

## Data sheet

SM 032 - Analog output (032-1BD70)

## Technical data

| Order no.   | 032-1BD70                             |
|---|---------------------------------------|
| Туре  | SM 032 - Analog output                |
| Module ID   | 0506 25E0                             |
| General information                                     |                                       |
| Note  |                                       |
| Features  | 4x AO<br>12 Bit<br>Voltage -10 V+10 V |
| Current consumption/power loss                          |                                       |
| Current consumption from backplane bus                  | 60 mA                                 |
| Current consumption from load voltage L+ (without load) | 20 mA                                 |
| Power loss  | 0.8 W                                 |
| Technical data analog outputs                           |                                       |
| Number of outputs                                       | 4                                     |
| Cable length, shielded                                  | 200 m                                 |
| Rated load voltage                                      | DC 24 V                               |
| Reverse polarity protection of rated load voltage       | yes                                   |
| Current consumption from rated load voltage             | -                                     |
| Voltage output short-circuit protection                 | yes                                   |
| Voltage outputs   | yes                                   |
| Min. load resistance (voltage range)                    | 5 kOhm                                |
| Max. capacitive load (current range)                    | 1 μF                                  |
| Max. inductive load (current range)                     | 10 mA                                 |
| Output voltage ranges                                   | -10 V +10 V<br>0 V +10 V              |
| Operational limit of voltage ranges                     | +/-0.3%                               |
| Basic error limit voltage ranges                        | +/-0.2%                               |
| Destruction limit against external applied voltage      | max. 24V                              |
| Current outputs   | -                                     |
| Max. in load resistance (current range)                 | -                                     |
| Max. inductive load (current range)                     | -                                     |
| Typ. open circuit voltage current output                | -                                     |
| Output current ranges                                   | -                                     |
| Operational limit of current ranges                     | -                                     |
| Basic error limit current ranges                        | -                                     |
| Destruction limit against external applied voltage      | -                                     |
| Settling time for ohmic load                            | 3 ms                                  |
| Settling time for capacitive load                       | 3 ms                                  |
| Settling time for inductive load                        | -                                     |
| Resolution in bit                                       | 12                                    |
| Conversion time   | 2 ms all channels                     |
| Substitute value can be applied                         | no                                    |
| Output data size  | 8 Byte                                |
| Status information, alarms, diagnostics                 |                                       |



| Status display  | yes                        |
|---|----------------------------|
| Interrupts  | no                         |
| Process alarm   | no                         |
| Diagnostic interrupt  | no                         |
| Diagnostic functions  | yes                        |
| Diagnostics information read-out                            | possible                   |
| Supply voltage display                                      | green LED                  |
| Group error display   | red LED                    |
| Channel error display                                       | red LED per channel        |
| Isolation   |                            |
| Between channels  | -                          |
| Between channels of groups to                               | -                          |
| Between channels and backplane bus                          | yes                        |
| Between channels and power supply                           | yes                        |
| Max. potential difference between circuits                  | -                          |
| Max. potential difference between inputs (Ucm)              | -                          |
| Max. potential difference between Mana and Mintern (Uiso)   | DC 75 V/ AC 50 V           |
| Max. potential difference between inputs and Mana (Ucm)     | -                          |
| Max. potential difference between inputs and Mintern (Uiso) | -                          |
| Max. potential difference between Mintern and outputs       | -                          |
| Insulation tested with                                      | DC 500 V                   |
| Datasizes   |                            |
| Input bytes   | 0                          |
| Output bytes  | 8                          |
| Parameter bytes   | 10                         |
| Diagnostic bytes  | 20                         |
| Housing   |                            |
| Material  | PPE / PPE GF10             |
| Mounting  | Profile rail 35 mm         |
| Mechanical data   |                            |
| Dimensions (WxHxD)  | 12.9 mm x 109 mm x 76.5 mm |
| Net weight  | 62 g                       |
| Weight including accessories                                | 62 g                       |
| Gross weight  | 76 g                       |
| Environmental conditions                                    |                            |
| Operating temperature                                       | 0 °C to 60 °C              |
| Storage temperature   | -25 °C to 70 °C            |
| Certifications  |                            |
| UL certification  | yes                        |
| KC certification  | yes                        |
|   | •                          |