



SC8

Servo Controller with integrated power electronics

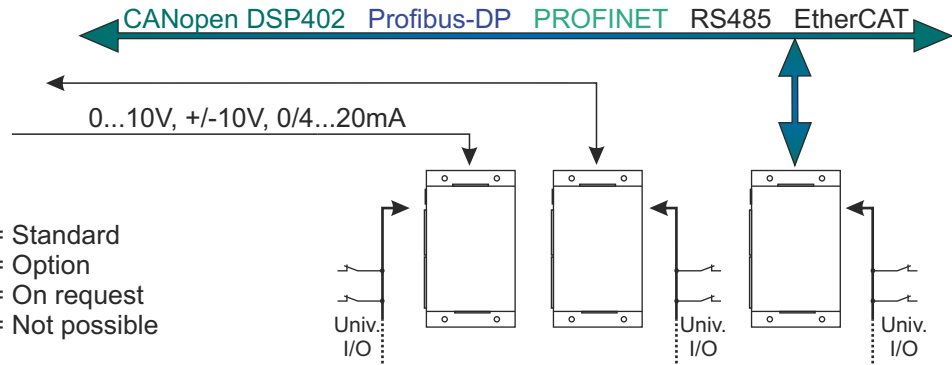
- Positioning and speed/torque controller
- Digital 4-Q regulator
- Direct status- and diagnostic function through LED's
- Digital inputs and outputs (24V)
- RS232 interface for parameter setting
- 24 - 60V DC Motor power supply
- Motor currents up to 8A_{rated} 16A_{peak}
- Integrated ballast circuit with resistor
- Control of stand-still brake
- Separate logic supply 24V, wrong polarity protected

Order options:

- Analogue speed set-point
+/- 10V DC / 0 ... 10 V DC with direction signal
0/4 ... 20 mA (amplifier mode)
- Recordable motion data (SPS-Interface)
- Galvanic insulated fieldbus-interface:
PROFIBUS-DP,
PROFINET-IO
CANopen DSP402
EtherCAT CoE
RS232 / RS485 - Modbus
Bus address and baud rate adjustable via switch
- Feedback - input for:
Absolute encoder (Hiperface, SSI)
Incremental encoder, Hall switch
- Safety functions: STO Safe Torque Off,
SBC Safe Brake Control



SC8 Features



- ✓ = Standard
- = Option
- ◇ = On request
- = Not possible

SC8 - Type	Without Fieldbus		With Fieldbus
	SC8/2.1xx.xx Amplifier mode	SC8/2.2xx.xx Positioning mode	SC8/2.3-7xx.xx All modes
Integrated servo-amplifier	✓	✓	✓
Integrated positioning logic (position loop)	-	✓	✓
Digital 4Q speed and torque regulator	✓	✓	✓
Position acquisition			
- Incremental encoder, Hall switches	□	□	□
- Absolute encoder Multi-Turn	-	□	□
Profibus, Profinet, CANopen, EtherCAT, Modbus	-	-	□
Analog set value	✓	-	◇
Digital inputs	4	8 / □6	8 / □6
Digital outputs	1	2 / □4	2 / □4
Encoder output A/B/0 24V	✓	-	◇
Integrated ballast circuit and -resistor	✓	✓	✓
Connection for external ballast resistor	✓	✓	✓
Wrong polarity protection	✓	✓	✓
Control of a stand still brake	✓	✓	✓
RS232 Programming interface (19,2kBaud)	✓	✓	✓

