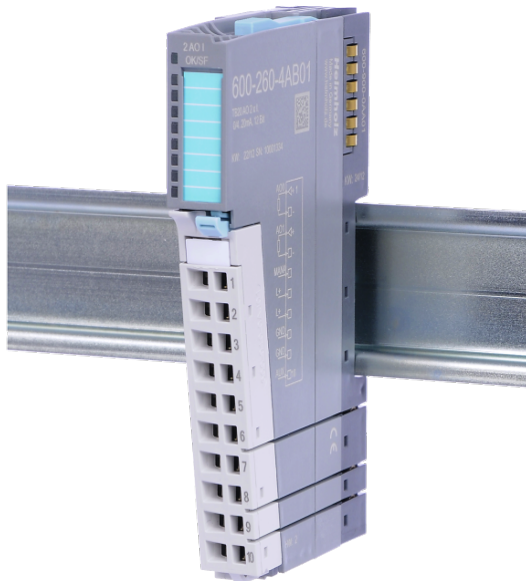




#### Features

- ✓ Output range 0 ... 20 mA, 4 ... 20 mA
- ✓ Resolution 12 bit
- ✓ Substitute value functionality
- ✓ Diagnostic messages
- ✓ A bi-color LED (blue/red) indicates the module operating status and any malfunctions
- ✓ 2 analog outputs, electrically isolated from the backplane bus
- ✓ 2 process output words (4 bytes)

## Analoge-output-module, I, 12 Bit 2x

Analog output modules for the modular fieldbus IO system TB20.

**Note: Individual modules cannot be combined with IO systems from other manufacturers.**

The scope of delivery already includes the appropriate front connector for the cabling and a base module. The module has 2 analogue outputs.

#### General information

|                          |                                |
|--------------------------|--------------------------------|
| Order number             | 600-260-4AB01                  |
| Article name             | AO 2x I, 0/4 ... 20 mA, 12 bit |
| Scope of delivery        | AO 2x I, 0/4 ... 20 mA, 12 bit |
| Dimensions (DxWxH)       | 110 x 14 x 73 mm               |
| Weight                   | Approx. 70 g                   |
| Number of outputs        | 2                              |
| Output ranges            | 0 ... 20 mA, 4 ... 20 mA       |
| Power dissipation        | Max. 1.9 W                     |
| Connection for actuators | 2-wire connection              |
| Load resistance          | Max. 600 ohms                  |

|                                |                                                                                                                                                          |
|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Inductive load                 | Max. 100 mH                                                                                                                                              |
| No-load voltage                | max. 18 V                                                                                                                                                |
| Measurement resolution         | 12 bit                                                                                                                                                   |
| Refresh time                   | 0.2 ms                                                                                                                                                   |
| Settling time                  | 0.2 ms for resistive loads,<br>2.2 ms for capacitive loads,<br>0.5 ms for inductive loads ( $\leq 1$ mH),<br>3.3 ms for inductive loads ( $\leq 3.3$ mH) |
| Diagnoses                      | External reference voltage missing (L+), wire break, parameter assignment error                                                                          |
| Process alarms                 | Upper and lower limit per channel                                                                                                                        |
| Parameter configuration length | 7 bytes                                                                                                                                                  |
| General error indicator        | Red LED                                                                                                                                                  |
| Hot-swap capable               | Yes                                                                                                                                                      |

#### Electrical isolation

|                        |     |
|------------------------|-----|
| from the backplane bus | Yes |
| Between the channels   | No  |

#### Current draw

|          |            |
|----------|------------|
| External | Max. 60 mA |
| Internal | Max. 26 mA |

#### Error limits

|                                                         |                                               |
|---------------------------------------------------------|-----------------------------------------------|
| Operational error limit in the entire temperature range | $\pm 0.5$ % relative to the nominal range     |
| Basic error limit at 25 °C                              | $\pm 0.3$ % relative to the nominal range     |
| Temperature error                                       | $\pm 0.005$ %/K relative to the nominal range |
| Linearity error                                         | $\pm 0.05$ %/K relative to the nominal range  |
| Repeating accuracy in steady state at 25 °C             | $\pm 0.05$ %/K relative to the nominal range  |

#### Ambient conditions

|                                   |                               |
|-----------------------------------|-------------------------------|
| Ambient temperature               | 0 °C ... +60 °C               |
| Transport and storage temperature | -20 °C ... +80 °C             |
| Relative air humidity             | 95 % r H without condensation |
| Protection rating                 | IP 20                         |

|                                |                                                                   |
|--------------------------------|-------------------------------------------------------------------|
| Certifications                 | CE, UL                                                            |
| <b>UL</b>                      |                                                                   |
| Surrounding Air Temperature    | 0 °C ... +60°C                                                    |
| Pollution degree               | 2                                                                 |
| <b>CE</b>                      |                                                                   |
| Noise immunity                 | DIN EN 61000-6-2 "EMC Immunity"                                   |
| Interference emission          | DIN EN 61000-6-4 "EMC Emission"                                   |
| Vibration and shock resistance | DIN EN 60068-2-6:2008 „Vibration“, DIN EN 60068-2-27:2010 „Shock“ |