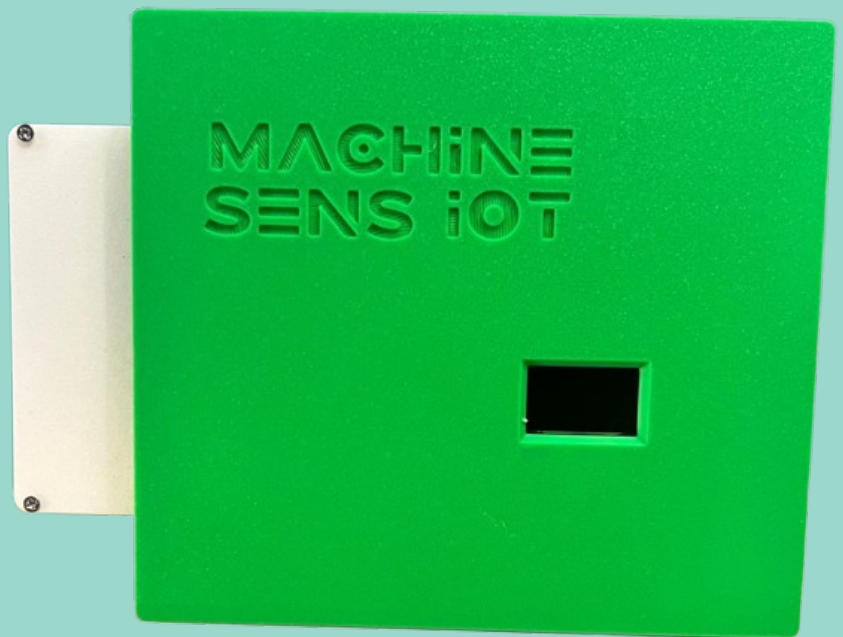# IO Connect.

Multi-purpose Controller

Advanced I/O & Relay controller for a wide range of automation and wireless IoT applications

Product Overview

MachineSens IoT® **IO Connect** is the next generation multipurpose I/O and relay controller designed to streamline your automation needs. From industrial settings to smart building applications, **IO Connect** offers unparalleled versatility and reliability.

IO Connect empowers you to effortlessly manage a wide range of devices and systems and seamlessly integrate with sensors, actuators, switches, motors, pumps, ventilation fans, and more, while leveraging its robust relay functionality for precise control over your operations. Its modular design and expandable I/O channels offer flexibility and customization options.

IO Connect can be mounted either on a DIN rail with a DIN rail housing or directly mounted in an IP Rated Control panel board.

This device can be configured to support numerous industry standard protocols such as BACnet™, Modbus TCP (RS 485), TCP/IP etc and wireless communication through LoRaWAN® and Wi-fi.

Product Features

Customizable I/O & Relay module configuration

Wireless data transmission Option through LoRaWAN®, and/or WIFI

Secure operation with top-down encryption (Wireless models)

Supports control of both AC & DC powered devices

Suitable for Centralized Control and Monitoring of broad range of devices & system

Integration with Building Management System (BMS) and Industrial Automation systems

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Control Board Specifications

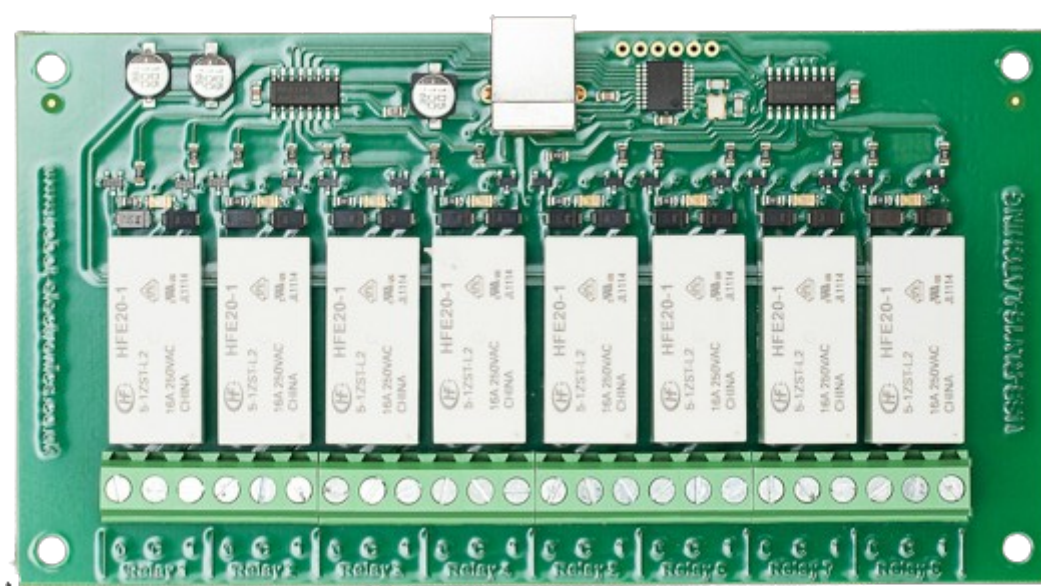| Technical	
Number of I/O Ports	18/30
Analog Input	4 Channels / 8 Channels
	0-10VDC
Industrial Current Sensor	4 – 20mA Range
	4 Channels
Digital Inputs (Fully Isolated)	4 Channel / 8 Channels
	5KV Isolation
	3.3-24VDC logic level supported
Relay Output	4 Channels / 8 Channels
	Dry contact support (5A-250VAC)
	NO Type output
USB Interface	Standard Micro USB port
Serial communication	UART Active for Data communication and monitoring
Input Power	230V AC / 5V DC (1000mA)
Reset Option	Onboard Reset available
Wireless Communication (Optional)	LoRa/LoRaWAN
	863-868 Mhz
	Full OTTA (Supported for Uplink and Downlink)
	Default Uplink active interval (60 sec).
Device Class	Class A
Wi-Fi	2.4 Ghz with WPS Security
Operating Temperature	-20°C to + 65°C
Relative Humidity	0% to 85% RH (non-condensing)
Mounting Options	Direct inside IP65 Panel or DIN Rail Housing
Dimensions	129mm X 107mm

Extensible Relay Board Specifications

The extensible relay board supports extending the **IO Connect** multipurpose controller's standard 4 Channel/8 Channel relay outputs additional relay outputs based on customized project requirements offering scalability.

Relay board can be provided with 5A,10A & 16A current rating based on the relay output connected load.

Technical	
Operating Temperature	-40°C to + 70°C
Contact Arrangement	1A, 1B, 1C
Contact Resistance	50 mOhms (at 1A 24VDC)
Max. Switching Voltage	240V
Max. Switching Current	5A, 10A and 16A

Certifications	
Regulatory	CE
Environmental	RoHS