Security and Access Control

roger®

RACS 5

ME-8

ME-9

ME-10

RUD-4

ME-11
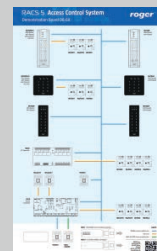
DB-6

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Access Control

■ Distribution network

Quality

Components from reputable suppliers are used exclusively in the production of Roger devices. Moreover, the company regularly invests in improvement of design and production processes, thus Roger products represent high level of functionality, design and reliability.

Object of activity

Roger company was established in 1991 and the object of its activity is design, production and sale of electronic security systems, in particular access control systems.

Distribution network

High reliability and functionality of Roger products confirmed in thousands of successful installations and quality to price ratio enabled to establish wide distribution network. Roger products can be purchased within the whole territory of Poland, in 3 continents and over 40 countries. The products serve hundreds of thousands of people in many prestigious locations worldwide, from Lisbon through Beirut to Singapore.

Access Control & Hotel Automation

Time & Attendance

Guard Tour System

Support

Roger provides free of charge technical support within the scope of its solutions. Company's technical department offers professional support in selection and configuration of devices and software. Roger supports its distributors with promotional materials for translation or direct use without any modifications.

Roger Academy

The academy includes trainings, workshops and presentations for the purpose of learning proper installation, configuration and use of Roger products. Technical knowledge base (i.e. online video tutorials, quick start guides, FAQ, etc.) is available at www.roger.pl in order to support self-education.

roger®   5

MD70

MD70 is a graphical touch panel with built-in camera and 13.56 MHz proximity reader. Generally, terminal is dedicated to operate as an user authentication device and system commanding terminal in the RACS 5 access control and building automation system. In particular, MD70 is suitable for operation as a time and attendance registration point. It is possible to install on the panel third party Android applications and extend significantly its functionality. Users logging on the terminal can use MIFARE proximity cards, PIN or NFC data

transmission. MD70 allows definition of Widgets which can be used to trigger any arbitrary selected action in the RACS 5 system or, to present any of its states. The built-in camera can be used to make photos of the system users who login on terminal and for online picture transmission to the managing computers. MD70 can be connected to RACS 5 system by means of wired way (Ethernet, RS485) or wireless one (Wi-Fi). Device is aligned with QUADRUS series device line.

MCT82M-IOCH

MIFARE Classic proximity reader with card holder. The reader recognizes card inserting and removing. The device offers three parametric inputs, two transistor outputs and single relay output. The reader is dedicated to hotel applications.

MCT86M-IO

MIFARE Classic proximity reader with keypad and four function keys. The reader offers three parametric inputs, two transistor outputs and single relay output.
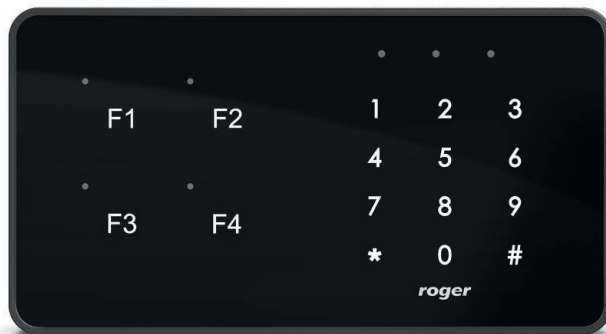
MCT88M-IO

MIFARE Classic proximity reader with keypad, four context function keys and TFT 2,4" display. The reader offers three parametric inputs, two transistor outputs and single relay output.

RACS 5
Access Control System

RACS 5 scalable access control system with building automation and alarm system control

RACS 5 system is a group of products, both hardware and software, dedicated to implement the physical access control, building automation and alarm system.

RACS 5 is easily scalable and can be used in systems of any size from the smallest, based on a single door for the largest, serving office buildings, hotels or stadiums.

RACS 5 main features:
- Physical access control
- Elevator access control
- Alarm system control from access terminals
- Alarm system status presentation on access terminals
- Building automation
- Live system monitoring
- System history log
- Event log for time and attendance systems
- Access to system database through software interface
- Integration with third party systems through integration server

RACS 5 consist of:
- High-level configuration software (VISO)
- Low-level configuration software (RogerVDM)
- MC series access controllers (e.g. MC16)
- MCT series access terminals (e.g. MCT82M, MCT82M-IO)
- MCX series I/O expanders (e.g. MCX402DR, MCX2)
- MCI series interfaces (e.g. MCI16-EVK)

RACS 5

RACS 5 Access Control System Structure

VISO workstations

DVR/NVR

LAN/WAN

License, communication and integration server

Database server

Computer network LAN/WAN
RS485 bus (up to 16 devices)
Input/output signals

Readers with RACS CLK/DTA interface (max.4)

MC series multi-door access controller

Readers with Wiegand interface (max.4)

PRT series readers

MCT series reader without built-in I/Os

MCX series I/O expander with reader interface

MCT series reader without built-in I/Os

MCX series I/O expander without reader interface

MCT series reader without built-in I/Os

MCT series reader without built-in I/Os

MCT series reader with built-in I/Os

VISO program is a Windows OS software dedicated to RACS 5 setup and management. VISO application is available in two versions: VISO ST and VISO EX.

VISO ST

VISO ST is a RACS 5 standard version of the program, which offers advanced access control, building automation and alarm system control/presentation functions. VISO ST is offered as freeware and does not require a hardware key.

VISO EX

VISO EX is the most advanced version of software which offers full range of RACS 5 system functionality. VISO EX is offered in few varieties depended on amount of access doors, number of users and other system functionalities. Use of VISO EX requires a hardware key and a license file.

VISO versions comparison

	VISO ST	VISO EX
Parameter		
Freeware license	+	−
Door limit	no limit	no limit
Active access credential limit	1000	no limit*
Microsoft SQL Server Compact 4.0 file database	+	+
Microsoft SQL Server database	−	+
Custom authentications policies	+	+
Multifunction inputs	+	+
Multifunction function keys	+	+
Multifunction control commands	+	+
Custom definitions of output modulation	+	+
Client-server architecture	−	+
Landlord-tenant partitions	−	+
Classic elevator integration	+	+
Integration Server (SDK)	−	+

* - refers to the system database, does not refer to credential limit on the particular controller

VISO EX software licensing

The VISO EX license requires hardware key and so called License File. The hardware key can be any RUD-2, RUD-3 or RUD-4 reader. The License File is generated individually for each hardware key and includes the range of various features. The license file is signed electronically and any attempt to amend its contents will corrupt it. In general, the VISO EX license consist of so called Base License and Detailed License. The Base License defines the number of doors in the system while the Detailed License is intended to activate other system functionalities. The Base License can be used autonomously while Detailed License always requires accompanying Base License. The price of Base License depends on number of doors in the system. The price of Detailed License depends on its function and optionally, on number of doors and active access credentials in the system.

Integration Services Server

RACS 5 system can be integrated with third party systems based on Integration Services Server which enables access to RACS 5 database as well as management of the RACS 5 system (e.g. settings synchronization, control commands, credentials and users management).
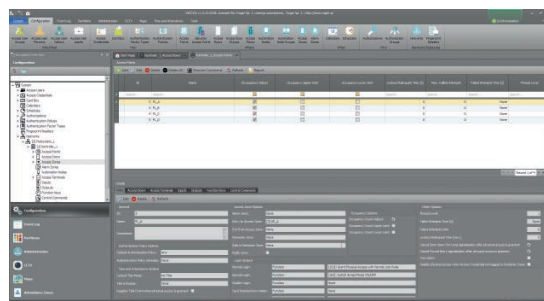
The MC16 is a multi-door physical access and building automation controller dedicated to RACS 5 system. Depending on the version, it allows to control up to 16 two-way doors and 32 automation nodes (states). MC16 can be integrated with intruder alarm system by means of IO lines. The integration concept allows to display alarm zone status on reader LEDs, and to change zone status straight on the access terminals. The MC16 can be used as data collector device for time and attendance reporting systems. It can register different types of T&A events which are intended to mark various types of user attendance or absence in the supervised area. Each operation on the controller can require user authorization. The authorization process might consists of permission for access point on which user is being logged and permission for action being requested. User authorization can require one or more authentication factor to be used. Every access user might have one or more access credential (card, PIN, fingerprint etc.). Generally, controller was designed to operate with MCT (RS485) series readers, nevertheless it can work with Wiegand and RACS CLK/DTA readers as well. The RS485 communication bus allows free cable topology (e.g. three, star and combination of them) and accepts any type of signal cables. The maximal distance between controller and any MCT reader or extension is limited to 1200m of cable run. Wiegand and RACS CLK/DTA readers can be connected directly to MC16 board or by means of dedicated RS485 extension boards (e.g. MCX402DR). Controller is equipped with Ethernet interface which is used for system configuration and management. System is managed by VISO client-server Windows application operating with Microsoft SQL Server or Microsoft SQL Server Compact database. Communication between PC and controller is fully encrypted using AES-128-CBC method and can be conducted either in LAN or WAN computer networks. Usually, system configuration takes less than one minute and doesn't depend on number of controllers which is theoretically unlimited.

Features([1]):

- 8192 Access Credentials
- 8 Authentication Factors (card, PIN, biometric etc.) per Access Credential
- 32 Authorisations per Access Credential
- 16 Access Doors
- 32 Access Points
- 64 Access Terminals
- 16 Access Zones
- 16 Alarm Zones
- 32 Automation Nodes
- 512 Authorisations
- 64 Rules within single Authorisation
- 64 T&A Modes
- 16 Authentication Polices
- 4 steps within single Authentication Policy
- 64 multifunction inputs ([2])
- 64 multifunction outputs ([2])
- 64 multifunction function ([2])
- 32 multifunction commands

- Timed Pass-back
- 32 Calendars
- 99 Periods within single Calendar
- 250 Schedules
- 40 Periods within single Schedule
- 16 Exceptions within single Schedule
- 8 million event buffer
- DC or AC supply
- Reserve battery charging and monitoring
- Two RS485 serial interfaces
- RACS CLK/DTA interface (four PRT series readers max.)
- Wiegand reader interface (four Wiegand type readers max.)
- On-board Ethernet interface
- AES-128-CBC encrypted communication protocol

([1]) Features presented for MC16-16 version. For limitation of other MC16 versions see table on the next page.
([2]) Total number including on-board and extension modules
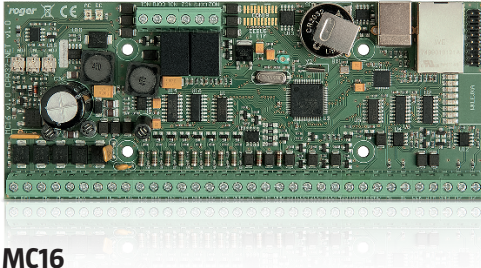
MC16

Access controller, electronic module, metal enclosure (ME-11) is offered separately.

Order guide	
Item	*Description*
MC16-RAW	MC16 electronic module without firmware and accompanying license
MC16-1	Access controller, 1 door
MC16-2	Access controller, 2 doors
MC16-4	Access controller, 4 doors
MC16-8	Access controller, 8 doors
MC16-16	Access controller, 16 doors
MC16-EVC-8	Classic (button selection) elevator access controller, 8 floors
MC16-EVC-16	Classic (button selection) elevator access controller, 16 floors
MC16-EVC-32	Classic (button selection) elevator access controller, 32 floors
MC16-EVC-64	Classic (button selection) elevator access controller, 64 floors
MC16-BAC-8	Building automation controller, 8 automation nodes
MC16-BAC-16	Building automation controller, 16 automation nodes
MC16-BAC-32	Building automation controller, 32 automation nodes
MC16-BAC-64	Building automation controller, 64 automation nodes

MC16 Version Limits					
Version	**MC16-1**	**MC16-2**	**MC16-4**	**MC16-8**	**MC16-16**
Access Doors	1	2	4	8	16
Access Points	2	4	8	16	32
Access Terminals	4	8	16	32	64
Access Zones	1	2	4	8	16
Alarm Zones	1	2	4	8	16
Automation Nodes	2	4	8	16	32
Control Commands	2	4	8	16	32
Inputs	8	8	16	32	64
Outputs	8	8	16	32	64
Function Keys	4	8	16	32	64
Power Supplies	2	4	8	16	32

The MCT series readers are RFID access terminals dedicated to RACS 5 access control system. Readers need to be connected to a host device, which usually is an access controller, and can not operate autonomously. The MCT terminal can read either factory programmed card serial number (CSN) or any user card number (PCN) programmed in encrypted data blocks or files on a card. Because the CSN card numbers are not encrypted and can be duplicated the PCN numbers should be used for access control systems in general. For systems which require the highest security level the MIFARE DESFire EV1 or MIFARE PLUS cards, supported by MCT12M-DIO and MCT12M-DIOBK terminals, are recommended. The MCT series readers with option IO offer the set of inputs and outputs which, in most cases, should be capable to operate single door passage without necessity to use inputs or outputs located on access controller or expansion unit.

