NEW

Motion Controller

V2.5, 4-Quadrant PWM
with RS232 or CAN interface

For combination with:
Linear DC-Servomotors
with analog Hall sensors

Series MCLM 3006

		MCLM 3006 S	
Power supply	U_B	12 ... 30	V DC
PWM switching frequency	f_{PWM}	78,12	kHz
Efficiency	η	95	%
Max. continuous output current [1]	I_{dauer}	6	A
Max. peak output current	I_{max}	10	A
Total standby current	I_{el}	0,06	A
Speed range [2]		2 ... 10 000	mm/s
Scanning rate	N	200	µs
Encoder resolution with linear Hall Sensors [3]		≤ 3 000	inc./τ_m
Resolution with external encoder		≤ 65 535	inc./mm
Input/output (partially free configurable)		3	
Program memory: [4]			
– memory size		3,3	kWord
– Number of instructions		approx. 1 000	instructions
Operating temperature range		– 40 ... + 85	°C
Housing material		zinc, black coated	
Weight		160	g

[1] at 22°C ambient temperature
[2] Speed in the range 1 ... 5 mm/s may have fluctuations due to the motor type, load characteristics and controller parameters
[3] τ_m is the magnetic pitch of the linear motor
[4] Only for version with serial interface

Connection information				
Connection communication:				
Interface		RS232	CAN	
Communication profile		Faulhaber - ASCII	CANopen	
Max. transfer speed rate RS232		115 200		baud
Max. transfer speed rate CAN			1	Mbit/s
Connection 3 "AGND":				
– analog ground		analog GND		
– digital input external encoder		channel B		
	R_{In}	10		kΩ
	f	≤ 400		kHz
Connection 4 "Fault":				
– digital input	R_{In}	100		kΩ
– digital output (open collector)	U	≤ U_B		V
	I	≤ 30		mA
	clear	switched to GND		
	set	high-impedance		
fault output	no error	switched to GND		
	error	high-impedance		
signal output	f	≤ 2		kHz
	resolution	1...255		inc./τ_m
Connection 5 "AnIn":		"AGND" as GND		
– analog input set position value	U_{In}	± 10		V
– digital input external encoder		channel A		
	f	≤ 400		kHz
step frequency input	f	≤ 400		kHz
	R_{In}	5		kΩ
Connection 6 "U_B":	U_B	12 ... 30		V DC
Connection 7 "GND":		ground		
Connection 8 "3. In":				
– digital input	R_{In}	22		kΩ
– electronic supply voltage	U_{EL}	12 ... 30		V DC

For notes on technical data and lifetime performance refer to "Technical Information".

Connection information

Connection 9-11 „Sensor A, B, C“:				
Hall sensor input	Sensor A		Hall Sensor A	
	Sensor B		Hall Sensor B	
	Sensor C		Hall Sensor C	
		U_{In}	≤ 5	V
Connection 12 “U_{CC}”:				
Output voltage for external use [1]		U_{Out}	5	V
Load current		I_{Out}	≤ 60	mA
Connection 13 “SGND”:				
Signal GND			Signal masse	
Connection 14-16 „Motor A, B, C“:				
Motor connection	Motor A		Phase A	
	Motor B		Phase B	
	Motor C		Phase C	
		U_{Out}	0 … U_B	V DC
PWM switching frequency		f_{PWM}	78,12	kHz

[1] E.g. Hall Sensors

The signal level (PLC or TTL) of the digital inputs can be set over the interface (see operating instruction manual).
Standard (PLC): Low 0...7V / High 12,5V...U_B, TTL: Low 0...0,5V / High 3,5V...U_B

D-SUB-connector information

Connection D-SUB-connector:	**RS232**	**CAN**
Pin 2	RxD	CAN-L
Pin 3	TxD	GND
Pin 5	GND	-
Pin 7	-	CAN-H

Options

- Separate power supply (Option no.: 3085)

Accessories

- 6501.00128: USB-CAN-Adapter (only for version with CAN interface)
- 6501.00131: USB-RS232 Adapter (only for version with serial interface)
- 6501.00117: Adapter for LM 0830
- 6501.00118: cable with connector for Adapter LM 0830

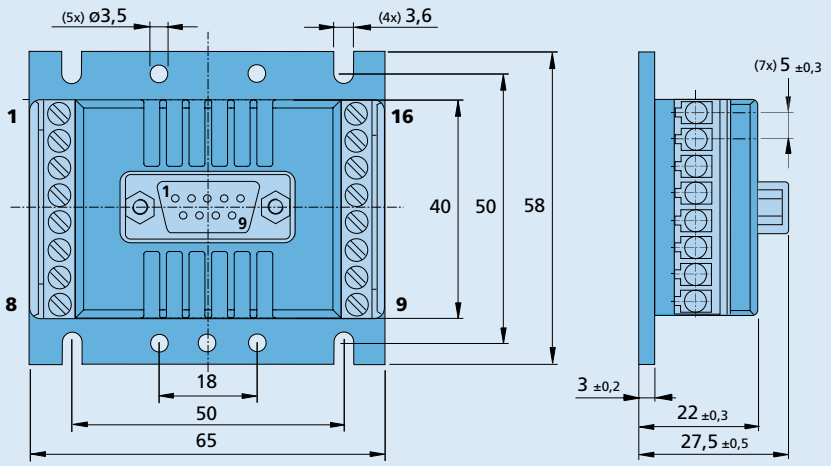
Full product description

- Example:

  MCLM 3006 S RS (RS232)
  MCLM 3006 S CF (CANopen with Faulhaber CAN)

Dimensional drawing and connection information for MCLM 3006 S

Scale reduced



Supply connection

No.	Function
1	TxD / CAN_H
2	RxD / CAN_L
3	AGND
4	Fault
5	AnIn
6	U_B
7	GND
8	3. In

Motor connection

No.	Function
9	Sensor A
10	Sensor B
11	Sensor C
12	U_{CC}
13	SGND
14	Motor A
15	Motor B
16	Motor C