

Speed Controllers

4-Quadrant PWM configurable via PC

SC 5004 P

Values at 22°C		SC 5004 P	
Power supply electronic	U_P	6 ... 50	V DC
Power supply motor	U_{mot}	0 ... 50	V DC
PWM switching frequency ¹⁾	f_{PWM}	96	kHz
Efficiency electronic	η	95	%
Max. continuous output current	I_{cont}	4	A
Max. peak output current ²⁾	I_{max}	8	A
Standby current for electronic (@ $U_P=24V$)	I_{el}	0,1	A
Operating temperature range		-25 ... +60	°C
Mass		14	g

¹⁾ for brushless DC-Motors without Hall sensors: $f_{PWM} = 24$ kHz

²⁾ S2 mode for max. 6s

Interfaces

Configuration of setpoint specifications, operating mode and controller parameters via USB programming adapter for Speed Controller.

Note: The programming adapter cannot be directly connected in this version of the Speed Controller.

Basic features

Speed-controlled operation of:

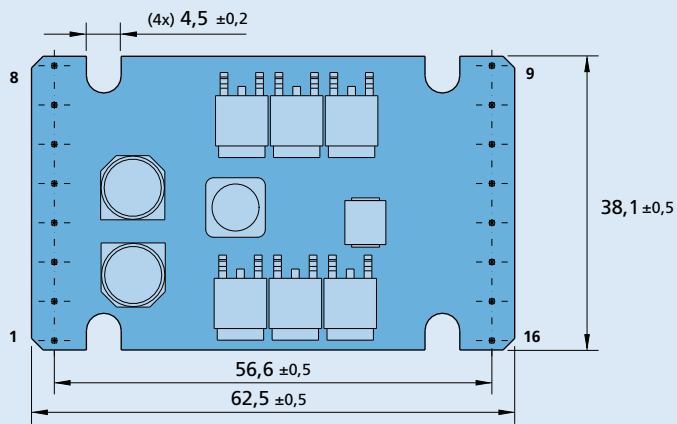
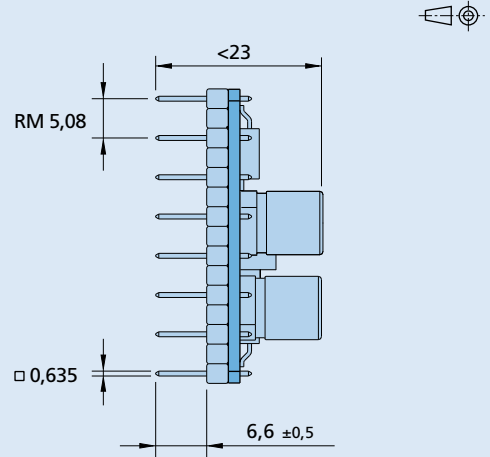
- DC-Micromotors operated with incremental encoders
- Brushless DC-Servomotors operated with digital or analog Hall sensors

- Brushless DC-Servomotors operated with digital Hall sensors and incremental encoders
- Brushless DC-Servomotors operated with absolute encoders

Note: For version, see options and connection information.

Range of functions

Description	Intermittent operation with up to double the continuous current. Separate voltage supply for motor and electronics. Integrated speed control by means of PI controller. Setpoint input of the speed via PWM or analog voltage value. Switching input for defining the direction of rotation of the motor. Digital output, can be programmed either as frequency output or as error output
Additional functions	Integrated current limitation to protect against thermal overload. Can optionally be operated in voltage controller mode or fixed speed mode.

Dimensional drawing

SC 5004 P

Options and connection information

 Example product designation: **SC 5004 P 3530**

Option	Type	Description	Connection	
			No. Function	No. Function
4763	BL	Absolute encoder 2 pole motors	1 U_p	9 Mot C
4289	BL	Analog Hall sensors 2 pole motors	2 U_{mot}	10 Mot B
3980	BL	Absolute encoder 4 pole motors	3 GND	11 Mot A
4764	BL	Analog Hall sensors 4 pole motors	4 U_{rsoll}	12 SGND
3530	BL	Digital Hall sensors 2 pole motors	5 DIR	13 V _{cc}
3531	DC	Incremental encoder	6 FG	14 Sens C
4475	BL	Digital Hall sensors + incremental encoder	7 IO 2	15 Sens B
4476	BL	Digital Hall sensors + brake/enable	8 IO 1	16 Sens A
6339	BL	Digital Hall sensors 4 pole motors		
6340	BL	Digital Hall sensors 14 pole motors		

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

Product combination

DC-Motors	Brushless DC-Motors	Cables / Accessories
2237 ... CXR	1645 ... BHS	To view our large range of accessory parts, please refer to the „Accessories“ chapter.
2342 ... CR	1660 ... BHS	
2642 ... CR	1660 ... BHT	
2642 ... CXR	2036 ... B	
2657 ... CR	2057 ... B	
2657 ... CXR	2057 ... BA	
2668 ... CR	2232 ... BX4	
3242 ... CR	2250 ... BX4	
3257 ... CR	2444 ... B	
3272 ... CR	3056 ... B	
3863 ... CR	3242 ... BX4	
3890 ... CR	3268 ... BX4	
	3564 ... B	
	4221 ... BXT R	
	4221 ... BXT H	
	4490 ... B	
	4490 ... BS	