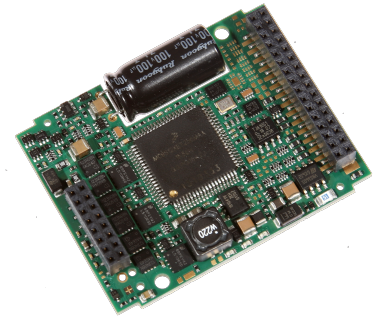


# Servo amplifier

## mcDSA-E65-Modul

Article number: 1503571



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. 40 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	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
Sensor supply (Encoder/Hall)	
Output voltage	5 V
Max. output current	0.2 A
Incremental encoder	
Type	incremental
Signals	A,B,Inx
Max. frequency (per channel)	100 kHz
Input voltage	0..5 V
Signal type	open collector, single ended
Hall sensors	
Signals	H1,H2,H3
Max. frequency (per channel)	10 kHz
Input voltage	0..5 V
Signal type	open collector, single ended
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>*4</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

\*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

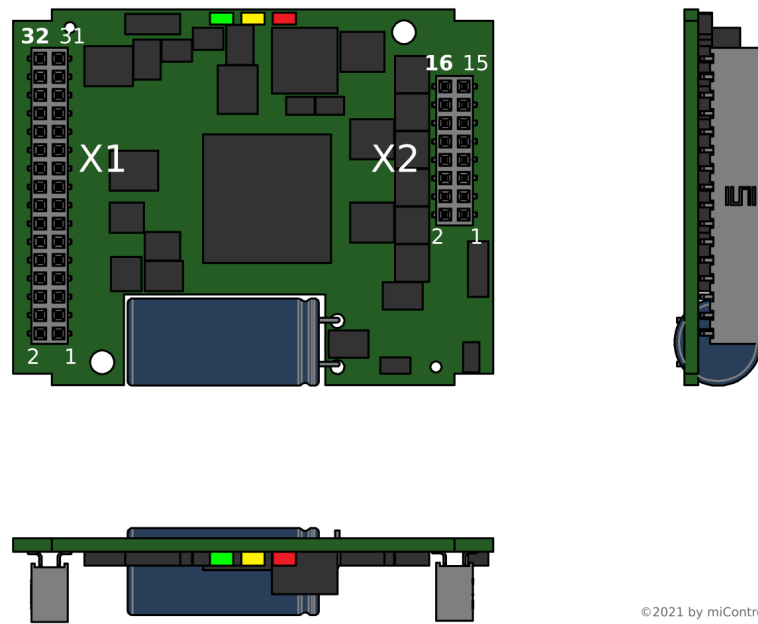
\*3 default value

\*4 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	Hall, inc. encoder, I/O's and CAN	
1	Inx	Inc. encoder, index channel
2	/Id7	Node-ID Bit 7 inverted
3	+U5V	5V output voltage for sensor supply Sensors: encoder, hall
4	/Id6	Node-ID Bit 6 inverted
5	B	Inc. encoder, B channel
6	/Id5	Node-ID Bit 5 inverted
7	A	Inc. encoder, A channel
8	/Id4	Node-ID Bit 4 inverted
9	H3	Hall sensor 3
10	/Id3	Node-ID Bit 3 inverted
11	H2	Hall sensor 2
12	/Id2	Node-ID Bit 2 inverted
13	H1	Hall sensor 1
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 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/Dout1	Digital input 3 / Digital output 1
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