merten 682192 Analog Input Bus System KNX REG Instruction Manual

Contents

merten 682192 Analog Input Bus System KNX REG

Safety warnings

Attention:
Electrical equipment must be installed and fitted by qualified electricians only and in strict observance of the relevant accident prevention regulations. Failure to observe any of the installation in-structions may result in fire and other hazards.

The use of connecting cables other than those approved by Merten is not permitted and can have a negative effect on electrical safe-ty and system functions.

Function

- This analogue input module extends an EIB weather station, part no. 682991, or an EIB analog input, part. no. 682191, by four additional sensor inputs for ana-log transducers.
- Measuring data evaluation and limit processing take place in the EIB device.
- The analogue input module can evaluate both voltage and current signals:
  - Current signals 0…20 mA DC 4…20 mA DC
  - Voltage signals 0…1 V DC 0…10 V DC
- The current inputs are monitored for wire breakage.

Installation

Safety warnings

The use of connecting cables other than those approved by Merten is not permitted and can have a negative effect on electrical safety and system functions.

Snap the device onto a 35 x 7.5 top hat rail as per DIN EN 50022. For operation, the analogue input module needs an external 24 V source such as the power supply REG, AC 24 V/1 A, part no. 663629. The latter can also supply the sensors connected or the EIB device connected.

Connection, controls

- **+Us:** power supply of external transducers
- **GND:** ref. potential for +Us and inputs K1…K4
- **K1 …** K4: measured-value inputs
- **24 V AC:** external power supply voltage
- **6-pole system bus:** system connector, 6-pole, for the connection of an analog input module
- **(A):** status LED, three-colour (red, orange, green)
- **(B):** transducer

Power supply of sensors connected

- All sensors connected can be supplied via terminals + US and GND of the analog input module.
- The total current consumption of all sensors supplied this way must not exceed 100 mA.
- Terminals +US and GND are provided in duplicate and are internally interconnected.
- In the event of a short circuit between +US and GND, the voltage will be switched off.
- Sensors connected can also be supplied externally (e.g. if their current consumption exceeds 100 mA). In such a case, a connection to the sensor inputs must be made between terminals K1…K4, and GND.

Installation rules

Please observe the following basic rules when installing the analogue input model:

- Replacement of a module (if defective) by one of the same type can be effected during operation (for this purpose, disconnect the module from the power sup-ply). After replacement, the EIB device will reset after some 25 s. This will re-initialize all inputs and outputs of the EIB device and of the modules connected and reset them to their original state.
- Removing or adding modules without adapting their configuration and subsequent downloading into the EIB device is not allowed as this will result in system malfunctioning

Sensors suitable for connection

For any of the following transducers, the software provides preset values. If other sensors are used, the parameters to be set must be determined beforehand.

Type	Use	Part no.
Brightness	outdoor	663593
Twilight	outdoor	663594
Temperature	outdoor	663596
Wind	outdoor	663591
Wind (with heating)	outdoor	663592
Rain	outdoor	663595

Status LED

During commissioning

- **ON:** Module is ready for operation (self-test OK).
- **Quickly blinking:** Module is being initialized.
- **OFF:** Module has been initialized and started.
    - **Precondition:** LED must have been on beforehand.

In normal operation

- **ON:** Module is not ready for operation (fault condition).
- **OFF:** Module has been initialized and started.
    - **Precondition:** LED must have been on beforehand.

Specifications

Power supply

- **Supply voltage:** 24 VAC ± 10 %,
- **Current consumption:** 170 mA max.
- **EIB power consumption:** 150 mW typ.
- **Ambient temperature:** -5 °C to +45 °C
- **Storage/transport temperature:** -25 °C to +70 °C

Humidity

- **Ambient/storage/transport:** 93 % RH max., no condensation
- **Protective system:** IP 20 as per DIN EN 60529
- **Installation width:** 4 pitch / 70 mm
- **Weight:** approx. 150 g

Connections

- **Inputs, power supply:** screw terminals:
- single-wire 0.5 mm2 to 4 mm2
- stranded wire (without ferrule) 0.34 mm2 to 4 mm2
- **stranded wire (with ferrule) instabus EIB:** 0.14 mm2 to 2.5 mm2 connecting and branch terminal
- **Connection the EIB device:** 6-pole system connector
- **Sensor inputs Number:** 4x analog,
- **Evaluable sensor (signals analog):**
    - 0 .. 1 V DC, 0 .. 10 V DC,
    - 0 .. 20mA DC, 4 .. 20mA DC
- **Voltage measurement impedance:** approx. 18 kΩ
- **Current measurement impedance:** approx. 100 Ω
- **External sensor power supply (+Us):** 24 VDC, 100 mA max.

Subject to technical modifications.

Documents / Resources

	merten 682192 Analog Input Bus System KNX REG [pdf] Instruction Manual 682192 Analog Input Bus System KNX REG, 682192, Analog Input Bus System KNX REG, 682 192 Analog Input Bus System, KNX REG, Analog Input Bus System, Input Bus System, Bus Sy stem