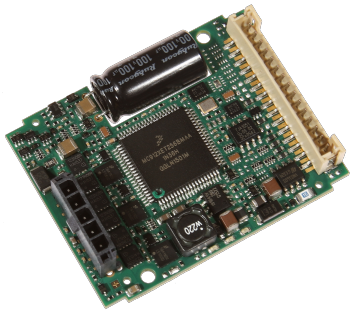
Servo amplifier

mcDSA-E61-Lp

Article number: 1511662



Picture similar

Technical data

Absolute maximum rating (destruction limits)	
Power supply voltage Up no polarity reversal protection	80 V
Continuous Electronic supply voltage Ue no polarity reversal protection	33 V
Short term peak voltage < 1s Ue no polarity reversal protection	37 V
Power	
Electronic supply voltage Ue	9..30 V
Electronic current consumption@ Ue=24V*¹	typ. 30 mA
Power supply voltage Up	9..60 V
Max. output current	15 A
Continuous output current @ Up=24V*²	5 A
Continuous output current @ Up=48V*²	4.3 A
PWM	
Output voltage	90% Up
PWM frequency	25, 32*³, 50 kHz
Mechanical	
Size LxWxH	52.5 x 41 x 11 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*⁴
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	0..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 Ue

Additional technical data are available in mcManual.

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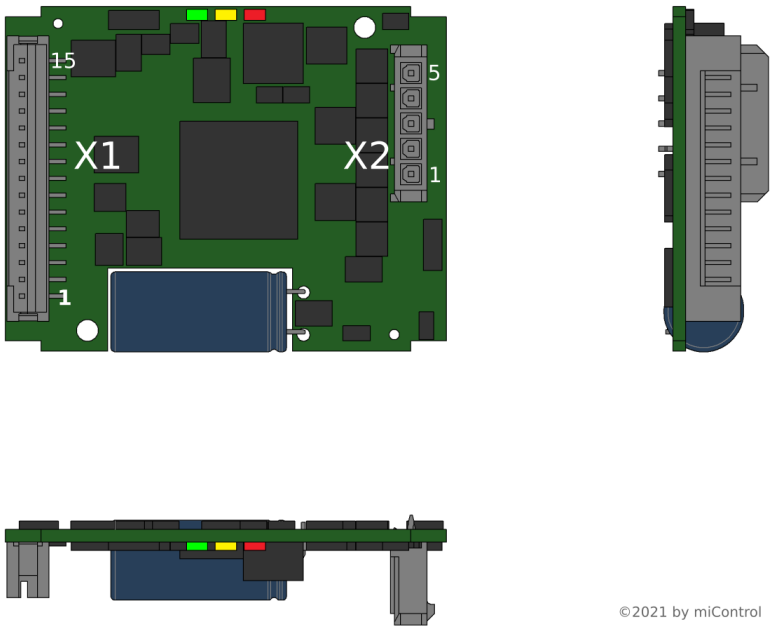
Scheme



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

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