miControl®

Servo amplifier
mcDSA-S60-Modul

Article number: 1505046
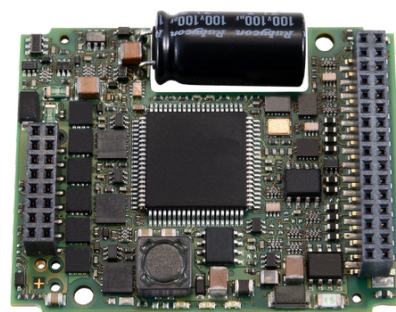
Picture similar

Technical data

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	10 A
Continuous output current @ Up=24V*²	3.5 A
Continuous output current @ Up=48V*³	3 A
PWM	
Output voltage	85% Up
PWM frequency	25, 32, 50*⁴ kHz
Mechanical	
Size LxWxH	53 x 41 x 10 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
Digital inputs	
Number	4 (Din0..3)
Low voltage	-30..5 V
High voltage	6..30 V

Analog inputs	
Number	2 (Ain0..1)
Signal type - Ain	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: 3.5 A → 2.9 Aeff, 3 A → 2.4 Aeff
no guarantee, since value is determined empirical, please consider the application notes to determine the continuous current
*³ connector cable with max. possible cable cross-section, PWM frequency 32 kHz, ambient temperature 40 °C (t >40 °C derating), RMS current: 3.3 A → 2.9 Aeff, 3 A → 2.4 Aeff
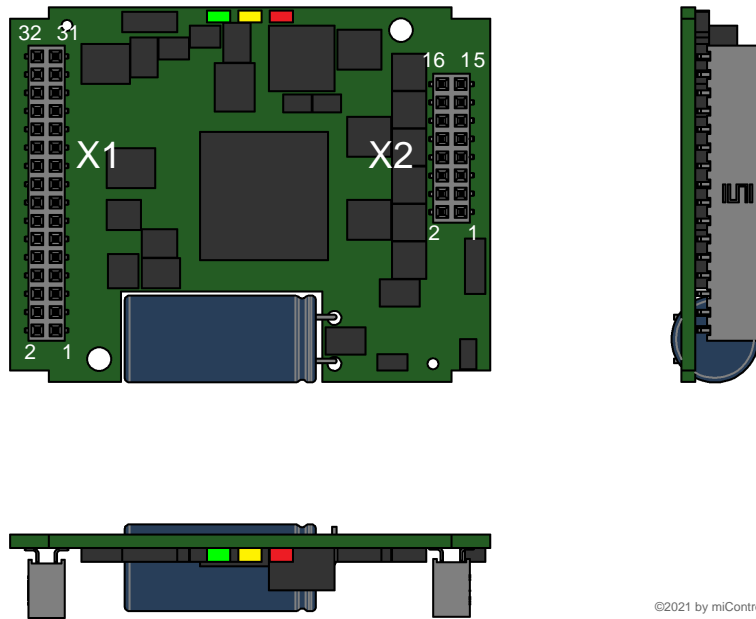no guarantee, since value is determined empirical, please consider the application notes to determine the continuous current
*⁴ default value

Additional technical data are available in mcManual.

Scheme

©2021 by miControl

Terminal assignment

X1	I/O's and CAN	
1	res.	Reserved
2	/Id7	Node-ID Bit 7 inverted
3	+U5V	5V auxiliary voltage (hall and encoder)
4	/Id6	Node-ID Bit 6 inverted
5	res.	Reserved
6	/Id5	Node-ID Bit 5 inverted
7	res.	Reserved
8	/Id4	Node-ID Bit 4 inverted
9	res.	Reserved
10	/Id3	Node-ID Bit 3 inverted
11	res.	Reserved
12	/Id2	Node-ID Bit 2 inverted
13	res.	Reserved
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	res.	Reserved
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
25	Din0	Digital input 0
26	Spi/SS	mcSPI Slave Select
27	Ain0	Analog input 0
28	SpiMISO	mcSPI Master In
29	Ain1	Analog input 1
30	Din3	Digital input 3
31	GND	Ground for 5V auxiliary voltage (hall and encoder)
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	Md	Motor phase D
15	Mc	Motor phase C
16	Md	Motor phase D