

Overview of functions

CNC controls SINUMERIK 828

Connectable drives

✓ Basic version ○ Option – Not available	Article No.	SINUMERIK 828D			
	Note	BASIC SW 24x	SW 26x	SW 28x	SW 28xA
Connectable drives					
SINAMICS S120 Motor Modules via DRIVE-CLiQ	See Catalog NC 62	✓	✓	✓	✓
SINAMICS S120 DRIVE-CLiQ on motor	See Measuring systems	✓	✓	✓	✓
SINAMICS S120 Sensor Module Cabinet:	See Catalog NC 62				
• SMC20	6SL3055-0AA00-5BA3	○	○	○	○
• SMC30	6SL3055-0AA00-5CA2	○	○	○	○
• SMC40	6SL3055-0AA00-5DA0	○	○	○	○
SINAMICS S120 Sensor Module External:	See Catalog NC 62				
• SME20	6SL3055-0AA00-5EA3	○	○	○	○
• SME25	6SL3055-0AA00-5HA3	○	○	○	○
• SME120	6SL3055-0AA00-5JA3	○	○	○	○
• SME125	6SL3055-0AA00-5KA3	○	○	○	○
SINAMICS S120, supplementary system components:					
• DMC20 DRIVE-CLiQ Hub Module	6SL3055-0AA00-6AA1	○	○	○	○
• DME20 DRIVE-CLiQ Hub Module	6SL3055-0AA00-6AB0	○	○	○	○
SINAMICS S120 Combi	See SINAMICS S120 drive system	○	○	○	○
SINAMICS S120 Motor Modules in booksize format:	See SINAMICS S120 drive system				
• Internal air cooling	6SL3120-...	○	○	○	○
• External air cooling	6SL3121-...	○	○	○	○
SINAMICS S120 Active Line Modules in booksize format:	See SINAMICS S120 drive system				
• Internal air cooling	6SL3130-...	○	○	○	○
• External air cooling	6SL3131-...	○	○	○	○
SINAMICS S120 Smart Line Modules in booksize format:	See SINAMICS S120 drive system				
• Internal air cooling	6SL3130-...	○	○	○	○
• External air cooling	6SL3131-...	○	○	○	○
SINAMICS S120 Motor Modules in booksize compact format, only as expansion axes for SINAMICS S120 Combi:	See SINAMICS S120 drive system				
• Internal air cooling	3SL3420-...	○	○	○	○
SINAMICS S120 Motor Modules in chassis format Internal air cooling (rated pulse frequency 2 kHz)	On request	○	○	○	○
Analog Drive Interface for 4 axes ADI 4		–	–	–	–

SINAMICS S120 drive system

Supplementary system components

Encoder system connection > SMC20 Sensor Module Cabinet-Mounted

Overview



SMC20 Sensor Module Cabinet-Mounted

The SMC20 Sensor Module Cabinet-Mounted is required to evaluate the encoder signals of motors without a DRIVE-CLiQ interface. External encoders can also be connected via the SMC20.

The following encoder signals can be evaluated:

- Incremental encoder sin/cos 1 V_{pp}
- Absolute encoder EnDat 2.1
- SSI encoder with incremental signals sin/cos 1 V_{pp} (firmware version V2.4 and later)

The motor temperature can also be detected using a PTC thermistor.

Design

The SMC20 Sensor Module Cabinet-Mounted features the following connections and interfaces as standard:

- 1 encoder connection including motor temperature detection via SUB-D connector
- 1 DRIVE-CLiQ interface
- 1 connection for the electronics power supply via the 24 V DC power supply connector
- 1 PE/ground connection

The status of the SMC20 Sensor Module Cabinet-Mounted is indicated via a multi-color LED.

The SMC20 Sensor Module Cabinet-Mounted can be snapped onto a TH 35 standard mounting rail in accordance with EN 60715 (IEC 60715).

The signal cable shield is connected via the encoder system connector and can also be connected to the SMC20 Sensor Module Cabinet-Mounted via a shield connection terminal, e.g. Phoenix Contact type SK8 or Weidmüller type KLBÜ CO 1.

The shield connection terminal must not be used for strain relief.

Integration

SMC20 Sensor Modules Cabinet-Mounted communicate with a Control Unit via DRIVE-CLiQ.

Technical specifications

Article No.	6SL3055-0AA00-5BA3
Product brand name	SINAMICS
Product type designation	S120
Product designation	SMC20 Sensor Module Cabinet-Mounted
Power requirement at 24 V DC, maximum without taking encoder into account	0.2 A
• Conductor cross-section, maximum	2.5 mm ²
• Fuse protection, maximum	20 A
Power loss, maximum	10 W
Encoders which can be evaluated	<ul style="list-style-type: none"> • Incremental encoder sin/cos 1 V_{pp} • Absolute encoder EnDat 2.1 • SSI encoder with incremental signals sin/cos 1 V_{pp} (firmware version V2.4 and later)
• Encoder supply DC	5 V/0.35 A
• Encoder frequency incremental signals, maximum	500 kHz
• Signal subdivision (interpolation), maximum	16384 times (14 bit)
• SSI baud rate	100 kBaud
Cable length to encoder, maximum	100 m
PE connection	M4 screw
Width	30 mm
Height	150 mm
Depth	111 mm
Net weight	0.45 kg
Certificate of suitability	cULus

Selection and ordering data

Description	Article No.
SINAMICS S120 SMC20 Sensor Module Cabinet-Mounted Without DRIVE-CLiQ cable	6SL3055-0AA00-5BA3