**COMTRAXX® EDGE500IP**

**Condition monitoring with integrated gateway function - for system visualisation and integration of Bender and third-party devices**

**Product description:**

The COMTRAXX® EDGE500IP device combines a powerful condition monitor with an integrated gateway and can be seamlessly integrated into existing IT structures via Ethernet. Thanks to the integrated interfaces, all Bender devices can be networked to form an intelligent overall system - even the integration of third-party devices is possible.

Measured values, parameters and other system data can be monitored, analysed and configured via the web interface. The integrated visualisation application enables the creation of individual dashboards that can be displayed directly in the web browser.

A special feature of the EDGE500IP is the separation of the sensor network and the company network via two physically separate Ethernet interfaces. This increases the flexibility of network integration. In addition, system statuses can be recorded via digital inputs and actuators can be controlled via relay outputs.

In terms of IT security, the device comes with Secure Boot. This ensures that only software signed by Bender is executed on the device.

A structured procedure for dealing with potential vulnerabilities has been established to ensure safe operation of the Condition Monitor after delivery. This includes the reporting, evaluation and, if necessary, rectification of security-relevant incidents.

Further information on our security process can be found on our homepage:

<https://www.bender.de/cert>

**Device features (can be expanded with function modules):**

Condition monitor with integrated gateway

* Interfaces for the integration of devices
  + Modbus RTU and Modbus TCP (max. 247 devices each)
  + BMS-intern (max.150 devices)
  + BCOM (max. 255 devices)
* 2 Ethernet interfaces with 10 Mbit/s | 100 Mbit/s | 1Gbit/s
* Time synchronisation for all assigned devices
* 10 data points from third-party devices (via Modbus RTU or Modbus TCP) can be integrated into the system (can be expanded with function module B)
* 8 isolated digital inputs
* 3 relay outputs
* 2 USB-C interfaces
* Parameterisation of device parameters

**Function module A: Interfaces**

Function module A enables external systems - such as a building management system (BMS) or a programmable logic controller (PLC) - to access the EDGE500IP directly.

* Interface support (readout of current measured values, operating and alarm messages from all devices in the system)
  + Modbus TCP
  + Modbus RTU
  + SNMP (V1, V2c, V3): incl. support for SNMP traps
  + MQTT: Provision of data via Publish
* Control of external systems
  + Receipt of control commands via Modbus TCP or RTU (e.g. from BMS or PLC)
* Integration of external data points
  + Integration of up to 2000 data points from external devices via Modbus TCP or RTU

**Function module B: Engineering**

Function module B enables centralised system configuration, the creation of backups and documentation as well as system-wide logging of measurement and operating data from all connected devices. The module also supports the notification of alarm events for a rapid response in the event of a fault.

* Display of current measured values, operating/alarm messages and parameters in the system overview
* History memory (20,000 entries)
* Freely parameterisable data logger (30 x 10,000 entries)
* Create 100 virtual devices with 16 channels
* Assignment of individual texts for devices, channels (measuring points) and alarms
* Device failure monitoring
* E-mail notification of alarms and system errors to different users
* Device-specific documentation: Comprehensive documentation can be created for each device in the system. This contains all device-specific parameters, current measured values and relevant device information such as serial number and software version
* System-wide documentation: It is possible to generate complete system documentation in which all devices integrated in the system are recorded and documented centrally

Central parameterisation and backup function: All devices assigned to the gateway can be quickly parameterised via a web browser interface. Device configurations can also be saved system-wide (backup)

**Function module C: Live View**

Function module C enables the creation of a flexible dashboard that can be customised to the respective system. This allows the current system status to be visualised quickly and clearly. In addition, alarms with specific instructions, measurement paths and channel numbers can be stored to enable targeted and efficient analysis in the event of a fault.

* Quick and easy creation of system visualisations via an integrated web editor with access to numerous widgets and functions
* Display on up to 50 customisable overview pages, e.g. with stored room plans, circuit diagrams, overview drawings, etc.
* Access to all measured values available in the system for visualisation and analysis
* Buttons and sliders can be used to execute test and reset commands and to control third-party devices via Modbus RTU / TCP

**Technical data:**

Supply voltage: DC 24 V

Displays: LEDs (On, ETHERNET 1/2, NFC, RS485 1, RS485 2)

Operating mode: Continuous operation

**Interfaces:**

Modbus RTU:

* Operating mode: Master & slave adjustable
* Transmission rate: 9.6...57.6 kbit/s
* Isolated
* Integrated bus terminating resistor, can be activated via software

BMS:

* Transmission rate: 9.6 kbit/s
* Isolated
* Integrated bus terminating resistor, can be activated via software

Ethernet:

* 2 x RJ45 isolated
* BCOM, Modbus TCP (client/server), SNMP, MQTT, SMTP, NTP, DHCP, HTTPS, ...
* Data rate: 10/100/1000 Mbit/s
* IP address: Static or DHCP - can be set via the device menu

USB:

* 2x USB-C
* Operating mode: USB 2.0 host (5 V, 500 mA)
* Data rate: 480 Mbit/s

Digital inputs: 8x isolated

Relay output: 3 changeover contacts

**Housing:**

Dimensions (W x H x D): 107.5 x 93 x 62.9 mm

Width (on DIN rail): 6 modules

Weight: 240 g

Installation in DIN 43871 distribution board possible

Quick mounting on IEC 60715 DIN rail possible

Screw mounting possible

**Reference to source:**

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**Type:** COMTRAXX® EDGE500IP

**Article number:**

- Basic device: B95061250

- Function module A (Interfaces): B75061030

- Function module B (Engineering): B75061031

- Function module C (Live View): B75061032