Data Sheet
Smart I/O Controller

Best.nr: 20103960

Description

The MICROSENS Smart I/O Controller is designed to both collect sensor signals as well to drive and control automation actors. Typical areas of application are intelligent control and automation of electrical devices and actors for building automation.

Multiple Smart I/O Controllers are managed by the MICROSENS Smart Director App which is running on a MICROSENS G6 device. The sensor data are transferred via the network from the Smart I/O Controller to the Smart Director App which again sends control data to the Smart I/O Controllers output ports.

The Smart I/O Controller is available with input and output ports for digital and analogue signals.

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

Features

- 4x analogue input and 2x analogue output ports
- 4x digital input and 2x digital output ports
- 2x PT100 / PT1000-compatible input ports
- MQTT integrated (publish & subscribe)
- 0 to 10 VDC / 0 to 20 mA input ports
- Dual 24 VDC power output for sensor / actor supply
- Bivalent power input via PoE+ (PD) or external 24 VDC input
- Firmware interface to MICROSENS Smart Director App

Technical Specifications

Type	**Smart I/O Controller for Digital and Analogue Signals**
Device Interfaces	
- Analogue Input Ports	4x, 0..10 V / 0..20 mA 2x, PT100 / PT1000-compatible sensor ports
- Digital Input Ports	4x, opto coupler, max. 24 V
- Analogue Output Ports	2x, 0..10 V, combined maximum current: 0,1A
- Digital Output Ports	2x, PWM (max 100 Hz), open collector 24 V combined maximum current: 1A
- Input / Output Connectors	2x 20 pin push clamp; wire diameter 0.1..1.5 mm², stranded/solid
- Power output	2x 24 VDC, combined 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
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
Configuration	DIP Switches
- PT100/1000 select	1x per *Temperature In port* ON: PT100, OFF: PT1000
- Analog In select	1x per *Analog In port* ON: current mode (0-20mA), OFF: voltage mode (0-10V)
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
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)
Operating Temperature	0 to +50°C
Storage Temperature	-20 to +85°C
Operation Humidity	10 to 85 % (non-condensing)
Dimensions (L x W x H)	Housing body: 127 x 76 x 24 mm Overall incl. clamps and mounting tabs: 137 x 92 x 34 mm
Weight	approx. 500 g

Ordering Information

Description	Art.-No.
Smart I/O Controller	
Smart I/O Controller for Digital and Analogue Signals 10x input, 4x output, 2x 24 VDC power out, 1x 10/100Base-T, RJ-45, 1x PoE+ (PD), 1x 24 VDC in	20103960