

Servo amplifier

mcDSA-E42-Modul

Article number: 1504952



Picture similar

Technical data

Supply voltages		Encoder	
Electronic supply voltage Ue* ¹	9..30 V	Type	sin / cos
Electronic current consumption@ Ue=24V* ²	typ. 50 mA	Signals	+Sin,-Sin,+Cos,-Cos
Power supply voltage Up* ³	9..60 V	Resolution	13 bit per sine period
Output current		Input voltage	1 V peak-peak, differential
Max. output current	30 A	Signal type	sine/cosine, analog, differential
Continuous output current @ Up=24V* ⁴	10 A	Digital inputs	
Continuous output current @ Up=48V* ⁴	8.5 A	Number - digital inputs	7 (Din0..6)
PWM		Low voltage	0..5 V
Output voltage	90% Up	High voltage	8..30 V
PWM frequency	25, 32* ⁵ , 50 kHz	Digital outputs	
Mechanical		Number	1 (Dout0)
Size LxWxH	97 x 71 x 12 mm	Continuous output current	1.5 A
Weight	54 g	Load	resistive, inductive
Environment		Output voltage	Electronic supply voltage Ue
Protection class	IP00	Signal type	positive switching
Ambient temperature (operation)	-40..70 °C	Analog inputs	
Ambient temperature (storage)	-40..85 °C	Number	2 (Ain0..1)
Rel. humidity (non-condensing)	5..90 %	Signal type - Ain	0..10 V, 12 Bit, single ended
CAN bus			
Protocol	DS301		
Device profile	DS402		
Max. baudrate	1 Mbit/s		
CAN specification	2.0B		
Galvanically isolated	no		

*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: 10 A → 8.2 Aeff, 8.5 A → 6.9 Aeff

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

*⁵ default value

Additional technical data are available in mcManual.



miControl® GmbH

Chausseestraße 34

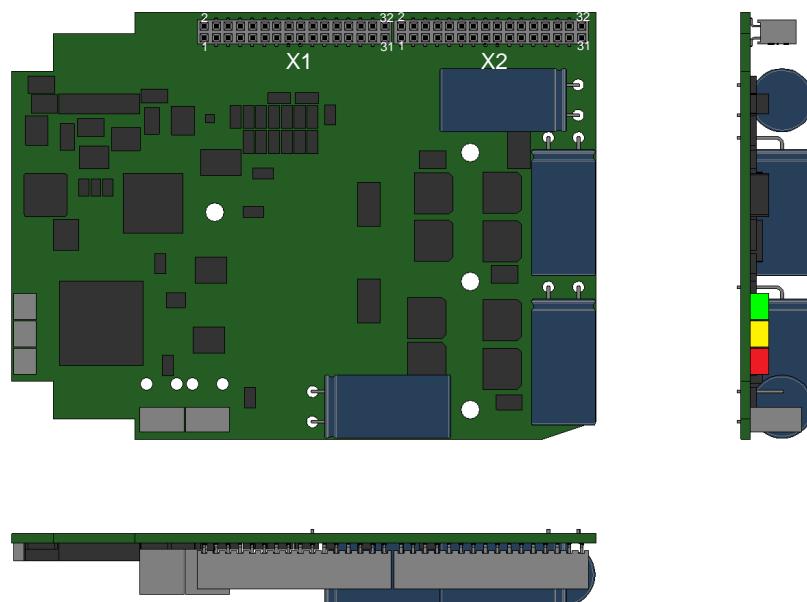
14979 Großbeeren (bei Berlin)

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mcDSA-E42-Modul - PV1.13.00.00 / DV1.00.00.03

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	Hall, inc. encoder, I/O's and CAN	X2	Motor
1	CAN Hi		CAN High
2	CAN Lo		CAN Low
3	Din6		Digital input 6
4	res.		Reserved
5	Din4		Digital input 4
6	Din5		Digital input 5
7	Din2		Digital input 2
8	Din3		Digital input 3
9	Din0		Digital input 0
10	Din1		Digital input 1
11	Ain0		Analog input 0
12	Ain1		Analog input 1
13	SpiMISO		mcSPI Master In
14	Spi/SS		mcSPI Slave Select
15	SpiMOSI		mcSPI Master Out
16	SpiCLK		mcSPI Clock
17	Rx0		UART0 Receive Signal
18	Tx0		UART0 Transmit Signal
19	Erw1		mcSPI expansion signal 1
20	Erw2		mcSPI expansion signal 2
21	res.		Reserved
22	res.		Reserved
23	+Cos		Encoder, plus cosine signal
24	-Cos		Encoder, minus cosine signal
25	+Sin		Encoder, plus sine signal
26	-Sin		Encoder, minus sine signal
27	res.		Reserved
28	res.		Reserved
29	res.		Reserved
30	res.		Reserved
31	res.		Reserved
32	res.		Reserved
		1	+U5V
		2	GND
		3	Dout0
		4	res.
		5	+Ue24V
		6	+Ue24V
		7	res.
		8	res.
		9	res.
		10	res.
		11	Mc
		12	Mc
		13	Mc
		14	Mc
		15	Mb
		16	Mb
		17	Mb
		18	Mb
		19	Ma
		20	Ma
		21	Ma
		22	Ma
		23	GND
		24	GND
		25	GND
		26	GND
		27	+Up
		28	+Up
		29	+Up
		30	+Up
		31	FE
		32	FE