

I/O Modules DO-FA-12 and DO-FA-12-H

12 channel Form A digital output



Introduction

The DO-FA-12 and DO-FA-12-H are digital output 12 channel I/O modules.

The digital outputs support digital Form A point types. The Form A relays are designed for direct load applications.

Function

Modular and scalable system

The modules are part of a modular system that delivers power and communications on a common bus. Connecting modules is a one-step process: just slide the modules together using the built-in connectors.

Patented two-piece design

Each module can be separated from its terminal base to allow the site to be wired prior to the installation of the electronics. The patented locking mechanism serves as handles for removing the module from its base. All critical components have a protective cover that permits convection cooling to occur.

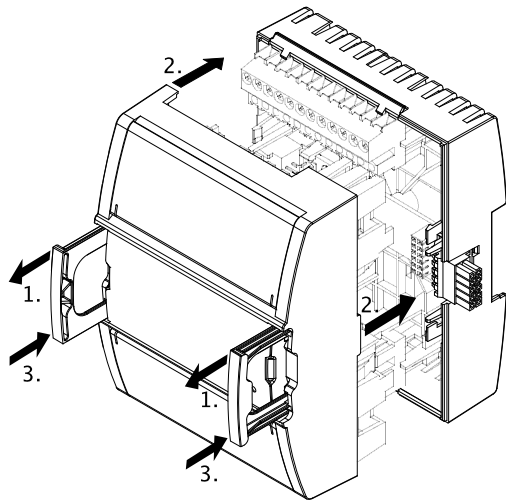


Figure: Two-piece design

Hot-connect and Hot-swap

Because critical applications require 24-hour operation, Schneider Electric designed the I/O modules for hot-connection of terminal bases and hot-swapping of the modules to their bases. This design ensures continuous power and communication during service operations.

Auto-addressing

The auto-addressing feature eliminates the need for setting DIP switches or pressing commission buttons. Each module automatically knows its order in the chain and assigns itself accordingly – significantly reducing engineering and maintenance time.

Simple DIN-rail installation

Fasteners easily snap into a locked position for panel installation. The fastener has a quick-release feature for easy DIN-rail removal.

Specifications

Electrical

DC input supply power	1.8 W
DC input supply voltage	24 VDC

Environment

Ambient temperature, operating	0 to 50 °C (32 to 122 °F)
Ambient temperature, storage	-20 to +70 °C (-4 to +158 °F)
Maximum humidity.....	95 % RH non-condensing

Material

Plastic rating.....	UL94-5VB
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Efficient terminal management

The I/O module terminals are clearly labeled and protected by transparent covers. The input and output terminals are at the top and bottom of each module and are accessible for maintenance without removing the module. The StruxureWare Building Operation WorkStation software can generate custom as-built labels for each module. Pre-perforated letter and A4 size label sheets are available as an accessory.

Accommodates multiple row panel installations

The SmartStruxure devices use built-in connectors for single row connectivity, side by side. If a panel size requires multiple rows, extension cords are available.

LED status indicators

The I/O module has a status indicator that denotes the health and status of the module.

Each digital output channel has a dedicated status indicator using a green LED.

Hand/Off/Auto switches

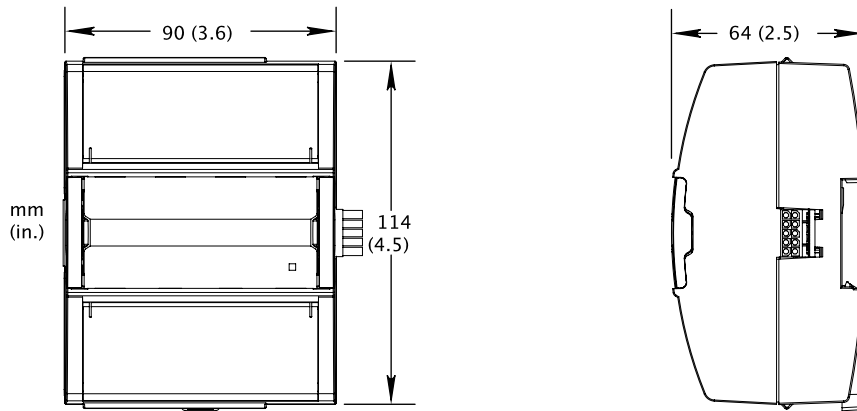
The front panel of the DO-FA-12-H includes Hand/Off/Auto (HOA) switches to provide override control of the digital outputs.

The position of the HOA switch is readable through user interfaces, such as the StruxureWare Building Operation WorkStation software, enabling more precise monitoring and control.

