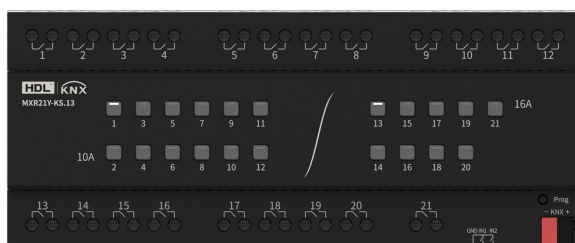


KNX 21CH Multi-Function Actuator

Datasheet



MXR21Y-KS.13



Please scan the QR code above to check the latest version of datasheet!

Before using this product, please read this datasheet carefully and
keep it properly!

Document Version: C

◆◆ Overview

KNX 21CH Multi-Function Actuator (Model: MXR21Y-KS.13) .An intelligent controller for building & office applications. Integrated with multi-channel outputs and multi-mode control, it centrally manages lighting, curtains, air conditioners, fresh air systems and other devices for various building automation scenarios.

Main Functions:

- Features 9 output channels rated at 16 A and 12 output channels rated at 10 A. It supports the control of lighting, curtains, air conditioning, floor heating and fresh air systems, enabling integrated management of most terminal loads for office building automation.
- Equipped with 2 passive dry contact inputs for emergency lighting linkage control.
- All 21 output channels support dynamic assignment and flexible parameter configuration via ETS software.
- Provides up to 21 switch functions. Each channel supports delay control, scene activation, threshold triggering, logical operation and forced control.
- Provides up to 8 curtain control functions. Each channel supports preset position adjustment, safety protection, scene linkage and forced control.
- Provides up to 5 air conditioning functions with selectable active and passive control modes.
- Provides up to 8 floor heating functions with selectable active and passive control modes.
- Provides up to 5 fresh air system control functions.
- Fully compliant with the KNX Secure standard for secure system communication.
- Supports OTA firmware upgrade for remote maintenance and functional optimization.

Note: Switch, curtain, air conditioning, floor heating and fresh air functions share the 21 output channel resources. The maximum number of configurable functions is constrained by available channel resources. Rational and optimized channel allocation is required during system configuration.