There are three inputs available on the reader which can be individually configured for various pulse times and contact topologies. Optionally, inputs can be configured for Double Wiring function which allows operation with two NO/NC contacts connected to a single input and, doubles the total number of input signals monitored by the reader. Reader offers two open collector transistor outputs and one relay type output with single isolated NO/NC contact. All outputs can be configured for Normal Polarity (output normally OFF) or Reverse Polarity (output normally ON). Communication with controller is achieved through RS485 bus which can utilize free topology (e.g. three, star and combination of them) and any type of signal cables. The maximal distance between controller and reader is limited to 1200m of cable run. Configuration of the reader as well as firmware upgrade is made through RS485 and require RogerVDM (Windows) program.

MCT82xx

quadrus

	MCT82M	MCT82M-IO
Features		
Authentication	Card and/or PIN	Card and/or PIN
Cards	13.56 MHz MIFARE Ultralight, Classic	13.56 MHz MIFARE Ultralight, Classic
Card readout	CSN, MSN, SSN	CSN, MSN, SSN
Support for normal and long card reading method	+	+
Support for external PRT reader	−	−
Communication interface	RS485	RS485
Inputs	−	3
Parametric inputs	−	+
Double Wiring input option	−	+
Transistor outputs	−	2
Relay outputs	−	1
Function keys	−	−
Tamper contact	+	+
Outdoor environment	−	−
12VDC power supply	+	+
CE mark	+	+
Available versions	**Items**	
Dark grey enclosure, black panel, keypad	MCT82M	MCT82M-IO
Dark grey enclosure, black panel, without keypad	MCT82M-BK	MCT82M-IOBK
White enclosure and panel, keypad, production on request	MCT82M-W	MCT82M-IO-W
White enclosure and panel, without keypad, production on request	MCT82M-BK-W	MCT82M-IOBK-W

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MCT84xx

quadrus

	MCT84M
Features	
Authentication	Card and/or PIN
Cards	13.56 MHz MIFARE Ultralight, Classic
Card readout	CSN, MSN, SSN
Support for normal and long card reading method	+
Support for external PRT reader	−
Communication interface	RS485
Inputs	−
Parametric inputs	−
Double Wiring input option	−
Transistor outputs	−
Relay outputs	−
Function keys	2
Tamper contact	+
Outdoor environment	−
12VDC power supply	+
CE mark	+
Available versions	**Items**
Dark grey enclosure, black panel, keypad	MCT84M
Dark grey enclosure, black panel, without keypad	MCT84M-BK
White enclosure and panel, keypad, production on request	MCT84M-W
White enclosure and panel, without keypad, production on request	MCT84M-BK-W

MCT12xx

	MCT12M	MCT12M-IO	MCT12M-DIO	MCT12E	MCT12E-IO
Features					
Authentication	Card and/or PIN	Card and/or PIN	Card and/or PIN	Card and/or PIN	Card and/or PIN
Cards	13.56 MHz MIFARE Ultralight, Classic	13.56 MHz MIFARE Ultralight, Classic	13.56 MHz MIFARE Ultralight, Classic, Plus, DESFire	EM 125 kHz	EM 125 kHz
Card readout	CSN, MSN, SSN	CSN, MSN, SSN	CSN, MSN, SSN	CSN	CSN
Support for normal and long card reading method	+	+	+	–	–
Support for external PRT reader	–	–	–	+	+
Communication interface	RS485	RS485	RS485	RS485, RACS CLK/DTA	RS485, RACS CLK/DTA
Inputs	–	3	3	–	3
Parametric inputs	–	+	+	–	–
Double Wiring input option	–	+	+	–	–
Transistor outputs	–	2	2	–	2
Relay outputs	–	1	1	–	1
Function keys	2	2	2	2	2
Tamper contact	+	+	+	+	+
Outdoor environment	+	+	+	+	+
12VDC power supply	+	+	+	+	+
CE mark	+	+	+	+	+
Available versions	**Items**				
Dark grey enclosure, keypad	MCT12M	MCT12M-IO	MCT12M-DIO	MCT12E	MCT12E-IO
Dark grey enclosure, without keypad	MCT12M-BK	MCT12M-IOBK	MCT12M-DIOBK	MCT12E-BK	MCT12E-IOBK

MCT64xx   **MCT66xx**   radius

Features	MCT64E-IO	MCT66E-IO
Authentication	Card and/or PIN	Card
Cards	EM 125 kHz	EM 125 kHz
Card readout	CSN	CSN
Support for normal and long card reading method	−	−
Support for external PRT reader	+	+
Communication interface	RS485, RACS CLK/DTA	RS485, RACS CLK/DTA
Inputs	3	3
Parametric inputs	−	−
Double Wiring input option	−	−
Transistor outputs	2	2
Relay outputs	1	1
Function keys	−	−
Tamper contact	+	+
Outdoor environment	+	+
12VDC power supply	+	+
CE mark	+	+
Available versions	**Items**	
Dark grey enclosure, keypad	MCT64E-IO	−
Dark grey enclosure, without keypad	−	MCT66E-IO

MCT68xx

radius

| Features	MCT68ME-IO-I	MCT68ME-IO-O
Authentication	Card and/or PIN	Card and/or PIN
Cards	EM 125 kHz, 13.56 MHz MIFARE Classic	EM 125 kHz, 13.56 MHz MIFARE Classic
Card readout	CSN	CSN
Support for normal and long card reading method	–	–
Support for external PRT reader	+	+
Communication interface	RS485, RACS CLK/DTA	RS485, RACS CLK/DTA
Inputs	3	3
Parametric inputs	–	–
Double Wiring input option	–	–
Transistor outputs	2	2
Relay outputs	1	1
Function keys	4	4
Tamper contact	+	+
Outdoor environment	–	+
12VDC power supply	+	+
CE mark	+	+
Available versions	**Items**	
Dark grey enclosure, keypad, indoor use	MCT68ME-IO-I	–
Dark grey enclosure, keypad, outdoor use, protective metal enclosure with roofing	–	MCT68ME-IO-O

MCX2/MCX8 Expanders

MCX2 and MCX8 are I/O expanders dedicated to RACS 5 system. Both expanders offer parametric inputs and relay outputs. Each input can be individually parameterized in regard of reaction time as well as applied contacts and resistors. Optionally, inputs can be configured for Double Wiring which enables connection of two autonomous NO or NC contacts to each input and consequently doubling the number of input signals monitored by expander. Each output offers NC and NO contacts and each output

in default state can be OFF (normal polarization) or ON (reversed polarization). The communication with controller is provided with modified RS485 standard which enables connection of expanders with cables in star or tree topology. The maximal length of RS485 bus is 1200m and it can be carried out with any type of signal cables. RS485 connection and RogerVDM software (Windows) are required for expander configuration and firmware update.

	MCX2	MCX8
Features		
Parametric inputs	2	8
Relay outputs	2	8
Configuration of input reaction time	+	+
Double Wiring input option	+	+
Output activation signalled by LED indicator	+	+
Configuration of output default state (polarization)	+	+
Configuration and firmware update through RS485	+	+
12VDC power supply	+	+
CE mark	+	+
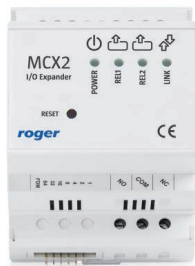
MCX2
I/O expander.
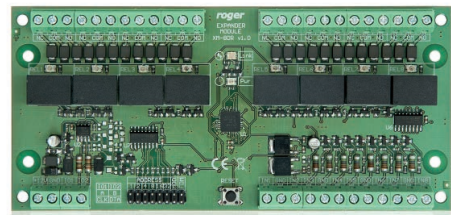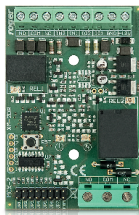
MCX8-BRD
I/O expander.

Order guide	
Item	*Description*
MCX2	Electronic module in DIN rail 35mm enclosure
MCX2-BRD	Electronic module only, brackets for mounting on DIN rail 35mm
MCX8-BRD	Electronic module only, brackets for mounting on DIN rail 35mm

MCX102DR/MCX402DR Expanders

MCX102 and MCX402 are I/O expanders dedicated to RACS 5 system. Both expanders offer NO/NC input lines as well as relay and transistor outputs. Each output offers NC and NO contacts and each output in default state can be OFF (normal polarization) or ON (reversed polarization). PRT series readers (RACS CLK/DTA interface) or Wiegand 24..66bit interface readers can be connected to both expanders. Depending on expander version it can be supplied from 12VDC or 18VAC. Expanders supplied from

18VAC are equipped with built-in buffered 1.5A/12VDC power supply unit. The communication with controller is provided with modified RS485 standard which enables free (star or tree) topology. The maximal length of RS485 bus is 1200m and it can be carried out with any type of signal cables. Expander configuration and firmware update is made by means of RS485 interface and require RogerVDM or RogerISP software.
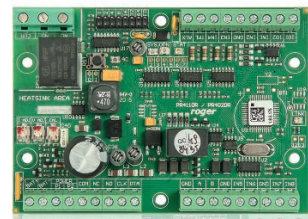
	MCX102DR	MCX402DR	MCX402DR-12VDC
Features			
NO/NC inputs	2	8	8
Relay outputs	1	2	2
Transistor outputs	1	2	2
Support for PRT readers (RACS CLK/DTA interface)	2	2	2
Support for Wiegand 24..66 bit readers	1	2	2
Configuration and firmware update through RS485	+	+	+
12VDC power supply	+	+	+
24VDC or 18VAC power supply	−	+	−
CE mark	+	+	+

MCX102DR
I/O expander.

MCX402DR
I/O expander.

Order guide	
Item	*Description*
MCX102DR	Electronic module in DIN rail 35mm enclosure
MCX102DR-BRD	Electronic module only, brackets for mounting on DIN rail 35mm
MCX402DR	Electronic module in DIN rail 35mm enclosure
MCX402DR-BRD	Electronic module only, brackets for mounting on DIN rail 35mm
MCX402DR-12VDC	Electronic module in DIN rail 35mm enclosure
MCX402DR-12VDC-BRD	Electronic module only, brackets for mounting on DIN rail 35mm
MCX402DR-SET	Expander in set with metal enclosure and transformer

Considering significant amount of installed RACS 4 systems, Roger company enabled upgrade of an existing RACS 4 systems to RACS 5 version. The majority of installed RACS 4 devices listed below can be upgraded to the new RACS 5 firmware. No modifications of existing cabling is necessary. Always, migration from RACS 4 to RACS 5 requires installation of new MC series access controllers.

