

# XM-DO-16T Digital Output Expansion Module

Data sheet applicable for:

- XM-DO-16T - 16 channel Digital Output Expansion Module

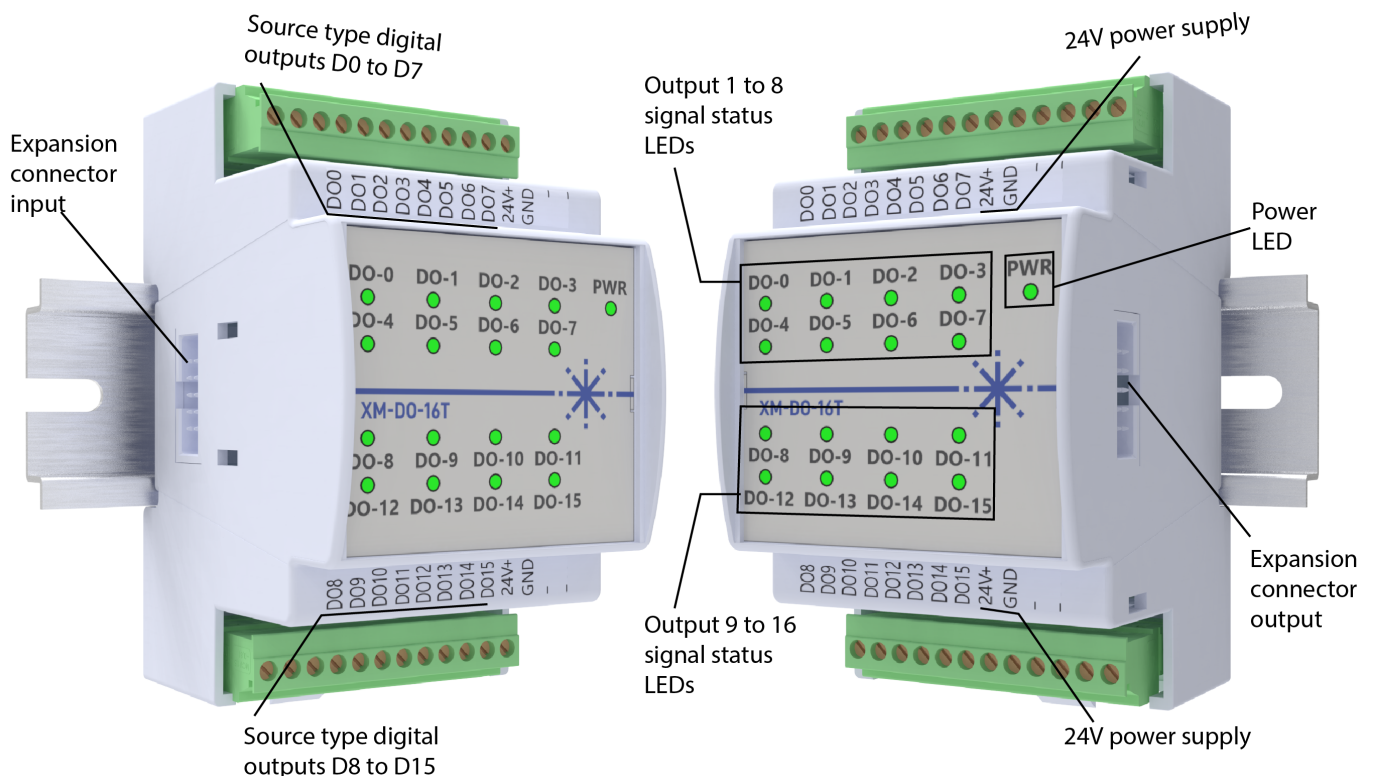
## Introduction

XM-DO-16T is a 16 channel Digital Output Expansion Module that adds extra digital outputs (DOs) to the XM14-DT or XM17-ADT Programmable Logic Controllers (PLCs).

## Features of XM-DO-16T

- Easy expansion by using a plug-in bus connection between the PLC and XM-DO-16T module.
- Easy fitment next to the PLC on the 35 mm DIN rail.
- Bus connection routed through an Expansion Connector that also offers protection for cable.
- 16 solid-state transistor source output to drive external relays.
- Power supply connection on top as well as bottom for convenience of connection.
- Convenient stacking of multiple expansion modules with connectors available on both sides of the XM-DO-16T unit.

