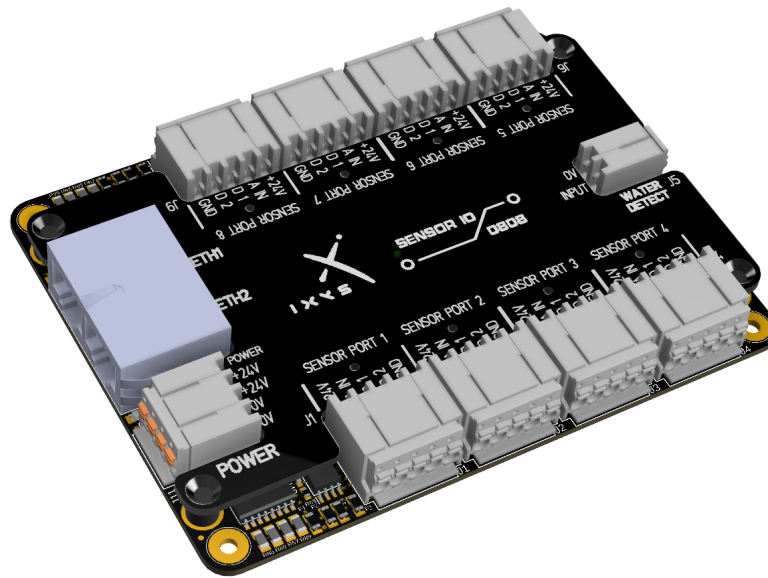# SPECIFICATIONS

PCB SENSOR IO

Description

The Sensor IO is a standalone board designed for controlling and reading a wide range of sensors.

It features 8 individual sensor ports; Each sensor port provides:

- One analog input (4–20 mA)
- Two digital inputs with on/off values and pulse counters for encoders or flow meters
- 24 V DC Supply

The digital inputs can be configured as either NPN or PNP types, with full flexibility available through the integrated web interface.

Each port can be disabled, and when disabled it is galvanically isolated from the rest of the board which enables isolation of ground faults.

Features

- 8 high resolution analog 4-20 mA ports
- 8 ports with dual digital inputs, configurable as NPN or PNP
- Ports are galvanically isolated from the board when disabled
- Dual ethernet ports with built in switch
- Modbus UDP/TCP Protocol
- Web server for easy configuration
- LED Indicators for diagnostics
- Compact design
- Pressure Tolerant
- Water Detect

SPECIFICATIONS

PCB SENSOR IO

General Technical Specifications

Type		PCB Sensor IO
Dimensions	mm	120x90x16
Weight	g	~150
Temperature Operational (ambient)	°C	-20 to +70
Temperature Storage	°C	-20 to +70

Electrical

Supply Voltage	V DC	24 (10-30)
Power Consumption	W	~1.5 (Without sensors)

Communication

Ethernet	Mbps	10/100

Sensor Port Performance

24 V Current Sourcing per port	A	0.1-0.2 (Ambient temperature dependent)
Analog Input Resolution	bit	16
Digital Input Counter Frequency	kHz	0-2

Ordering Part Numbers

Description	Part Number
PCB Sensor IO	121273

Accessories

Connector 5-way (Wago 2091-1125)	117390
Connector 4-way (Wago 2091-1124)	112073
Connector 2-way (Wago 2091-1122)	114568
Connector RJ45 Shielded	101393
Connector RJ45	121379

SPECIFICATIONS

PCB SENSOR IO

GND — GND Internal

+24V OUT — +24V Internal

4-20mA IN — 4-20mA Loop Protector

120R

GND

+24V OUT

DIG IN 1/2

PNP

NPN

GND

Board diagram

ETH 1

J10

ETH 2

1: +24V
2: +24V
3: GND
4: GND

J11

90

80

110

120

16

J9 Sensor Port 8
5: GND
4: DIG IN 2
3: DIG IN 1
2: 4-20mA IN
1: +24V OUT

J8 Sensor Port 7
5: GND
4: DIG IN 2
3: DIG IN 1
2: 4-20mA IN
1: +24V OUT

J7 Sensor Port 6
5: GND
4: DIG IN 2
3: DIG IN 1
2: 4-20mA IN
1: +24V OUT

J6 Sensor Port 5
5: GND
4: DIG IN 2
3: DIG IN 1
2: 4-20mA IN
1: +24V OUT

LED Port Active

LED Port Active

LED Port Active

LED Port Active

J5
1: GND
2: WATER DETECT

LED Port Active

LED Port Active

LED Port Active

LED Port Active

J1 Sensor Port 1
1: +24V OUT
2: 4-20mA IN
3: DIG IN 1
4: DIG IN 2
5: GND

J2 Sensor Port 2
1: +24V OUT
2: 4-20mA IN
3: DIG IN 1
4: DIG IN 2
5: GND

J3 Sensor Port 3
1: +24V OUT
2: 4-20mA IN
3: DIG IN 1
4: DIG IN 2
5: GND

J4 Sensor Port 4
1: +24V OUT
2: 4-20mA IN
3: DIG IN 1
4: DIG IN 2
5: GND