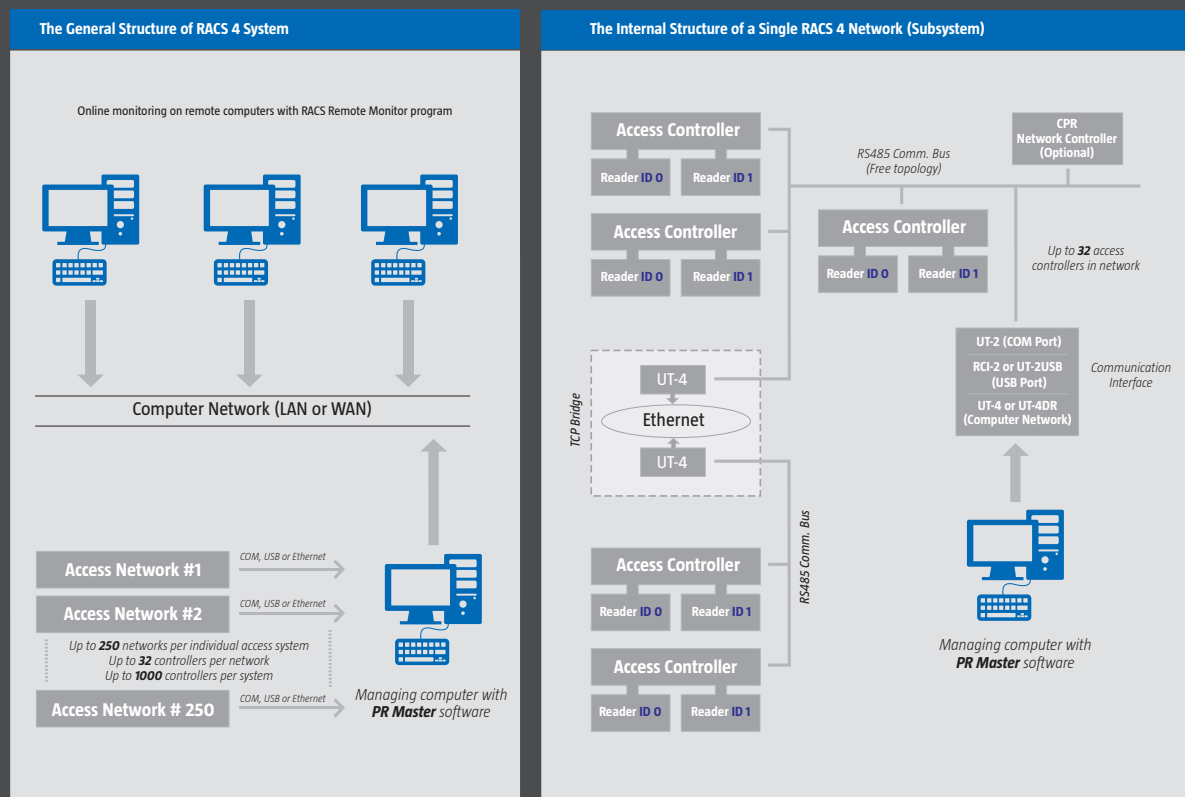| Application of RACS 4 devices in RACS 5 system		
RACS 4 device	Equivalent in RACS 5	Notes
PR102DR	MCX102DR	Required firmware update
PR402DR	MCX402DR	Required firmware update
PR411DR	MCX402DR	Required firmware update
PR402	MCX402	Required firmware update
PR302	MCT32E-IO	Required firmware update
PR312EM	MCT12E-IO	Required firmware update
PR312MF	MCT12MF IO	Required firmware update
PR602LCD-DT	MCT68ME-IO	Required firmware update
PR612	MCT64E-IO	Required firmware update
PR622	MCT66E-IO	Required firmware update
PR311SE	MCT12EM-IO	Required firmware update
PR611	MCT64EM-IO	Required firmware update
PR621	MCT66EM-IO	Required firmware update
XM-2DR	----	Cannot be used in RACS 5
XM-8DR	----	Cannot be used in RACS 5
PRT series readers	PRTxx	No adaptation required
CPR32-SE	----	Cannot be used in RACS 5
CPR32-NET	----	Cannot be used in RACS 5

The RACS 4 is a networked access control system based on single door access controllers, readers, communication interfaces, expanders, network controllers and managing software.

System functionality depends on the type of equipment used in particular installation. The RACS 4 can be divided into separate branches which are called access networks or subsystems. Up to 250 networks can be integrated into single access control installation. Each network may have up to 32 access controllers connected to RS485 communication bus and with distance up to 1200m.

The PR Master software communicates with individual network through separate serial communication port (COM or USB) or through computer network (WAN or LAN). The RACS 4 is dedicated to small or middle size access installations and is capable to handle up to 1000 controllers and depending on PR series up to 4000 users (PRxx2) or 1000 users (PRxx1).

The General Structure of RACS 4 System

Online monitoring on remote computers with RACS Remote Monitor program

Computer Network (LAN or WAN)

Access Network #1 — COM, USB or Ethernet
Access Network #2 — COM, USB or Ethernet

Up to 250 networks per individual access system
Up to 32 controllers per network
Up to 1000 controllers per system

Access Network # 250 — COM, USB or Ethernet

Managing computer with PR Master software

The Internal Structure of a Single RACS 4 Network (Subsystem)

Access Controller
Reader ID 0   Reader ID 1

Access Controller
Reader ID 0   Reader ID 1

Access Controller
Reader ID 0   Reader ID 1

RS485 Comm. Bus (Free topology)

CPR Network Controller (Optional)

Up to 32 access controllers in network

TCP Bridge

UT-4
Ethernet
UT-4

RS485 Comm. Bus

Access Controller
Reader ID 0   Reader ID 1

Access Controller
Reader ID 0   Reader ID 1

UT-2 (COM Port)
RCI-2 or UT-2USB (USB Port)
UT-4 or UT-4DR (Computer Network)

Communication Interface

Managing computer with PR Master software

PR Master
Software

PR Master software is dedicated to management of RACS 4 system and offers following features:

- Support for all PRxx1 and PRxx2 access controllers
- Up to 32 controllers in single network
- Up to 250 networks integrated in one system
- Communication with networks through serial port (COM, USB) or computer network (LAN/WAN)
- Real-time events monitoring on local and remote computers
- RFT1000 user management
- Interactive commands to controllers
- Configurable events filters
- Online events reports to text files
- Event notifications via email
- Attendance reports for any user defined areas
- Time and attendance events export

- General integration with T&A, CCTV, Intruder Alarm, Fire Alarm, BMS
- Integration with: Integra alarm system (Satel), Sallis wireless door locks system (Salto), Aperio wireless door locks system (Assa Abloy)
- Visualization of working system on graphical background (facility plans)
- Configurable auto-backup
- Program operators with different authorizations
- Paradox (BDE) database
- Export/import of database to XML format files
- OLE Automation SDK
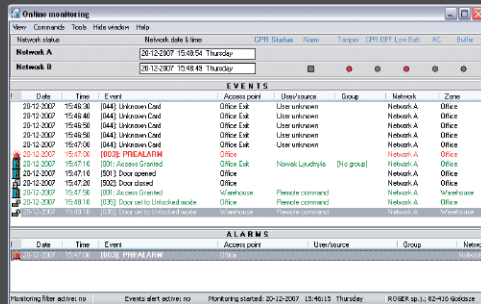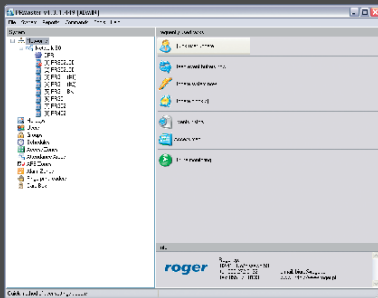
Quick user update

Read event buffers now

Update system now

Update clock(s)

Events history
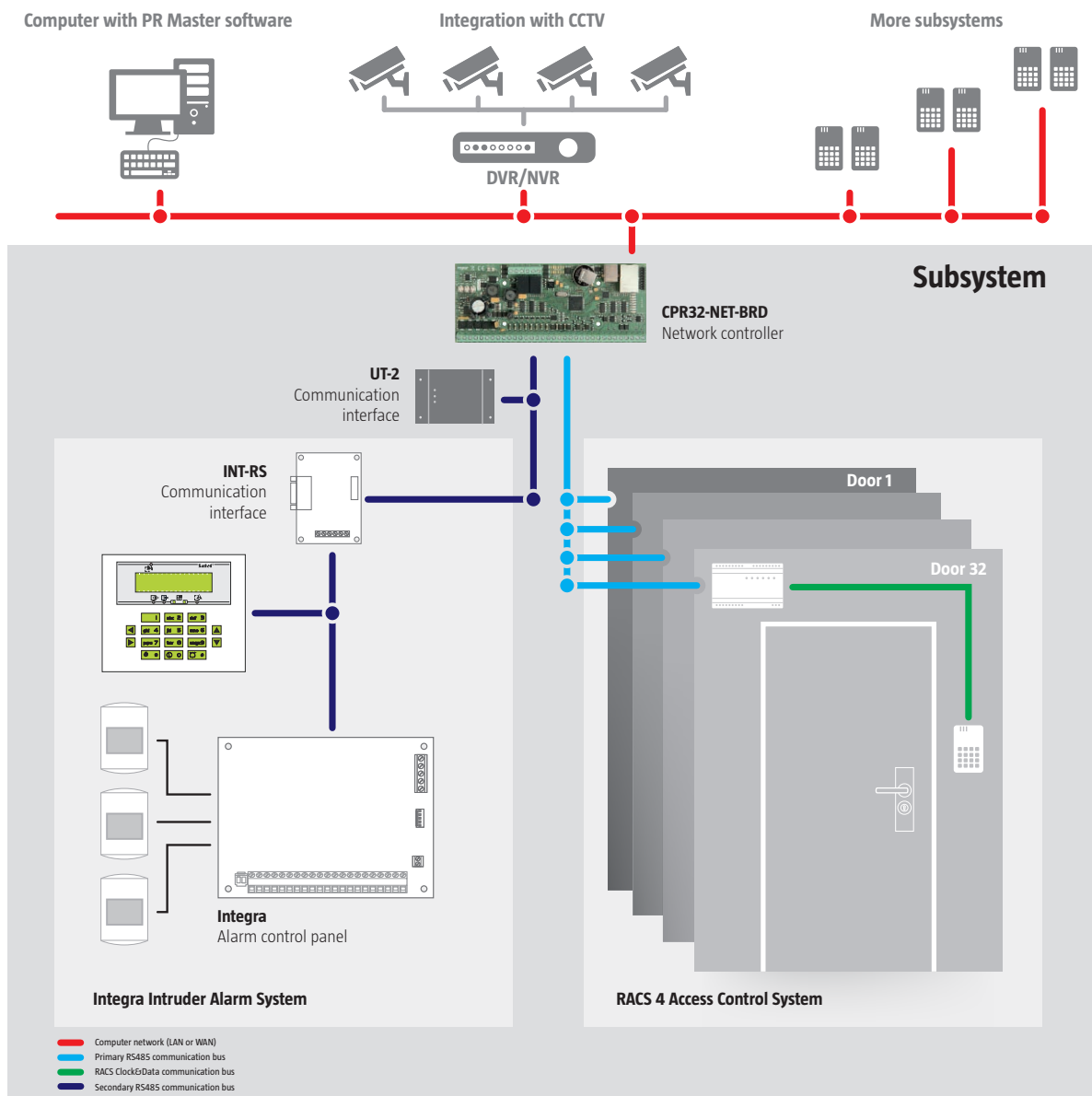
Access map

Online monitoring
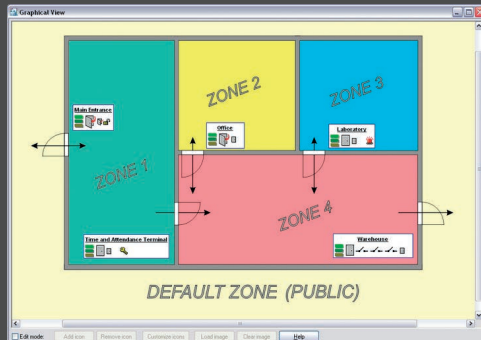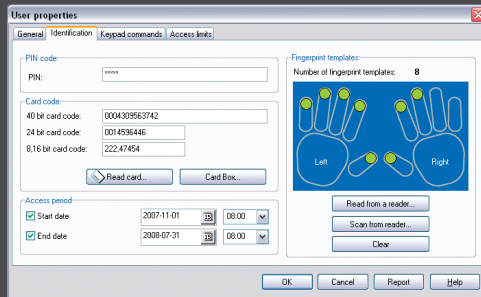
Intruder Alarm System

Integration between RACS 4 system and intruder alarm system can be realized by means of I/O connection or communication protocol. The first method can be achieved for any access controller and alarm panel while the second one requires the CPR32-NET network controller connected to Integra alarm panel.

