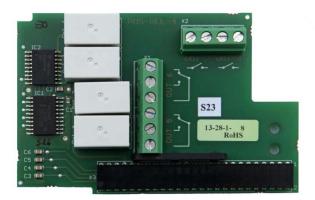
# PM5-REL-4 Relay-Module

Version 1.0



## **User manual**

Plug-in module with 4 relay switch outputs (max. 3A at 230V~/30V=) Order No.: 127 016



Compatible with

Analyt PoolManager<sup>®</sup> PoolManager<sup>®</sup> PRO





## Index

1	Identification of safety information	4
2	General safety information	4
3	User qualification	4
4	Overview	4
	Installation	
	5.1 Opening the casing	
	5.2 Insert the PM5-REL-4 plug-in module	5
6	Menü-Configuration	5
7	Technical Data	6

#### 1 Identification of safety information

Please refer to the information concerning the identification of safety information in your PoolManager® or Analyt user manual.

#### 2 General safety information



#### HAZARD!

Please follow the general safety information in your PoolManager® or Analyt user manual carefully.

#### 3 User qualification

Please refer to the different user qualifications as defined in your PoolManager® or Analyt user manual.

#### 4 Overview

The PM5-REL-4 Relay Module is a plug-in module for the BAYROL Measuring, Control und Dosing Systems PoolManager® and Analyt of the 5th generation (from 2012). It provides 4 additional relay outputs which can be flexibly used for various add-on functions. Each single relay can switch max. 3A at 230V-or 30V=.

#### 5 Installation

This chapter describes the installation of the PM5-REL-4 plug-in module inside the PoolManager® controller and the cable connections.



## Required user qualification: ELECTRICAL SPECIALIST

Electrical connection may only be performed by an ELECTRICAL SPECIALIST as defined in the chapter *User qualification* of your PoolManager® or Analyt user manual.

#### 5.1 Opening the casing



#### HAZARD DUE TO VOLTAGE!

Inside the controller you may get in touch with dangerous electrical voltages.

Potential consequence: Death or the gravest degree of injury.

Disconnect the controller from mains power supply before opening the casing and, in particular, the lid of the connection terminal box.



## IMPORTANT NOTICE!

### Open on the right

Never open the casing on the left side, as damage may otherwise occur.

Always open on the right side!

1. Firmly press the hinge on the right side out and to the right.



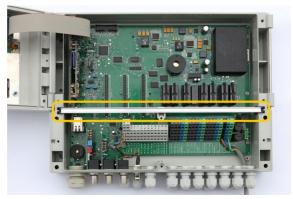
Remove the cover plate and unhook the hinge on the bottom.



3. Swing the casing cover open to the left.



 Unbolt the four screws of the lid of the connection terminal box and remove the lid. Take out the aluminium rail afterwards.



5. To close the casing, reverse this procedure.

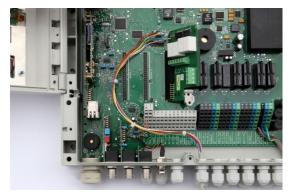


#### 5.2 Insert the PM5-REL-4 plug-in module

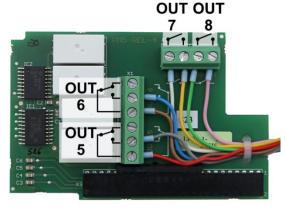
1. Each of the plug-in connectors 1 to 3 can be used for the PM5-REL-4 plug-in module. For an optimal cable route, we recommend to use plug-in connector 3 (on the right).



Dismantle the cable (or cables) on the required length inside the casing and insert it (them) into the casing through one or more cable glands.



 Now connect the cable ends to the connection terminals of the PM5-REL-4 plug-in module. OUT5..OUT8 identify the 4 relay switch outputs that can later be selected in the menu. OUT5 and OUT6 are changeover switches as shown in the figure below.



4. Insert the PM5-REL-4 plug-in module carefully into the plug-in connector 3 (on the right).



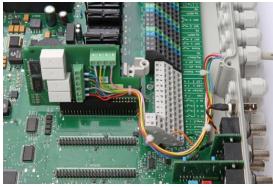
#### HAZARD!

#### Improper positioning

Improper (inaccurate) positioning of the plug-in module and applying too strong forces may bent or even break the contact pins of the plug-in connector.

Potential consequence: Irreparable damage of the plug-in connector, need for factory repair service.

Take care for the correct and accurate position of the plug-in module and do not apply too strong forces



 Now insert the aluminium rail at its original position. Take care that the PM5-REL-4 plug-in module is exactly located in the corresponding slot of the aluminium rail as shown on the second photo below.







- Remount the lid of the connection terminal box and close the controller casing.
- After completion and verification of the installation you can reconnect mains power supply to the PoolManager® controller.

#### 6 Menü-Configuration

The relay switch outputs OUT5..OUT8 can flexibly be assigned to various add-on functions of the PoolManager® in the same way as the internal standard relay switch outputs.

The assignment is done in the Menus of the individual add-on functions, e.g. *Switch output 1..4*, *Filter pump* or *Heating*. In den Menus for the individual add-on functions there is always a sub-menu called *Basic configuration*. In this sub-menu, the used relay switch outputs can be assigned, amongst others.



The figure shows an example of a menu for the assignment of a relay switch output.

The relay switch outputs of the PM5-REL-4 plug-in module are named OUT5[REL4], OUT6[REL4], OUT7[REL4] and OUT8[REL4] in the menu.

Relay switch outputs which have already been assigned, are greyed out and cannot be selected anymore. If no PM5-REL-4 module is plugged-in, all of the outputs OUT5..OUT8 are greyed out and cannot be selected.

For further details, please refer to the description of the individual addon functions in the PoolManager®-user manual.

#### 7 Technical Data

Max. switching voltage AC~	230V~
Max. switching voltage DC=	30V=
Max. switching current AC~/ DC=	3A~/3A=
Max. switching cycles	ca. 20.000 at 3A
OUT 5 / OUT 6	Changeover switches
OUT 7 / OUT 8	On/off switches

• All relay switch contacts are volts-free.



#### Hazard!

#### No electrical circuit protection

There is no internal fuse or other electrical circuit protection for the relay switch outputs.

Potential consequence: Damage or destruction of connected devices, risk of fire.

• Provide an appropriate external fuse or other electrical circuit protection.