HARTING MICA® for Profinet

Pushing Performance

People | Power | Partnership

MICA® for Profinet brings the award-winning HARTING Modular Industry Computing Architecture to the automation world. With one or several MICA® as I/O Devices in the control loop data you can read, and process data directly at the machine and forward relevant information to MES and ERP systems. Because of the open software architecture a plethora of modern open source tools like C, C++, Java, Python, node.js, Node-RED, R and many more are available for programming and data processing.

Technical Characteristics



System Performance

- 1 GHz ARM Processor
- 1 GB RAM
- 4 GB eMMC
- Up to 128GB Flash (via Micro SD Card)

Profinet Specific Properties

- Profinet I/O Device with process map freely defined by software
- 2x M12 Profinet ports
- Based on proven HMS CompactCom NP40 Technology
- Up to 32767 ADIs
- Up to 1440 bytes of I/O data in each direction
- RESTful, JSON and C APIs for simple customization of process maps and creation of own applications
- Simple access to process data
- Computing power to perform complex data analysis
- 4GB eMMC and up to 128GB SDHC for data storage
- Application development with Open Source Tools like Python, node.js, node-red, R, and more.
- Choice of protocols for data transfer to higher-level systems including MQTT and OPC-UA

Power Supply

- Power over Ethernet (PoE)
- 24 V DC (± 5 %) / 500 mA

Diagnostic Display (LED)

- LEDs to display operating state
- LEDs to display connection status

Operating System

- Linux

Constructive Assembly

- Enclosure material: Aluminum, powder coated
- Front and back panel: Anodized aluminum
- Measurements (w x h x d) 132 x 86 x 35 mm + plug
- Installation on DIN rail or wall with installation kits

Environmental Conditions

- Protection class IP67
- Operating temperature -20 °C ... +60 °C
- Storage temperature -25 °C ... +85 °C
- Relative humidity 5 % ... 95 % (non-condensing)
- Vibration
  - EN 60 068-2-6
  - 10 Hz to 150 Hz: 0,075 mm / 1g
- Shock
  - EN 60 068-2-27
  - Acceleration: 30 g

Norms & Security

- EMV EN 301 489
- Low voltage EN 60 950
- Human exposure EN 50 364
- RoHS compliant

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