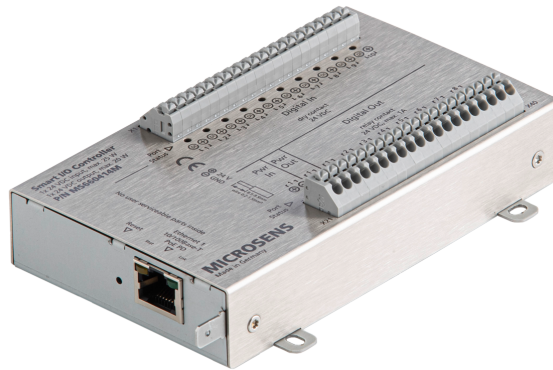


Data Sheet

Smart I/O Controller Digital



Description

The MICROSENS Smart I/O Controller Digital is designed for the acquisition of sensor signals as well as for the control and monitoring of automation actuators. Typical areas of application are the intelligent control and automation of electrical devices and actuators for building automation.

Multiple sensors are managed via the MICROSENS Smart Director app running on a MICROSENS G6 device. The sensor data is transmitted via the network from the Smart I/O Controller Digital to the Smart Director App, which in turn sends control data to the s output ports.

The Smart I/O Controller Digital provides inputs and outputs for digital signals.

As a member of the MICROSENS Smart Building Solutions family, the Smart I/O Controller Digital is an IP network device that is supplied with Power-over-Ethernet voltage (PoE+) via the IT network.

Features

- 10x digital input and 8x digital output ports
- 1x 24 VDC power output for sensor / actor supply
- MQTT integrated (publish & subscribe)
- Bivalent power input via PoE+ (PD) or external 24 VDC input
- Firmware interface to MICROSENS Smart Director App
- LEDs for input / output monitoring
- 1x Fast Ethernet network interface

Technical Specifications

Device Interfaces

Type

- for Digital Signals

Digital Input Ports

- 10x, opto coupler, max. 24mA @ 24 VDC

Digital Output Ports

- 8x, relay 24 VDC / VAC, max. 60W combined maximum current: 1A

Input / Output Connectors

- 2x 20 pin push clamp;
- wire diameter 0.1..1.5 mm²,
- stranded/solid

Power output

- 1x 24 VDC, maximum load: 20 W

Ethernet Uplink port

- 1x 10/100Base-T, RJ-45, PoE (PD)

Reset button

- Short press (approx. 2 sec) = Reset
- Long press (approx. >2 sec) = Update mode;
- if no update file is received within 20 seconds device starts normally

Standards

IEEE 802.3i/u, IEEE 802.3at (PoE+ (PD))

EMC Directive: 2014/35/EU

RoHS Directive: 2011/65/EU

REACH: 1907/2006/EC

EMC Emission: EN 55032

EMC Immunity: EN 55024

Network Management

Network Management

- IPv6

Display

1x LED per digital port, green; 1x LED per power port, green

Digital In

ON: input contact closed, OFF: input open

Digital Out

ON: output active (OC pulls low), OFF: output inactive

Power In

ON: external powered, OFF: PoE (PD) powered

Power Out

ON: power output active, OFF: power output inactive

Bivalent Power Supply

24 VDC (external) / 54 VDC PoE PD (via Network)

Internal consumption

- up to 1.2 W (external) / up to 3.2 W (PoE)

