TECHDOCK GmbH – Paradiesstr. 34 – 4102 Binningen
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Switch
User Manual

Table of Revisions

Revision	Description	Date
0	Document Creation	05.08.2023

Table of Contents:

Figure Legend:

1 Introduction

This manual concerns information regarding the handling and maintenance of the control4log.

1.1 Warning Symbols

General Hazards

Electric Shock

Sharp Edge

Fig. 1: Warning Symbols

1.2 Mandatory Action Symbols

General Mandatory Action Symbol

Gloves Required

Review Instructions

Fig. 2: Mandatory Action Symbols

2 Saftey Guidelines

2.1 Intended Use

Please read the user manual carefully and completely before using the device for the first time. The device may only be operated by trained personnel. Any damage resulting from failure to observe the user manual instructions is exempt from any liability.


The device may only be used in the manner described in the operating instructions. Using the device in a manner other than that for which it was designed may result in danger and risks personal safety.


Only use the measuring device when environmental conditions (temperature, air humidity, etc.) are within the limit values specified in the instructions. Do not expose the device to extreme temperatures, direct sunlight, extreme humidity, or moisture.


Do not subject the device to shocks or strong vibrations.


The device housing may only be opened by qualified personnel and no technical changes may be made to the device.


Only use the device if it is attached to a DIN rail with the mounting device provided.


The device should only be cleaned with a cloth. Do not use abrasive or solvent-based cleaning agents.


Check the housing of the device for visible damage before use. If there is any visible damage, the device must not be used.


The device may not be used in an explosion-prone atmosphere.


The measuring range specified in the instructions must not be exceeded under any circumstances.


Only connect the device, and all its encompassing interfaces and connection ports, to a low-voltage system.


General knowledge in the field of automation technology and low-current-switching technology is necessary for understanding.


The housing of the device is not UV-resistant. The device must not be installed or used in an area where it will be exposed to sunlight.


If the safety instructions are not observed, the device may be damaged, and the operator may be injured.

We assume no liability for misprints or content errors in these instructions. We expressly refer to our general warranty conditions, which can be found in our General Terms and Conditions. For questions or concerns, please contact TECHDOCK GmbH. The contact details can be found in these instructions.

2.2 Customer Service

TECHDOCK GmbH
Paradiesstrasse 34
CH – 4102 Binningen
Email: info@techdock.ch

Fig. 3: QR-Code

2.3 Hazards

Use gloves when attaching the device to, or removing it from, the DIN rail, as cuts and injuries from sharp edges of adjacent parts can occur.

Only install the device when the system / control cabinet is switched off and/or disconnected from the power. An electric shock can be caused by adjacent live parts or devices.

3 Description

The switch is a mechanical circuit breaker. The available inputs can be used via pluggable terminals.

Always store this manual near the device.

4 Specifications

4.1 Rules and Regulations

For a complete overview of the guidelines and standards applied, the declaration of conformity can be consulted, which is included in the packaging of every device supplied.

The device may only be used in SELV, PELV or FELV low-voltage systems; the operating limits must be observed.

In Switzerland, the device is classified as a "special low-voltage product" in accordance with NEV 734.26, Section 2, Article 13, Paragraph 1.

4.2 Nameplate

The following information can be found on the nameplate:

Fig. 4: Image of Nameplate

4.3 Connections and Interfaces

P1	Switch
P2.1	COM Switch
P2.2	NO Switch
P3.1	5-24V DC LED-Connection
P3.2	GND LED-Connection

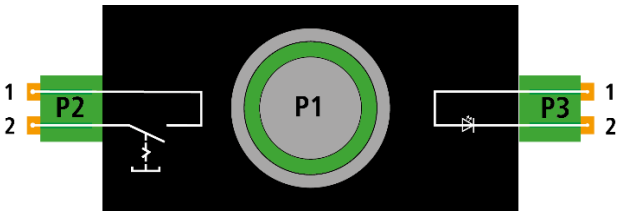

Fig. 5: Image of Connections

4.4 Switch Contact P2

At terminal P2, the switch contact (NO) is connected.

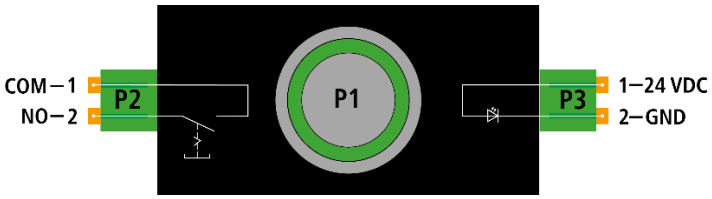

Fig. 6: Image P2 Connections

In the unconfirmed state, the switch contact is open; in the confirmed state, the switch contact is closed.

4.5 LED Light P3

A green LED is connected to terminal P3, whereby +24 VDC must be connected to connection P3.1 and GND to P3.2 so that the LED lights up. The LED can be supplied with +5 to 24 VDC, where the higher the VDC, the brighter the LED.