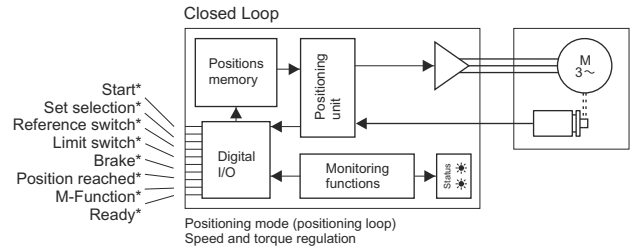
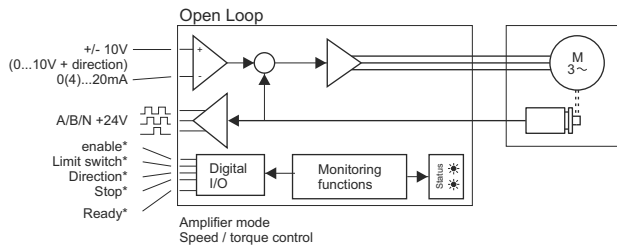
Functions and Programming	Without Fieldbus			With Fieldbus
	SC8/2.1xx.xx Amplifier mode	SC8/2.2xx.xx Positioning mode	SC8/2.3-7xx.xx All modes	SC8/2.3-7xx.xx All modes
Programming/Parameter setting				
- via RS232 Interface	✓	✓	✓	✓
- via Profibus-DP, Profinet, CANopen, EtherCAT	-	-	-	✓
- Position-Teach-In	-	✓	-	-
Reference run management	-	✓	✓	✓
Limit switch (Hard- and Software)	-	✓	✓	✓
Automatic brake management	□	□	□	□
Free programmable move records	-	15	15	15
- Speed	-	✓	✓	✓
- Acceleration/Deceleration (separate adjustable)	-	✓	✓	✓
- On-the-fly record change	-	✓	✓	✓
- Dwell time	-	✓	✓	✓
- Set outputs (M-functions)	-	✓	✓	✓
Regulating modes				
- Electronic shaft/electronic gear	-	✓	✓	✓
- Speed / Torque (PI-Regulation)	✓	✓	✓	✓
- Absolute, Relative, Modulo Position (P-Regulation)	-	✓	✓	✓

Monitoring	Without Fieldbus			With Fieldbus
	SC8/2.1xx.xx Amplifier mode	SC8/2.2xx.xx Positioning mode	SC8/2.3-7xx.xx All modes	SC8/2.3-7xx.xx All modes
Status LEDs	2	2	3	3
Signalling e.g. for:				
- Motor temperature (I ² t)	✓	✓	✓	✓
- Motor temperature PTC	✓	✓	✓	✓
- Output stage temperature	✓	✓	✓	✓
- Ballast power internal	✓	✓	✓	✓
- Overvoltage/Undervoltage	✓	✓	✓	✓
Elapsed hour meter	✓	✓	✓	✓
Electronic type plate	✓	✓	✓	✓

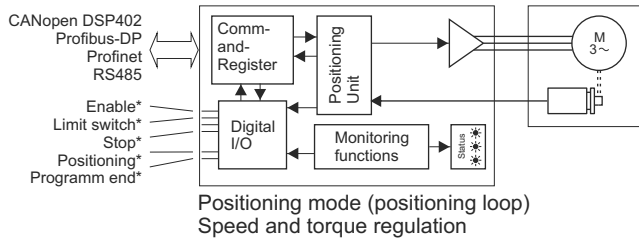
Accessories	Without Fieldbus			With Fieldbus	
	SC8/2.1xx.xx Amplifier mode	SC8/2.2xx.xx Positioning mode	SC8/2.3-7xx.xx All modes	SC8/2.3-7xx.xx All modes	
	Programming and parametrizing PC-software ServoLink	□	□	□	□
	Assembled feed cable	□	□	□	□
Motors / Gearboxes / Switching power supplies	□	□	□	□	
RS232-Adapter / Interface converter	□	□	□	□	

* Resolution see motor-data

Without Fieldbus



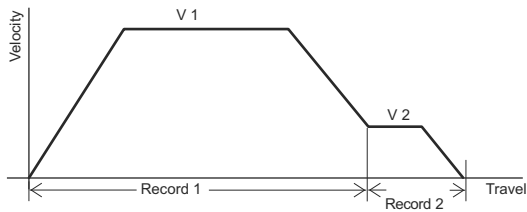
With Fieldbus



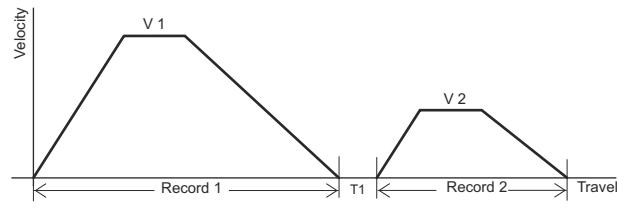
*) Example connection;
other I/O-Functions are assignable.

