

Servo amplifier

mcDSA-E20-PROFIBUS

Article number: 1503579



Picture similar

Technical data

Power	
Electronic supply voltage Ue	9..30 V
Electronic current consumption @ Ue=24V (Bus not connected)	typ. 70 mA
Power supply voltage Up	9..60 V
Max. output current	50 A
Output voltage	90% Up
PWM frequency	25, 32*1, 50 kHz
Min. load inductance	200 µH
Mechanical	
Size LxWxH	111 x 100 x 53 mm
Weight	400 g
Environment	
Protection class	IP20
Operating temperature	0..70 °C
Rel. humidity (non-condensing)	5..85 %
Incremental encoder	
Type	incremental
Signals	A, /A, B, /B, Inx, /Inx
Max. frequency (per channel)	500 kHz
Input voltage (24V tolerant)	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)	5 V
Signal type	differential, open collector, single ended
Digital inputs	
Number	4 (Din0..3)
Low voltage	-30..5 V
High voltage	6..30 V
Digital outputs	
Number	1 (Dout0)
Continuous output current	2.5 A

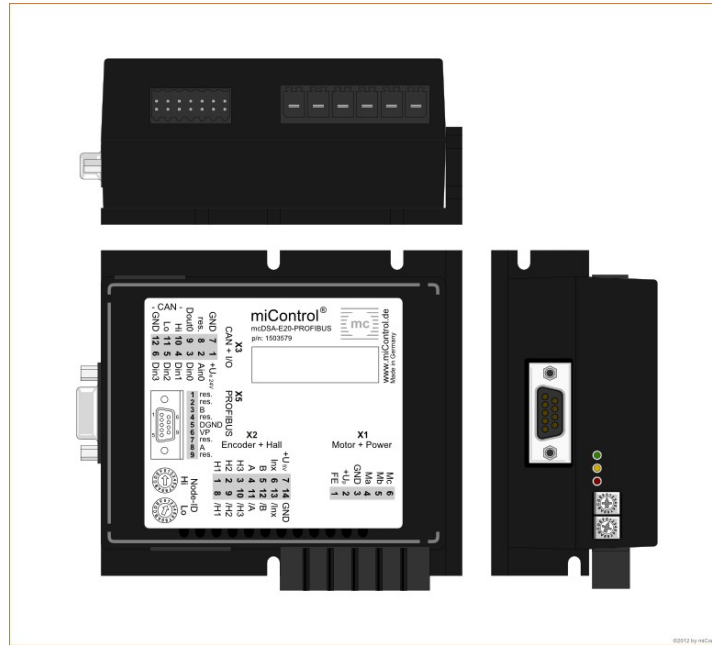
*1 default value

*2 ambient temperature 40 °C, PWM frequency 32 kHz

Additional technical data are available in mcManual.

Load	resistive, inductive
Output voltage	Electronic supply voltage Ue
Signal type	positive switching
Analog inputs	
Number	1 (Ain0)
Signal type	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
PROFIBUS	
Type	PROFIBUS-DP Slave
Physical layer	EIA-485
Bus controller	VPC
Max. baudrate	12 Mbit/s
Integrated bus termination	no
Protocol	DPV0, DPV1
Profile	PROFdrive

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
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	Dout0	Digital output 0
10	CAN Hi	CAN High
11	CAN Lo	CAN Low
12	CAN GND	CAN Ground

X5 PROFIBUS		
1	res.	Reserved
2	res.	Reserved
3	B	Signal B
4	res.	Reserved
5	DGND	Ground
6	VP	5V auxiliary voltage
7	res.	Reserved
8	A	Signal A
9	res.	Reserved