

Motion Controllers

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

MCDC 3003 P

Values at 22°C		MCDC 3003 P	
Power supply electronic	U_B/U_{EL}	12 ... 30	V DC
Power supply motor ¹⁾	$-/U_B$	0 ... 30	V DC
PWM switching frequency	f_{PWM}	78,12	kHz
Efficiency electronic	η	95	%
Max. continuous output current	I_{cont}	3	A
Max. peak output current ²⁾	I_{max}	10	A
Standby current for electronic (at $U_B=24V$)	I_{el}	0,06	A
Operating temperature range		-40 ... +85	°C
Mass		18	g

¹⁾ Only available for option 3085 (separate power supply)

²⁾ S2 mode for max. 2s

Interfaces	MCDC 3003 P RS	MCDC 3003 P CF	MCDC 3003 P CO
Interface	RS232	CAN (FAULHABER channel)	CAN (CiA)
Protocol	FAULHABER - ASCII	CANopen	CANopen

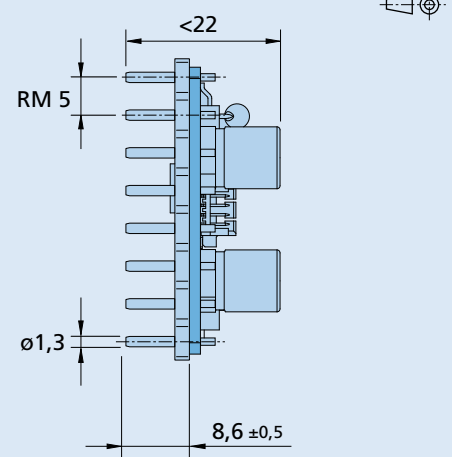
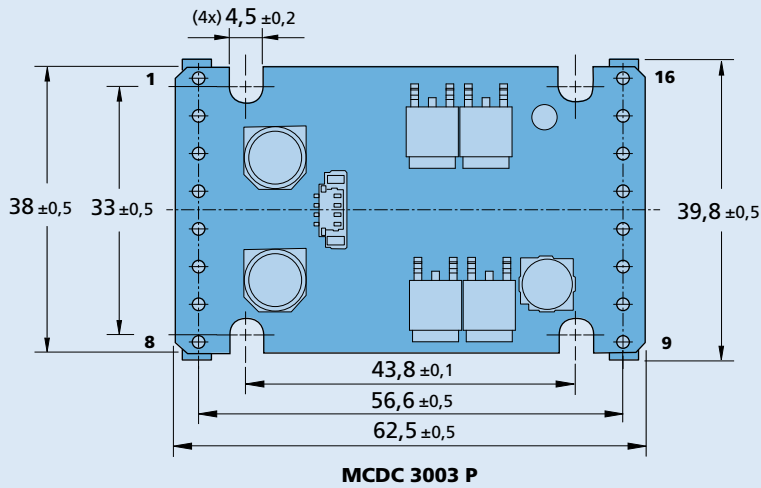
Basic features

- Operation of brushed DC-Micromotors
- Supported sensor systems: incremental encoders
- Positioning resolution per revolution depending on the used encoder type
- Max. 5 digital inputs, max. 1 digital output, 1 analog input. Not all I/Os available depending on wiring
- Setpoint specification via fieldbus, quadrature signal, pulse and direction or analog inputs
- Optional stand-alone operation via application programs with the RS232 interface version

Range of functions

Operating modes (RS and CF Versions)	Position, speed and torque control with setpoint specification via interface or analog. Position control with Gearing Mode or stepper motor operation. Operation as Servo Amplifier in voltage controller mode
Operating modes (CF and CO Versions)	Profile Position Mode (PP), Profile Velocity Mode (PV), Homing Mode.
Speed range	5 min ⁻¹ ... 30 000 min ⁻¹
Application programs	Available in versions with RS232 interface
Additional functions	Overload protection for electronics and motor, self-protection from overheating, over-voltage protection in generator mode.
Indicator	Trace as logger
Motor types	Brushed DC-Micromotors with incremental encoders

Dimensional drawing



Options and connection information

Example product designation: **MCDC 3003 P RS 3085**

Option	Type	Description
3085	Supply	Separate power supply for motor and electronics

Connection	
No. Function	No. Function
1 TxD / CAN_H	9 5. In
2 RxD / CAN_L	10 4. In
3 AGND	11 Ch A
4 Fault	12 Ch B
5 AnIn	13 U_{cc}
6 U_B	14 SGND
7 GND	15 Mot +
8 3. In	16 Mot -

Max. recommended current for continuous operation:
3A (at 22 °C ambient temperature)

CAUTION: Thermal shutdown is NOT guaranteed!

Note: For details on the connection assignment, see device manual MC.

Product combination

DC-Motors	Cables / Accessories
1741 ... CXR 2224 ... SR 2230 ... S 2232 ... SR 2233 ... S 2237 ... CXR 2342 ... CR 2642 ... CR 2642 ... CXR 2657 ... CR 2657 ... CXR 2668 ... CR 3242 ... CR 3257 ... CR 3272 ... CR	To view our large range of accessory parts, please refer to the „Accessories“ chapter.