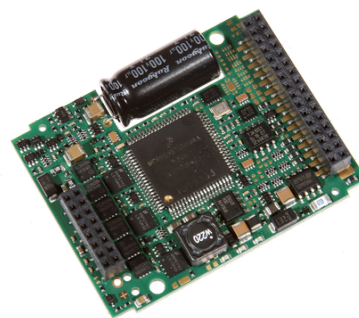


Servo amplifier

mcDSA-E62-Modul

Article number: 1505022



Picture similar

Technical data

| Absolute maximum rating (destruction limits) | |
|---|-------------------------------|
| Power supply voltage U_p no polarity reversal protection | 80 V |
| Continuous Electronic supply voltage U_e no polarity reversal protection | 33 V |
| Short term peak voltage < 1s U_e no polarity reversal protection | 37 V |
| Power | |
| Electronic supply voltage U_e | 9..30 V |
| Electronic current consumption@ $U_e=24V^{*1}$ | typ. 30 mA |
| Power supply voltage U_p | 9..60 V |
| Max. output current | 15 A |
| Continuous output current @ $U_p=24V^{*2}$ | 5 A |
| Continuous output current @ $U_p=48V^{*2}$ | 4.3 A |
| PWM | |
| Output voltage | 90% U_p |
| PWM frequency | 25, 32 ^{*3} , 50 kHz |
| Mechanical | |
| Size LxWxH | 53 x 41 x 10 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 |

| Sensor supply (Encoder) | |
|---------------------------|-----------------------------------|
| Output voltage | 5 V |
| Max. output current | 0.2 A |
| Encoder | |
| Type | sin / cos |
| Signals | +Sin,-Sin,+Cos,-Cos |
| Resolution | 13 bit per sine period |
| Input voltage | 1 V peak-peak, differential |
| Signal type | sine/cosine, analog, differential |
| 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 U_e |
| Signal type | positive switching |
| Analog inputs | |
| Number | 2 (Ain0..1) |
| Signal type - Ain | 0..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), RMS current: 5 A → 4.1 Aeff, 4.3 A → 3.5 Aeff

no guarantee, since value is determined empirical, please consider the application notes to determine the continuous current

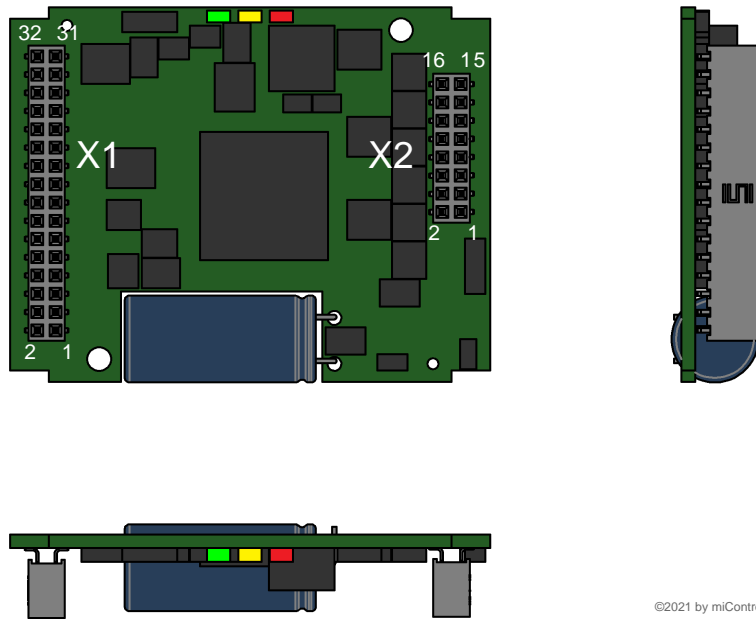
*3 default value

Additional technical data are available in mcManual.



miControl® GmbH
Chausseestraße 34
14979 Großbeeren (bei Berlin)

Scheme



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Terminal assignment

| X1 | Encoder, I/O's and CAN | |
|----|------------------------|---|
| 1 | res. | Reserved |
| 2 | /Id7 | Node-ID Bit 7 inverted |
| 3 | +U5V | 5V output voltage for sensor supply Sensors: encoder |
| 4 | /Id6 | Node-ID Bit 6 inverted |
| 5 | +Cos | Encoder, plus cosine signal |
| 6 | /Id5 | Node-ID Bit 5 inverted |
| 7 | +Sin | Encoder, plus sine signal |
| 8 | /Id4 | Node-ID Bit 4 inverted |
| 9 | res. | Reserved |
| 10 | /Id3 | Node-ID Bit 3 inverted |
| 11 | -Cos | Encoder, minus cosine signal |
| 12 | /Id2 | Node-ID Bit 2 inverted |
| 13 | -Sin | Encoder, minus sine signal |
| 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 | SpiCLK | mcSPI Clock |
| 23 | Din1 | Digital input 1 |
| 24 | SpiMOSI | mcSPI Master Out |
| 25 | Din0 | Digital input 0 |
| 26 | Spi/SS | mcSPI Slave Select |
| 27 | Ain0 | Analog input 0 |
| 28 | SpiMISO | mcSPI Master In |
| 29 | Ain1 | Analog input 1 |
| 30 | Din3 | Digital input 3 |
| 31 | GND | Ground for sensor supply 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 |