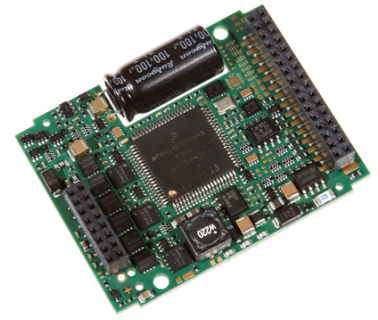


# Servo amplifier

## mcDSA-E67-Modul

Article number: 1511516



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. 45 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	100% $U_p$
PWM frequency	25, 32 <sup>*3</sup> , 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	+/- 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

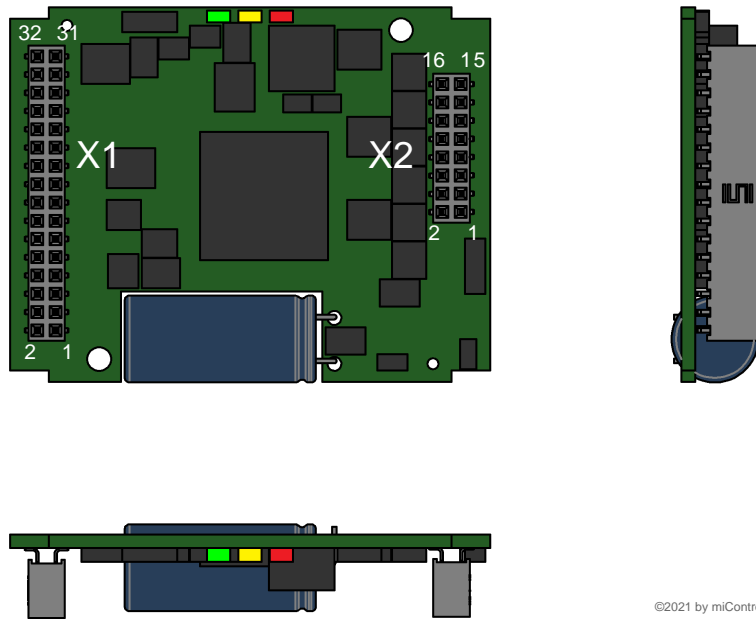
no guarantee, since value is determined empirically, please consider the application notes to determine the continuous current

\*3 default value

Additional technical data are available in mcManual.



## Scheme



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## Terminal assignment

X1	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	FE	Functional earth
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