## Front view



**Figure 1. XM-DO-16T Digital Output Expansion Module**

## Local expansion with XM-DO-16T unit

The following figure shows two Expansion Modules (such as the XM-DO-16T) attached to the XM14-DT PLC. Each Expansion Module connector contains a Flat Ribbon Cable (FRC) that connects the PLC with the expansion modules.

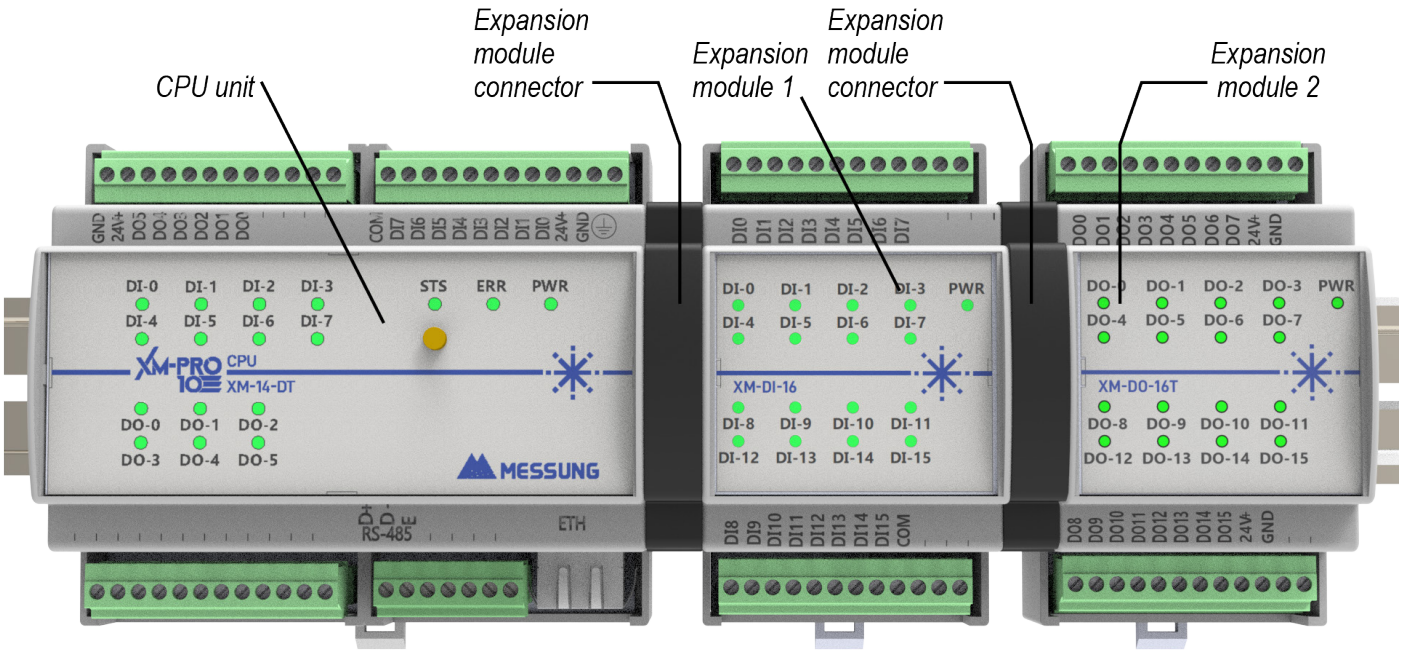


Figure 2. PLC CPU unit 2 expansion modules

**Connecting the Expansion Module**

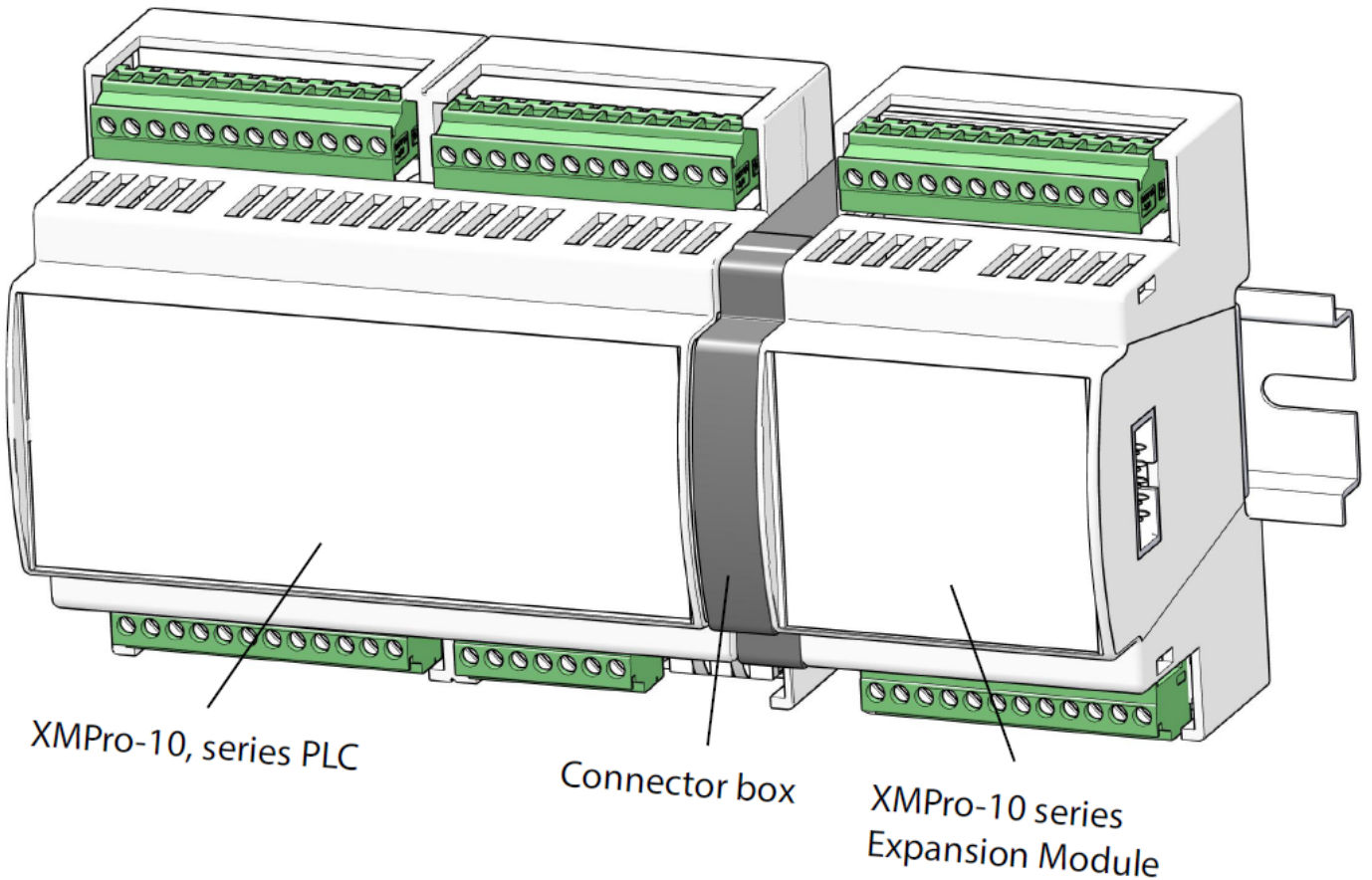
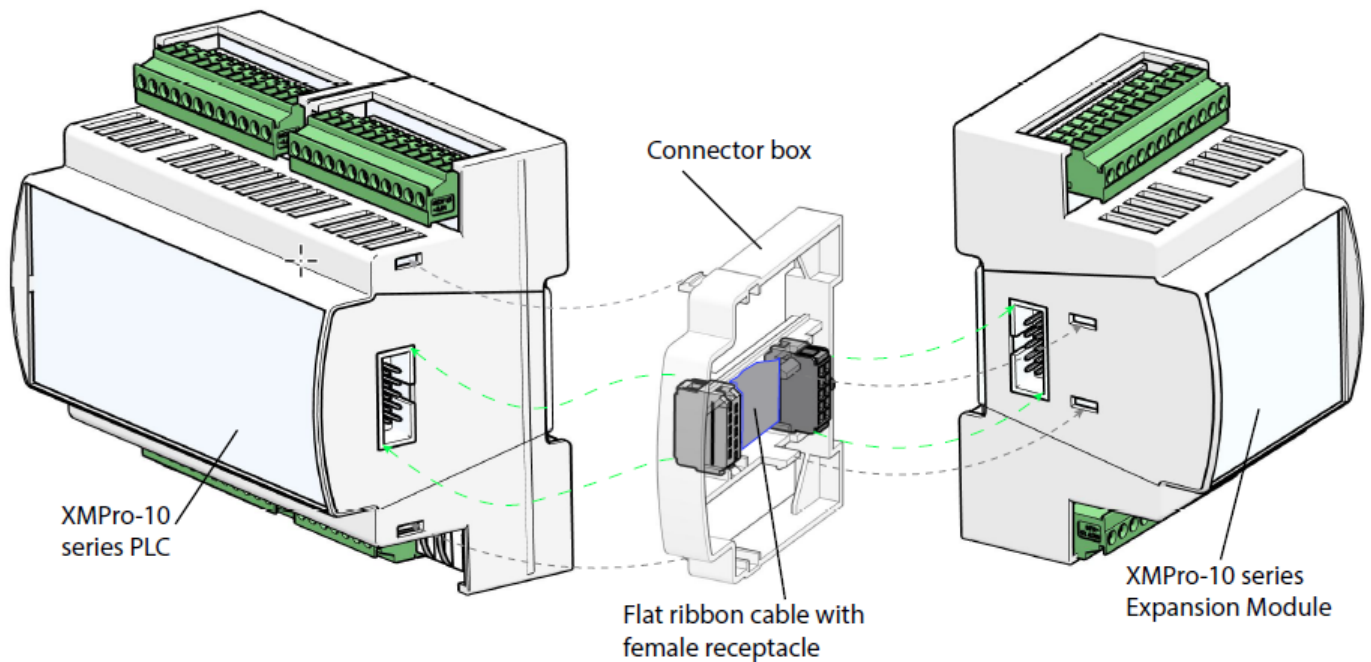


