MC 5004 C RS/CO

V3.0, 4-Quadrant PWM
with EtherCAT interface

MC 5004 C RS/CO

Values at 22°C		MC 5004 C RS/CO 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 RS/CO
Configuration from Motion Manager 6.7	RS232 / USB
Fieldbus	RS232 / CANopen

Basic features

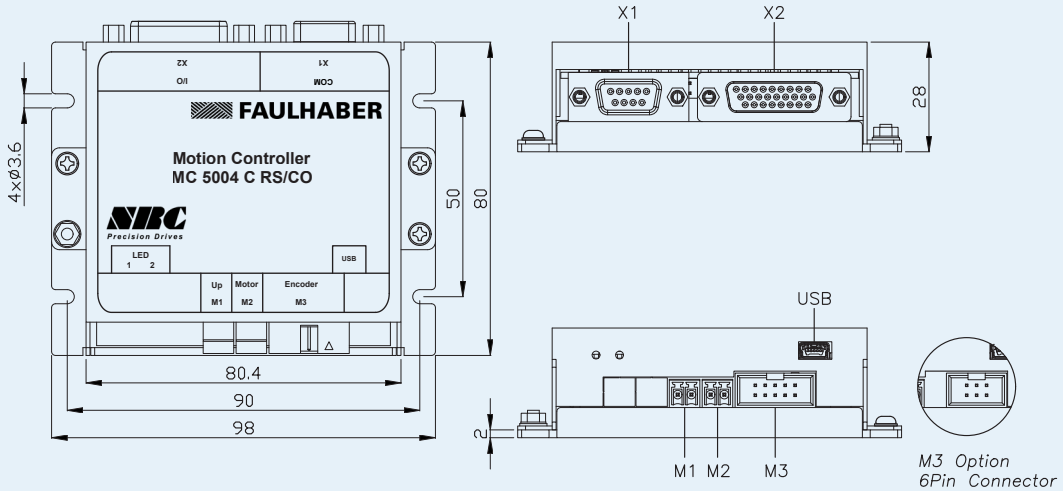
- Control of brushless, DC- and linear motors
- Supported sensor systems: absolute encoders (AES or SSI), incremental encoders (optical or magnetic), Hall sensors (digital or analog), tachometers
- Positioning resolution when using analog Hall sensors as position encoder: 4096 increments per revolution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

Range of functions

Operating modes	PP, PV, PT, CSP, CSV, CST 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 Trace as recorder (scope function) or logger
Motor types	DC, BL - and linear motors

Dimensional drawing (version A - DC Brushed Servomotor)

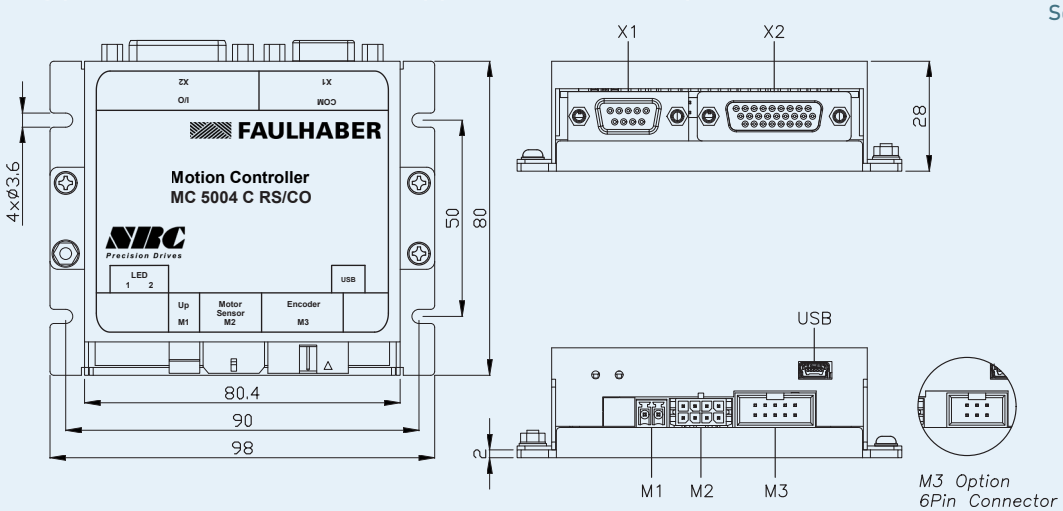
Scale reduced mm



Connection information	
Designation	Function
M1(Up)	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)	Interface connection RS-232, CANopen
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(Up)	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 driver.
	Alternatively an absolute encoder can be connected with or without line driver
USB	Connection of the USB communication
X1(COM)	Interface connection RS-232, CANopen
X2(I/O)	Inputs or outputs for external circuits

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