The concept of integration used in RACS 4 enables alarm zones to be controlled from both systems: alarm and access control. The current state of alarm zones is presented on access terminals and can be changed straight from their front panels.
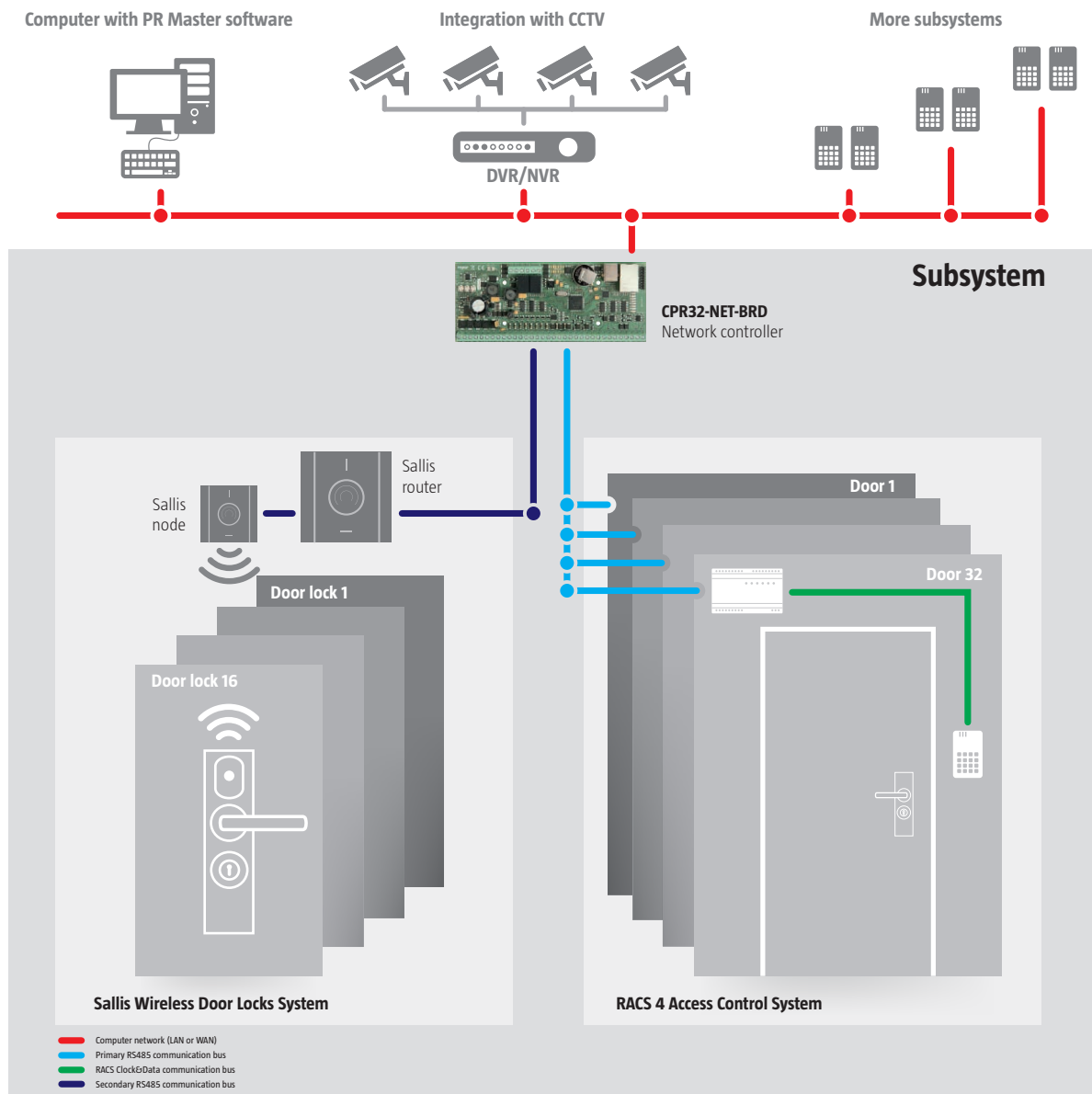
Order guide	
Item	Description
RACS4-INT-LIC-1	License key for two Integra alarm zones extension
RACS4-INT-LIC-2	License key for eight Integra alarm zones extension

Computer with PR Master software

Integration with CCTV

More subsystems

DVR/NVR

Subsystem

CPR32-NET-BRD
Network controller

UT-2
Communication interface

INT-RS
Communication interface

Door 1

Door 32

Integra
Alarm control panel

Integra Intruder Alarm System

RACS 4 Access Control System

Computer network (LAN or WAN)
Primary RS485 communication bus
RACS Clock&Data communication bus
Secondary RS485 communication bus

Sallis Wireless Locks

CPR32-NET network controller enables operation with wireless door locks of **Sallis system made by Salto**. Operation with wireless door locks does not block the operation with PRxx1/PRxx2 series controllers and therefore subsystem based on CPR32-NET can include 32 units of PR series controllers (Roger) along with 16 wireless door locks (Salto).
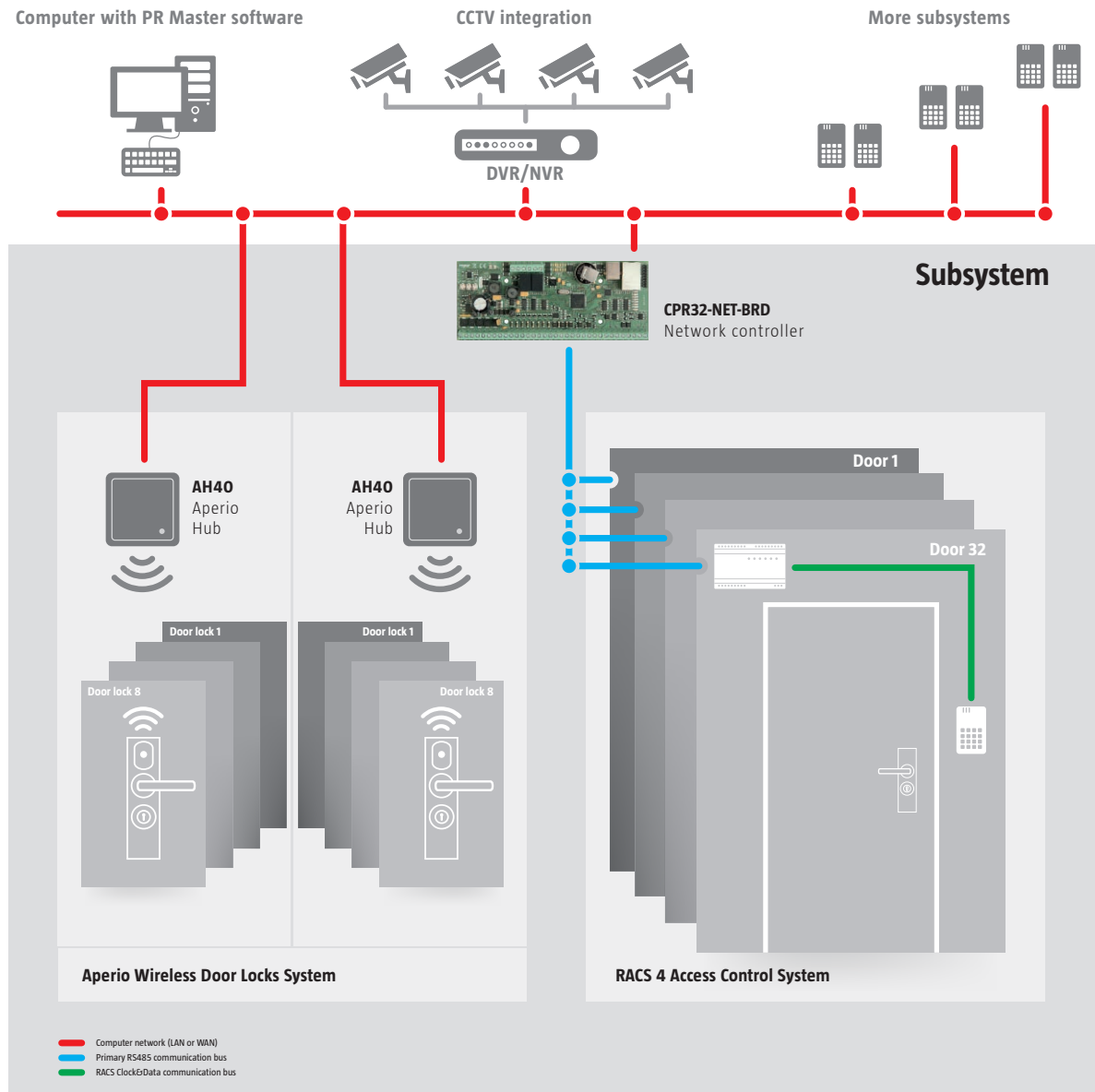
Order guide	
Item	*Description*
RACS4-SAL-LIC-1	License key for single Sallis door lock extension
RACS4-SAL-LIC-2	License key for four Sallis door locks extension

Computer with PR Master software

Integration with CCTV

More subsystems

DVR/NVR

Subsystem

CPR32-NET-BRD
Network controller

Sallis router

Sallis node

Door 1

Door 32

Door lock 1

Door lock 16

Sallis Wireless Door Locks System

RACS 4 Access Control System

Computer network (LAN or WAN)
Primary RS485 communication bus
RACS Clock&Data communication bus
Secondary RS485 communication bus

Aperio Wireless Locks

CPR32-NET network controller enables operation with wireless door locks of **Aperio system made by Assa Abloy**. Management and configuration of wireless locks in PR Master software is performed similarly to management and configuration of Roger PR series controllers. Aperio locks support such proximity cards as EM 125 kHz (UNIQUE), MIFARE Classic/Plus/DESFire and iClass. Operation with wireless door locks does not block the operation with PRxx1/PRxx2 series controllers and therefore subsystem based on CPR32-NET can include 32 units of PR series controllers (Roger) along with 16 Aperio wireless door locks.

Order guide	
Item	*Description*
RACS4-APE-LIC-1	License key for single Aperio door lock extension
RACS4-APE-LIC-2	License key for four Aperio door locks extension

Computer with PR Master software

CCTV integration

More subsystems

DVR/NVR

Subsystem

CPR32-NET-BRD
Network controller

AH40
Aperio
Hub

AH40
Aperio
Hub

Door 1

Door 32

Door lock 1

Door lock 1

Door lock 8

Door lock 8

Aperio Wireless Door Locks System

RACS 4 Access Control System

Computer network (LAN or WAN)
Primary RS485 communication bus
RACS Clock&Data communication bus

Time & Attendance

RACS 4 can record movements of persons within access control system and such data can be further exported to Time & Attendance software. RACS 4 can export T&A data in general text or spread sheet formats as well as to RCP Master software (Roger).

BMS

RACS 4 is integrated with following building management systems:
• InPro BMS (Ifter)
• WinGuard (Advancis)

Fire Alarm System

In systems equipped with CPR network controller it is possible to open all doors in corresponding network from CPR input. This function can be used in integration with fire alarm system which in case of danger can automatically unlock all doors controlled by access control system.

CCTV

RACS 4 enables video clip recording for operator selectable events. These clips can be viewed live or later whenever required.
System can operate with following devices:
• DVR/NVR from **Hikvision** and **Dahua**
• IP cameras equipped with memory card from **Hikvision**

CPR network controllers are optional elements of RACS 4 system and can expand its functionality significantly. The scope of functional extensions depends on types of installed CPR and access controllers. The detailed description of functional extension provided by CPR is presented in technical documentation of the product, nevertheless some of them can be viewed in comparison table below. PRxx1 series controllers provide neither events buffer nor time related functions therefore it is especially attractive to use CPR with them.
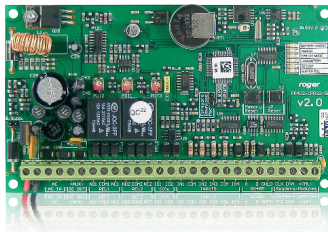
CPR32-SE-BRD

Network controller, electronic module version only.
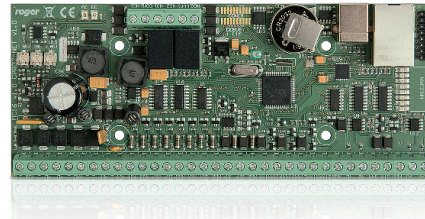
CPR32-NET-BRD

Network controller, electronic module version only.

	CPR32-SE	CPR32-NET
Features		
Operation with up to 32 controllers of PRxx1 or PRxx2 series	+	+
Real time clock with backup battery	+	+
Schedules and calendars	+	+
Alarm Zones and Anti-passback Zones	+	+
Central event buffer	250K	250K
Event buffer on additional memory card (0.5GB or more)	−	33M
IP/Ethernet communication interface	−	+
Communication protocol encrypted with AES128 CBC	−	+
Integration with Integra (Satel) series alarm control panels	−	+
Integration with Sallis (Salto) wireless door locks	−	+
Integration with Aperio (Assa Abloy) wireless door locks	−	+
NO/NC inputs	4	8
Transistor outputs 1A/15VDC	2	6
Relay outputs 1.5A/30V	2	2
Programmable inputs and outputs	+	+
Alarm event indication	+	+
RS485 communication port	1	2
Power supply	18VAC or 12VDC	18VAC, 12VDC or 24VDC
Power supply outputs: 1A/12VDC and 200mA/12VDC	+	+
Operation with backup battery	+	+
Firmware update	+	+
CE mark	+	+

The primary function of access controllers is making decisions on door lock release. Functioning and decisions are based on configuration saved within controller internal memory. The controller decision concern access granting, schedules, armed/disarmed modes, alarm condition signalling, etc.

Following series of single door access controllers are available:
- **PRxx1 – standard access controllers** dedicated to most popular access control functions.
- **PRxx2 – advanced access controllers** supporting extended range of functions including integration with time & attendance, intruder alarm systems, CCTV and automation functions.

Both PRxx1 and PRxx2 controllers can work autonomously in a standalone mode as well as in a networked access control system equipped with CPR network controller.

In standalone mode **PRxx1 controllers** do not offer time schedules nor event recording however when operating in system equipped with CPR network controller both mentioned features become available. When communication with CPR is interrupted, controllers automatically switch to standalone mode and provide access control based on their internal settings.

