– Swinghandle 1150	3C-160 11A-130

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Locking System Unit

- This locking set is activated via control module of the Stand-alone versions for spring-loaded handles 3000-U07
- This set is used for opening spring-loaded handles. It is used instead of a mechanical push button or locking cylinder set

Locking system set PC+ABS-FR(40) black; solenoid; electronics; fixing material St zinc-plated		
Control:	**via Lock Unit 3000-U7**	
Contact switching power:	**max. 48 VDC, 0.5 A**	
Scope of supply	**Connection cable 3 m**	
Connection cable with open cable ends		3000-U05

Further parts see page

– Swinghandle 1151 3C-420
– Swinghandle 1180 3E-320
– Swinghandle 1185 3E-520
– Control module for handles 11B-210

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power supply plug

Power supply plug, stabilised with Euro plug (Schuko), housing made of plastic black Output: 12 VDC 2,000 mA stabilised	
connection cable with open cable ends for modules of type Kit	3000-03-00

Control module for handles with locking system unit

Control module to control locking system units 3000-U05 for spring-loaded handles.

- The voltage conditiong for the triggering is done by this control module
- Connection option for max. 2 sets
- For the power supply a stabilised power supply unit 12 V DC min. 500 mA is required

Control for handles with solenoid	
	3000-U07

Control module for single point latches and handles 1150-U56/U58

Control module for control single point latches or handles of the type 1150-U56/U58. The module releases the latches or handles for a time period programmable in the Stand-Alone Keypad.

- Max. 2 locking devices or handles and max. 2 trigger buttons can be connected
- Stabilised power supply unit 12 V DC min. 700 mA required

Control module for single-point latches and handles 1150-U56/U58	
	3000-U07-01

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1150-U56-01	11A-130
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3000-U47-07	11A-230
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