◆◆ Appearance

1. Product Dimensions

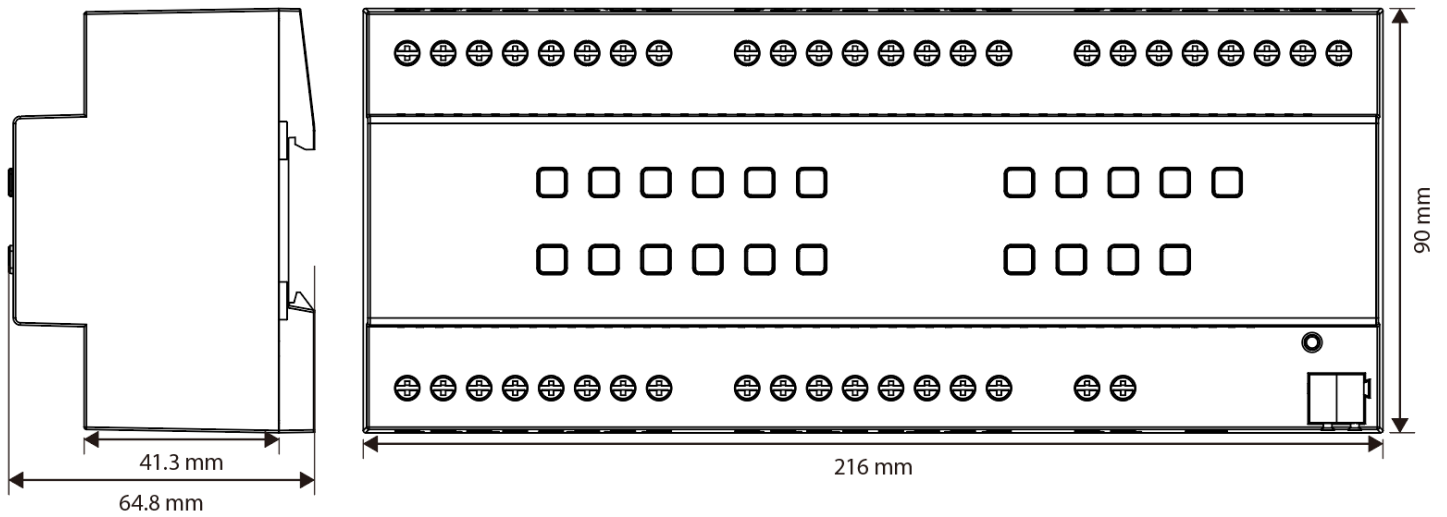


Figure 1

2. Port Information

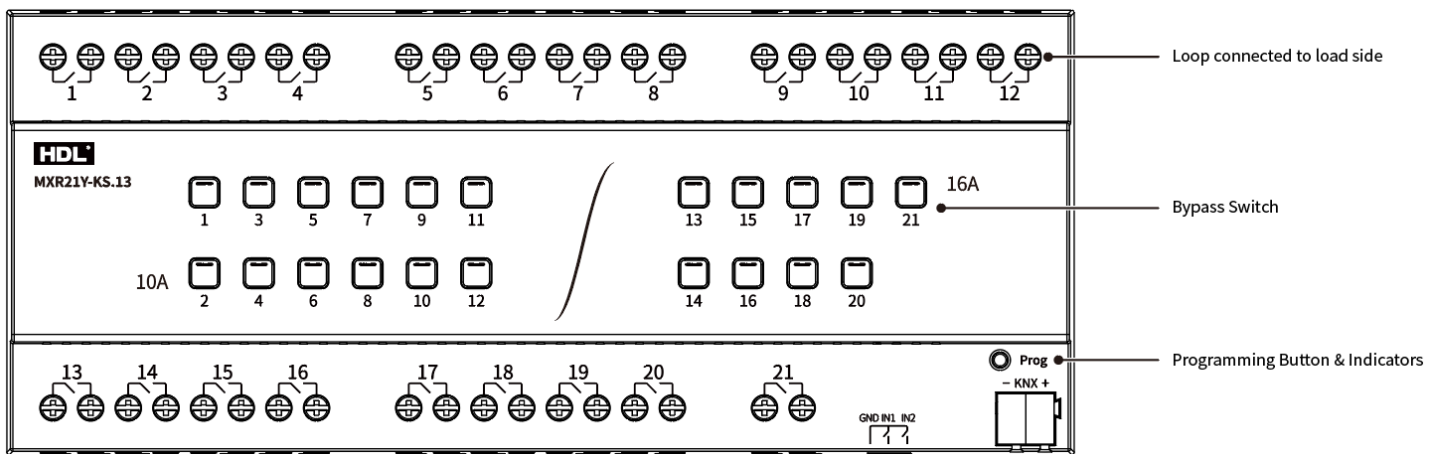


Figure 2

◆◆ Technical Data

Item	Parameter
Rated voltage	30V DC
Rated current	16mA/30V DC
Output voltage	100-240V~50/60Hz
Output channel	12 CH, 10 A per channel (CH1-12)
	9 CH, 16 A per channel (CH13-21)
Dry contact input	2CH
Communication protocol	KNX
Cable diameter of KNX terminal	0.6-0.8mm
Working temperature	-5°C~45°C
Working relative humidity	≤90%
Storage temperature	-20°C~60°C

Storage relative humidity	≤93%
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◆◆ Specifications

Item	Parameter
Dimensions (W X H X D)	216mm×90mm×64mm
Net weight	721.5g
Housing materia	PA 66
Installation	35mm DIN rail mounted
IP degree (compliant with EN 60529)	IP20

◆◆ Safety Precaution

Note:

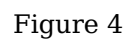
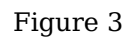
- Mounting: Electrical cabinet
- KNX bus-powered
- KNX certified device, configurable via ETS

Warming:

- The installation and testing for the product must be carried out by HDL Automation Co., Ltd. (hereinafter referred to as HDL) or its appointed service agencies. The electric construction shall comply with local laws and safety regulations.
- The device should be installed with DIN rail in DB box. HDL will not be responsible for any consequence caused by the inexperienced or faulty installation and wiring methods, which are not in accordance with the instructions contained in this datasheet.
- Please do not privately disassemble or replace any parts of the product. Otherwise, it may cause mechanical fault, electric shock, fire or personal injuries.
- Please contact HDL after-sales departments or our designated service agencies for your maintenance service. Product failures caused by private disassembly are not subject to the warranty.

