Features

- Supports the OASIS MQTT standards V3.1.1 and V5
- Easy assignment of IO data via GSDML file
- Up to 100 values can be configured for transmission simultaneously
- Flexible configuration via web browser
- Separate networks for PROFINET and MQTT connection
- Connection to brokers in the local network or directly with the "cloud"
- Authentication (password, certificate) and encryption (TLS)
- Supports AWS IoT, Microsoft Azue, HiveMQ, Siemens Mindsphere (in preparation)
- Very compact design for DIN rail mounting
- Redundant power supply
- Galvanic isolation of the networks

PROFINET Coupler, MQTT

Machines and systems can be linked with fieldbus couplers. This makes data exchange between different control worlds possible. A complex CPU-to-CPU communication can be omitted. Depending on the fieldbus, the integration takes place via device description files such as GSD, GSDML or EDS.

The MQTT protocol has become established in recent years as a simple transmission protocol for messages in the IoT world. MQTT stands for "Message Queue Telemetry Transport Protocol" and is an OASIS standard. The MQTT protocol always uses a central broker for communication between devices, which receives messages from, for example, a sensor and forwards them to interested devices, such as a control unit. When a sensor sends data to the broker, it is called a "publish". If a device needs data, it must subscribe to the broker ("Subscribe"). The broker delivers the data to all subscribers when new data has arrived from the publisher.

With the PN/MQTT Coupler it is possible to transfer values between a PROFINET machine (PLC) and a MQTT broker. It is possible to send values from the PLC via PROFINET to a broker ("Publish") as well as to subscribe values from a MQTT broker and receive them in the PLC via PROFINET ("Subscribe").

The integration into the PLC engineering tool is enabled by a GSDML file, an extra configuration software is not necessary. All settings for the MQTT connection can be done on the web page of the device. MQTT brokers can be connected locally in the own network ("On premise") as well as via the internet in the cloud.

Direct integration into the PLC puts full control of the data exchange with the IoT world in the hands of the programmer.

General information

Order number	700-162-3MQ02
Article name	PN/MQTT Coupler
Scope of delivery	PN/MQTT Coupler with power plug
Dimensions (DxWxH)	32.5 x 58.5 x 76 mm
Weight	Approx. 135 g

PROFINET interface (X1)

Number	1
Connection	2 x RJ45, integrated switch
Protocol	PROFINET IO as defined in IEC 61158-6-10
Transmission rate	100 Mbps full duplex
I/O image size	max. 1024 bytes of input and output data
Features	Media redundancy (MRP),
	automatic addressing,
	topology detection (LLDP, DCP),
	diagnosis alarms
	PROFINET conformance class B

MQTT interface (X2)

Number	1
Connection	2x RJ45, integrated switch
Protocol	MQTT V3.1.1 & V5
Transmission rate	10/100 Mbps, full/half duplex

Status indicator

Function status	9 LEDs
Ethernet status	8 LEDs

Power supply

Operating voltage	24 V DC (18 - 28 V DC)
Current draw	max. 140 mA
Power dissipation	max. 3.4 W

Ambient conditions

Ambient temperature	0 °C to 60 °C

Transport and storage temperature	-20 °C to 80 °C
Relative air humidity	95 % r H without condensation
Protection rating	IP 20
Mounting position	as desired
Approvals	CE

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Änderungen und Irrtümer vorbehalten