In standalone mode **PRxx2 controllers** autonomously provide read in/out door control and do not need to communicate with PC or any other equipment. In such case all events are registered in their internal buffer and time related functions are managed by built-in real time clock. In such mode connection to PC is necessary only for configuration and events download or for online monitoring of events and alarms. When working in integrated access control system PRxx2 controllers continuously communicate with CPR which collects events from access control system and records them in its internal buffer. CPR is also responsible for all global-type functions (e.g. anti-passback zones, alarm zones). In case of communication failure PRxx2 controllers switch to standalone mode and provide access control based on their settings, however without global type functions. In such case events are recorded in their internal buffers.

All PR access controllers are equipped with RS485 interface which can be use for both programming and online communication in networked system. Access control system based on controllers from both series can be managed locally through COM or USB serial port as well as remotely by computer network WAN/LAN.

General features	PRxx1 standard controllers		PRxx2 advanced controllers		
	PR311SE, PR611, PR621	PR411DR	PR312EM, PR312MF, PR612, PR622, PR602LCD-DT	PR102DR	PR402DR
12VDC supply	+	+	+	+	+
24VDC, 18VAC supply	−	+	−	−	+ except for PR402DR-12VDC
Built-in EM 125 kHz proximity reader	+	−	+ except for PR312MF	−	−
Built-in MIFARE proximity reader	−	−	PR312MF, PR602LCD-DT	−	−
Buzzer	+	−	+	−	−
Keypad	+ except for PR621	−	+ except for PR622	−	−
DIN rail 35mm enclosure	−	+	−	+	+
Outdoor operation	+	−	+	−	−
Programmable inputs/outputs	3/3	8/4	3/3	2/2	8/4
First relay output	1.5A/30V	1.5A/30V	1.5A/30V	1.5A/30V	1.5A/30V
Second relay output	−	5A 30V or 230VAC	−	−	5A 30V or 230VAC
Tamper	+	−	+	−	−
Programmed manually	+	+ reader with keypad required	−	−	−
Programmed from PC	+	+	+	+	+
CE mark	+	+	+	+	+
Communication					
RS485	+	+	+	+	+
RACS Clock&Data	+	+	+	+	+
Wiegand 26..66bit	−	+	PR602LCD-DT only	−	+
Magstripe	−	−	PR602LCD-DT only	−	+
Operation with RFT1000	+	+	+	+	+
Operation with long range readers	−	+	PR602LCD-DT only	−	+
Functionality					
Number of users	1K	1K	4K	4K	4K
Built-in event buffer	−	−	32K	32K	32K
Event buffer in network equipped with CPR32-NET	33M	33M	33M	33M	33M
Real time clock with battery backup	+ CPR required	+ CPR required	+	+	+
User groups	+	+	+	+	+
Access zones	+	+	+	+	+
Schedules	+ CPR required	+ CPR required	+	+	+
Access control in elevators	−	−	+ XM-8 required	+ XM-8 required	+ XM-8 required
Local APB	+	+	+	+	+
Global APB (CPR required)	+	+	+	+	+
Interlocking	+	+	+	+	+
Advanced access options: two users mode, conditional access, high security mode	−	−	+	+	+
Hotel options	+	+	−	−	−
Operation with turnstiles	+ XM-2 recommended	+	+ XM-2 recommended	+ XM-2 recommended	+
Operation with barriers	+	+	+	+	+
Random user inspection	−	−	+	+	+
Integration					
Integration with T&A system (RCP Master)	−	−	+	+	+
Integration with intruder alarm system	+	+	+	+	+
Integration with CCTV system (CCTV-DVR)	+	+	+	+	+

roger®

DOMINO

PR311SE
Access controller with built-in EM 125 kHz proximity reader.

Order guide	
Item	*Description*
PR311SE-G	Dark grey enclosure, keypad
PR311SE-BK-G	Dark grey enclosure, without keypad
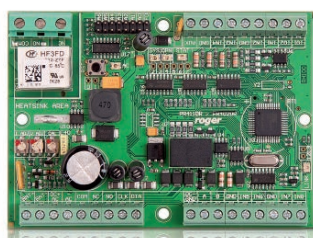
PR411DR
Access controller.

Order guide	
Item	*Description*
PR411DR	Electronic module in DIN rail 35mm enclosure
PR411DR-BRD	Electronic module only
PR411DR-SET	Access control set: access controller, power transformer, metal enclosure

radius

PR611

Access controller with built-in EM 125 kHz proximity reader and keypad.

Order guide	
Item	*Description*
PR611-G	Dark grey enclosure
PR611-S	Silver-metallic enclosure, production on request
PR611-VP	Silver-metallic enclosure, top part of controller enclosure and keys made from aluminium alloy

PR621

Access controller with built-in EM 125 kHz proximity reader.

Order guide	
Item	*Description*
PR621-G	Dark grey enclosure
PR621-S	Silver-metallic enclosure, production on request

PR102DR
Access controller.

Order guide	
Item	*Description*
PR102DR	Electronic module in DIN rail 35mm enclosure
PR102DR-BRD	Electronic module only

DOMINO

PR312
Access controller with built-in EM 125 kHz (PR312EM) or 13.56 MHz MIFARE (PR312MF) proximity reader.

Order guide	
Item	*Description*
PR312EM-G	Dark grey enclosure, built-in EM 125 kHz proximity reader, keypad
PR312MF-G	Dark grey enclosure, built-in 13.56 MHz MIFARE proximity reader, keypad
PR312EM-BK-G	Dark grey enclosure, built-in EM 125 kHz proximity reader, without keypad
PR312MF-BK-G	Dark grey enclosure, built-in 13.56 MHz MIFARE proximity reader, without keypad
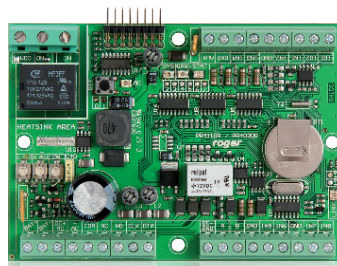
PR402DR
Access controller.

Order guide	
Item	*Description*
PR402DR	Electronic module in DIN rail 35mm enclosure
PR402DR-BRD	Electronic module only
PR402DR-SET	Access control set: access controller, power transformer, metal enclosure
PR402DR-12VDC	Electronic module in DIN rail 35mm enclosure, 12VDC supply
PR402DR-12VDC-BRD	Electronic module only, 12VDC supply

radius

PR602LCD-DT
Access controller with built-in EM 125 kHz and 13.56 MHz MIFARE
proximity readers, keypad and LCD.

Order guide	
Item	*Description*
PR602LCD-DT-I	Indoor version, screw terminals
PR602LCD-DT-O	Outdoor version, protective metal enclosure, screw terminals

radius

PR612
Access controller with built-in EM 125 kHz proximity reader and keypad.

Order guide	
Item	*Description*
PR612-G	Dark grey enclosure
PR612-S	Silver-metallic enclosure, production on request

PR622
Access controller with built-in EM 125 kHz proximity reader.

Order guide	
Item	*Description*
PR622-G	Dark grey enclosure
PR622-S	Silver-metallic enclosure, production on request

PR411DR-SET and PR402DR-SET consist of access controller and mains transformer which are factory installed inside metal enclosure with a space for 7Ah/12V backup battery. The enclosure is equipped with tamper switch and LED status window.

Each set is dedicated to single door access control point with one or two readers. Both sets can operate with Roger readers or third party access terminals equipped with Wiegand interface.

Set includes:

- Access controller
- Mains transformer
- Metal enclosure
- Mounting accessories
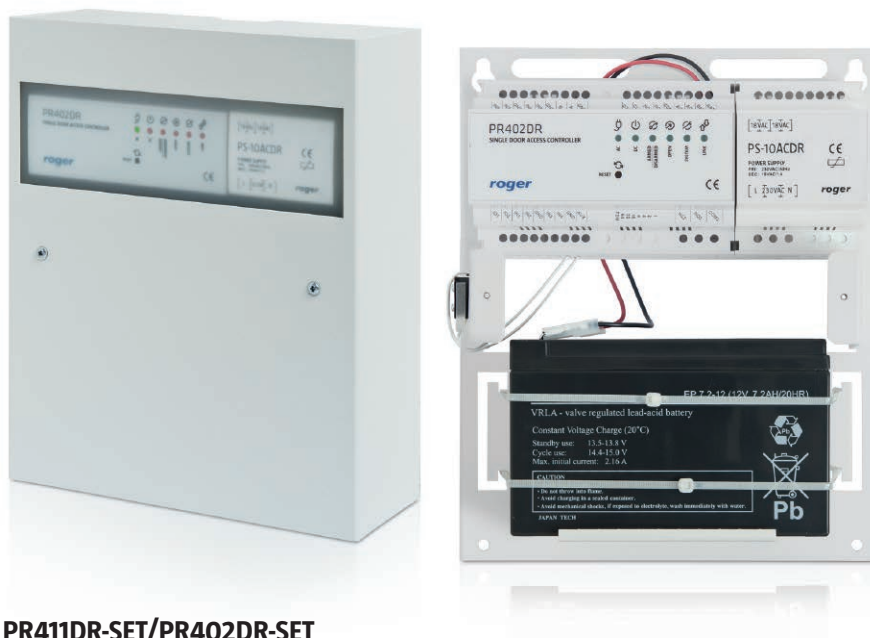
The battery shown in the photo is not included in the set.

PR411DR-SET/PR402DR-SET
Access control set.

Order guide	
Item	*Description*
PR411DR-SET	Access control set with PR411DR access controller and PS-10ACDR mains transformer factory pre-installed in ME-4 metal enclosure
PR402DR-SET	Access control set with PR402DR access controller and PS-10ACDR mains transformer factory pre-installed in ME-4 metal enclosure

The primary function of proximity readers is to read card number (and/or PIN) and transmit data to host device which makes final decision on system reaction.

Following series of proximity readers are available:
- PRTxxLT – EM 125 kHz readers
- PRTxxEM - EM 125 kHz readers
- PRTxxMF - 13.56 MHz MIFARE readers

Devices within the same series are functionally similar and their only differences concern indoor/outdoor use, mechanical construction and enclosure design.

All PRT series readers (PRTxxLT, PRTxxEM, PRTxxMF) can be configured for operation in terminal mode as slave devices connected to external access controller. Furthermore, PRTxxEM and PRTxxMF (except for PRT82MF and PRT84MF) series readers can work in a standalone mode as autonomous access control points.

In terminal mode the readers offer possibility to work in many common communication standards (e.g. Wiegand, Magstripe). Therefore they can cooperate not only with Roger controllers but also with majority of controllers from different vendors available on the market.

In standalone mode readers can independently supervise a single door using data entered in the process of their configuration. Readers from both series are equipped with programmable input and output lines. They can also cooperate with XM-2 type I/O expander which provides two relay outputs and two NO/NC inputs. Using an XM-2 expander substantially improves general security level, because it physically separates a decision point (reader) from the relay output which triggers door lock.

PRTxxEM and PRTxxMF (except for PRT82MF and PRT84MF) readers can be used as proximity card programmers if RARC software is applied.