◆◆ Wiring

(1) Switch Wiring Diagram



(3) DC Curtain Motor Wiring Diagram

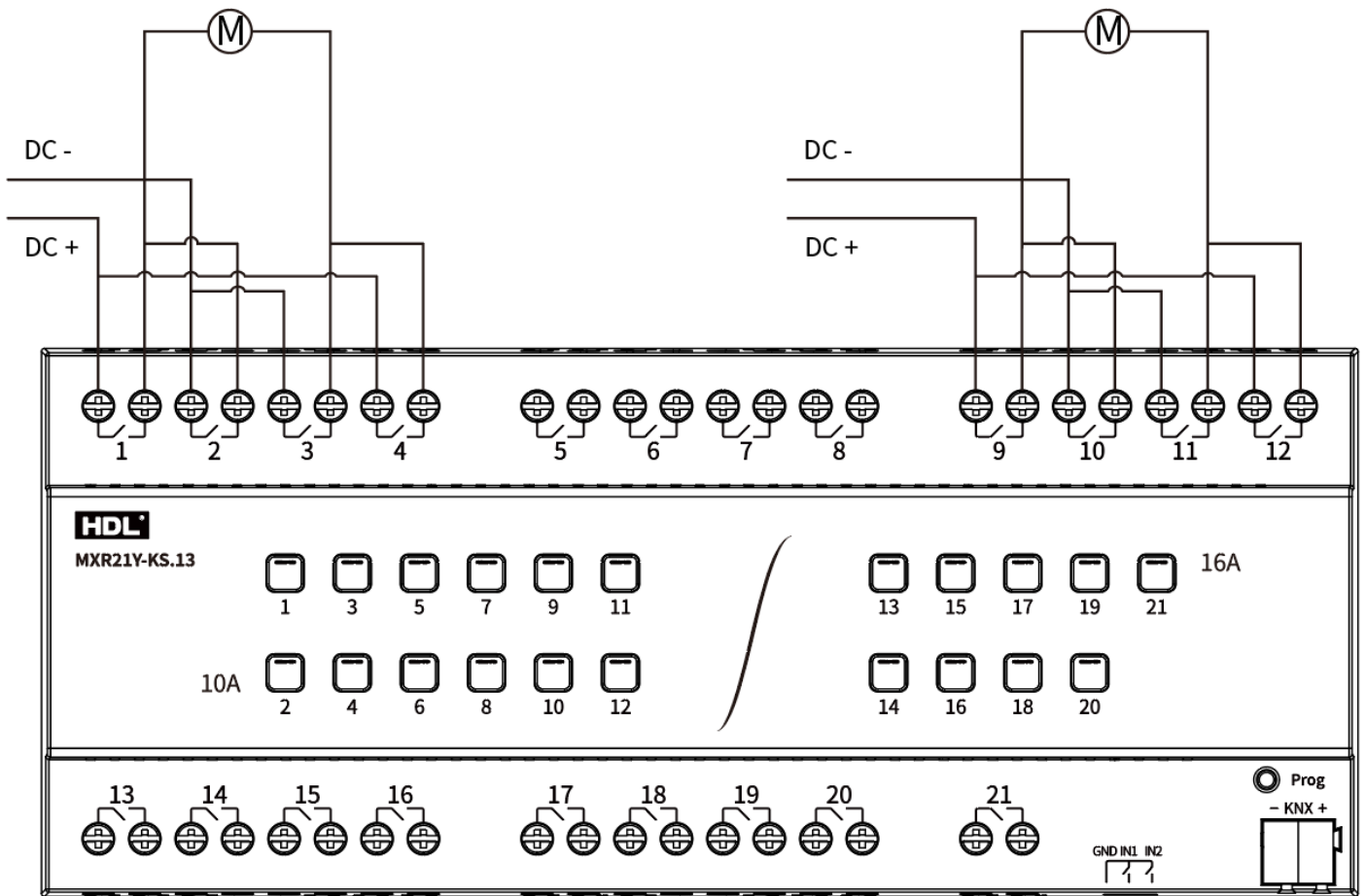


Figure 5

(4) 2-pipe / 4-pipe Air Conditioning Wiring Diagram

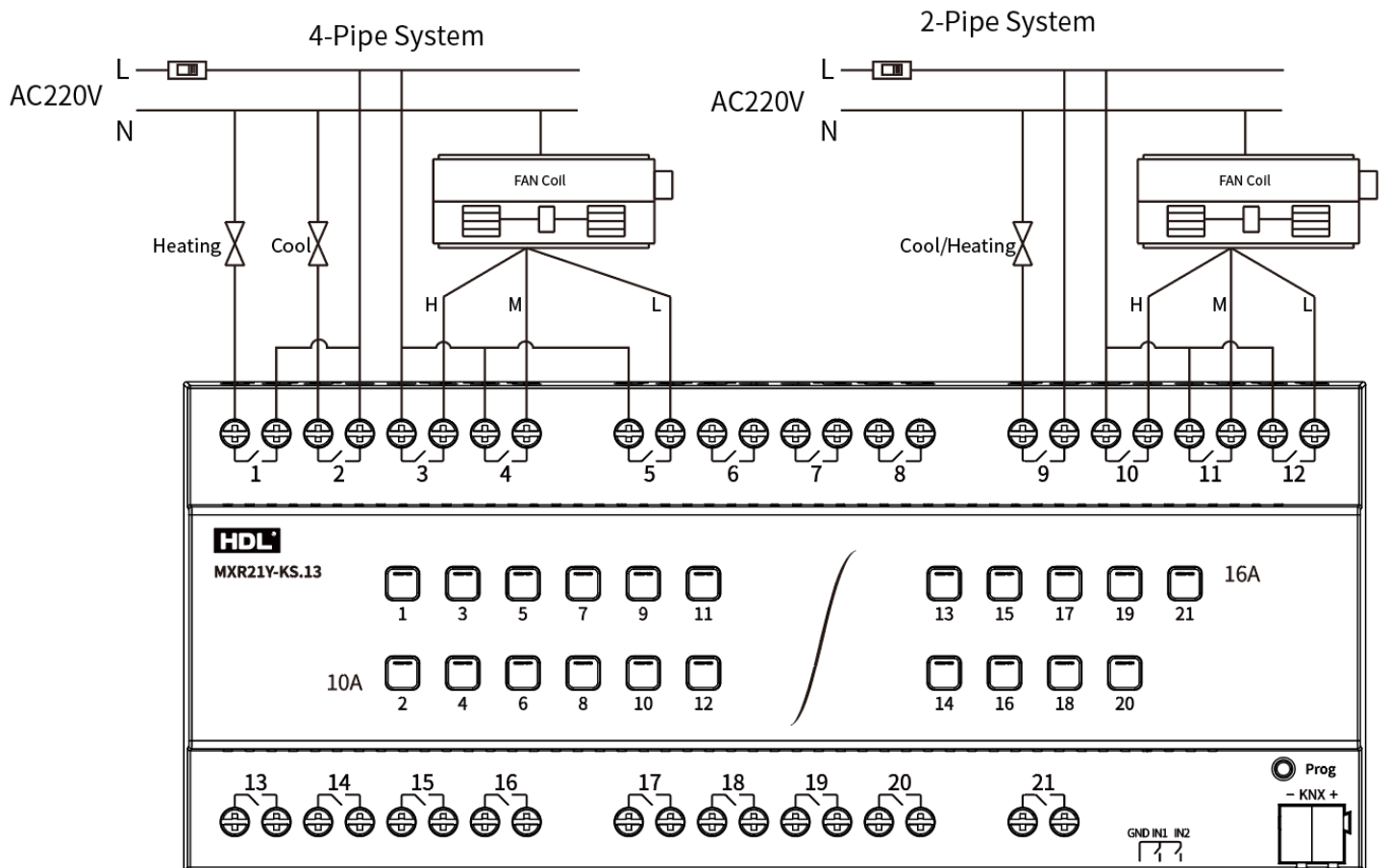


Figure 6

(5) Floor Heating Wiring Diagram

