edgeGate

Reliable Connectivity of Siemens and Modbus PLCs to IoT Hubs from Different Cloud Vendors

- Bidirectional Data Exchange Between Controllers and Microsoft Azure Connected Factory
- Generic MQTT Publisher and OPC Server Functionality for Connecting Industrial Networks to IT Applications Running On-premise or in Cloud
- Usage of High Security Standards for Protecting Transferred Data

Connection of IoT Hubs from Different Vendors With Siemens and Modbus PLCs

- Adjustable topic settings for MQTT payload according application requirements
- Chance for analytics, storage, computing applications in cloud solutions from different vendors
- Integration of OPC UA and MQTT client applications running on-premise as well as in private and public clouds
- Worldwide remote access to field data
- Suited to new applications such as IoT or analytics functionality while dedicated to retrofit upgrades
- No PLC programming necessary
- Symbol import from STEP 7 and TIA Portal projects
- No software updates, operating system patches and PC updates required

Comprehensive Integration with Microsoft Azure Applications

- Direct data access from Microsoft Azure to Siemens and Modbus PLCs
- Bidirectional data exchange between cloud and shopfloor by accessing OPC UA Servers on edgeGate or in OT network via integrated Microsoft OPC Proxy and Publisher components

Industry-proven Security

- Physically separated interfaces and separate configuration rights for OT and IT networks preventing intrusions
- Supporting security standards as SSL/TLS and X.509 certificates
- OPC UA compliant data encryption and user authentication

* when using Microsoft Azure Connected Factory
Technical Data

**Hardware**
- **Processor**: Altera Cyclone V SoC with Dual-core ARM Cortex-A9
- **Connectors**: 2 x IEEE 802.3 100BASE-TX/10BASE-T (independent interfaces)
- **Status LEDs**: PWR (power supply), RUN (running), ERR (error), SYS (configuration)
- **Dimensions (H x W x D)**: 100 mm x 22.5 mm x 105 mm
- **Power Supply**: 18 VDC ... 32 VDC, SELV/PELV supply mandatory
  - Typically 200 mA, maximum 1 A at switch-on
- **Operating Temperature, Horizontal DIN Rail Installation**: -40 °C ... 50 °C (0 mm minimum distance)
- **Operating Temperature, Vertical DIN Rail Installation**: -40 °C ... 35 °C (0 mm minimum distance)
  - -40 °C ... 40 °C (22.5 mm minimum distance)
- **Storage Temperature**: -40 °C ... 85 °C
- **Relative Humidity**: 10 % ... 90 %, non-condensing
- **Weight**: About 0.2 kg
- **Mounting**: DIN Rail (35 mm)
- **Housing**: Phoenix Contact ME MAX
- **Protection Class**: IP20

**Software**
- **IT Network / Cloud Connectivity**: OPC UA (Server, 60,000 items in total), MQTT (Publisher, up to 1,000 topics)
- **Controller Connectivity**: RFC1006, Modbus TCP
- **Maximum Number of Controllers**: 5
- **Supported IoT Hubs**: Microsoft Azure Connected Factory, Microsoft Azure IoT Hub, IBM Watson IoT Hub, General Electric Predix, Amazon AWS, etc.
- **Supported Controllers**: Siemens S7-300, S7-400, S7-1200, S7-1500, Modbus TCP-compatible controllers (Schneider Electric, Wago, Beckhoff, Phoenix Contact, etc.)
- **Supported Engineering Tools**: SIMATIC STEP 7, TIA Portal V13/V14/V15 including Service Packs

**Conformity**
- **Emission**: EC Directive 2004/108/EC “Electromagnetic Compatibility”, EN 55011, Group 1, Class A

**Certifications**
- CE, FCC, RoHS

**Scope of Delivery**
- **Hardware**: edgeGate
- **Software**: Tool for configuration over integrated web interface, dataFEED Exporter for easy symbol import from Siemens Project Files
- **Documentation**: Quick Startup Guide (printed documentation)

**Order Numbers**
- GAA-YY-145122

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