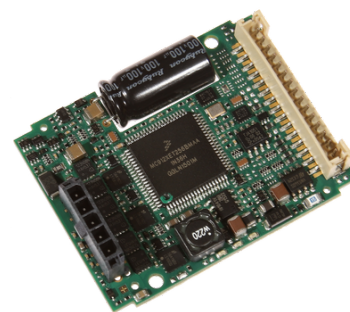# miControl®

Servo amplifier
mcDSA-E66-Lp

Article number: 1511661

Picture similar

Technical data

Supply voltages	
Electronic supply voltage Ue*¹	9..30 V
Electronic current consumption@ Ue=24V*²	typ. 45 mA
Power supply voltage Up*³	9..60 V
Output current	
Max. output current	15 A
Continuous output current @ Up=24V*⁴	5 A
Continuous output current @ Up=48V*⁴	4.3 A
PWM	
Output voltage	100% Up
PWM frequency	25, 32*⁵, 50 kHz
Mechanical	
Size LxWxH	53 x 41 x 13 mm
Weight	18 g
Environment	
Protection class	IP00
Ambient temperature (operation)	-25..70 °C
Ambient temperature (storage)	-25..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 (+/-30V tolerant)	2 (Din0..1)
Number (0..30V tolerant)	1 (Din2)
Low voltage	0..5 V
High voltage	8..30 V
Notice	Din2 parallel with Dout0*⁶
Digital outputs	
Number	1 (Dout0)
Continuous output current	1.5 A
Load	resistive, inductive
Output voltage	Electronic supply voltage Ue
Signal type	positive switching
Notice	Dout0 parallel with Din2
Analog inputs	
Number	1 (Ain0)
Signal type	+/- 10 V, 12 Bit, single ended

*¹ No reverse polarity protection, the destruction limit is at overvoltage of >= 33V or short-term peak voltage of 37V < 1s
*² power amplifier switched off, 5V output (sensor supply) is free
*³ No reverse polarity protection, the destruction limit is at overvoltage of >= 80V
*⁴ 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
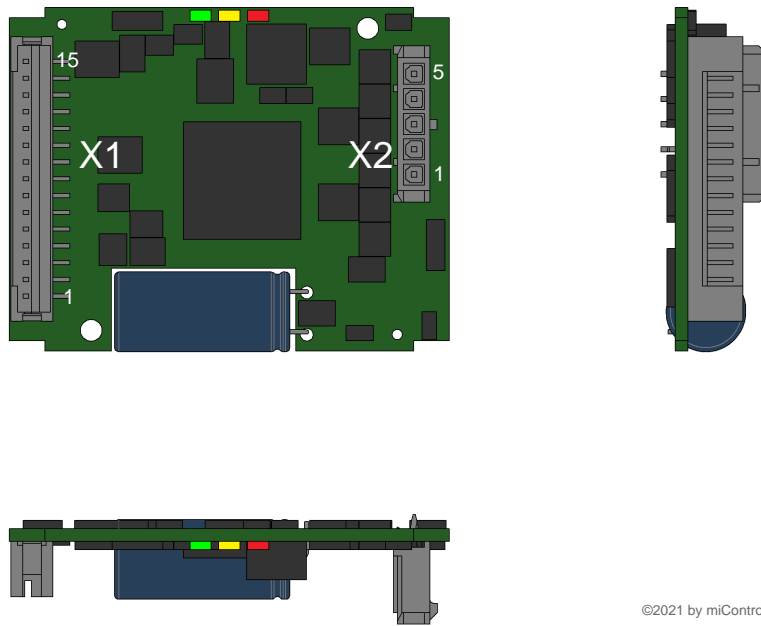no guarantee, since value is determined empirical, please consider the application notes to determine the continuous current
*⁵ default value
*⁶ Input voltage must not exceed Electronic supply voltage Ue

Additional technical data are available in mcManual.

Scheme

Terminal assignment

X1	I/O's and CAN	
1	GND	Ground of the auxiliary voltage Notice: don't connect with system GND
2	+U5V	5V output voltage (auxiliary voltage)
3	res.	Reserved
4	res.	Reserved
5	res.	Reserved
6	res.	Reserved
7	res.	Reserved
8	CAN Lo	CAN Low
9	CAN Hi	CAN High
10	Din2/Dout0	Digital input 2 / Digital output 0
11	Din1	Digital input 1
12	Din0	Digital input 0
13	Ain0	Analog input 0
14	GND	Ground for electronic supply voltage
15	+Ue	Electronic supply voltage
X2	Motor	
1	+Up	Power supply voltage
2	GND	Ground for power supply voltage
3	Ma	Motor phase A
4	Mb	Motor phase B
5	Mc	Motor phase C