PRT12xx

DOMINO

	PRT12LT	PRT12EM	PRT12MF	PRT12MF-DES
General features				
12VDC supply	+	+	+	+
Authentication	Card and/or PIN	Card and/or PIN	Card and/or PIN	Card and/or PIN
Cards	EM 125 kHz	EM 125 kHz	13.56 MHz MIFARE Ultralight, Classic	13.56 MHz MIFARE Ultralight, Classic, DESFire EV1, Plus
Card readout	CSN	CSN	CSN, MSN and SSN	CSN, MSN and SSN
Card programming	−	+	+	−
Outdoor installation	+	+	+	+
LED/buzzer control inputs in Wiegand/Magstripe modes	+	+	+	+
Programmed manually or from PC	−	+	+	+
Screw terminals	−	−	−	−
Connecting cable	+	+	+	+
Tamper	+	+	+	+
CE mark	+	+	+	+
Data output formats				
Wiegand 26..66bit	+	+	+	+
Magstripe	+	+	+	−
RS232	−	+	+	−
RACS Clock&Data (Roger)	+	+	+	+
Transmission of PIN codes	+	+	+	+
Standalone operation				
Number of users	−	120	120	−
Event log	−	1024	1024	−
Relay output 1.5A/30V	−	+	−	−
NO/NC inputs	−	2	2	−
Transistor outputs	−	2	2	−
Operation with XM-2 I/O extension module	−	+	+	−
Operation with external PRT series reader (read in and out control)	−	+	+	−
Available versions	**Items**			
Dark grey enclosure, keypad	PRT12LT-G	PRT12EM-G	PRT12MF-G	PRT12MF-DES-G
Dark grey enclosure, without keypad	PRT12LT-BK-G	PRT12EM-BK-G	PRT12MF-BK-G	PRT12MF-DES-BK-G

PRT62xx

radius

	PRT62LT	PRT62EM	PRT62MF
General features			
12VDC supply	+	+	+
Authentication	Card	Card	Card
Cards	EM 125 kHz	EM 125 kHz	13.56 MHz MIFARE Ultralight, Classic
Card readout	CSN	CSN	CSN, MSN and SSN
Card programming	−	+	+
Outdoor installation	+	+	+
LED/buzzer control inputs in Wiegand/Magstripe modes	+	+	+
Programmed manually or from PC	−	+	+
Screw terminals	−	−	−
Connecting cable	+	+	+
Tamper	+	+	+
CE mark	+	+	+
Data output formats			
Wiegand 26..66bit	+	+	+
Magstripe	+	+	+
RS232	−	+	+
RACS Clock&Data (Roger)	+	+	+
Transmission of PIN codes	+	+	+
Standalone operation			
Number of users	−	120	120
Event log	−	1024	1024
Relay output 1.5A/30V	−	+	−
NO/NC inputs	−	2	2
Transistor outputs	−	2	2
Operation with XM-2 I/O extension module	−	+	+
Operation with external PRT series reader (read in and out control)	−	+	+
Available versions	**Items**		
Dark grey enclosure	PRT62LT-G	PRT62EM-G	PRT62MF-G
Silver-metallic enclosure, production on request	PRT62LT-S	PRT62EM-S	PRT62MF-S

PRT64xx

radius

	PRT64LT	PRT64EM	PRT64MF
General features			
12VDC supply	+	+	+
Authentication	Card and/or PIN	Card and/or PIN	Card and/or PIN
Cards	EM 125 kHz	EM 125 kHz	13.56 MHz MIFARE Ultralight, Classic
Card readout	CSN	CSN	CSN, MSN and SSN
Card programming	−	+	+
Outdoor installation	+	+	+
LED/buzzer control inputs in Wiegand/Magstripe modes	+	+	+
Programmed manually or from PC	−	+	+
Screw terminals	+	+	+
Connecting cable	−	+ *(only in VP version)*	−
Tamper	+	+	+
CE mark	+	+	+
Data output formats			
Wiegand 26..66bit	+	+	+
Magstripe	+	+	+
RS232	−	+	+
RACS Clock&Data (Roger)	+	+	+
Transmission of PIN codes	+	+	+
Standalone operation			
Number of users	−	120	120
Event log	−	1024	1024
Relay output 1.5A/30V	−	+	+
NO/NC inputs	−	2	2
Transistor outputs	−	2	2
Operation with XM-2 I/O extension module	−	+	+
Operation with external PRT series reader (read in and out control)	−	+	+
Available versions	**Items**		
Dark grey enclosure, keypad	PRT64LT-G	PRT64EM-G	PRT64MF-G
Silver-metallic enclosure, keypad, production on request	PRT64LT-S	PRT64EM-S	PRT64MF-S
Silver-metallic enclosure, top part of reader enclosure and keys made with aluminium alloy and covered with silver-metallic coat	−	PRT64EM-VP	−

PRT66xx

radius

	PRT66LT	PRT66EM	PRT66MF
General features			
12VDC supply	+	+	+
Authentication	Card	Card	Card
Cards	EM 125 kHz	EM 125 kHz	13.56 MHz MIFARE Ultralight, Classic
Card readout	CSN	CSN	CSN, MSN and SSN
Card programming	−	+	+
Outdoor installation	+	+	+
LED/buzzer control inputs in Wiegand/Magstripe modes	+	+	+
Programmed manually or from PC	−	+	+
Screw terminals	+	+	+
Connecting cable	−	−	−
Tamper	+	+	+
CE mark	+	+	+
Data output formats			
Wiegand 26..66bit	+	+	+
Magstripe	+	+	+
RS232	−	+	+
RACS Clock&Data (Roger)	+	+	+
Transmission of PIN codes	+	+	+
Standalone operation			
Number of users	−	120	120
Event log	−	1024	1024
Relay output 1.5A/30V	−	+	+
NO/NC inputs	−	2	2
Transistor outputs	−	2	2
Operation with XM-2 I/O extension module	−	+	+
Operation with external PRT series reader (read in and out control)	−	+	+
Available versions	**Items**		
Dark grey enclosure	PRT66LT-G	PRT66EM-G	PRT66MF-G
Silver-metallic enclosure, production on request	PRT66LT-S	PRT66EM-S	PRT66MF-S

PRT82xx

quadrus

	PRT82MF
General features	
12VDC supply	+
Authentication	Card and/or PIN
Cards	13.56 MHz MIFARE Ultralight, Classic
Card readout	CSN, MSN and SSN
Card programming	–
Outdoor installation	–
LED/buzzer control inputs in Wiegand mode	+
Programmed manually or from PC	+
Screw terminals	+
Connecting cable	–
Tamper	+
CE mark	+
Data output formats	
Wiegand 26..66bit	+
Magstripe	–
RS232	–
RACS Clock&Data (Roger)	+
Transmission of PIN codes	+
Standalone operation	
Number of users	–
Event log	–
Relay output 1.5A/30V	–
NO/NC inputs	–
Transistor outputs	–
Operation with XM-2 I/O extension module	–
Operation with external PRT series reader (read in and out control)	–
Available versions	**Items**
Dark grey enclosure, black panel, keypad	PRT82MF-B
Dark grey enclosure, black panel, without keypad	PRT82MF-BK-B
White enclosure and panel, keypad	PRT82MF-W
White enclosure and panel, without keypad	PRT82MF-BK-W

PRT84xx

quadrus

	PRT84MF
General features	
12VDC supply	+
Authentication	Card and/or PIN
Cards	13.56 MHz MIFARE Ultralight, Classic
Card readout	CSN, MSN and SSN
Card programming	−
Outdoor installation	−
LED/buzzer control inputs in Wiegand mode	+
Programmed manually or from PC	+
Screw terminals	+
Connecting cable	−
Tamper	+
CE mark	+
Data output formats	
Wiegand 26..66bit	+
Magstripe	−
RS232	−
RACS Clock&Data (Roger)	+
Transmission of PIN codes	+
Standalone operation	
Number of users	−
Event log	−
Relay output 1.5A/30V	−
NO/NC inputs	−
Transistor outputs	−
Operation with XM-2 I/O extension module	−
Operation with external PRT series reader (read in and out control)	−
Available versions	**Items**
Dark grey enclosure, black panel, keypad	PRT84MF-B
Dark grey enclosure, black panel, without keypad	PRT84MF-BK-B
White enclosure and panel, keypad	PRT84MF-W
White enclosure and panel, without keypad	PRT84MF-BK-W

RARC software is used for management of PRTxxEM and PRTxxMF series readers. Program enables reader configuration as well as downloading of events from reader memory. RARC software enables also use of PRTxxEM and PRTxxMF series readers in proximity cards programming.
The software is distributed free of charge and can be downloaded from **www.roger.pl**.

Features:

- Support for all the PRTxxEM series readers
- Support for the PRTxxMF series readers (except for PRT82MF and PRT84MF)
- 13.56 MHz ISO 14443A and MIFARE cards programming
- EM 125 kHz Q5 cards programming
- Complete configuration of reader
- Events downloading and viewing
- User management
- Saving/loading of reader configuration to/from external file
- Communication through RS232 interface (requires TXD, RXD and RTS lines) or USB (requires RUD-1 interface)
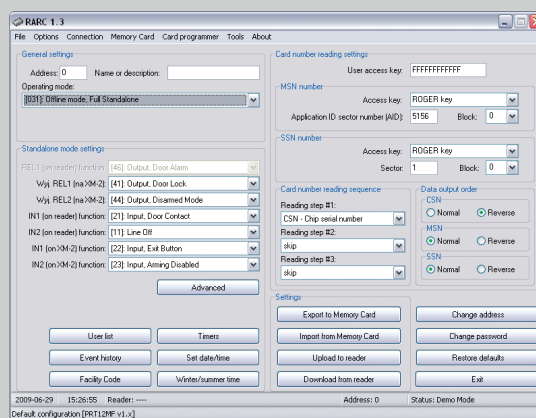
XM-2DR

Addressable input/output expander with two NO/NC inputs and two relay outputs, DIN 35mm plastic enclosure, operates with PRxx1 and PRxx2 access controllers.

XM-2DR-BRD

Electronic module of XM-2DR.

XM-6DR

Expander with six relays, RACS CLK&DTA communication interface, DIN 35mm plastic enclosure.
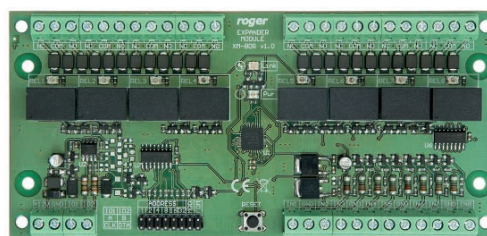
XM-8DR-BRD

Addressable input/output expander, eight NO/NC inputs and eight relay outputs, operates with PRxx2 access controllers as elevator interface.

RUD-1

RUD-1 is an universal, portable communication interface dedicated to Roger access control devices.
Product is designed for installers, who use laptops for configuration and management of Roger access controllers and readers. RUD-1 is powered straight from the USB port and has built-in supply module which provides 12V voltage for programmed device.

RCI-2

RCI-2 enables communication between computer with USB port and devices with RS485 ports. The interface is designed for installation in RACS 4 system but it can also be used in third party applications as it operates as virtual serial port. Due to galvanic isolation both PC and RS485 devices are isolated and equalizing current flow is prevented. DIN 35mm rail plastic enclosure.

UT-2USB

UT-2USB enables communication between computer with USB port and devices with RS485 ports. The interface is designed for installation in RACS 4 system but it can also be used in third party applications as it operates as virtual serial port. Due to galvanic isolation both PC and RS485 devices are isolated and equalizing current flow is prevented. Plastic enclosure dedicated to installation on flat surface.
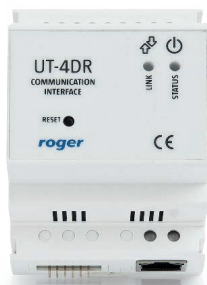
UT-4DR

UT-4DR interface enables communication with RACS 4 access control system by means of 10/100 Base-T(X) Ethernet. Apart from it, UT-4DR offers four I/O lines which can be used as dual state inputs or outputs and controlled via web browser or TELNET protocol. Therefore, UT-4DR can be used in third party applications as PC controlled, remote I/O port. DIN 35mm rail plastic enclosure.

UT-4

RS232/RS485/RS422 – Ethernet communication interface in plastic enclosure dedicated to installation on flat surface.

Auxiliary Equipment for RACS 5 & RACS 4 Systems

RogerVDM application is an utility program for low level configuration of Roger devices. Basically the software is intended to be used in preliminary phase of system configuration, when some low level settings must be entered and device must be adapted to conditions of particular installation. The software is distributed free of charge and can be downloaded from www.roger.pl. The application requires 32bit or 64bit Windows XP, Vista, 7 or 8 and .NET Framework 4.0 extended.

List of supported devices:
- MC16 access controller
- MCT proximity readers
- MCX I/O expanders
- RFT1000 fingerprint reader
- PS-30DR buffered power supply
- PRT82MF & PRT84MF proximity readers
- HRT82MF, HRT82MF-CH, HRT82FK, HRT82AC hotel automation devices
- RUD administrator readers
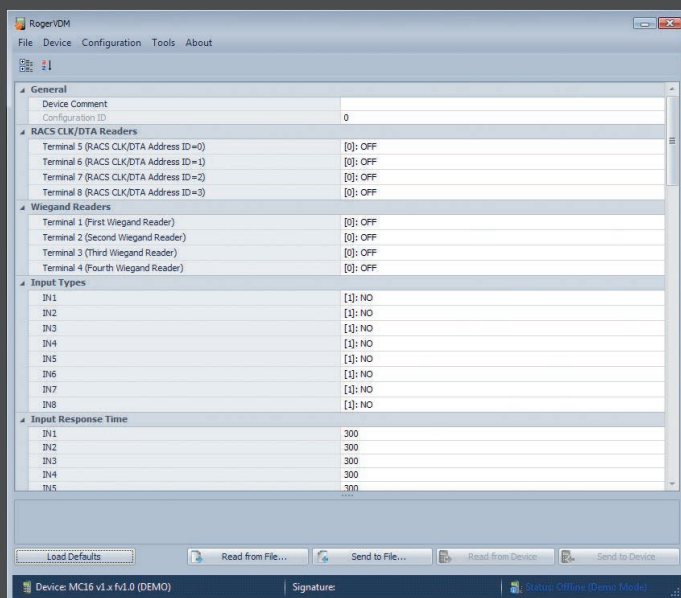
Administrator Readers

Proximity card reader supplied from USB port which is also used for communication with the device. The reader can be applied in low level software such as RogerVDM and Roger MiniReader and it can be used as administrator reader in such management software as VISO (RACS 5) and PR Master (RACS 4). Reader Software Development Kit (SDK) is offered according to its license terms.

