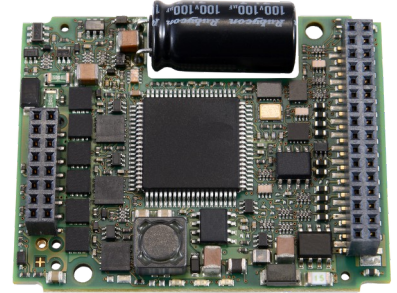Servo amplifier

mcDSA-E61-Modul

Article number: 1505014

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. 25 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
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
Operating temperature	-40..55 °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 kHz
Signal type	Magnetic sensor for magnet on the motor shaft

Digital inputs	
Number	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 Ue
Signal type	positive switching

Analog inputs	
Number	2 (Ain0..1)
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)
   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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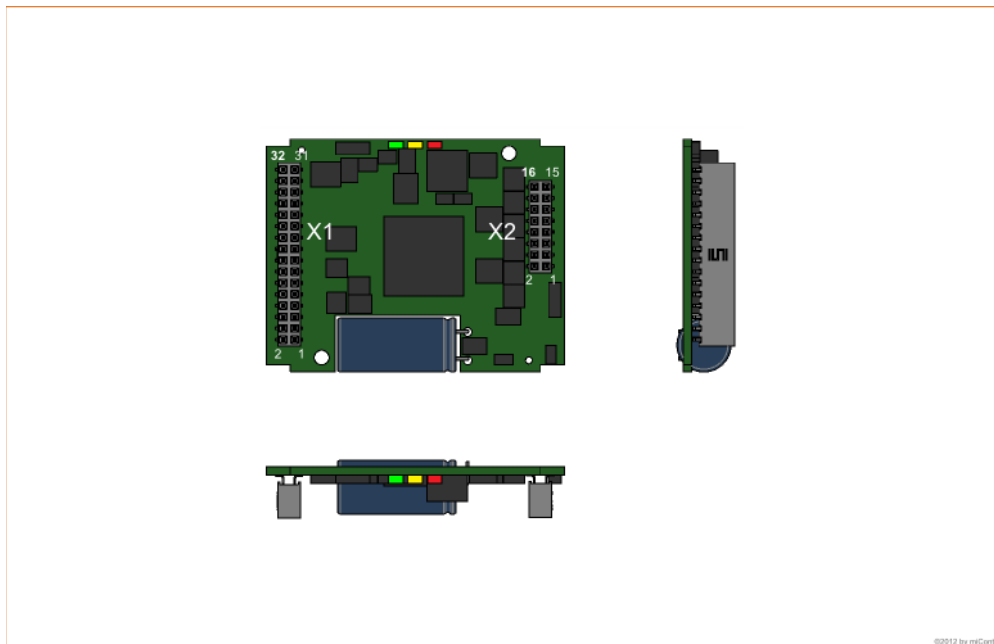
Terminal assignment

X1	I/O's and CAN	
1	res.	Reserved
2	Id7	Node id bit 7
3	+U5V	5V output voltage (auxiliary voltage)
4	Id6	Node id bit 6
5	res.	Reserved
6	Id5	Node id bit 5
7	res.	Reserved
8	Id4	Node id bit 4
9	res.	Reserved
10	Id3	Node id bit 3
11	res.	Reserved
12	Id2	Node id bit 2
13	res.	Reserved
14	Id1	Node id bit 1
15	CAN Lo	CAN Low
16	Id0	Node id bit 0
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	SpiSCK	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	Digital input 3
31	GND	Ground of the auxiliary voltage 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	res.	Reserved
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