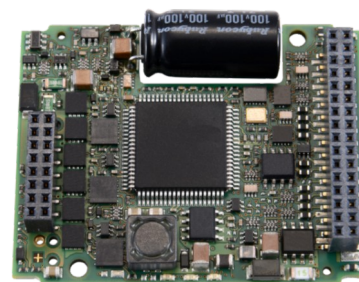


## Servo amplifier

## mcDSA-E66-Modul

Article number: 1505031



Picture similar

## Technical data

| Absolute maximum rating (destruction limits)                               |                   |
|----------------------------------------------------------------------------|-------------------|
| Power supply voltage Up<br>no polarity reversal protection                 | 80 V              |
| Continuous Electronic supply voltage Ue<br>no polarity reversal protection | 33 V              |
| Short term peak voltage < 1s Ue<br>no polarity reversal protection         | 37 V              |
| Power                                                                      |                   |
| Electronic supply voltage Ue                                               | 9..30 V           |
| Electronic current consumption @ Ue=24V*1                                  | typ. 40 mA        |
| Power supply voltage Up                                                    | 9..60 V           |
| Max. output current                                                        | 15 A              |
| Continuous output current @ Up=24V*2                                       | 5 A               |
| Continuous output current @ Up=48V*2                                       | 4.3 A             |
| PWM                                                                        |                   |
| Output voltage                                                             | 100% Up           |
| PWM frequency                                                              | 25, 32*3, 50 kHz  |
| Mechanical                                                                 |                   |
| Size LxWxH                                                                 | 52.5 x 41 x 11 mm |
| Weight                                                                     | 18 g              |
| Environment                                                                |                   |
| Protection class                                                           | IP00              |
| Ambient temperature (operation)                                            | -40..70 °C        |
| Ambient temperature (storage)                                              | -40..85 °C        |
| Rel. humidity (non-condensing)                                             | 5..90 %           |
| CAN bus                                                                    |                   |
| Protocol                                                                   | DS301             |
| Device profile                                                             | DS402             |
| Max. baudrate                                                              | 1 Mbit/s          |
| CAN specification                                                          | 2.0B              |
| Galvanically isolated                                                      | no                |

| Auxiliary voltage         |                                                |
|---------------------------|------------------------------------------------|
| Output voltage            | 5 V                                            |
| Max. output current       | 0.2 A                                          |
| Encoder                   |                                                |
| Type                      | magnetic sensor                                |
| Signals                   | A, B, Inx channels internally                  |
| Resolution                | 12 bit per motor shaft revolution              |
| Signal type               | Magnetic sensor with magnet on the motor shaft |
| Digital inputs            |                                                |
| Number - digital inputs   | 4 (Din0..3)                                    |
| Low voltage               | 0..5 V                                         |
| High voltage              | 8..30 V                                        |
| Digital outputs           |                                                |
| Number                    | 1 (Dout0)                                      |
| Continuous output current | 1.5 A                                          |
| Load                      | resistive, inductive                           |
| Output voltage            | Electronic supply voltage Ue                   |
| Signal type               | positive switching                             |
| Analog inputs             |                                                |
| Number                    | 2 (Ain0..1)                                    |
| Signal type               | +/- 10 V, 12 Bit, single ended                 |

\*1 power amplifier switched off, 5V output (sensor supply) is free

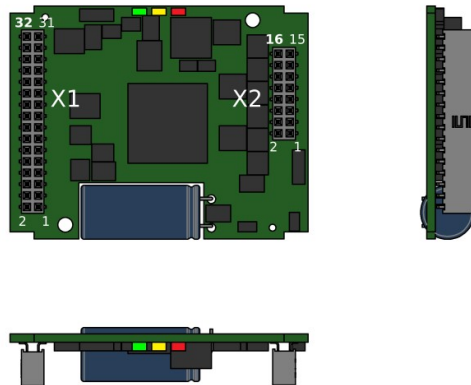
\*2 connector cable with max. possible cable cross-section, PWM frequency 32 kHz, ambient temperature 40 °C (t > 40 °C derating)  
no guarantee, since value is determined empirical, please consider the application notes to determine the continuous current

\*3 default value

Additional technical data are available in mcManual.



## Scheme



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## Terminal assignment

| X1 | I/O's and CAN |                                                                          |
|----|---------------|--------------------------------------------------------------------------|
| 1  | res.          | Reserved                                                                 |
| 2  | /Id7          | Node-ID Bit 7 inverted                                                   |
| 3  | +U5V          | 5V output voltage (auxiliary voltage)                                    |
| 4  | /Id6          | Node-ID Bit 6 inverted                                                   |
| 5  | res.          | Reserved                                                                 |
| 6  | /Id5          | Node-ID Bit 5 inverted                                                   |
| 7  | res.          | Reserved                                                                 |
| 8  | /Id4          | Node-ID Bit 4 inverted                                                   |
| 9  | res.          | Reserved                                                                 |
| 10 | /Id3          | Node-ID Bit 3 inverted                                                   |
| 11 | res.          | Reserved                                                                 |
| 12 | /Id2          | Node-ID Bit 2 inverted                                                   |
| 13 | res.          | Reserved                                                                 |
| 14 | /Id1          | Node-ID Bit 1 inverted                                                   |
| 15 | CAN Lo        | CAN Low                                                                  |
| 16 | /Id0          | Node-ID Bit 0 inverted                                                   |
| 17 | CAN Hi        | CAN High                                                                 |
| 18 | Erw2          | mcSPI expansion signal 2                                                 |
| 19 | Dout0         | Digital output 0                                                         |
| 20 | Erw1          | mcSPI expansion signal 1                                                 |
| 21 | Din2          | Digital input 2                                                          |
| 22 | SpiSCK        | mcSPI Clock                                                              |
| 23 | Din1          | Digital input 1                                                          |
| 24 | SpiMOSI       | mcSPI Master Out Slave In                                                |
| 25 | Din0          | Digital input 0                                                          |
| 26 | Spi/SS        | mcSPI Slave Select                                                       |
| 27 | Ain0          | Analog input 0                                                           |
| 28 | SpiMISO       | mcSPI Master In Slave Out                                                |
| 29 | Ain1          | Analog input 1                                                           |
| 30 | Din3          | Digital input 3                                                          |
| 31 | GND           | Ground of the auxiliary voltage<br>Notice: don't connect with system GND |
| 32 | res.          | Reserved                                                                 |

| X2 | Motor |                                                |
|----|-------|------------------------------------------------|
| 1  | +Up   | Power supply voltage                           |
| 2  | res.  | Reserved                                       |
| 3  | +Up   | Power supply voltage                           |
| 4  | res.  | Reserved                                       |
| 5  | GND   | Ground for power and electronic supply voltage |
| 6  | GND   | Ground for power and electronic supply voltage |
| 7  | Ma    | Motor phase A                                  |
| 8  | +Ue   | Electronic supply voltage                      |
| 9  | Ma    | Motor phase A                                  |
| 10 | +Ue   | Electronic supply voltage                      |
| 11 | Mb    | Motor phase B                                  |
| 12 | Mb    | Motor phase B                                  |
| 13 | Mc    | Motor phase C                                  |
| 14 | res.  | Reserved                                       |
| 15 | Mc    | Motor phase C                                  |
| 16 | res.  | Reserved                                       |