

MANUFACTURER DOCUMENT PACKAGE

Manufacturer's Manual

Reference package for procurement and maintenance review

SIEMENS SINUMERIK

6FC5370-0AA00-2BA0

CNC OPERATOR CONTROL UNIT

Used with the applicable SINUMERIK 828D controls configuration.

REFERENCE PACKAGE

OFFICIAL DOCUMENT

Selected official manufacturer pages follow this cover.

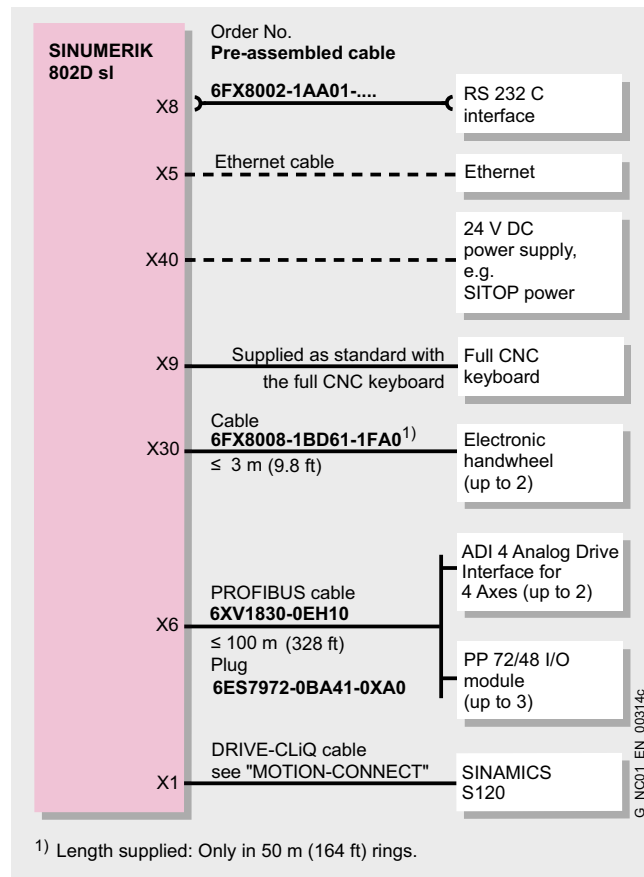
Source: Siemens official product documentation

Basic components

CNC controls

SINUMERIK 802D sl

Integration (continued)



Information about application, configuration and cable extensions can be found under Connection system MOTION-CONNECT.

Connection overview for SINUMERIK 802D sl

Technical specifications

Order No.	6FC5370-0AA00-1AA0	6FC5370-0AA00-2AA0	6FC5370-0AA00-3AA0	6FC5370-0AA00-2BA0	6FC5370-0AA00-3BA0
Product name	SINUMERIK 802D sl T/M value	SINUMERIK 802D sl T/M plus	SINUMERIK 802D sl T/M pro	SINUMERIK 802D sl G/N plus	SINUMERIK 802D sl G/N pro
Input voltage	24 V DC				
Power consumption, max.	50 W				
Degree of protection to EN 60529 (IEC 60529)					
• Front	IP65				
• Rear	IP20				
Humidity rating in accordance with EN 60721-3-3	Class 3K5 condensation and icing excluded. Low air temperature 0 °C (32 °F).				
Relative humidity					
• Storage/Transport	5 ... 95%				
• Operation	5 ... 95%				
Ambient temperature					
• Storage/Transport	-20 ... +60 °C (-4 ... +140 °F)				
• Operation	0 ... 50 °C (32 ... 122 °F)				
Dimensions					
• Width	310 mm (12.2 in)				
• Height	330 mm (13.0 in)				
• Depth	70 mm (2.76 in)				
Weight, approx.	4.9 kg (10.8 lb)				

Technical specifications (continued)

Order No.	6FC5303-ODT12-1AA0	6FC5303-ODM13-1AA0
Product name	SINUMERIK 802D sl full CNC keyboard, vertical format	SINUMERIK 802D sl full CNC keyboard, horizontal format
Input voltage	Via the PCU	
Degree of protection to EN 60529 (IEC 60529)		
• Front	IP65	
• Rear	IP20	
Humidity rating in accordance with EN 60721-3-3	Class 3K5 condensation and icing excluded. Low air temperature 0 °C (32 °F).	
Relative humidity		
• Storage/Transport/Operation	5 ... 95%	
Ambient temperature		
• Storage/Transport	-20 ... +60 °C (-4 ... +140 °F)	
• Operation	0 ... 50 °C (32 ... 122 °F)	
Dimensions		
• Width	172 mm (6.77 in)	310 mm (12.2 in)
• Height	330 mm (13.0 in)	175 mm (6.89 in)
• Depth	70 mm (2.76 in)	70 mm (2.76 in)
Weight, approx.	0.8 kg (1.76 lb)	