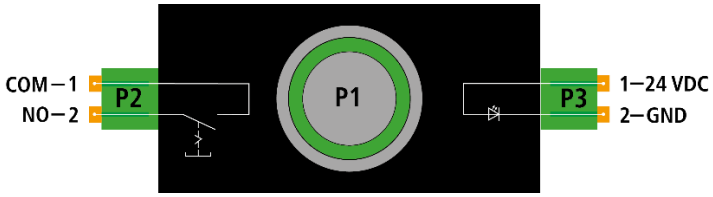

Fig. 7: Image P3 Connections

With the following wiring shown, the LED can be used as a status indicator for «On/Off» using the auxiliary voltage at the switch contact connected to terminal P2 at terminal P3.

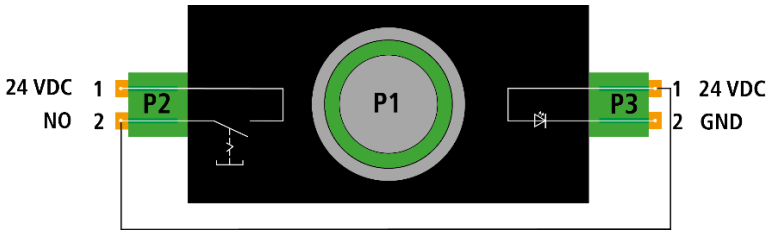

Fig. 8: Image of P2 / P3 Connection

4.6 Terminals

The connectors are equipped with spring-loaded terminals, which means that ferrules are not necessary. Finely stranded and solid conductors from 0.14mm^2 to 1.5mm^2 can be used.

4.7 Operational Limits

The device is exclusively intended for use in low voltage systems SELV (Safety Extra-Low Voltage), PELV (Protective Extra-Low Voltage), or FELV (Functional Extra-Low Voltage), and the following operating limits must be observed:

Switch Contact:	< 120V DC and ≤ 2A
LED-Status Indicator	≥ 5V DC
	≤ 24V DC

4.8 Housing

The housing fulfills the ingress protection IP 2XB according to EN 60529.

The housing is manufactured with a 3D printer and has the following material properties:

Color:	Black RAL 9005
Material:	PLA Pro

4.9 Environmental Conditions

In operation:	0°C to 40 °C, without condensation
In storage	-40 °C to 70 °C, without condensation
In operation altitude:	Up to 2000m above sea level

4.10 Mass and Weight

Length:	80 mm
Width:	50 mm
Height:	30 mm
Weight:	56 gr.

4.11 Cable Length

Please note that depending on the cable length, cable cross-section, and current strength, a voltage drop may occur and should be taken into account accordingly.

A minimum cross-section of 0.5mm² should not be exceeded, and local regulations regarding minimum cross-sections should be observed.

If the minimum 5V DC is not maintained, the functionality of the LED status indicator at terminal P3 cannot be guaranteed.

5 Installation

5.1 Installation

The device is equipped with a mounting device for 35mm DIN rails according to DIN EN 50022. The plastic housing is equipped with the appropriate recesses so that the DIN rail mounting device can be attached to the underside.

Only install the device in a voltage-free state. An improperly connected device can result in a short circuit. This could destroy the device itself or the end device connected to it.

Use gloves when attaching the DIN rail mounting device and when attaching the device to the DIN rail, as well as when removing it. There is a risk of cuts and injuries from sharp edges from the device itself or from neighboring parts.

Installation:

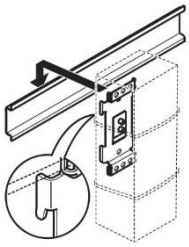

Fig. 9: Image of installation on DIN rail

Removal:

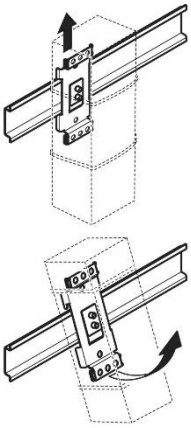

Fig. 10: Image of Removal from DIN rail

5.2 Spacing

The distances a to neighboring parts can be minimized as desired, but are limited by the two connections, P2 and P3.

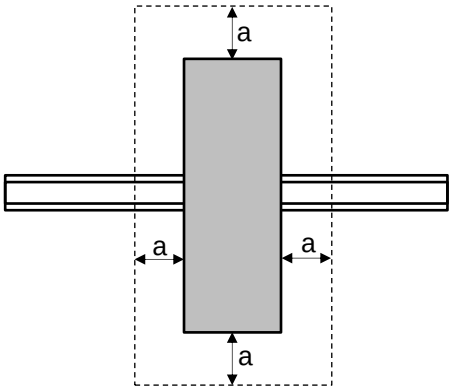

Fig. 11: Image Spacing on DIN Rail Upright Mounting

5.3 Power Supply

CH: The limits for low-voltage systems are ≤ 2 A and < 120 VDC

6 Package Contents

1 Stk. Switch
1 Stk. DIN Rail Adapter
1 Stk. 2-pin Connector
1 Stk. 2-pin Connector

7 Disposal

We accept the return of our devices. They are either recycled by us or disposed of by a recycling company in accordance with legal requirements. Alternatively, old devices may also be disposed of at designated collection points.