



Two-door access control kit for the RACS 5 v2 EX system. The kit comprises a metal enclosure with a power supply, a door expander and a network access controller. MC16-PAC-EX-2-KIT enables the implementation of read-in/read-out access control for two doors using RS485 (MCT series readers), RACS CLK/DTA (PRT series readers) or Wiegand readers.

Features:

- ME-40 metal enclosure
- MC16-PAC-EX-2 access controller
- MCX2D door expander
- PS2D power supply 13.8 VDC/3.6 A

Ordering guide

<i>Item</i>	<i>Description</i>
MC16-PAC-EX-2-KIT	Access control kit for 2 doors; ME-40 metal enclosure; MC16-PAC-EX-2 networked access controller; MCX2D door expander; PS2D power supply 13.8 VDC/3.6 A



The ME-40 enclosure is dedicated to RACS 5 modules and devices which require installation on DIN rail along with 17 Ah battery. The enclosure is equipped with one DIN rail, tamper contact and main fuse switch. Access to

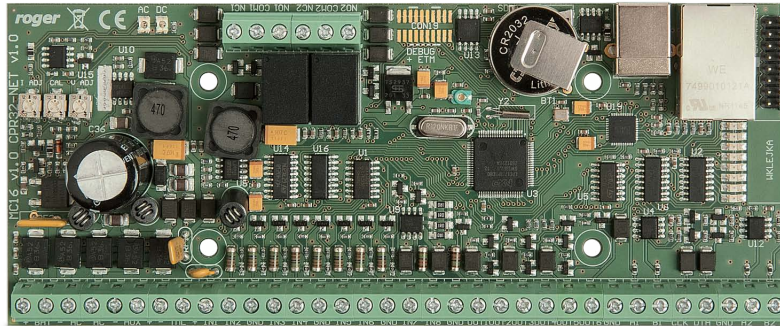
the internal space of the enclosure is protected by a door fixed by screws. Optionally, the door can be equipped with key lock. The ME-40 is made from a metal sheet painted with an anthracite grey powder coating.

Features:

- metal enclosure for RACS 5 modules and devices
- one DIN rail 396 mm
- tamper contact
- main fuse switch 5 A
- space for 17 Ah battery
- RAL7016 colour powder coating
- internal dimensions: 398 × 358 × 100 mm (width × height × depth)
- CE mark
- protection grade IP20

Ordering guide

<i>Item</i>	<i>Description</i>
ME-40	Metal enclosure with one DIN rail; space for 17 Ah battery; tamper; int. dim. (WHD): 398 × 358 × 100 mm



The MC16-PAC-EX is multi-door physical access and building automation controller dedicated to the EX version of the RACS 5 v2 system. Depending on the version, it allows to control up to 16 read-in/out doors. MC16 can register events for Time & Attendance and can be integrated with intruder alarm systems. The integration enables a presentation of alarm zone status on terminal LEDs and to change zone status straight from a terminal. MC16 offers advanced and efficient methods for the management of users and their authorizations in the system. Controllers are configured in parallel and

their total number does not affect the total configuration time which usually is below 1 minute. Controllers are managed from VISO EX client-server Windows application operating with a centralized Microsoft SQL Server database. The system can be managed from multiple workstations by operators with various system rights. RACS 5 enables among others access to events and management of users. Communication between the PC and controller is fully encrypted using the AES128-CBC method and can be conducted either in LAN or WAN.

MC16-PAC-EX Series Controllers Features:

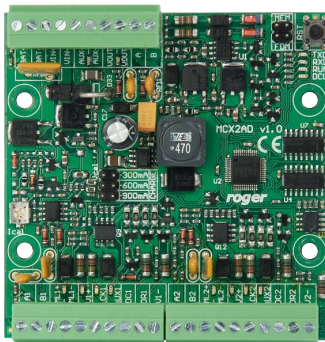
- 12 000 Access Credentials
- 8 Authentication Factors per Access Credential
- 100 Authorizations per Access Credential
- 16 read-in/out Access Doors
- 32 Access Points
- 64 Access Terminals (readers)
- 16 Access Zones
- 16 Alarm Zones
- 32 Automation Nodes
- 512 Authorizations
- 64 Rules within single Authorization
- 64 T&A Modes
- 16 Authentication Policies
- 4 steps within a single Authentication Policy
- 64 inputs (controller's mainboard, expanders, and terminals with I/Os)
- 64 outputs (controller's mainboard, expanders, and terminals with I/Os)
- 64 Function Keys
- 16 Global Commands
- Anti-passback and Timed anti-passback
- 32 Calendars
- 99 Periods within a single Calendar
- 250 Schedules
- 40 periods within a single Schedule
- 16 exceptions within a single Schedule
- direct operation with up to 16 MCT series terminals (RS 485 bus)
- operation with up to 16 OSDP terminals (OSDP v2 protocol) using MCI-3 interface
- direct operation with up to 4 PRT series terminals (RACS CLK/DTA bus)
- direct operation with up to 4 Wiegand terminals operation with PRT series and Wiegand terminals via MCX expanders
- 8 parametric EOL inputs onboard
- 6 transistors 15 V/150 mA outputs onboard
- 2 relay 30 V/1.5 A AC/DC outputs onboard
- 8 million event buffer on a memory card
- DC or AC supply
- backup battery charging and monitoring
- RACS CLK/DTA interface
- RS485 serial interface
- Ethernet interface
- AES128-CBC encrypted communication protocol
- quick configuration (below 1 minute)
- background configuration without a temporary system disabling the indoor environment
- built-in 12 VDC/1.0 A power supply unit
- dimensions: 72.0 x 175.0 x 30.0 mm (height x width x depth)
- CE mark