Selection and Ordering Data

Designation	Order No.
Hardware components	
SINUMERIK 802D sl operator panel CNC (PCU) Including logbook and toolbox Current software version, export version	
• Version T/M value	6FC5370-0AA00-1AA0
• Version T/M plus	6FC5370-0AA00-2AA0
• Version T/M pro	6FC5370-0AA00-3AA0
• Version G/N plus	6FC5370-0AA00-2BA0
• Version G/N pro	6FC5370-0AA00-3BA0
SINUMERIK 802D sl Full CNC keyboard, vertical format For mounting on the side of the PCU incl. connecting cable Length: 1.5 m (4.92 ft)	6FC5303-ODT12-1AA0
SINUMERIK 802D sl Full CNC keyboard, horizontal format For mounting below the PCU incl. connecting cable Length: 1.5 m (4.92 ft)	6FC5303-ODM13-1AA0
Terminal strip converter 50-pole	6EP5406-5AA00
Cable set 6 m (19.7 ft) ribbon cable, 50-pole 8 insulation displacement connectors, 50-pole	6EP5306-5BG00
Industrial Ethernet cable Twisted-pair cable for peer-to-peer connection Length: 10 m (32.8 ft)	6XV1870-3RN10
CompactFlash card 512 MB Empty For series startup and program memory/program execution	6FC5313-4AG00-0AA2

Designation	Order No.
Software	
SINUMERIK 802D sl Toolbox T/M Current software version on CD-ROM, including • Cycles • Languages • Starter (stand alone) • PLC 802 programming tool • RCS 802 • PLC library • Adobe Reader	6FC5810-0YC00-0YA8
SINUMERIK 802D sl Toolbox G/N Current software version on CD-ROM, including • Cycles for G version • Languages • Starter (stand alone) • PLC 802 programming tool • RCS 802 • PLC library • Adobe Reader	6FC5810-0YB81-0YA8
SINUMERIK RCS 802 PC license On floppy disk Enables a PC for • Remote control • Snap shots Via Ethernet for the SINUMERIK 802D sl control pro version	6FC6000-6DA51-0AA0

Basic components

CNC controls

SINUMERIK 802D sl

Overview



The SINUMERIK 802D sl is an operator panel control combining all the components of a CNC (NC, PLC, HMI) and drive control in a single unit. The full CNC keyboard (vertical or horizontal format) can be connected directly. The I/Os are operated via the PROFIBUS DP system.

The motors can be easily connected to the digital drives via DRIVE-CLiQ. In combination with the modular structure of the SINAMICS S120 drive system, this design is conceived to ensure very simple and rugged installation with minimum wiring overhead.

The performance range of the control is ideally suited for applications on standardized machine tools - from one-off production runs to industrial scale manufacture.

Benefits

- Easy to operate thanks to DIN programming and ISO code
- High reliability
- Compact control with very simple, interference-immune wiring
- Components delivered for individual construction
- Broad range of programming tools
- Digital drive technology via DRIVE-CLiQ
- Maintenance-free: no battery or fan
- Remote diagnostics via RCS 802 (pro version)
- Easy start-up
- CF card for series start-up and program memory/program execution

Function

- 6 digital servo drives (plus and pro versions)
4 digital servo drives (value version)
- One additional positioning axis (plus and pro versions)
- Turning, milling, nibbling or grinding can be freely selected
- A bipolar or a unipolar analog spindle can be used
- RS 232 C interface
- Ethernet onboard (pro version)
- Pre-assigned machine data
- Sample program and PLC library included in scope of supply
- Very user-friendly PLC (SIMATIC S7-200) with ladder programming
- 216 digital inputs and 144 digital outputs (0.25 A)
- User interface with cycle support for T/M and G versions (external cylindrical)

Integration

The following components can be connected to the SINUMERIK 802D sl:

- Full CNC keyboard (vertical or horizontal format)
- Up to 2 electronic handwheels
- One mini handheld unit (contains one handwheel)
- Up to 2 interface modules ADI 4 (Analog Drive Interface for 4 axes)
- Up to 3 PP 72/48 I/O modules
- One MCPA module for connecting an analog spindle via a ± 10 V interface
- One MCP machine control panel via a PP 72/48 I/O module or one MCP 802D sl machine control panel via the MCPA module
- SINAMICS S120 drive system via DRIVE-CLiQ.

More information

For information about PROFINET/Industrial Ethernet components, please go to the Siemens A&D Mall or refer to Catalog IK PI.