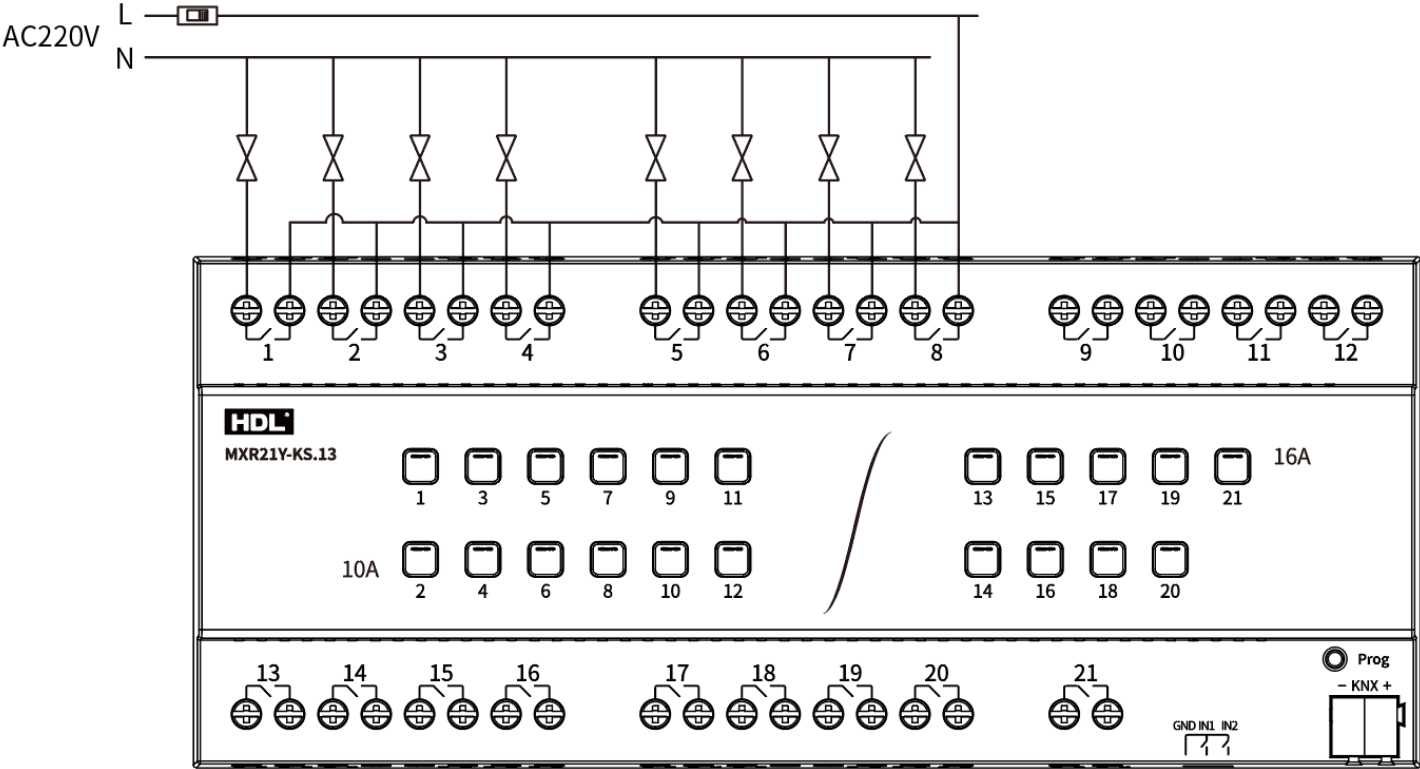


Figure 7

(6) Fresh Air System Wiring Diagram

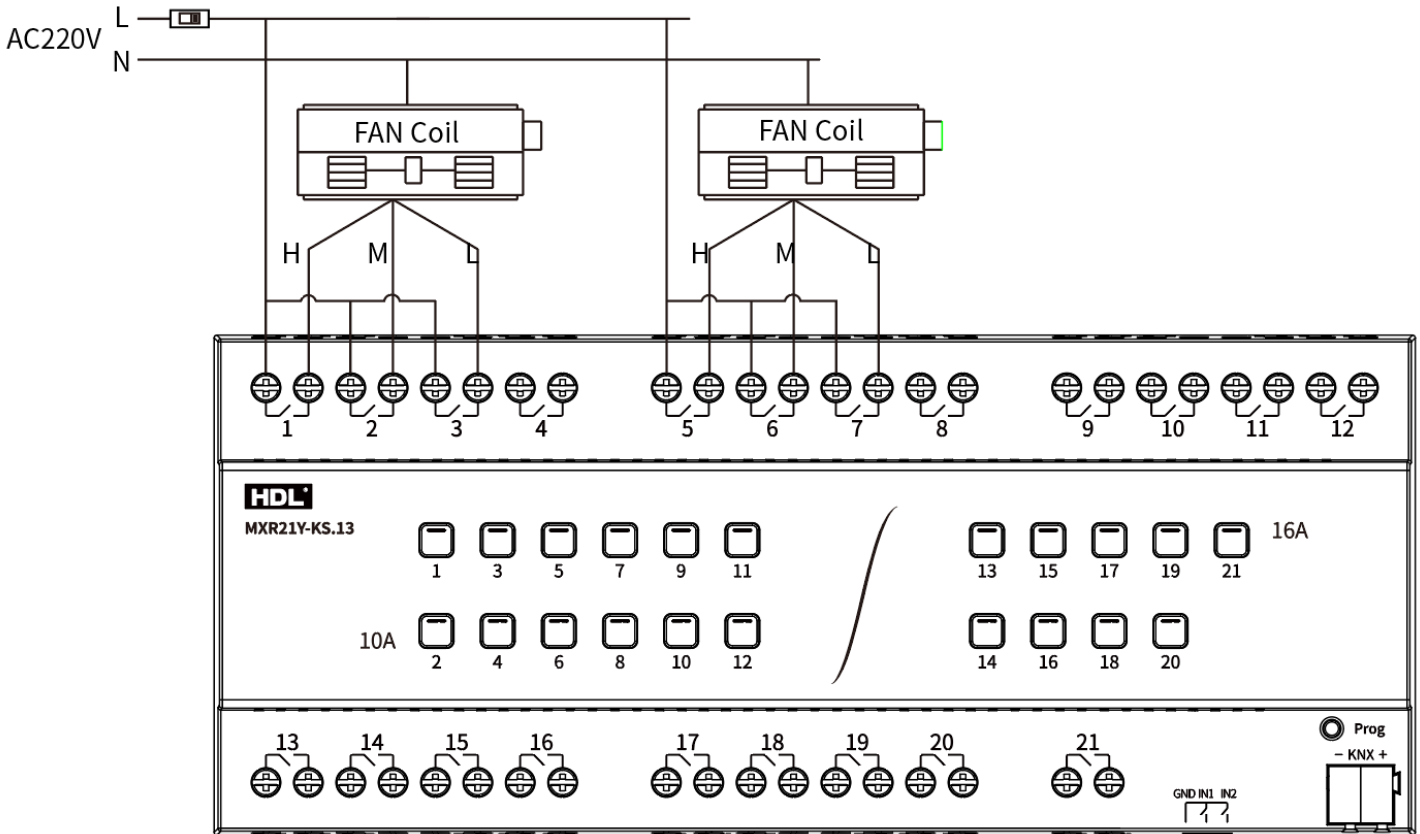


Figure 8

(7) Switch & Curtain Motor Combined Wiring Diagram

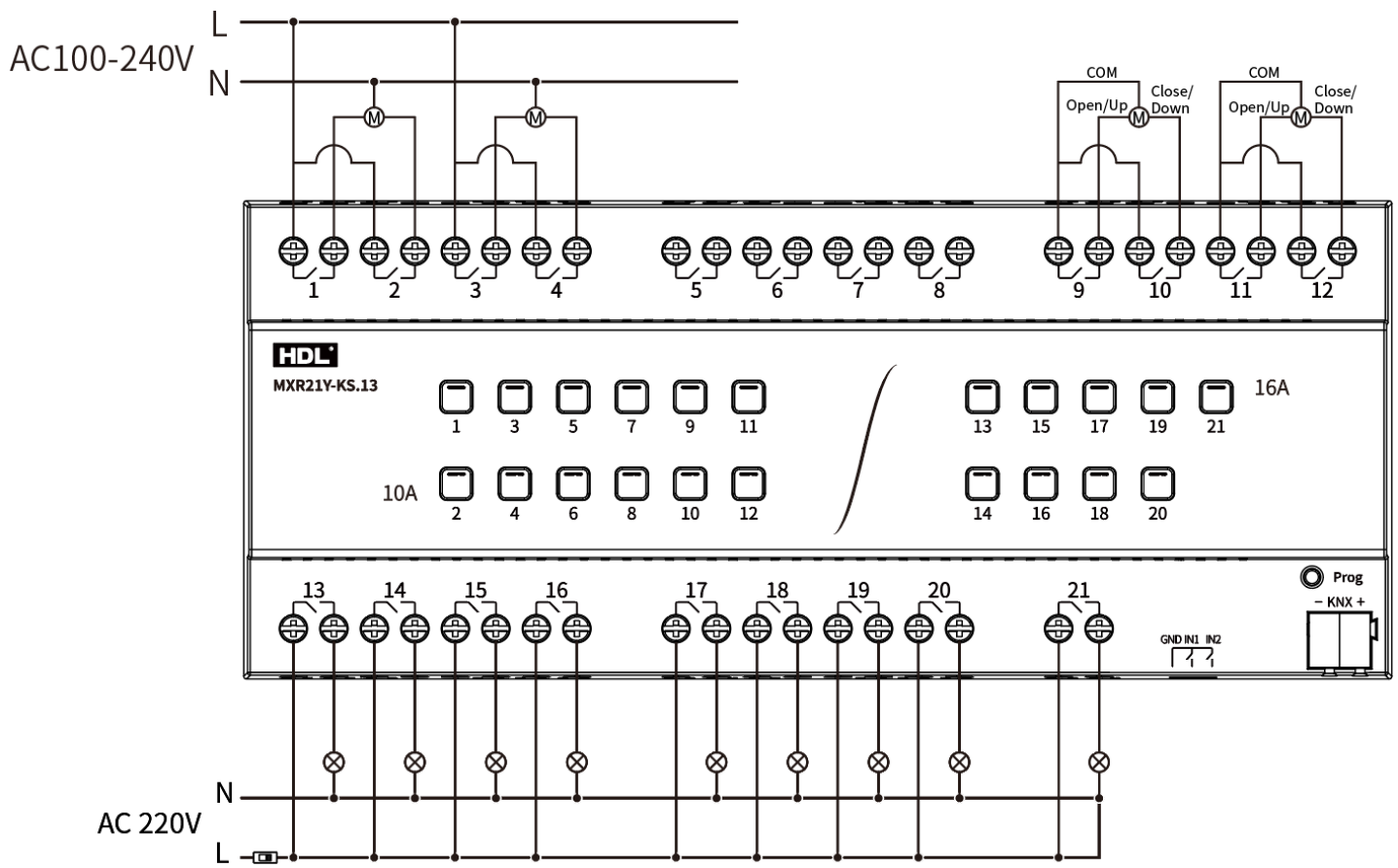


Figure 9