RUD-2

Miniature, portable proximity reader for EM 125 kHz transponders.

RUD-3

Miniature, portable proximity reader/writer for 13.56 MHz MIFARE transponders.

RUD-4

NEW

Proximity reader for EM 125 kHz and 13.56 MHz MIFARE transponders, writer for MIFARE transponders, stationary enclosure with card holder.

Order guide	
Item	*Description*
RUD-2	EM 125 kHz reader
RUD-3	13.56 MHz MIFARE Classic reader/writer
RUD-3-DES	13.56 MHz MIFARE Classic and MIFARE DESFire reader/writer
RUD-4	EM 125 kHz reader and 13.56 MHz MIFARE Classic reader/writer
RUD-4-DES	EM 125 kHz reader 13.56 MHz MIFARE Classic and MIFARE DESFire reader/writer
SDK-RUD	License key for SDK software dedicated to implementation of RUD reader in third party applications
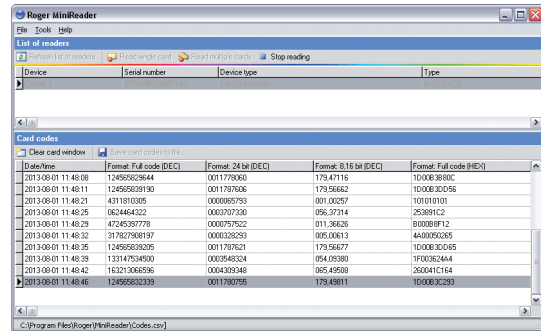
Roger MiniReader application enables to read proximity tags by means of any RUD reader.
Card numbers can be saved to a text file (CSV format) or automatically copied to Windows OS clipboard, in order to enable easy transfer to third party applications.

Support for RUD readers can also be implemented in other programs by using dynamic library DLL. In such case, application of reader depends on author of third party software.

Biometric Reader

RFT1000

RFT1000 is biometric fingerprint reader equipped with high quality optical scanner and ISO/IEC 14443A and MIFARE proximity reader. Users can be recognized by comparison of their fingerprints with fingerprint templates recorded in reader's memory (1:N mode) or with fingerprint templates stored on MIFARE card (1:1 mode). The reader can store up to 1900 fingerprint templates and still enable relatively quick recognition of users. If 1:1 mode is applied then the third (the highest) recognition class is ensured and some legal regulation regarding privacy are met.

NOTICE! Before using the fingerprint reader you need to verify whether the application of the device under particular conditions is consistent with applicable law.

The reader can be connected to access controllers equipped with RACS Clock&Data interface (Roger) or other controllers communicating in Wiegand format. The communication with RFT1000 reader is encrypted by means of AES128 CBC standard which guarantees high resistance to unauthorized decryption. Configuration and management of fingerprint templates can be conducted by means of RogerVDM utility program or RACS management software.

Long Range Readers

GP60

Outdoor EM 125 kHz card reader. Up to 60 cm reading range can be achieved when using EMC-3 cards. Reader is equipped with RS232, RS485, Wiegand26 and Magstripe (clock & data) output formats.
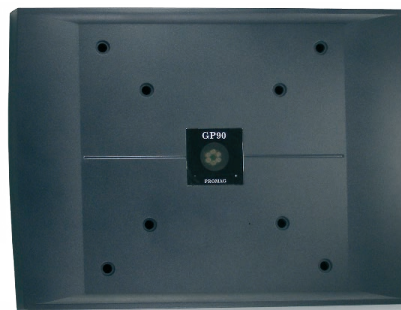
GP90

Outdoor EM 125 kHz card reader. Up to 120 cm reading range can be achieved when using EMC-3 cards. Reader is equipped with RS232, RS485, Wiegand26 and Magstripe (clock & data) output formats.
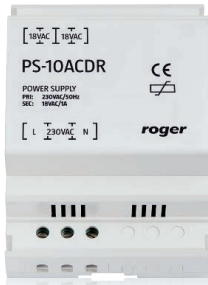
PS-10ACDR

1A/18VAC mains transformer, DIN 35mm rail plastic enclosure, thermal overload protection, recommended for PR411DR and PR402DR access controllers.

PS-15DR

1.5A/13.8VDC switching mode buffer power supply, operation with 13.8V backup battery, DIN 35mm rail plastic enclosure.

PS20

2A/13.8VDC buffer power supply, metal enclosure with room for 7Ah/12V backup battery, deep discharge and overload protection.

PS-30DR

3A/13.8VDC switching mode buffer power supply, operation with 13.8V backup battery, DIN 35mm rail plastic enclosure, power condition signalled on transistor outputs or via RS485 interface.

AX-1

Metal spacer used between plastic enclosure and rough surfaces.

AX-9

FLASH memory card dedicated to use with Roger products.
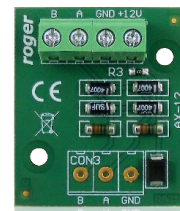
AX-12

Protection module dedicated to RS485 bus exposed to high electric interferences, AX-12 has been designed for RACS system and should not be used in other RS485 based systems.

IOS-1

I/O simulator that allows simulation of input signals (door contact, exit button etc.) and visualization of output signals (door lock, alarm signalling, current arming mode etc.).
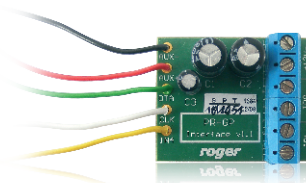
PR-GP-BRD

Adaptor module used for connection of GP60, GP90 and other third-party readers to PRxx2 series controllers.

ML-1

Mechanical lock for ME-1, ME-2-D and ME-5-S metal enclosures.

ASCD-1

Outdoor LED matrix display with clock. ASCD-1 can display time, date and temperature, time and date can be sourced from RACS access control system or from internal RTC clock (standalone mode), built in temperature sensor.

ME-1

Metal enclosure equipped with 40VA transformer, tamper contact and DIN 35mm rail, devices can be installed on DIN rail or attached straight to enclosure's rear, ML-1 mechanic lock optionally available.
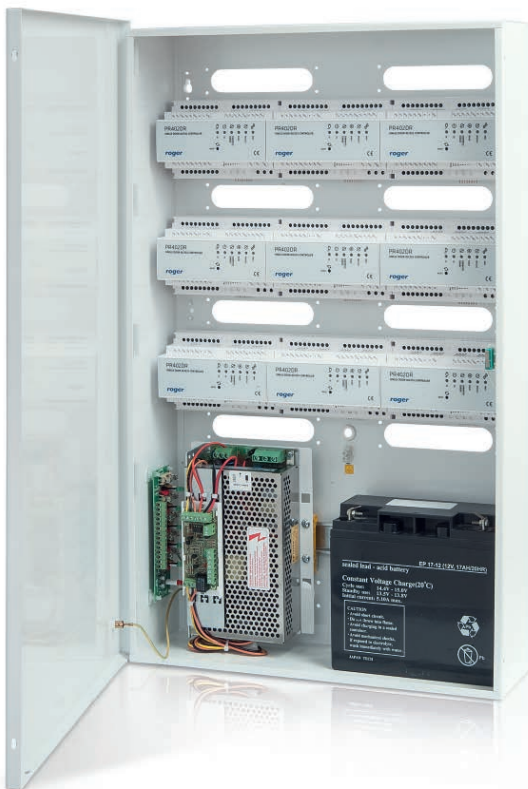
Module and battery shown in the photo are not included in the ME-1.

ME-2-D

Metal enclosure equipped with 3.5A/13.8VDC monitored buffer power supply, power distribution module, three DIN 35mm rails, space for 17Ah battery, ML-1 mechanic lock optionally available.

Modules and battery shown in the photo are not included in the ME-2-D.

ME-5-S

Metal enclosure with power supply 11A unit and voltage distributor, four DIN 35mm rails, tamper contact, space for 17Ah backup battery, ML-1 mechanic lock optionally available.
The enclosure can contain 9 units of PR402DR-12VDC or 18 units of PR102DR access controllers.

The power supply unit is included but it is not preinstalled inside the enclosure.
Controllers and battery shown in the photo are not included in the ME-5-S.

ME-8 　　　　　　　　　 **NEW**

Metal enclosure intended to protect the RFT1000 reader from atmospheric conditions and increase its mechanical durability. Enclosure is equipped with a flap with a lock which disables access to the reader for the unauthorized persons. ME-8 is made of stainless metal covered by powder coating and equipped with a tamper contact.

Reader shown in the photo is not included with the ME-8.

ME-9 　　　　　　　　　 **NEW**

Metal enclosure intended to protect compatible readers from atmospheric conditions and increase its mechanical durability. ME-9 is made of stainless metal sheet covered by powder coating and equipped with a tamper contact.

Reader shown in the photo is not included with the ME-9.

ME-10 　　　　　　　　 **NEW**

Metal enclosure intended to protect compatible readers from atmospheric conditions and increase its mechanical durability. ME-10 is made of stainless metal sheet covered by powder coating and equipped with a tamper contact.

Reader shown in the photo is not included with the ME-10.

Modules and battery shown in the photo are not included in the ME-11.

ME-11 　　　　　　　　 **NEW**

Metal enclosure with 18/50VA mains transformer and room for 18Ah battery. The enclosure is dedicated to RACS 4 and RACS 5 devices and it can accommodate two PR402DR controllers or single MC16 board with an extra extension module e.g. MCX8 I/O expander. The enclosure is equipped with tamper contact indicating enclosure opening or enclosure detachment from the wall.
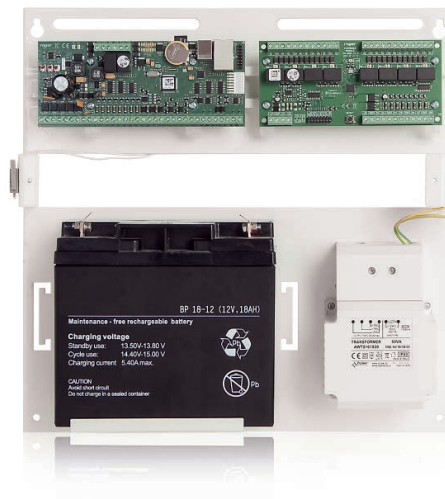
EMC-1

EM 125 kHz ISO size thin PVC proximity card, photo ID pictures and text printing possible with dedicated PVC printers.

EMC-2

EM 125 kHz ISO size thick (Clamshell) proximity card with printed number.

EMC-3

EM 125 kHz ISO size thick (Clamshell) proximity card with printed number, extended reading range.

EMC-4

EM 125 kHz ISO size thin PVC proximity card with Q5 chip, EEPROM 264 bits, the card number (CSN) can be programmed by any PRTxxEM series reader running under RARC software (Windows), card can be used with PVC printers, photo ID pictures and text printing possible.

EMKF-1

EM 125 kHz key fob.

MFC-1

13.56 MHz MIFARE Ultralight® ISO size thin PVC card with printed number, photo ID pictures and text printing possible with dedicated PVC printers.

MFC-2

13.56 MHz MIFARE Classic 1K ISO size thin PVC card with printed number, photo ID pictures and text printing possible with dedicated PVC printers.

MFC-3

13.56 MHz MIFARE Classic 4K ISO size thin PVC card with printed number, photo ID pictures and text printing possible with dedicated PVC printers.

MFKF-1

13.56 MHz MIFARE Ultralight® key fob.

MFKF-2

13.56 MHz MIFARE Classic 1K key fob.

MFKF-3

13.56 MHz MIFARE Classic 4K key fob.

Accessories for Transponders

CP-1

ISO size card holder made of transparent plastic, horizontal use.

CP-2

ISO size card holder made of transparent plastic with enhanced durability, horizontal use.

CP-3

ISO size card holder made of transparent plastic with enhanced durability, vertical use.

CH-1

ISO size card holder made of transparent plastic with enhanced durability horizontal and vertical use.

BC-1

Metal clip for badge, with plastic band and snap fastener.

NC-1

Neck chain for badge, metallic finish, 91 cm length.

NL-1

Lanyard, 80 cm length, 1.5 cm width, detachable clip.