Figure 3. XMPro-10 series PLC and Expansion Module on a 35 mm DIN rail



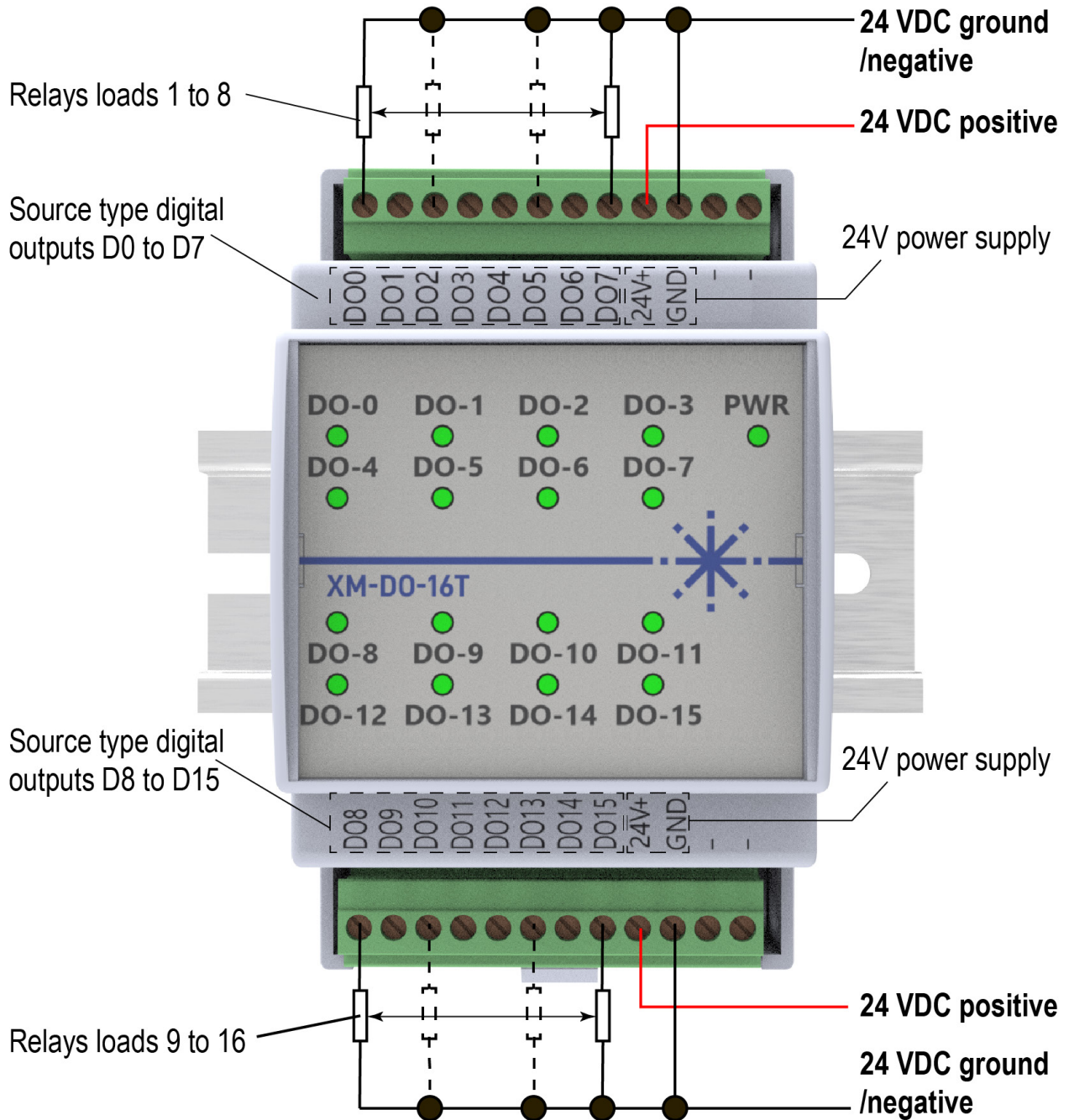
**Figure 4. Connecting the XMPro-10 series PLC and Expansion Module**

