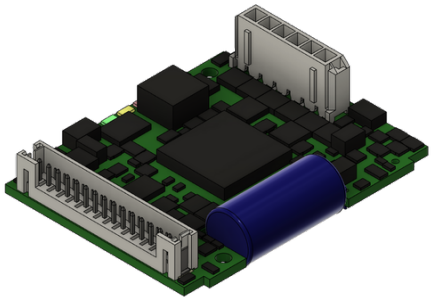
Servo amplifier

mcDSA-FS65-LP

Article number: 1516017



Picture similar

Technical data

Supply voltages	
Electronic supply voltage Ue*¹	9..30 V
Electronic current consumption@ Ue=24V*²	typ. 35 mA
Power supply voltage Up*³	9..60 V
Output current	
Max. output current	10 A
Continuous output current @ Up=24V*⁴	3.5 A
Continuous output current @ Up=48V*⁵	3 A
PWM	
Output voltage	85% Up
PWM frequency	32 kHz
Commutation type	Field Oriented Control
Mechanical	
Size LxWxH	53 x 41 x 13 mm
Weight	18 g
Environment	
Protection class	IP00
Ambient temperature (operation)	-25..70 °C
Ambient temperature (storage)	-25..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

Sensor supply (Encoder)	
Output voltage	5 V
Max. output current	0.2 A
Incremental encoder	
Type	incremental
Signals	A,B,Inx
Max. freqency (per channel)	100 kHz
Input voltage	0..5 V
Signal type	open collector, single ended
Digital inputs	
Number - digital inputs	3 (Din0..2)
Low voltage	0..5 V
High voltage	8..30 V
Notice	Din2 parallel with Dout0
Digital outputs	
Number	1 (Dout0)
Continuous output current	1.5 A
Load	resistive, inductive
Output voltage	Electronic supply voltage Ue
Signal type	positive switching
Notice	Dout0 parallel with Din2
Analog inputs	
Number	1 (Ain0)
Signal type	+/- 10 V, 12 Bit, single ended

*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: 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
*⁵ 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

Additional technical data are available in mcManual.

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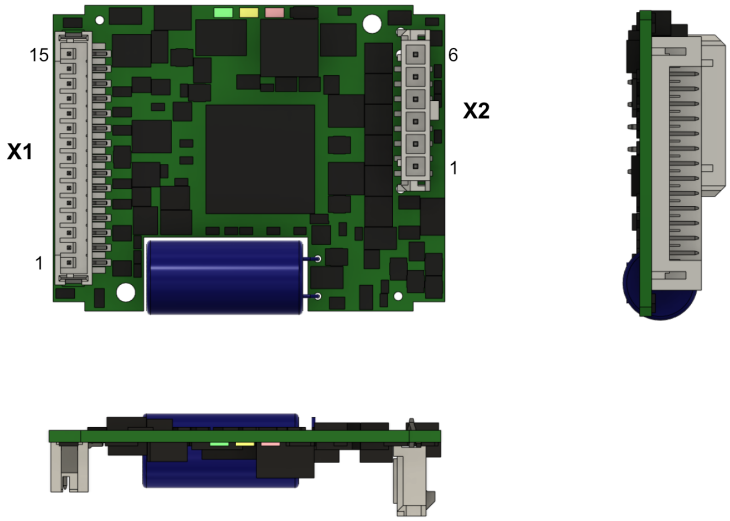
Scheme



Terminal assignment

X1	Inc. encoder, I/O's and CAN	
1	GND	Ground for sensor supply Notice: don't connect with system GND
2	+U5V	5V output voltage for sensor supply Sensors: encoder
3	B	Inc. encoder, B channel
4	A	Inc. encoder, A channel
5	Inx	Inc. encoder, index channel
6	res.	Reserved
7	res.	Reserved
8	CAN Lo	CAN Low
9	CAN Hi	CAN High
10	Din2/Dout0	Digital input 2 / Digital output 0
11	Din1	Digital input 1
12	Din0	Digital input 0
13	Ain0	Analog input 0
14	GND	Ground for electronic supply voltage
15	+Ue	Electronic supply voltage
X2	**Motor**	
1	+Up	Power supply voltage
2	GND	Ground for power supply voltage
3	Ma	Motor phase A
4	Mb	Motor phase B
5	Mc	Motor phase C
6	Md	Motor phase D

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