Environmental Conditions

Operating Temperature

- 0 to +50°C

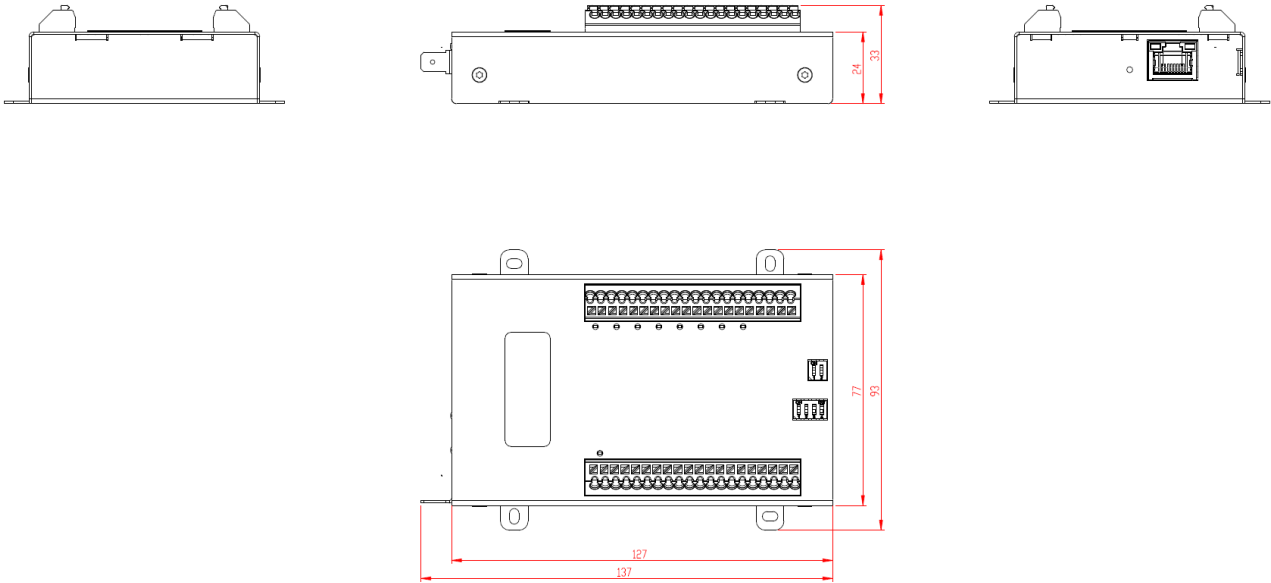
Storage Temperature

- -20 to +85°C

Operation Humidity

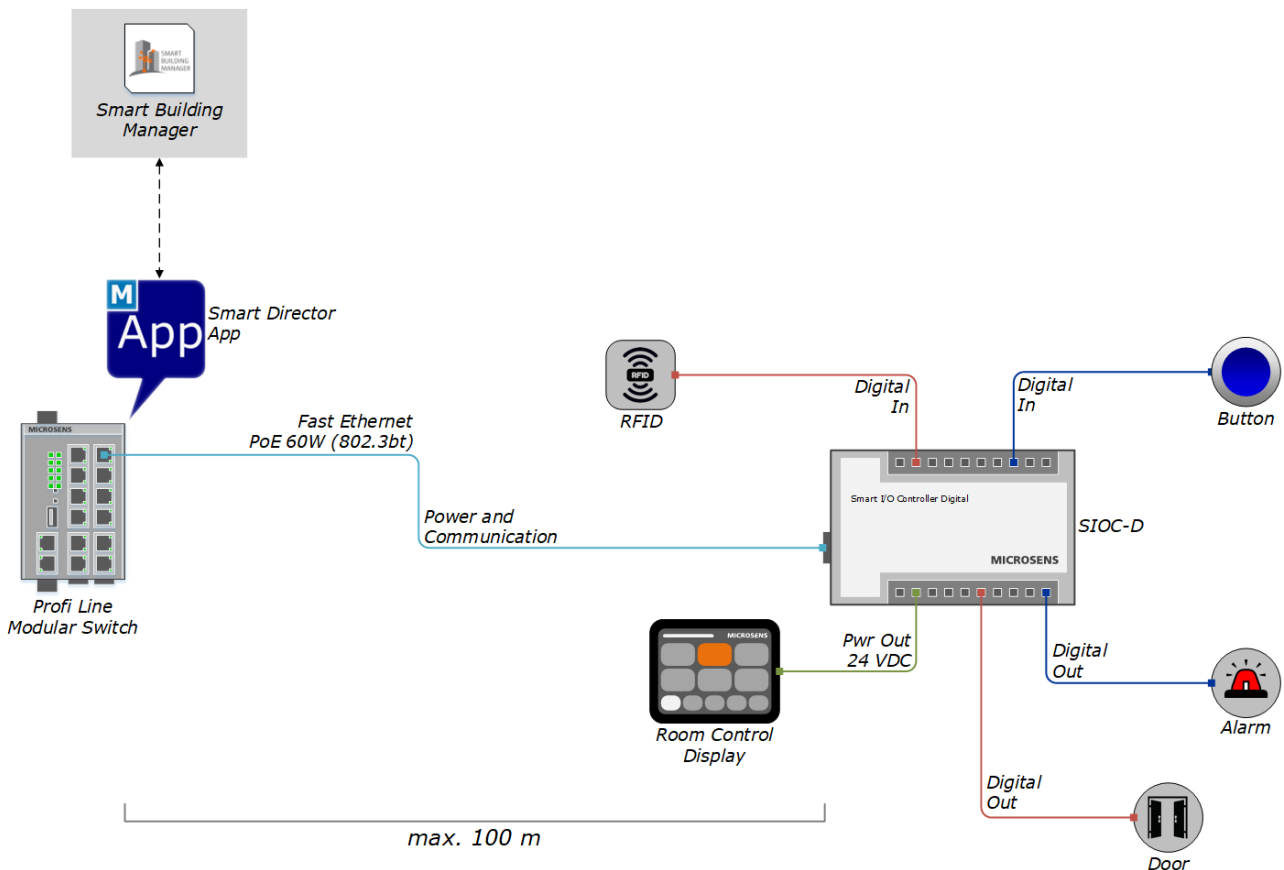
- 10 to 85% (non-condensing)

Dimensions (mm)



Application

The following diagram provides users with an overview of the SDIOC's potential applications. It is intended to demonstrate a variety of options for integrating and utilizing the SDIOC in different configurations. Please keep in mind that the events and gadgets presented are examples intended to inspire and guide users as they learn about this device. They should not be interpreted as an exhaustive list of compatible devices or the sole relevant use cases.

