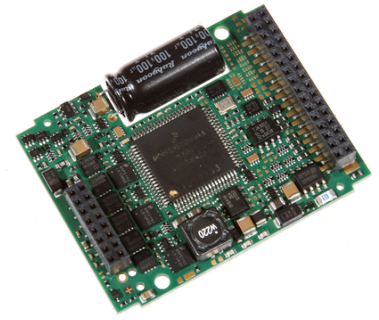


# Servo amplifier

## mcDSA-E66-Modul

Article number: 1505031



Picture similar

### Technical data

Supply voltages	
Electronic supply voltage $U_e^{*1}$	9..30 V
Electronic current consumption @ $U_e=24V^{*2}$	typ. 40 mA
Power supply voltage $U_p^{*3}$	9..60 V
Output current	
Max. output current	15 A
Continuous output current @ $U_p=24V^{*4}$	5 A
Continuous output current @ $U_p=48V^{*4}$	4.3 A
PWM	
Output voltage	100% $U_p$
PWM frequency	25, 32 <sup>*5</sup> , 50 kHz
Mechanical	
Size LxWxH	53 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	3 (Din0..2)
Number (0..30V tolerant)	1 (Din3)
Low voltage	0..5 V
High voltage	8..30 V
Notice	Din3 parallel with Dout1 <sup>*6</sup>
Digital outputs	
Number	2 (Dout0..1)
Continuous output current	1.5 A
Load	resistive, inductive
Output voltage	Electronic supply voltage $U_e$
Signal type	positive switching
Notice	Dout1 parallel with Din3
Analog inputs	
Number	2 (Ain0..1)
Signal type	+/- 10 V, 12 Bit, single ended

<sup>\*1</sup> No reverse polarity protection, the destruction limit is at overvoltage of  $\geq 33V$  or short-term peak voltage of  $37V < 1s$

<sup>\*2</sup> power amplifier switched off, 5V output (sensor supply) is free

<sup>\*3</sup> No reverse polarity protection, the destruction limit is at overvoltage of  $\geq 80V$

<sup>\*4</sup> connector cable with max. possible cable cross-section, PWM frequency 32 kHz, ambient temperature 40 °C ( $t > 40$  °C derating), RMS current: 5 A  $\rightarrow$  4.1 Aeff, 4.3 A  $\rightarrow$  3.5 Aeff

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

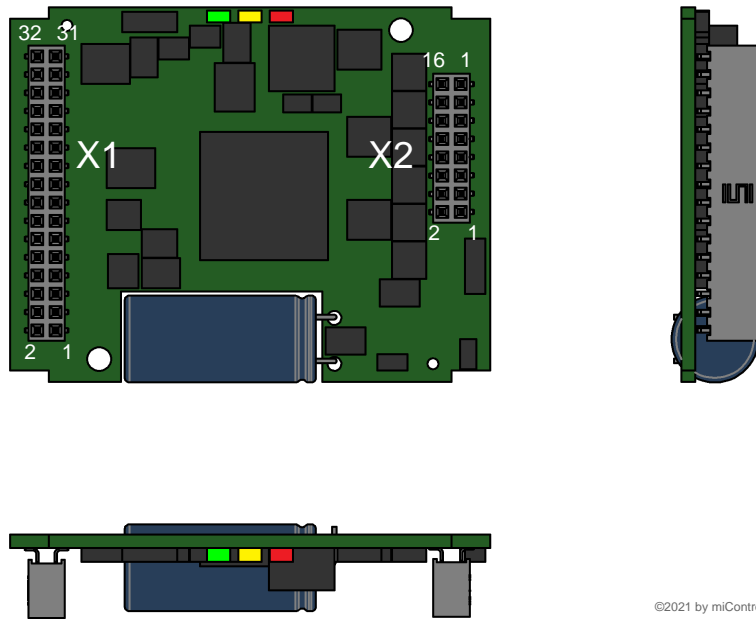
<sup>\*5</sup> default value

<sup>\*6</sup> Input voltage must not exceed Electronic supply voltage  $U_e$

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	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/Dout1	Digital input 3 / Digital output 1
31	GND	Ground of the auxiliary voltage 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