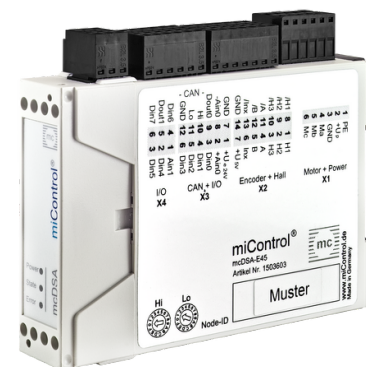


Servo amplifier

mcDSA-E45

Article number: 1511139



Picture similar

Technical data

Absolute maximum rating	
Voltage (destruction limit) Up no polarity reversal protection	80 V
Continuous voltage (destruction limit) Ue no polarity reversal protection	33 V
Short term peak voltage < 1s Ue (destruction limit) no polarity reversal protection	37 V
Power	
Electronic supply voltage Ue	9..30 V
Electronic current consumption @ Ue=24V*1	typ. 60 mA
Power supply voltage Up	9..60 V
Max. output current	50 A
Continuous output current @ Up=24V*2	10 A
Continuous output current @ Up=48V*2	8.5 A
Output voltage	100% Up
PWM frequency	25, 32*3, 50 kHz
Min. load inductance	200 uH
Mechanical	
Size LxWxH	110 x 22.5 x 77 mm
Weight	110 g
Environment	
Protection class	IP20
Operating temperature	-25..55 °C
Rel. humidity (non-condensing)	5..85 %
CAN bus	
Protocol	DS301
Device profile	DS402
Max. baudrate	1 Mbit/s
CAN specification	2.0B
Galvanically isolated	no

Sensor supply (Encoder/Hall)	
Output voltage	5 V
Max. output current	0.2 A
Incremental encoder	
Type	incremental
Signals	A, /A, B, /B, Inx, /Inx
Max. frequency (per channel)	500 kHz
Input voltage (24V tolerant)	0..5 V
Signal type	differential, open collector, single ended
Hall sensors	
Signals	H1, /H1, H2, /H2, H3, /H3
Max. frequency (per channel)	10 kHz
Input voltage (24V tolerant)	0..5 V
Signal type	differential, open collector, single ended
Digital inputs	
Number	8 (Din0..7)
Low voltage	0..5 V
High voltage	8..30 V
Digital outputs	
Number	2 (Dout0..1)
Continuous output current	2.5 A
Load	resistive, inductive
Output voltage	Electronic supply voltage Ue
Signal type	positive switching
Analog inputs	
Number	1 (Ain0)
Signal type	+/- 10 V, 12 Bit, differential
Number	1 (Ain1)
Signal type	+/- 10 V, 12 Bit, single ended

*1 Power amplifier switched off, 5V output (sensor supply) is free

*2 ambient temperature 40 °C, PWM frequency 32 kHz
at ambient temperature > 40 °C derating, no guarantee, since value is determined empirical

*3 default value

Additional technical data are available in mcManual.



Scheme



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
X2 Hall and inc. encoder		
1	H1	Hall sensor 1
2	H2	Hall sensor 2
3	H3	Hall sensor 3
4	A	Inc. encoder, A channel
5	B	Inc. encoder, B channel
6	Inx	Inc. encoder, index channel
7	+U5V	5V auxiliary voltage (hall and encoder)
8	/H1	Hall sensor 1 inverted
9	/H2	Hall sensor 2 inverted
10	/H3	Hall sensor 3 inverted
11	/A	Inc. encoder, A channel inverted
12	/B	Inc. encoder, B channel inverted
13	/Inx	Inc. encoder, index channel inverted
14	GND	Ground for 5V auxiliary voltage (hall and encoder)
X3 I/O's and CAN		
1	+Ue24V	Electronic supply voltage
2	+Ain0	Analog input 0, plus
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	-Ain0	Analog input 0, minus
9	Dout0	Digital output 0
10	CAN Hi	CAN High
11	CAN Lo	CAN Low
12	CAN GND	CAN Ground

X4 I/O's		
1	Ain1	Analog input 1
2	Din4	Digital input 4
3	Din5	Digital input 5
4	Din6	Digital input 6
5	Dout1	Digital output 1
6	Din7	Digital input 7