EnclosurePC/ABS
 Enclosure ratingIP 20

Mechanical

Dimensions including terminal base90 W x 114 H x 64 D mm (3.6 W x 4.5 H x 2.5 D in.)



Weight including terminal base0.317 kg (0.70 lb)
 Weight excluding terminal base0.194 kg (0.43 lb)
 Terminal baseTB-IO-W1

Agency compliances

EmissionRCM; EN 61000-6-3; FCC Part 15, Sub-part B, Class B
 ImmunityEN 61000-6-2
 SafetyEN 61010-1; UL 916 C-UL US Listed
 ProductEN 61326-1
 Smoke control product safetyUL 864

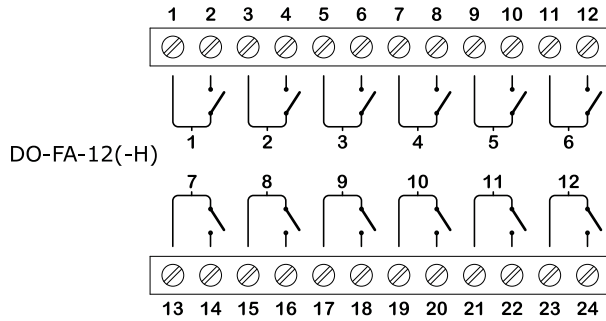
Part numbers

DO-FA-12, I/O module
 12 Form A digital outputsSXWDOA12X10001
 DO-FA-12-H, I/O module with HOA switches
 12 Form A digital outputs with Hand/Off/Auto override switchesSXWDOA12H10001
 TB-IO-W1, terminal base for I/O module
 (Required for each I/O module).....SXWTBIOW110001

Accessory part numbers

DIN-RAIL-CLIP, DIN-rail end clip
 package of 25 piecesSXWDINEND10001
 PRINTOUT-A4-W1, printout sheets for terminal labels
 A4 sheet size, 100 sheets, 18 labels per sheetSXWTERLBL10011
 PRINTOUT-LTR-W1, printout sheets for terminal labels
 Letter sheet size, 100 sheets, 16 labels per sheetSXWTERLBL10012
 S-CABLE-L, S-cable extension cord for the I/O bus, L shaped connectors
 1.5 m.....SXWSCABLE10002
 S-CABLE-L, S-cable extension cord for the I/O bus, L shaped connectors
 0.75 m.....SXWSCABLE10003

Digital outputs



Output channels	12
Contact rating	250 VAC/30 VDC, 2 A, Pilot Duty (Power Factor 0.35)
Switch type	Form A Relay
.....	Single Pole Single Throw
.....	Normally Open
Isolation contact to system ground	3000 VAC
Cycle life (Resistive load)	At least 100,000 cycles
Minimum pulse width	100 ms
LED polarity energized relay	On
LED polarity non-energized relay	Off
LED color	Green

For protection from excess current that could be produced by field wiring, see Hardware Reference Guide.

Regulatory Notices

FCC Federal Communications Commission
 FCC Rules and Regulations CFR 47, Part 15, Class B
 This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference. (2) This device must accept any interference received, including interference that may cause undesired operation.

Industry Canada
 This Class B digital apparatus complies with Canadian ICES-003.
 Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

Regulatory Compliance Mark (RCM) - Australian Communications and Media Authority (ACMA)
 This equipment complies with the requirements of the relevant ACMA standards made under the Radiocommunications Act 1992 and the Telecommunications Act 1997. These standards are referenced in notices made under section 182 of the Radiocommunications Act and 407 of the Telecommunications Act.

CE - Compliance to European Union (EU)
 2014/30/EU Electromagnetic Compatibility Directive
 2014/35/EU Low Voltage Directive
 2011/65/EU Restriction of Hazardous Substances (RoHS) Directive
 This equipment complies with the rules, of the Official Journal of the European Union, for governing the Self Declaration of the CE Marking for the European Union as specified in the above directive(s) per the provisions of the following standards: EN 61326-1 Product Standard, EN 61010-1 Safety Standard.

WEEE - Directive of the European Union (EU)
 This equipment and its packaging carry the waste of electrical and electronic equipment (WEEE) label, in compliance with European Union (EU) Directive 2012/19/EU, governing the disposal and recycling of electrical and electronic equipment in the European community.

UL LISTED UL 916 Listed products for the United States and Canada, Open Class Energy Management Equipment. UL file E80146.

UL LISTED UL 864 Listed products for the United States. 10th Edition Smoke Control System. UL file S5527.