Sample-Driveprofile:

On-the-fly record change



Record change with intermediate stop



PC-Software:

User settings

I/O-Configuration

Adjustment of all regulator and motor parameters

Other features:

- Display units mm, °, ...
- Project management
- Password protection
- User settings
- Oscilloscope
- Language selection German/English

Digital Servo controller SC8

The SC8 is a servo controller for controlling the current, speed and position of servo and BLDC motors. To determine the rotor position hall switch, incremental encoder with commutation track, Hiperface or SSI absolute encoders are read.

A ballast circuit with ballast resistor is already integrated. An external ballast resistor can be connected for higher ballast power..

Optional incremental encoder outputs simulate an encoder.

Up to 15 positions (driving records) can be stored and retrieved via inputs.

Alternatively, an analogue +/- 10 V signal can specify the set point for speed or torque.

An optional communication interface (Profibus-DP, PROFINET, CANopen DSP402, EtherCAT or Modbus) allows direct access to all driving data and functions.

Data storage takes place in a maintenance-free EEPROM, without buffer battery.

The status and error display is provided by 3 LEDs and additional status outputs.

Due to the very compact design, the device requires little space in the control cabinet.

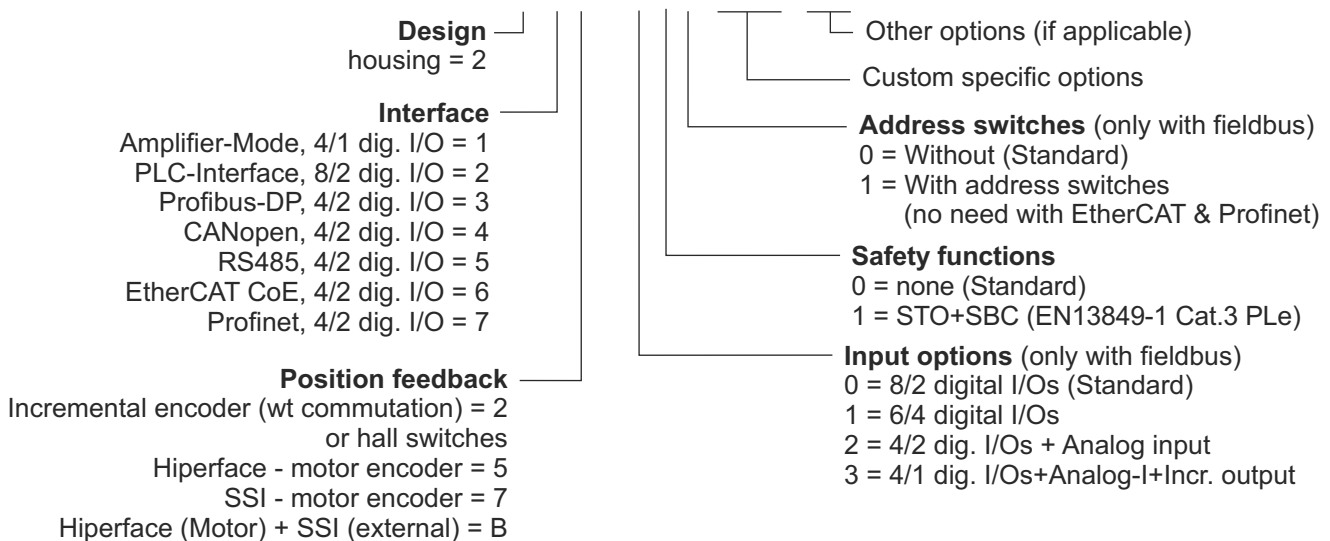
The PC software "ServoLink" comfortably enables all required settings.

Technical Data:

SC8/2		
Logic supply (0,3A)	24 VDC	(18 - 30V)
Motor supply	24 - 60 VDC	
Rated current	8,0 A	
Peak current	16,0 A	
Internal ballast power	7 W rated power	60W Pulse
Peak ballast power	42W Continuous power	422W Pulse
Ext. ballast resistor min.	10 Ohm	
Digital inputs	4 - 8 St.	24V
Digital outputs	1 - 4 St.	24V
Analogue input	+/-10V	Resolution: 11Bit
Protection class	IP20	
Dimensions ca.	112 x 68 x 28mm (without plugs)	
weight ca.	0,2kg	

Order code:

SC8/2.ABx.DEF.GGG-HH



All data in this folder have an informative character without warranty of characteristics. Changes without previous announcement reserved.

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