**Specifications**

<b>XM-DO-16T</b>	
Output type	Transistor Source Type
Number of outputs	16
External power supply	24V DC
Isolation	Optical
Maximum input power	720mW
Maximum output current	0.5A per channel
	2A per group
Switching frequency	250 Hz
Switching time	20 us for Off-to-On transition @ 24 Vdc
	500 us for On-to-Off transition @ 24 Vdc
Protection	Available against voltage surges
IP level	IP20
Operating temperature	0°C to 55°C
Storage temperature	-5°C to +55°C
Indication lamps	PWR LED (green) and OUTPUT State LEDs (green)
Operating & storage relative humidity	5 to 95% RH (no condensation)
Certifications	CE <sup>a</sup> , RoHS
Dimensions	54 mm (width) x 90 mm (height) x 62mm (depth)

<b>XM-DO-16T</b>	
Weight	125 grams
Maximum wire size	0.5 mm <sup>2</sup> with lugs
	1.5 mm <sup>2</sup> without lugs
	<sup>a</sup> In process

**Wiring diagram**



**Figure 5. Typical wiring diagram of XM-DO-16T Digital Expansion Module**

## Fitting and removal

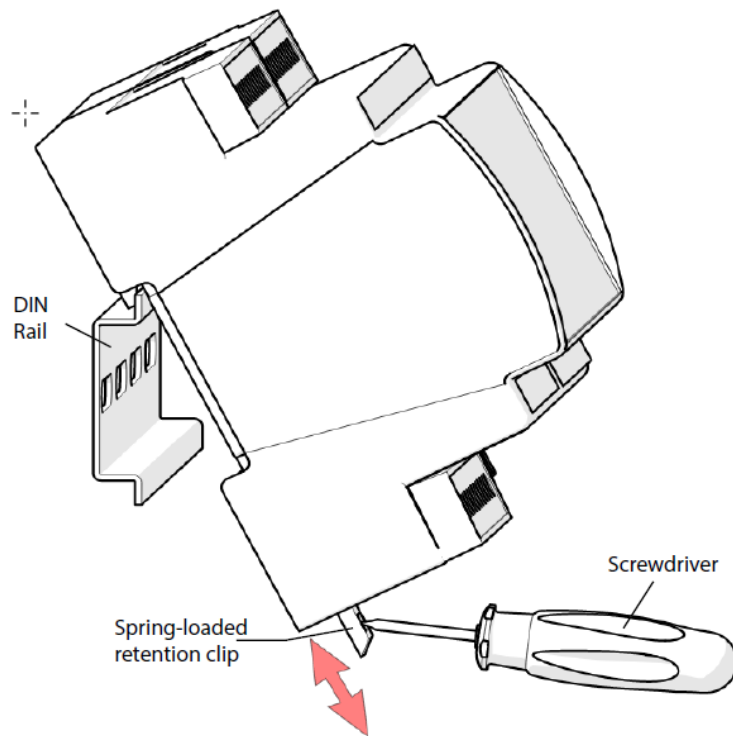


Figure 6. Engage the DIN rail and pull the retention clip

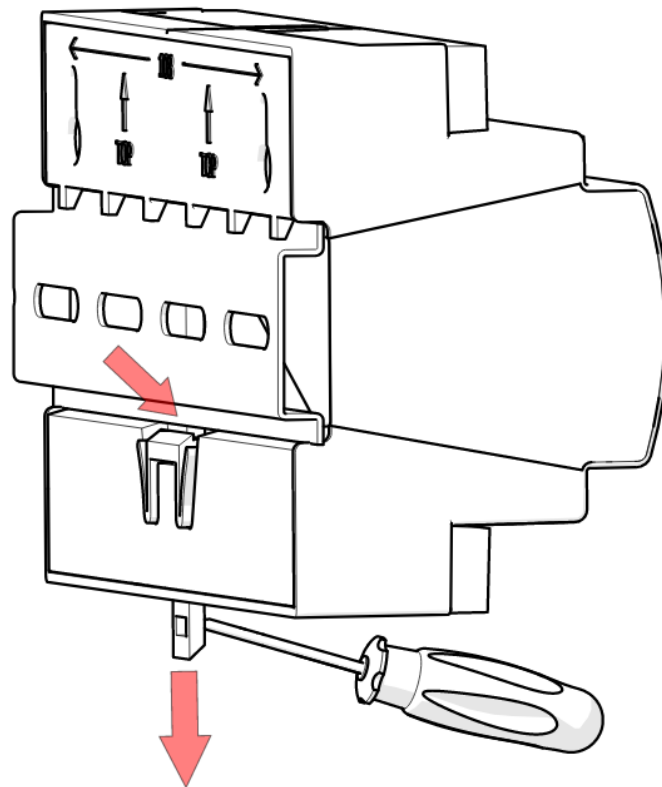
