

## Data sheet

SM 032 - Analog output (032-1CD40)

**Technical data** 

| Order no.  | 032-1CD40                            |
|--|--------------------------------------|
| Туре   | SM 032 - Analog output               |
| Module ID  | 050C 25E0                            |
| General information  |                                      |
| Note   | -                                    |
| Features   | 4x AO<br>16 Bit<br>Current 0(4)20 mA |
| Current consumption/power loss                               |                                      |
| Current consumption from backplane bus                       | 65 mA                                |
| Current consumption from power section supply (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                      | -                                    |
| Voltage outputs  | -                                    |
| Min. load resistance (voltage range)                         | -                                    |
| Max. capacitive load (current range)                         | -                                    |
| Max. inductive load (current range)                          | -                                    |
| Output voltage ranges  | -                                    |
| Operational limit of voltage ranges                          | -                                    |
| Basic error limit voltage ranges                             | -                                    |
| Destruction limit against external applied voltage           | -                                    |
| Current outputs  | yes                                  |
| Max. in load resistance (current range)                      | 350 Ohm                              |
| Max. inductive load (current range)                          | 10 mH                                |
| Typ. open circuit voltage current output                     | 12 V                                 |
| Output current ranges  | 0 mA +20 mA<br>+4 mA +20 mA          |
| Operational limit of current ranges                          | +/-0.2%                              |
| Basic error limit current ranges                             | +/-0.1%                              |
| Destruction limit against external applied voltage           | max. 12V (30V for 1s)                |
| Settling time for ohmic load                                 | 0.25 ms                              |
| Settling time for capacitive load                            | -                                    |
| Settling time for inductive load                             | 1.5 ms                               |
| Resolution in bit  | 16                                   |
| Conversion time  | 400 μs all channels                  |
| Substitute value can be applied                              | no                                   |
| Output data size   | 8 Byte                               |
| Status information, alarms, diagnostics                      |                                      |

## YASKAWA

| 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  |
| Demonstration builty of  | 10   |
| Parameter bytes  |  |
| Diagnostic bytes   | 20   |
|  |  |
| Diagnostic bytes   |  |
| Diagnostic bytes Housing   | 20   |
| Diagnostic bytes Housing Material  | 20<br>PPE / PPE GF10   |
| Diagnostic bytes Housing Material Mounting   | 20<br>PPE / PPE GF10   |
| Diagnostic bytes Housing Material Mounting Mechanical data   | 20<br>PPE / PPE GF10<br>Profile rail 35 mm   |
| Diagnostic bytes Housing Material Mounting Mechanical data Dimensions (WxHxD)  | 20<br>PPE / PPE GF10<br>Profile rail 35 mm<br>12.9 mm x 109 mm x 76.5 mm   |
| Diagnostic bytes Housing Material Mounting Mechanical data Dimensions (WxHxD) Net weight   | 20<br>PPE / PPE GF10<br>Profile rail 35 mm<br>12.9 mm x 109 mm x 76.5 mm<br>61 g   |
| Diagnostic bytes Housing Material Mounting Mechanical data Dimensions (WxHxD) Net weight Weight including accessories  | 20<br>PPE / PPE GF10<br>Profile rail 35 mm<br>12.9 mm x 109 mm x 76.5 mm<br>61 g<br>61 g   |
| Diagnostic bytes<br>Housing<br>Material<br>Mounting<br>Mechanical data<br>Dimensions (WxHxD)<br>Net weight<br>Weight including accessories<br>Gross weight   | 20<br>PPE / PPE GF10<br>Profile rail 35 mm<br>12.9 mm x 109 mm x 76.5 mm<br>61 g<br>61 g   |
| Diagnostic bytes Housing Material Mounting Mechanical data Dimensions (WxHxD) Net weight Weight including accessories Gross weight Environmental conditions  | 20<br>PPE / PPE GF10<br>Profile rail 35 mm<br>12.9 mm x 109 mm x 76.5 mm<br>61 g<br>61 g<br>75 g   |
| Diagnostic bytes Housing Material Mounting Mechanical data Dimensions (WxHxD) Net weight Weight including accessories Gross weight Environmental conditions Operating temperature  | 20<br>PPE / PPE GF10<br>Profile rail 35 mm<br>12.9 mm x 109 mm x 76.5 mm<br>61 g<br>61 g<br>75 g<br>0 °C to 60 °C  |
| Diagnostic bytes Housing Material Mounting Mechanical data Dimensions (WxHxD) Net weight Weight including accessories Gross weight Environmental conditions Operating temperature Storage temperature                                      | 20<br>PPE / PPE GF10<br>Profile rail 35 mm<br>12.9 mm x 109 mm x 76.5 mm<br>61 g<br>61 g<br>75 g<br>0 °C to 60 °C  |
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| Diagnostic bytes Housing Material Mounting Mechanical data Dimensions (WxHxD) Net weight Weight including accessories Gross weight Environmental conditions Operating temperature Storage temperature Storage temperature UL certification | 20<br>PPE / PPE GF10<br>Profile rail 35 mm<br>12.9 mm x 109 mm x 76.5 mm<br>61 g<br>61 g<br>61 g<br>75 g<br>0 °C to 60 °C<br>-25 °C to 70 °C<br>yes        |
| Diagnostic bytes Housing Material Mounting Mechanical data Dimensions (WxHxD) Net weight Weight including accessories Gross weight Environmental conditions Operating temperature Storage temperature UL certification KC certification    | 20<br>PPE / PPE GF10<br>Profile rail 35 mm<br>12.9 mm x 109 mm x 76.5 mm<br>61 g<br>61 g<br>61 g<br>75 g<br>0 °C to 60 °C<br>-25 °C to 70 °C<br>yes<br>yes |