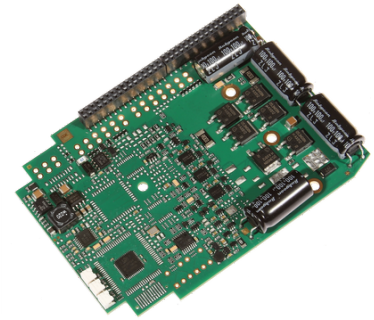


# Servo amplifier

## mcDSA-B45-Modul

Article number: 1504942



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	50 A
Continuous output current @ $U_p=24V^{*2}$	10 A
Continuous output current @ $U_p=48V^{*2}$	8.5 A
PWM	
Output voltage	100% $U_p$
PWM frequency	12.5, 25 <sup>*3</sup> kHz
Mechanical	
Size LxWxH	97 x 71 x 12 mm
Weight	55 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
Max. baudrate	1 Mbit/s
CAN specification	2.0B
Galvanically isolated	no

Sensor supply (Hall)	
Output voltage	5 V
Max. output current	0.2 A
Hall sensors	
Signals	H1,/H1,H2,/H2,H3,/H3
Max. frequency (per channel)	10 kHz
Input voltage (24V tolerant)	0..5 V
Signal type	open collector, differential, 5V pull up intern 920 Ohm
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 25 kHz, ambient temperature 40 °C (t &gt;40 °C derating), RMS current: 8.5 A → 6.9 Aeff, 10 A → 8.2 Aeff

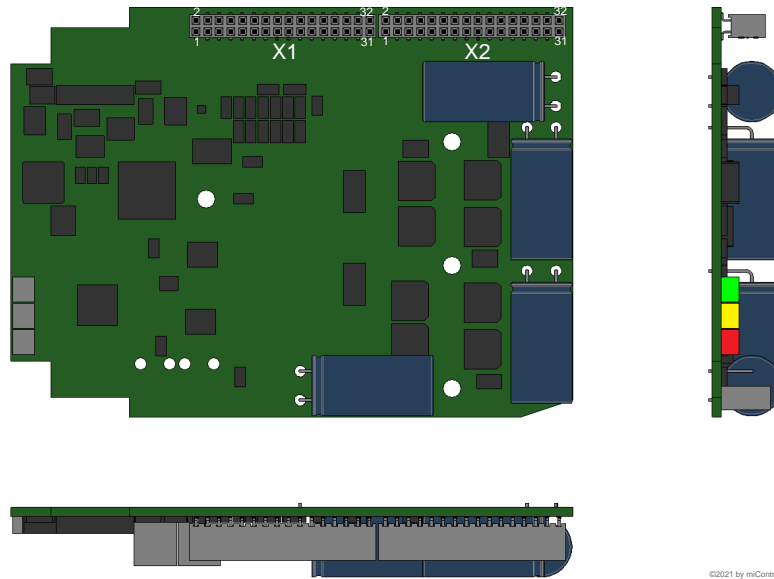
no guarantee, since value is determined empirical, please consider the application notes to determine the continuous current

\*3 default value

Additional technical data are available in mcManual.



## Scheme



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## Terminal assignment

X1	Hall, I/O's and CAN	
1	CAN Hi	CAN High
2	CAN Lo	CAN Low
3	res.	Reserved
4	res.	Reserved
5	res.	Reserved
6	res.	Reserved
7	Din2	Digital input 2
8	Din3	Digital input 3
9	Din0	Digital input 0
10	Din1	Digital input 1
11	Ain0	Analog input 0
12	Ain1	Analog input 1
13	res.	Reserved
14	res.	Reserved
15	res.	Reserved
16	res.	Reserved
17	res.	Reserved
18	res.	Reserved
19	res.	Reserved
20	res.	Reserved
21	res.	Reserved
22	res.	Reserved
23	res.	Reserved
24	res.	Reserved
25	res.	Reserved
26	res.	Reserved
27	H3	Hall sensor 3
28	/H3	Hall sensor 3 inverted
29	H2	Hall sensor 2
30	/H2	Hall sensor 2 inverted
31	H1	Hall sensor 1
32	/H1	Hall sensor 1 inverted

X2	Motor	
1	+U5V	5V output voltage for sensor supply Sensors: hall
2	GND	Ground for sensor supply Notice: don't connect with system GND
3	Dout0	Digital output 0
4	res.	Reserved
5	+Ue24V	Electronic supply voltage
6	+Ue24V	Electronic supply voltage
7	res.	Reserved
8	res.	Reserved
9	res.	Reserved
10	res.	Reserved
11	Mc	Motor phase C
12	Mc	Motor phase C
13	Mc	Motor phase C
14	Mc	Motor phase C
15	Mb	Motor phase B
16	Mb	Motor phase B
17	Mb	Motor phase B
18	Mb	Motor phase B
19	Ma	Motor phase A
20	Ma	Motor phase A
21	Ma	Motor phase A
22	Ma	Motor phase A
23	GND	Ground for power and electronic supply voltage
24	GND	Ground for power and electronic supply voltage
25	GND	Ground for power and electronic supply voltage
26	GND	Ground for power and electronic supply voltage
27	+Up	Power supply voltage
28	+Up	Power supply voltage
29	+Up	Power supply voltage
30	+Up	Power supply voltage
31	FE	Functional earth
32	FE	Functional earth