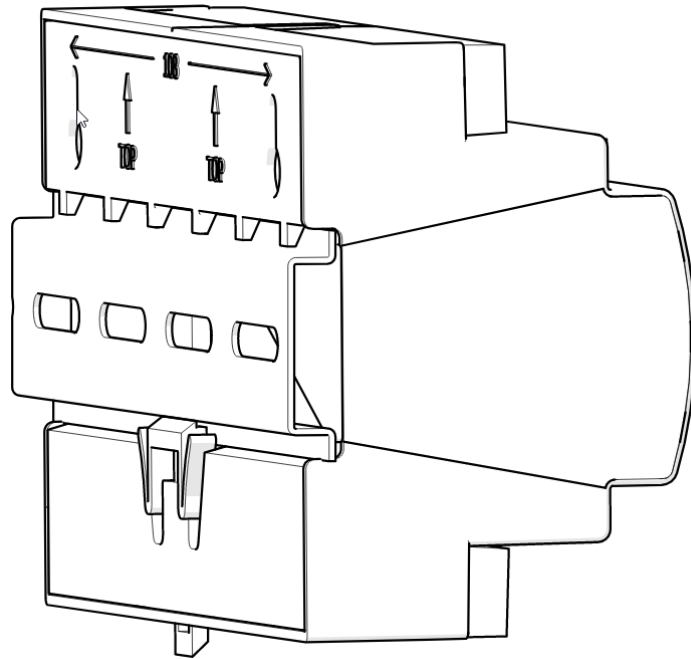


Figure 7. Pull down the spring-loaded retention clip using a flat-blade screwdriver








**Figure 8. Lock the XM-DO-16T unit on the DIN rail**

 XM-DO-16T unit series units fit on a 35 mm DIN rail channel.

1. Engage the slot at rear of unit to the upper edge of DIN rail. Refer Figure 6.
2. Pull down the spring-loaded retention clip using a flat-blade screwdriver.
3. Push the unit onto the DIN rail. Refer Figure 7.
4. Release the retention clip to lock the unit on the DIN rail. Refer Figure 8.
5. Reverse the procedure for removing the XM-DO-16T unit from the DIN rail.

### **Safety instructions**

-  Do install the unit only by qualified professionals, following all applicable laws and regulations.
-  Do not connect mains supply or any other external voltage to any terminal of the XmPro10 series unit.
-  Do ensure that the panel or box with the device is locked to prevent unauthorized access.
-  Do protect all electrical loads against overloads and short-circuits.
-  Do ensure adequate ventilation and protection from dripping water.