

MANUFACTURER DOCUMENT PACKAGE

Manufacturer's Manual

SIEMENS SINUMERIK

6FC5370-4AA30-0AA0

SINUMERIK OPERATOR PANEL CONTROL UNIT

Applicable product family: SINUMERIK CNC systems

OFFICIAL SOURCE

6FC5370-4AA30-0AA0.pdf

The following pages are selected from the supplied manufacturer document and retain their original page content.

CNC controls

SINUMERIK 828D BASIC

Overview



SINUMERIK 828D BASIC PPU 241.3, horizontal



SINUMERIK 828D BASIC PPU 240.3, vertical

The SINUMERIK 828D BASIC is an operator-panel CNC, tailored for modern standard turning, milling and grinding machines.

The operator-panel CNC is mounted from the rear using special clamps included in the scope of supply.

Benefits

- Compact, rugged and maintenance-free operator-panel CNC with dedicated system software for turning, milling and grinding technologies
- G-Tech is a grinding package with an extensive scope of CNC functions ranging from the low-cost entry-level model up to highly productive machines
- Highest machining precision with 80-bit NANO^{FP} accuracy
- New user interface SINUMERIK Operate – same look and feel as SINUMERIK 840D sl
- Intelligent kinematic transformations for:
 - Milling and drilling on the front and peripheral surfaces of the workpiece
 - Machining cylindrical workpieces
- ShopTurn/ShopMill: Very fast programming time in the production of individual parts and small batches
- Technology package SINUMERIK MDynamics with the new function Advanced Surface: Perfect workpiece surfaces and very fast machining times in molded part production
- programGUIDE: Very fast machining times and maximum flexibility in the manufacture of mass-production parts
- Unique spectrum of technology cycles – ranging from the machining of any turning and milling contours with residual material detection to in-process measurements
- Animated Elements: Unique operating and programming support with moving picture sequences
- State-of-the-art data transmission via CompactFlash card, USB stick and plant networks (Ethernet)
- SINUMERIK Integrate for production Access MyMachine /Ethernet permits remote diagnostics from anywhere in the world
- Easy Message: Integrated mobile radio modem for optimum process monitoring and maximum machine availability via text messages (SMS)
- Easy Extend: Flexible handling of machine aggregates, e.g. an A axis/parts machine
- Maintenance scheduler: Signaling of pending maintenance tasks in accordance with specified maintenance intervals