NL-2

Lanyard with Roger logo, 80 cm length, 1.5 cm width, detachable clip.

roger ®   59

DB-2

Demonstration and training system with PRxx2 series controllers. All devices which are connected into network system with three read in/out doors are installed on board with 100x60x3 cm dimensions. DB-2 system can be used for training access control installers and designers, as well as for presentation of the system at end-users premises.


Order guide	
Item	*Description*
DB-2-PL	Demonstration board with PRxx2 series controllers, Polish version
DB-2-EN	Demonstration board with PRxx2 series controllers, English version
DB-S	Portable stand for DB series demonstration board
DB-S-ST	Stationary stand for DB series demonstration board
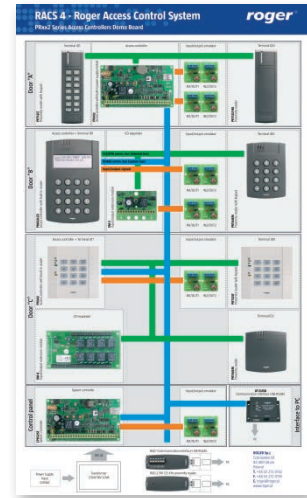
DB-4

Demonstration and training boards for RACS 4.5 access control system. All devices which are connected into network system with six read in/out doors and are installed on two boards with 100x60x3 cm dimensions. Additionally, DB-4AB presents integration capabilities with CCTV recorders, Integra alarm systems and Sallis wireless locks. Board A can be used separately from board B, while board B requires connection to board A.

| Order guide	
Item	*Description*
DB-4AB-PL	Set of two boards (A+B), Polish version
DB-4AB-EN	Set of two boards (A+B), English version
DB-4A-PL	Board A, Polish version
DB-4A-EN	Board A, English version
DB-S	Portable stand for DB series demonstration board
DB-S-ST	Stationary stand for DB series demonstration board

DB-6
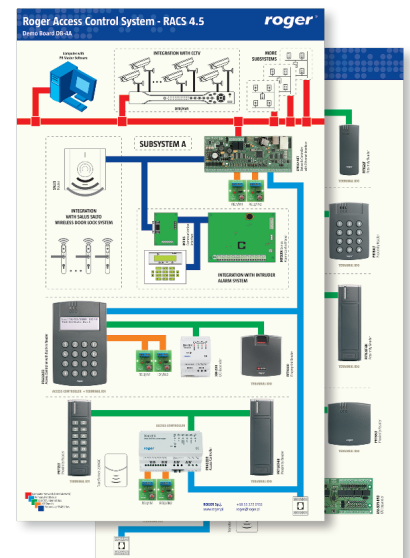
Demonstration and training board for RACS 5 access control system. All devices which are connected into network system are installed on board with 100x60x3 cm dimensions. DB-6 system can be used for training access control installers and designers, as well as for presentation of the system at end-users premises.

Order guide	
Item	*Description*
DB-6A-PL	Demonstration board for RACS 5 system in set with portable stand, Polish version
DB-6A-EN	Demonstration board for RACS 5 system in set with portable stand, English version
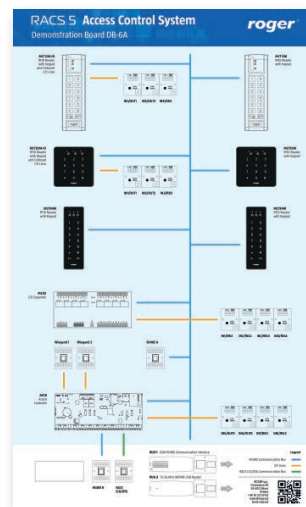
PDK-1

Portable demo kit for PR402DR and PR411DR controllers. Kit includes: PR411DR/PR402DR access controller PCB module, communication interface UT-2USB, two PRT12LT readers, mains transformer. All devices are factory installed on demo boards and wired. The kit can be used in trainings and presentations with computer and PR Master software.

Portable Showroom Stands

Portable showroom stands for presentation of Roger products. All stands are made of PMMA plastic. Various dummy devices as well as labels with product names are attached to them. Stands are dedicated to support the promotion of Roger devices in showrooms, during meetings with end-users as well as exhibitions and fairs.

Code Locks

SL2000 Code Locks

SL2000 series electronic code locks were designed as simple and economical access control devices that identify users by PIN codes.
Devices belonging to this series have identical functionality, while differences between them are limited only to mechanical construction, design of enclosure and environmental conditions (outdoor or indoor use).

Features:

- 1.5A/30V relay output and two transistor outputs
- Alarm signalling on the transistor output
- Door Contact and Exit Button inputs
- Administrator Code for programming and users codes management
- Master Code for lock arming/disarming
- 55 User Codes for door access
- Optional lock-out after three unsuccessful code entries

- Option to disable access in armed mode
- Programmable code length
- User Codes indexing
- Non-volatile memory
- Three LED indicators and Buzzer
- 10-15VDC supply
- Tamper
- CE mark

DOMINO

radius

METAL CASE
VANDAL · PROOF

SL2000E

Outdoor code lock, plastic enclosure, 0.5 m connecting cable, silicone keypad with backlight, two function keys.

SL2000F

Indoor code lock, plastic enclosure, screw terminals, silicone keypad with backlight, optional installation on 60 Ø mm flush mounting box.

SL2000F-VP

Vandal resistant, outdoor code lock, front enclosure and keys made with aluminium alloy and covered with silver-metallic coat, 0.5 m connecting cable, optional installation on 60 Ø mm flush mounting box.

Access Control
& Hotel Automation

RACS 4 system enables hotel access control by means of PR821-CH controller managed with PR Master software. The controller is equipped with card holder and it offers room access control and management of room automation systems. Following devices can be connected to the controller: HRT82MF proximity reader for room entry control and HRT82FK touch button panel or HRT82PB push button panel. HRT82MF operates as hall reader and besides providing access control it is equipped with touch button for

door bell and LED indicators to signal hotel staff presence in the room and such hotel services as assistance, make up room, do not disturb. Each state is signalled with individual LED indicator which can be activated using touch button panel (HRT82FK), push button panel (HRT82PB) or button connected to the controller input line. The controller offers power supply activation, simple air conditioning control and intruder alarming when door and window contacts are connected.

PR821-CH

Access controller with built-in EM 125 kHz and 13.56 MHz MIFARE proximity readers and card holder.

HRT82MF

MIFARE hall reader, door bell, LED indicators for signalling hotel services.

HRT82FK

Touch type function keys panel.

HRT82PB

Push type function keys panel.

The system is based on HRC series controllers for installation by integrators offering access control and hotel automation solutions. Roger offers only devices without management software which must be provided by system integrator. For the purpose of integration, Roger provides technical documentation and communication protocol in order to enable configuration and online control of HRC series controllers. Granted integration right includes also 1-year technical support and training in Roger premises.

Hotel system devices:
• Hotel controller (HRC402DR or HRC102DR)
• Hall MIFARE reader (HRT82MF)
• MIFARE card holder (HRT82MF-CH)
• Touch button panel (HRT82FK)
• Push button panel (HRT82PB)
• Air conditioning control panel (HRT82AC)
• Temperature sensor (HRT82TS)
• I/O expander (XM-6DR)

HRC102DR

Hotel controller, DIN 35mm plastic enclosure.

HRC402DR

Hotel controller, DIN 35mm plastic enclosure.

HRT82MF-CH

Hotel MIFARE card holder.

HRT82MF

MIFARE hall reader, door bell, LED indicators for signalling hotel services.

HRT82AC

Air conditioning control panel
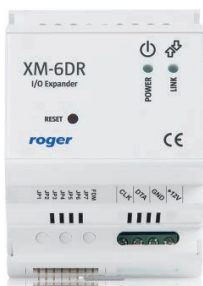with temperature display.

HRT82TS

Temperature sensor.

HRT82FK

Touch type function keys panel.

HRT82PB

Push type function keys panel.

XM-6DR

Expander with six relays, DIN 35mm
plastic enclosure.

Time & Attendance

RCP Master 2 is Time & Attendance software which can be operated as standalone solution or extension to RACS 4 system. In the first application, RCP Master 2 communicates with T&A terminal (PR602LCD, EGTP-1) while in the second one it imports T&A data from RACS 4 access control system. In both cases user attendance can be recorded electronically with proximity cards. Additionally standalone solution based on EGTP-1 terminal enable to use also QR codes and smartphones for user identification.

The software is dedicated for use by HR departments in small and medium companies with versions for 50, 250 or 500 employees and for single or multi-user operation. Licensing system of RCP Master 2 software requires use of license key and connection of dongle i.e. RUD-2 or RUD-3 reader. Demo version can be used for the purpose of evaluation and testing free of charge during first 60 days after installation. Demo version does not require license key nor connection of dongle.

Features:

- Individual work time calendars for employees
- Support for employee late comings and early leavings
- Support for on-duty exit
- Support for holidays
- Support for standard and non-standard work time including multi-shift working system
- Support for paid/unpaid breaks and overtime
- Operator accounts with access to selected employee groups
- Manual modification of T&A data by operator
- Various reports e.g. employee groups, employees, calendars, T&A terminals, holidays etc.
- Report wizard for customizable reports
- Various report formats: pdf, xls, doc, rtf, rpt and xml
- Automatic report sending by email
- Simplified access control functions in standalone scenario of operation
- Local or network database
- Support for 32-bit Windows 98 or newer and 64-bit Windows Vista or newer

Order guide

Item	Description
RCP Master 2-1	RCP Master 2, up to 50 employees, single-user version
RCP Master 2-2	RCP Master 2, up to 250 employees, single-user version
RCP Master 2-3	RCP Master 2, up to 500 employees, single-user version
RCP Master 2-4	RCP Master 2, up to 50 employees, up to 3 users
RCP Master 2-5	RCP Master 2, up to 250 employees, up to 3 users
RCP Master 2-6	RCP Master 2, up to 500 employees, up to 3 users
RUD-2	EM 125 kHz USB reader, can be used as dongle for RCP Master 2
RUD-3	13.56 MHz ISO/IEC14443A and MIFARE USB reader/writer, can be used as dongle for RCP Master 2

PR602LCD-DT

Access controller with built-in EM 125 kHz and 13.56 MHz MIFARE proximity readers dedicated to use as T&A terminal. PR602LCD-DT is equipped with events memory buffer, four line LCD and four programmable function keys for selection of T&A mode (Entry, Exit, On-duty exit, etc.). The controller can operate directly with RCP Master 2 software or it can be used within RACS 4 system. Product is offered in two versions: indoor or outdoor version in set with protective metal enclosure.
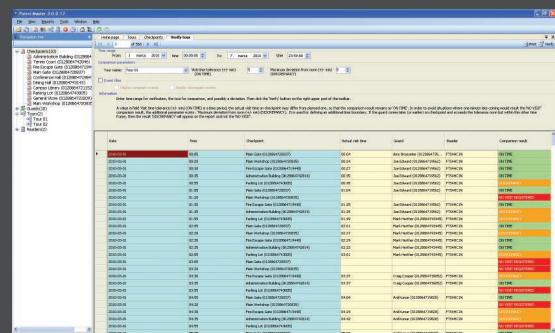
Guard Tour System

The system consists of Patrol II LCD portable proximity reader designed for recording persons attendance in designated points of building/area and software for further analysis. The system is designed mainly for offline verification of guards' work, nevertheless it can be used in many other situations.

The installation of Patrol system does not require any cabling but it is necessary to install passive proximity tags (called checkpoints) in specific locations of controlled building/area. Every checkpoint and person identifier can be assigned with names (labels). These labels are later useful during guard tour and interpretation of event log.

Features:

- EM 125 kHz passive checkpoints
- Single button control
- LCD display with backlight
- Guard/checkpoint names and guard tour hints displayed on LCD
- Non-volatile 32K event log buffer
- Deleted events restoring
- Various type of events including alarm and service events

- Communication and firmware upgrade through USB port
- 2x LR6 (AA) batteries supply
- Battery charging from USB or AC charger
- Up to 8K reading cycles without battery charging
- High mechanical durability
- Humidity and water condensation protection
- Free of charge management software for Windows
- CE mark

Patrol Master 3

Patrol II LCD set:

- Reader
- USB cable
- Batteries AA 1.5V (2pcs.)
- Leather case
- Battery charger
- PK-3 checkpoint
- PK-2 checkpoints (5pcs.)
- EMC-1 proximity cards (3pcs.)
- CP-1 card holders (3pcs.)

PK-2

Indoor proximity checkpoint, can be mounted on the wall or under wall plaster.

PK-3

Outdoor proximity checkpoint, can be mounted on a metal surface.

roger ®

ROGER sp.j.
82-400 Sztum
Gościszewo 59
Poland

T. +48 55 272 0132
F. +48 55 272 0133
E. roger@roger.pl
www.roger.pl