

Servo amplifier

mcDSA-S40-HC

Article number: 1511167



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. 35 mA
Power supply voltage Up	9..60 V
Max. output current	20 A
Continuous output current @ Up=24V**2	10 A
Continuous output current @ Up=48V**2	9 A
PWM	
Output voltage	85% Up
PWM frequency	32 kHz
Mechanical	
Size LxWxH	110 x 39 x 77 mm
Weight	295 g
Environment	
Protection class	IP20
Ambient temperature (operation)**3	-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

Auxiliary voltage	
Output voltage	5 V
Max. output current	0.2 A
Digital inputs	
Number - digital inputs	4 (Din0..3)
Low voltage	0..5 V
High voltage	8..30 V
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: 10 A → 8.1 Aeff, 9 A → 7.3 Aeff

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

*3 Hex-Switches should be not used at T < -25°C (setting of node ID only possible by firmware parameters)

Additional technical data are available in mcManual.



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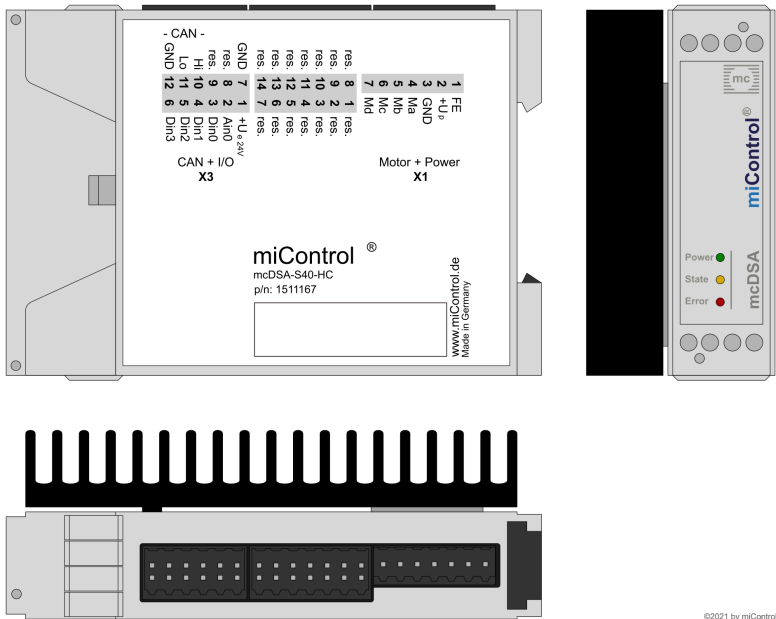
Chausseestraße 34

14979 Großbeeren (bei Berlin)

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Web: www.miControl.de e-mail: info@miControl.de Tel.: +49 (3379) 312 59-0 Fax: +49 (3379) 312 59-19

Scheme



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Terminal assignment

X1 Motor		
1	FE	Functional earth
2	+Up	Power supply voltage
3	GND	Ground for power supply voltage
4	Ma	Motor phase A
5	Mb	Motor phase B
6	Mc	Motor phase C
7	Md	Motor phase D
X2 Reserved		
1	res.	Reserved
2	res.	Reserved
3	res.	Reserved
4	res.	Reserved
5	res.	Reserved
6	res.	Reserved
7	+U5V	5V output voltage (auxiliary voltage)
8	res.	Reserved
9	res.	Reserved
10	res.	Reserved
11	res.	Reserved
12	res.	Reserved
13	res.	Reserved
14	GND	Ground of the auxiliary voltage Notice: don't connect with system GND
X3 I/O's and CAN		
1	+Ue24V	Electronic supply voltage
2	Ain0	Analog input 0
3	Din0	Digital input 0
4	Din1	Digital input 1
5	Din2	Digital input 2
6	Din3	Digital input 3
7	GND	Ground for electronic supply voltage
8	res.	Reserved
9	res.	Reserved
10	CAN Hi	CAN High
11	CAN Lo	CAN Low
12	CAN GND	CAN Ground