(8) Switch, Curtain Motor & Air Conditioning Combined Wiring Diagram

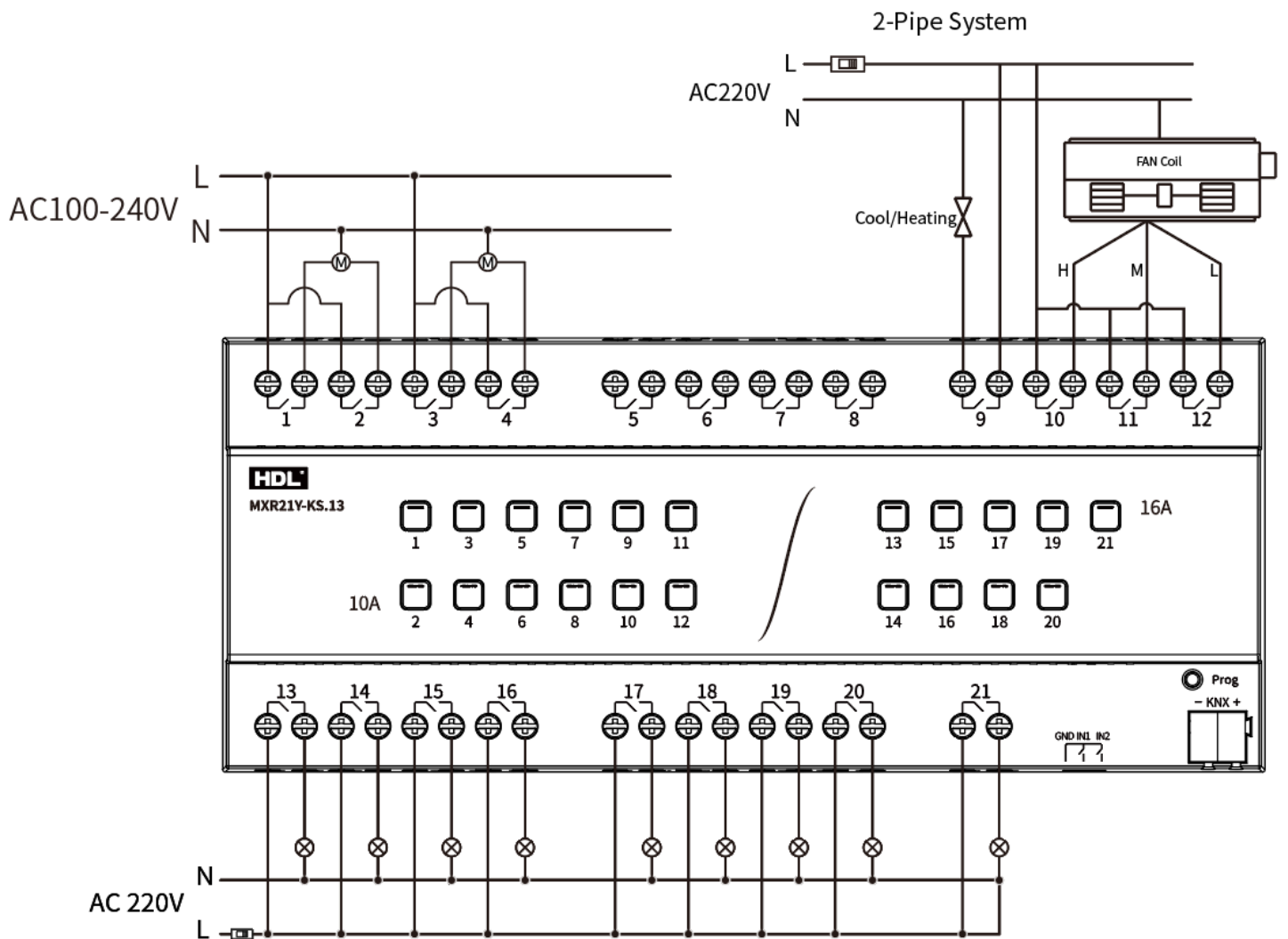


Figure 10

(9) Switch, Air Conditioning & Floor Heating Combined Wiring Diagram

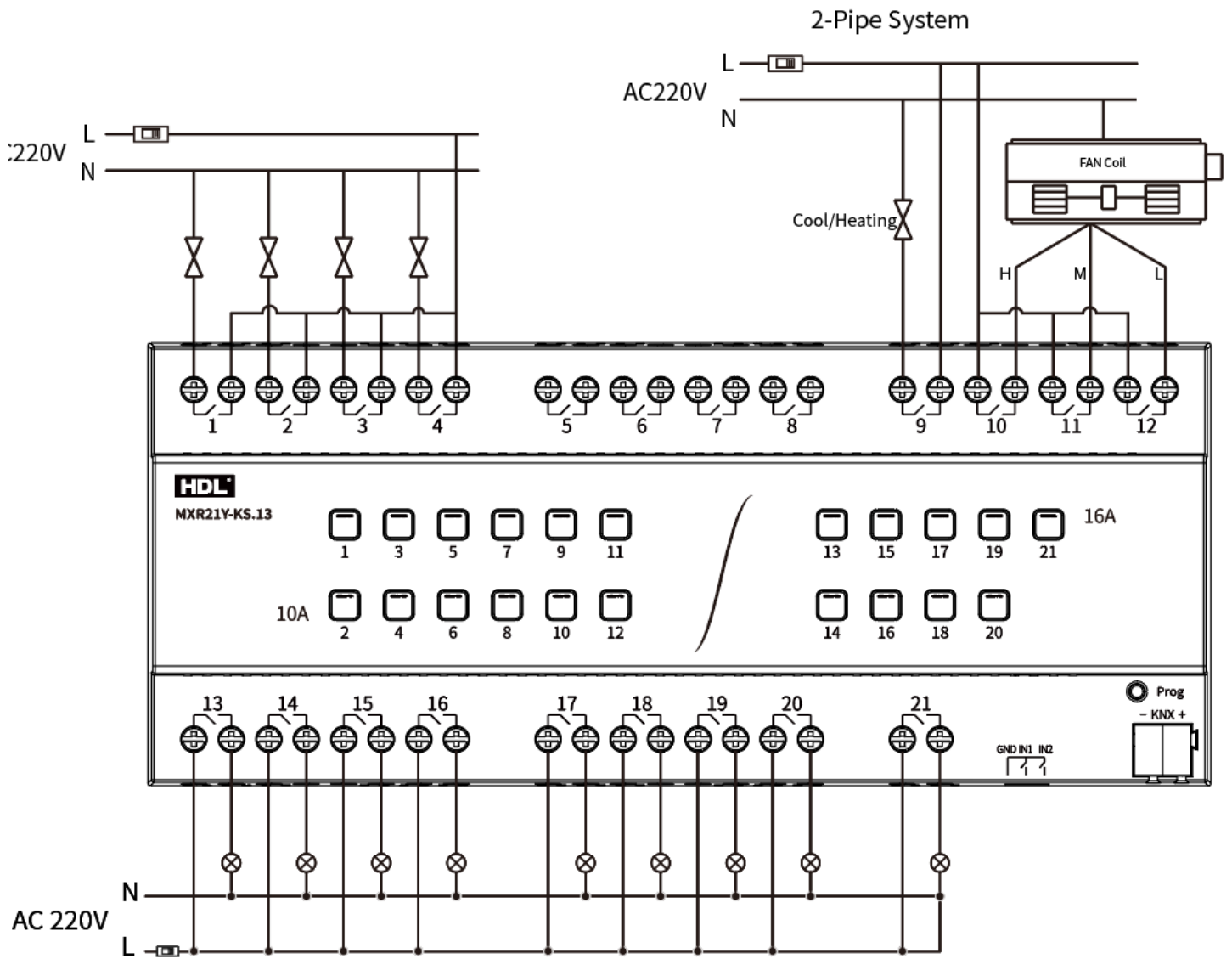


Figure 11

2. Cable Guide

KNX	KNX Cable
-	Black
+	Red

◆◆ Installation