MC16-PAC-EX Series Controllers Features:

MC16-PAC-EX Versions																
Parameter	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Access doors	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Access points	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32
Access terminals	4	8	12	16	20	24	28	32	36	40	44	48	52	56	60	64
Access zones	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32
Alarm zones	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32
Power supplies	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32
Automation nodes	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32
Local commands	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32
Inputs	8	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96
Outputs	8	8	12	16	20	24	28	32	36	40	44	48	52	56	60	64
Function keys	8	16	24	32	40	48	56	64	72	80	88	96	104	112	120	128
Access credentials									12000							
Access doors per access point									1							

Ordering guide

Item	Description
MC16-PAC-EX-1	Access controller board; 1-door license
MC16-PAC-EX-2	Access controller board; 1-door license
MC16-PAC-EX-3	Access controller board; 1-door license
MC16-PAC-EX-4	Access controller board; 1-door license
MC16-PAC-EX-5	Access controller board; 1-door license
MC16-PAC-EX-6	Access controller board; 1-door license
MC16-PAC-EX-7	Access controller board; 1-door license
MC16-PAC-EX-8	Access controller board; 1-door license
MC16-PAC-EX-9	Access controller board; 1-door license
MC16-PAC-EX-10	Access controller board; 1-door license
MC16-PAC-EX-11	Access controller board; 1-door license
MC16-PAC-EX-12	Access controller board; 1-door license
MC16-PAC-EX-13	Access controller board; 1-door license
MC16-PAC-EX-14	Access controller board; 1-door license
MC16-PAC-EX-15	Access controller board; 1-door license
MC16-PAC-EX-16	Access controller board; 1-door license
MC16-PAC-EX-LIC-1	1-door license extension for MC16-PAC-EX access controller
MC16-UPG-STtoEX-LIC-1	1-door license to upgrade the controller from MC16-PAC-ST to MC16-PAC-EX



The MCX2D is an 2 door IO expander dedicated for the RACS 5 system. Apart from the IO lines, it distributes power supply and RS485 communication bus to the controlled doors. For each door it provides 2 signal inputs, 2 control outputs, 2 supply outputs and communication interface to readers. The door circuits are electrically separated what assures that in case of malfunction or sabotage, the problem which occurred on single door is not propagated to other doors. The MCX2D is supplied

from the external 13.8 VDC power supply which provides energy for the entire door control system including door locks and readers. For each controlled door the 1.2 A current is reserved. In case of main supply failure, entire system is supplied from the reserve battery which is connected to the MCX2D module and charged with selectable 0.3-0.9 A current. The electronic module is equipped with removable screw terminals which simplify installation and replacement of the module.

Features:

- power supply distribution to 4 doors
- communication bus distribution
- 4 inputs 2EOL
- 4 outputs 12 V/1 A
- 2 supply outputs 12 V/1 A
- 2 supply outputs 12 V/0.2A
- RS485 interface to access controller
- battery deep discharge protection
- supply reporting to access controller
- 0.3 A, 0.6 A or 0.9 A battery charging current
- supplied from 13.8 VDC/3 A power supply

Ordering guide

<i>Item</i>	<i>Description</i>
MCX2D	2-door expander; battery charge and maintenance; 13.8 VDC supply



PS2D is LRS-50-12 (Mean Well) power supply unit with rated output voltage increased from 12 V to 13.8 V by means of originally available output potentiometer. PS2D is dedicated to installation in RACS 5 system, particularly to supply MCX2D and MCX4D expanders and PSD4D power distributors but it can also be used for other applications if its nominal conditions of use are satisfied.

The PSU is dedicated to installation inside enclosure and can be installed only by qualified technician with all necessary certificates concerning connection and maintenance of 230 VAC and low voltage networks. ME-15, ME-16, ME-17 and ME-40 (Roger) metal enclosures are factory adapted to installation of PS2D.

Features:

- supply 230 VAC
- output voltage 13.8 VDC
- output current 3.6 A
- overload protection
- overvoltage protection
- dimensions: 99.0 x 82.0 x 30.0 mm (height x width x depth)
- CE mark

Ordering guide

<i>Item</i>	<i>Description</i>
PS2D	Power supply 13.8 VDC/3.6 A

Legal Notice

This document is not intended to be a technical specification of the product and has informative character only. The Manufactures of product reserves right to change its characteristic without notice. The product features listed in this document refer to the entire series and depends on particular product version, configuration and additional equipment.

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