

DIN-Rail 16-Channel Digital Input Module

Isolated 16-channel digital input module for seamless integration with SmartAPEX DIN-rail modules or MINI-IP via CAN-BUS. Ideal for sensors, dry contacts and

APX-DI16-BA

Isolated Inputs

CAN-BUS Ready



16

Input channels

Isolated

Channel design

CAN-BUS

Network

12~24VDC

Input trigger level

INSTALLATION-READY HIGHLIGHTS

16 isolated channels

Helps reduce interference and improves reliable field signal

Per-channel indicators

Each input channel includes a front LED indicator for easier monitoring.

External trigger supply

Supports digital input operation using external 12~24VDC trigger wiring.

CAN-BUS integration

Works with SmartAPEX DIN-rail modules and MINI-IP through CAN-BUS.

Dry contact support

Suitable for contact-based signals such as switches, relays and sensor outputs.

Compact DIN-rail form

Designed for cabinet installation with front access and simple wiring.

APPLICATIONS

Motion sensors

Magnetic contacts

Dry contacts

Alarm/status

PRODUCT OVERVIEW

Signal collection for smart panels and industrial automation.

The APX-DI16-BA collects dry-contact and digital input signals, reports them over CAN-BUS and integrates easily with SmartAPEX controllers and distributed cabinet systems.

Distributed input expansion

Add 16 field input points to SmartAPEX DIN-rail systems with one compact module.

Contact input focus

Designed for contact-style monitoring, including open/close status collection from sensors and outputs.

Status visibility

Front LED indication supports channel-level visual checking during commissioning and service.

Industrial fit

Suitable for building automation, security/status monitoring and utility signal collection.

External trigger ready

Designed to work with external 12–24VDC trigger methods as shown in the application schematic.

SmartAPEX ecosystem

Integrates with SmartAPEX DIN-rail modules and MINI-IP through CAN-BUS.

APPLICATION MAP

Typical usage scenarios.

Motion & occupancy sensors

Collect contact outputs or compatible digital status signals from motion and occupancy devices.

Door / window contacts

Monitor magnetic contacts and status contacts for security or automation logic.

Panel / equipment status

Read dry-contact status from third-party devices, relays, breakers or alarm outputs.

General automation inputs

Use as a distributed contact-input interface for cabinet and field automation tasks.

Use case summary Distributed contact monitoring, sensor signal collection and field-status input expansion for SmartAPEX cabinet systems.

SPECIFICATIONS

Technical product specifications.

Key electrical and environmental characteristics extracted from the supplied product information.

Parameter	Specification
Model number	APX-DI16-BA
Product category	DIN-Rail 16-channel digital input module
Power requirement	110 ~ 220VAC
Power consumption	<3W
Control communication	CAN-BUS
Input channels	16 isolated input channels
Supported input type	Contact input (short or open between Ix, x=1~16, and COM / +12V pin according to wiring method).
Inputs operation method	Digital input (0 / +12~24VDC)
External trigger supply	Requires 12~24VDC external power supply to trigger inputs from sensors or contact output devices.
Operational temperature	-10 to 60 °C
Humidity	5% to 95% non-condensing
Weight	0.4 kg
Mechanical dimensions	Approx. 88 mm × 98 mm (based on supplied drawing).

Specification note

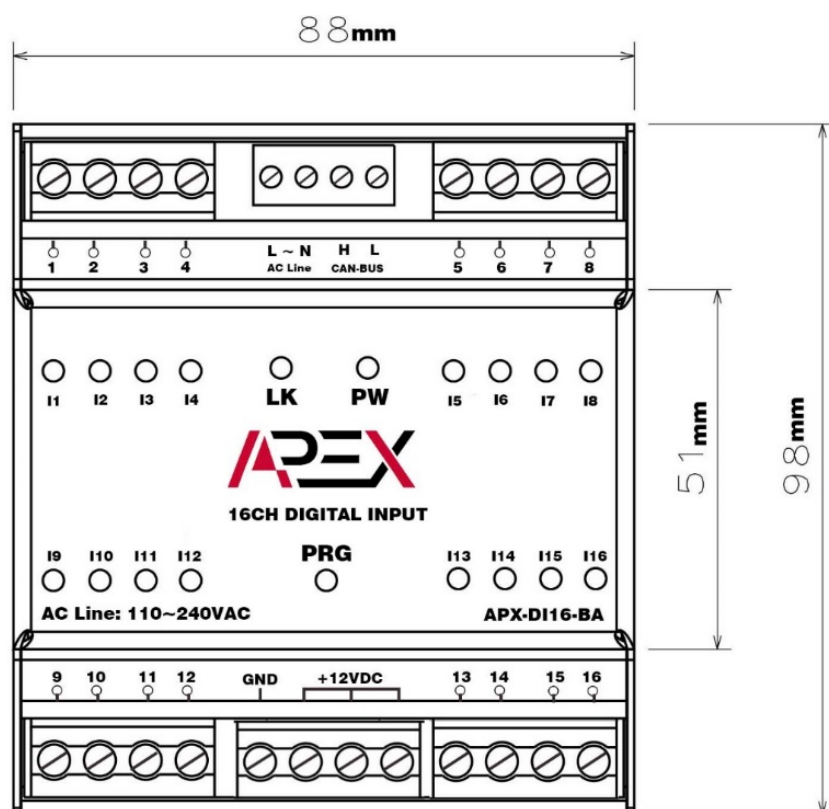
The module is intended for digital input / contact monitoring applications rather than power switching.