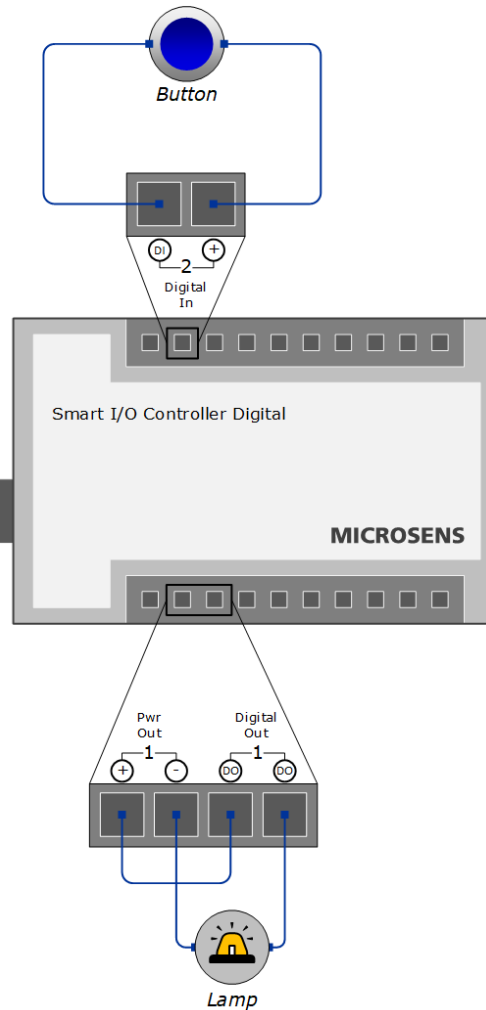




Before integrating or utilizing any third-party devices (i.e., devices not made by MICROSENS) with our product, users must refer to and review the documentation of the said device provided by the manufacturer.

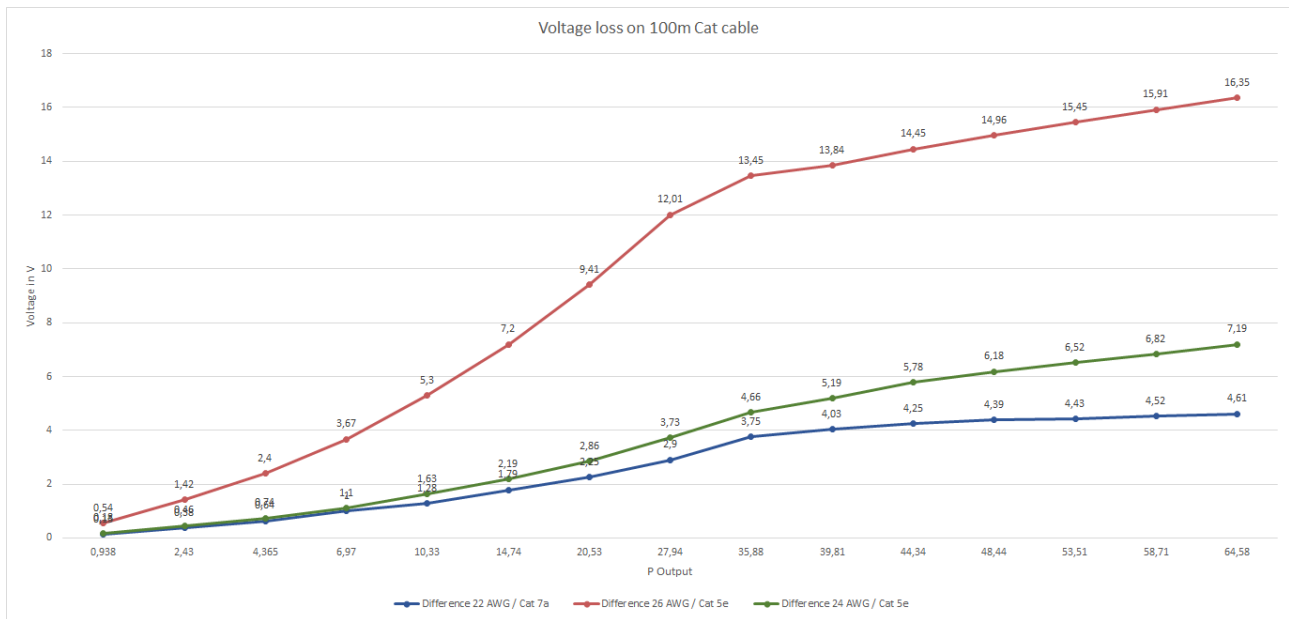
PIN Connections

The following diagram is designed to provide broad guidance on the use of the SDIOC's ports. It seeks to provide users with an overview of connections and configurations. This illustration is not exhaustive and should not be understood as being only confined to the external devices displayed.



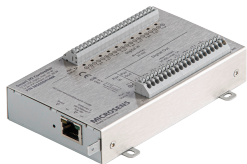
Before integrating or utilizing any third-party devices (i.e., devices not made by MICROSENS) with our product, users must refer to and review the documentation of the said device provided by the manufacturer.

Line Losses



When thinner cables are used over longer distances, higher levels of loss are observed.

Ordering Information



Description

for Digital Signals

10x input, 8x output, 1x 24 VDC power out,
1x 10/100Base-T, RJ-45, 1x PoE+ (PD), 1x 24 VDC
in

Article-No.

MS660414M

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