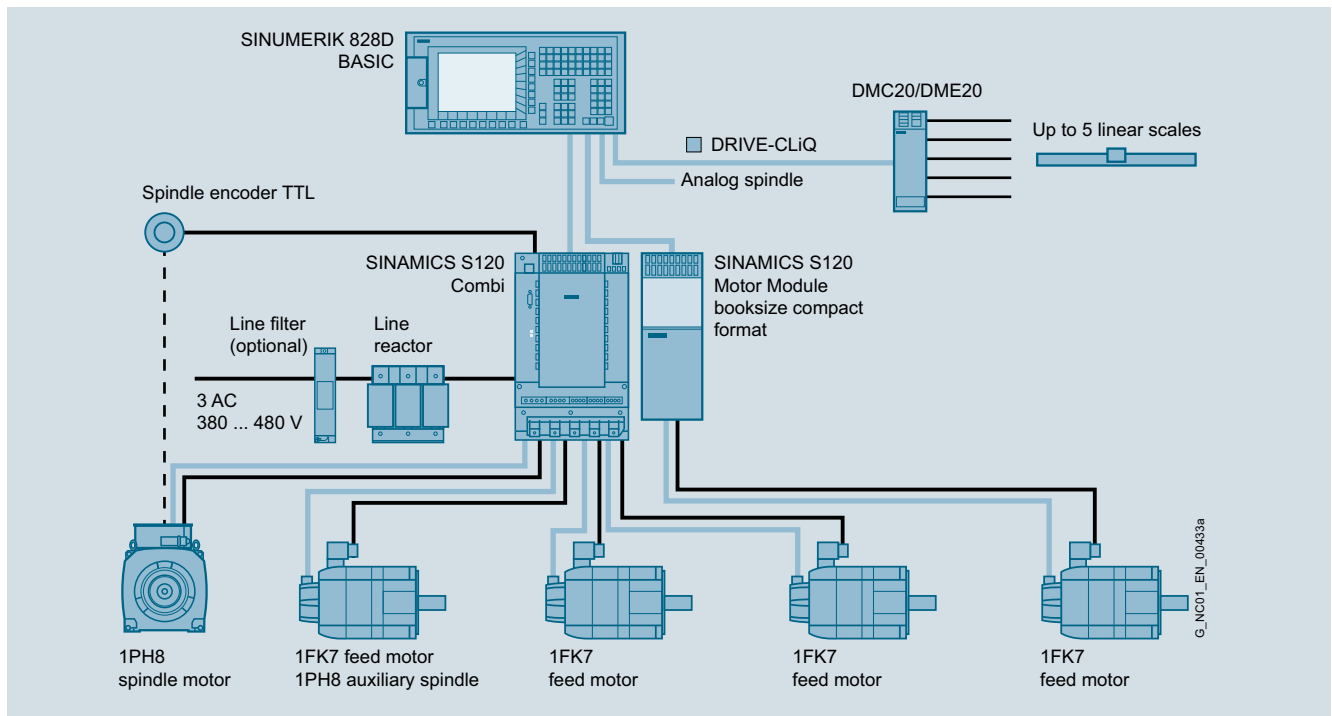
Function

- Operator panel variants for horizontal or vertical operator panel housings
- Integrated QWERTY full CNC keyboard with short-stroke keys
- CompactFlash card, USB and Ethernet interfaces on the operator panel front
- Additional Ethernet interface on rear of CNC for connection to factory network
- Integrated PLC based on the SIMATIC S7-200 command set with ladder logic programming
- I/O interface based on PROFINET for the connection of PLC I/O devices and a machine control panel
- Connection for a GSM/GPRS modem: Easy Message (option)
- CNC options subject to license
- Up to 5 axes/spindles for turning and milling applications
- 1 analog spindle
- 1 machining channel/mode group
- Integrated tool management with tool life monitoring
- Management of replacement tools (option)
- Graphical machining step programming ShopTurn/ShopMill (option)
- Configurable user screens with SINUMERIK Integrate for engineering Run MyScreens (Easy Screen)
- SINUMERIK Integrate for engineering Run MyRobot /EasyConnect for simple interfacing of robots and handling systems
- Integrated data archiving procedure for simple data updates
- Faults will be remedied for a period of 24 months following 2nd commissioning on all system components in accordance with the on-site service contract performance description

Integration

The following components can be connected to the SINUMERIK 828D BASIC:

- 2 electronic handwheels¹⁾
- Mini handheld unit with handwheel
- 3 SINUMERIK PP 72/48D PN or PP 72/48D 2/2A PN I/O modules
- SINUMERIK MCP 310 USB or MCP 483 USB machine control panel
- SINUMERIK MCP Interface PN
- GSM/GPRS modem
- SENTRON PAC Power Monitoring Devices
- SINAMICS S120 Combi drive system via DRIVE-CLiQ



SINUMERIK 828D BASIC configuration with SINAMICS S120 Combi

¹⁾ Third handwheel possible via MCP Interface PN.
Application: Manual machine.

CNC controls

SINUMERIK 828D BASIC

Technical specifications

Article No.		6FC5370-3AA30-0AA0	6FC5370-4AA30-0AA0
Product brand name		SINUMERIK	SINUMERIK
Product type designation		828D	828D
Product designation		PPU 241.3	PPU 240.3
Performance class for CNC controllers		BASIC	BASIC
Design of operator panel		Horizontal	Vertical
Mounting position of operator panel		Vertical	Vertical
Supply voltage at DC	V	24	24
• Relative negative tolerance at 24 V	%	15	15
• Relative positive tolerance at 24 V	%	20	20
Active power consumption maximum	W	60	60
Buffering time in the event of power failure	ms	3	3
• Note		20 ms with SITOP smart power supply	20 ms with SITOP smart power supply
Environmental category acc. to IEC 60721-3-3		Class 3K5 Condensation and icing excluded. Low air temperature 0 °C.	Class 3K5 Condensation and icing excluded. Low air temperature 0 °C.
Degree of protection			
• front		IP65	IP65
- Note		With closed front cover	With closed front cover
• rear		IP20	IP20
Relative humidity at 25 °C, during			
• storage	%	10 ... 100	10 ... 100
• transport	%	5 ... 95	5 ... 95
• operation	%	5 ... 90	5 ... 90
Ambient temperature, during			
• storage	°C	-25 ... +55	-25 ... +55
• transport	°C	-20 ... +60	-20 ... +60
• operation			
- front	°C	0 ... 45	0 ... 45
- rear	°C	0 ... 55	0 ... 55
Width	mm	483	310
Height	mm	220	380
Depth	mm	105	105
Net weight	kg	4.5	4.5
Certificate of suitability		CE, cULus, EAC	CE, cULus, EAC

Selection and ordering data

Description	Article No.
Hardware components	
SINUMERIK 828D BASIC PPU 241.3 horizontal¹⁾ Without system software	6FC5370-3AA30-0AA0
SINUMERIK 828D BASIC PPU 240.3 vertical¹⁾ Without system software	6FC5370-4AA30-0AA0
Software components	
System software for SINUMERIK 828D BASIC PPU 240.3/PPU 241.3¹⁾ On CompactFlash card with license software version 4.7 SP1, export	
• Turning	6FC5835-1GY40-4YA0
• Milling	6FC5835-2GY40-4YA0
• G-Tech	6FC5835-3GY40-4YA0
SINUMERIK 828D toolbox On DVD-ROM	6FC5830-0CY40-0YA8
SINUMERIK Integrate for engineering Access MyMachine /P2P For PC/PG on CD-ROM current software version	6FC5860-7YC00-0YA0
Language extensions On DVD-ROM without license	6FC5860-0YC40-0YA8
• For SINUMERIK 828D up to software version 4.7	
• For SINUMERIK Operate up to software version 2.7	
SIZER for Siemens Drives engineering tool For SINAMICS and MICROMASTER on DVD-ROM Languages: English, French, German, Italian	6SL3070-0AA00-0AG0
STARTER commissioning tool For SINAMICS and MICROMASTER on DVD-ROM Languages: English, French, German, Italian, Spanish	6SL3072-0AA00-0AG0
Accessories	
CompactFlash card, 2 GB, empty To expand user memory and replace a defective system CompactFlash card	6FC5313-5AG00-0AA2
Front cover With fixture (included in scope of delivery)	6FC5348-2AA00-0AA0

More information

The following hardware components are only available in packages and cannot be ordered separately:

- SINUMERIK 828D BASIC PPU 24x.3

When the package is delivered, the CompactFlash card containing the system software is installed in the SINUMERIK.

For more information, please contact your Siemens branch.

¹⁾ Not available individually, see [More information](#).