Input wiring method, external trigger source and common reference should follow the supplied connection concept and project electrical design.

Use appropriate isolation, protection and installation practices according to the site electrical standard.

MECHANICAL OVERVIEW

Front panel and physical layout.



Top terminal zone

Upper terminal blocks provide the first input group plus AC line and CAN-BUS connection

Front indicators

Front channel LEDs provide visual input status indication. LK and PW indicators

PRG button

Front PRG push button is provided for service / product functions according to

Bottom terminal zone

Lower terminal blocks provide additional input channels together with GND and

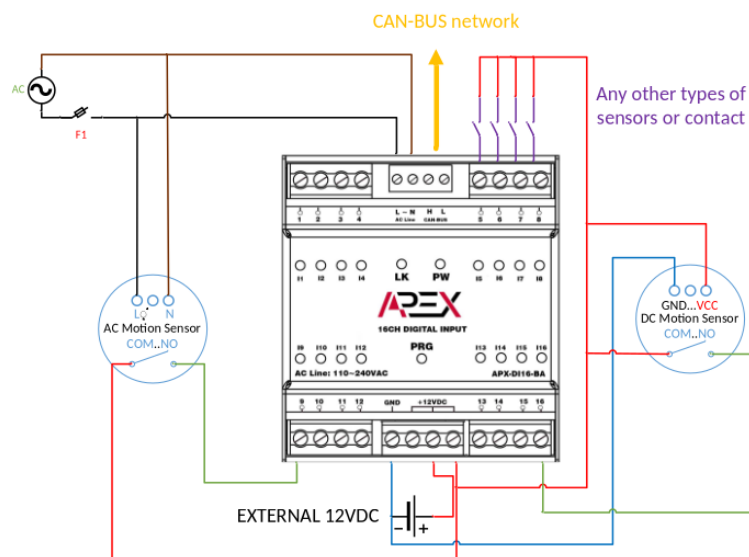
Dimensions

The supplied drawing indicates an overall size close to 88 mm width and 98 mm

SAMPLE SCHEMATIC

Reference wiring concept.

The supplied file included a sample schematic showing CAN-BUS connection, AC supply and external 12VDC trigger wiring for sensor / contact use.



AC power

The sample schematic shows the module powered from AC line input.

CAN-BUS network

The module exchanges data with the SmartAPEX network using CAN-BUS.

External 12VDC

An external 12VDC source is used in the sample concept for input triggering / sensor

Sensor examples

The schematic shows AC motion sensor and DC motion sensor examples, plus a general note

Project note

Always validate polarity, common reference and sensor output type before final field

INTEGRATION AND APPLICATION NOTES

How to position the module in a project.

The APX-DI16-BA is best used as a distributed field input collection module inside the SmartAPEX ecosystem.

System integration

Connect the module to compatible SmartAPEX DIN-rail modules or MINI-IP using CAN-BUS. Use it as a remote contact-input expansion point for automation logic, monitoring or supervisory workflows.

Typical input sources

Dry contacts, magnetic contacts, motion sensor outputs, equipment alarm outputs, relay feedback contacts and other open/close status signals can be connected when their electrical behavior matches the supported wiring method.

Installation notes

Use proper terminal tightening, cable labeling, common reference management and electrical protection according

Commissioning notes

Verify input LED response channel by channel. Confirm CAN-BUS communication and upstream controller recognition during

Document scope

This manual is a product-facing summary created from the supplied file and product photo set. Project-specific

SmartAPEX

DIN-Rail digital input module for SmartAPEX automation systems. For the final project package, mechanical drawings, wiring rules and controller-side integration details can be expanded further if needed.