

MC 5004 C PDIO

V3.0, 4-Quadrant PWM

with connection of a pulse/direction signal at digital input

MC 5004 C PD IO

Values at 22°C		MC 5004 C PD IO	DC/BL/LM
Power supply	U_P	12 ... 50	V DC
PWM switching frequency	f_{PWM}	100	kHz
Efficiency electronic	η	95	%
Max. continuous output current	I_{cont}	4	A
Max. peak output current ¹⁾	I_{max}	12	A
Standby current for electronic (@ $U_P = 24V$)	I_{el}	0.06	A
Operating temperature range		-40 ... +85	°C
Mass		155	g

¹⁾ S2 mode for max. 1s

Interfaces	MC 5004 C PD IO
Configuration from Motion Manager 6.7	USB

Basic features

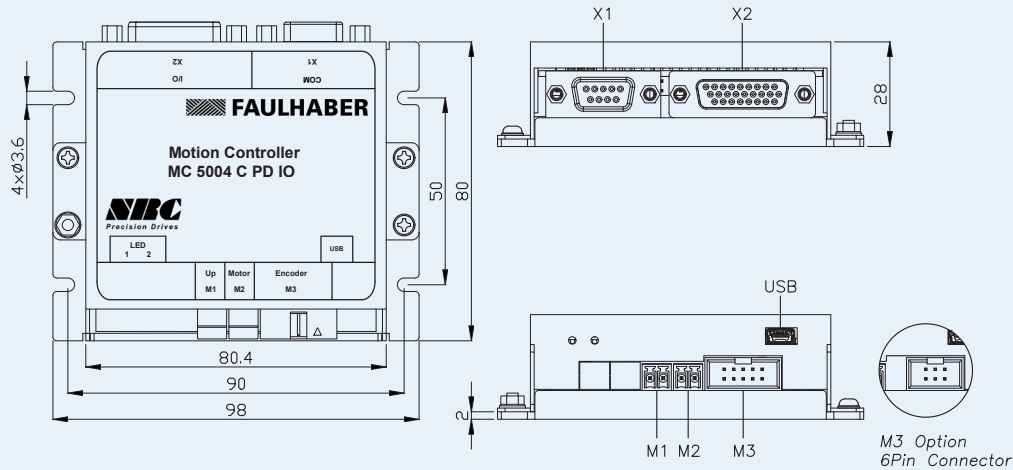
- Control of brushless, DC- and linear motors
- Supported sensor systems: incremental encoders (optical or magnetic), Hall sensors (digital or analog)
- Positioning resolution when using analog Hall sensors as position encoder: 4096 increments per revolution
- Pulse/direction input, 6 digital inputs, 3 digital outputs, 2 analog inputs, flexible configuration
- Setpoint specification via USB, quadrature signal, pulse and direction or analog inputs
- Optional stand-alone operation via application programs in all interface versions

Range of functions

Pulse Input frequency	Up to 500 KHz
Operating modes	PP, PV and homing acc. to IEC 61800-7-201 or IEC 61800-7-301 as well as position-, speed- and torque control via analog setpoint or voltage controller
Speed range for brushless motors with number of pole pairs 1	0 min ⁻¹ ... 30 000 min ⁻¹ with sinusoidal commutation (optionally to 60 000 min ⁻¹ with block commutation)
Application programs	Max. 8 application programs (BASIC), one of which is an autostart function
Additional functions	Touch-probe input, connection of a second incremental encoder, control of a holding brake
Indicator	LEDs for displaying the operating state
Motor types	DC, BL motors and linear motors

Dimensional drawing (version A - DC Brushed Servomotor)

Scale reduced mm

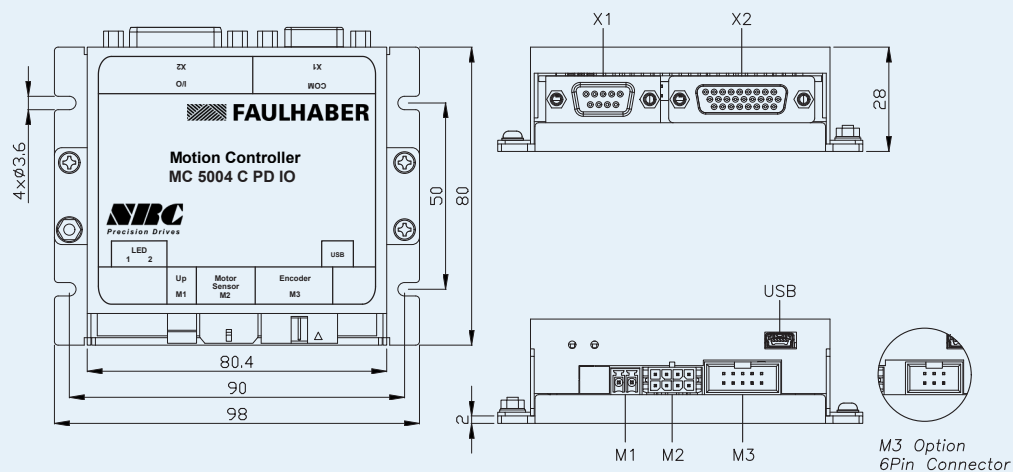


Connection information

Designation	Function
M1(U _p)	Power supply
M2(Motor)	Connection of the motor phases
M3(Encoder)	Connection of an incremental encoder with or without line driver
USB	Connection of the USB communication
X1(COM)	Encoder output
X2(I/O)	Inputs or outputs for external circuits

Dimensional drawing (version B - DC Brushless Servomotor) (Linear DC Servomotor-01)

Scale reduced mm



Connection information

Designation	Function
M1(U _p)	Power supply
M2(Motor+Sensor)	Connection of the motor phases and the Hall sensors
M3(Encoder)	Connection of an incremental encoder with or without line drive
USB	Connection of the USB communication
X1(COM)	Encoder output
X2(I/O)	Inputs or outputs for external circuits