Step 1. Fix the DIN rail with screws.

Step 2. Fasten the bottom buckle of KNX 21CH Multi-Function Actuator onto the DIN rail edge.

Step 3. Push the device onto the DIN rail and slide it to secure in place.

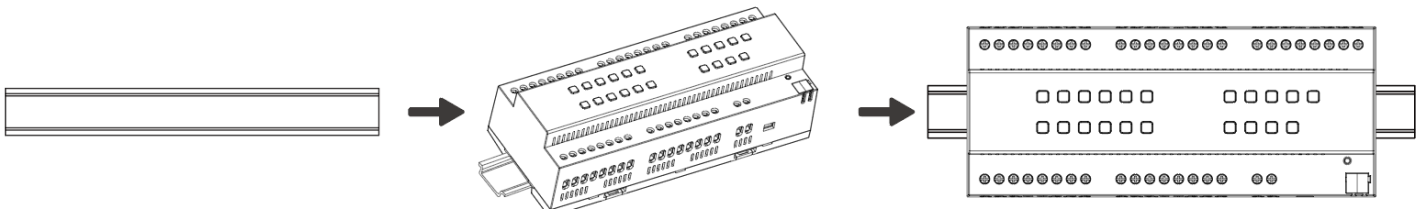


Figure 12

◆◆ Packing List

- KNX 21CH Multi-Function Actuator × 1
- labels × 2
- 2-channel dry contact signal line × 1

Note: After unpacking, please check if the product and the parts are complete.

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Update History

The form below contains the information of every update. The latest version contains all the updates of all former versions.

Version	Update Information	Date
V1.0	Initial release	October 10, 2026

◆◆ Technical Support

E-mail: hdltickets@hdlautomation.com

Website: <https://www.hdlautomation.com>