

MANUFACTURER DOCUMENT PACKAGE

Manufacturer's Manual

Reference package for procurement and maintenance review

SIEMENS

6FC5511-0CA00-0AA0

DIGITAL I/O EXPANSION MODULE

Used with the applicable SINUMERIK 802S/802C Base Line configuration.

REFERENCE PACKAGE

OFFICIAL DOCUMENT

Selected official manufacturer pages follow this cover.

Source: Siemens SINUMERIK 802S/802C Base Line applicable manufacturer data

Basic components

CNC controls

SINUMERIK 802S base line

Overview



The SINUMERIK 802S base line is a CNC control that was developed for operation with up to 3 stepper drives and one analog spindle.

The target market is that of turning and milling machines in the low-end performance range that place correspondingly low demands on the drive technology. This allows stepper motor technology to be used with all the advantages of its simple design and good accuracy and ruggedness.

The "manual machine" user interface allows you to operate a turning machine as either a CNC machine or a conventional (cycle) machine.

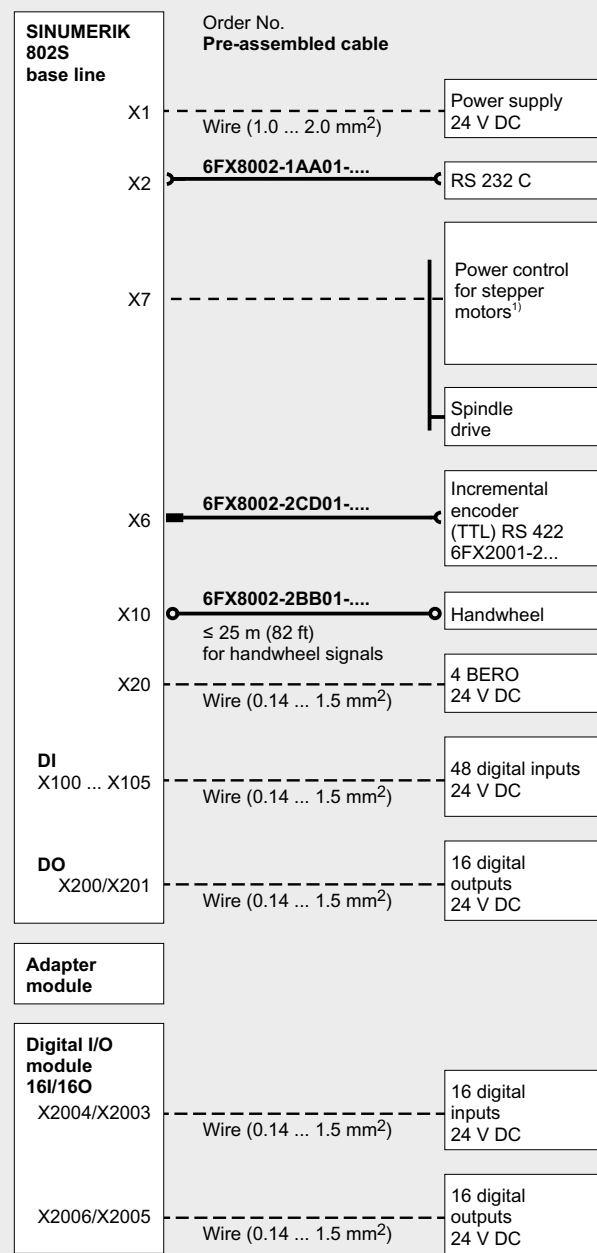
Benefits

- Very compact mounting dimensions
- Easy operation thanks to DIN programming
- High reliability thanks to operator panel mounting,
- Compact control comprising of CNC, PLC, MCP and I/O section
- Complete delivery with CNC, Toolbox and logbook
- All tools are included in the scope of supply
- Very cost-effective drive technology using stepper motors
- Maintenance-free: Without battery and fan

Function

- Up to 3 axes for stepper drive and one analog spindle (without C-axis)
- Analog spindle through ± 10 V interface
- Turning or milling are freely selectable
- Pre-assigned machine data
- RS 232 C interface
- 48 digital inputs and 16 digital outputs 0.5 A
 - Can be expanded by one module with 16 digital inputs and 16 digital outputs
- Sample program and PLC templates
- "Manual machine" user interface (can be loaded as second user interface for Turning function)

Integration



¹⁾ On request.

Connection overview for SINUMERIK 802S base line

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

G_NC01_EN_00272a

Technical specifications

Order No.	6FC5500-0AA00-1AA0
Product name	SINUMERIK 802S base line
Input voltage	24 V DC
Basic unit	2.6 A
24 V current requirement	
Power consumption, max.	24 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	5 ... 95 %
• Transport	5 ... 95 %
• Operation	5 ... 95 %
Ambient temperature	
• Storage	-40 ... +70 °C (-40 ... +158 °F)
• Transport	-40 ... +70 °C (-40 ... +158 °F)
• Operation	0 ... 55 °C (32 ... 131 °F)
Dimensions	
• Width	420 mm (16.5 in)
• Height	300 mm (11.8 in)
• Depth	83 mm (3.27 in)
Weight, approx.	4.5 kg (9.92 lb)

Order No.	6FC5511-0CA00-0AA0
Product name	SINUMERIK 802S/802C digital I/O module, 16I/16O
Input voltage	24 V DC
Number of digital inputs	16
Number of digital outputs	16
Degree of protection to EN 60529 (IEC 60529)	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	5 ... 95 %
• Transport	5 ... 95 %
• Operation	5 ... 95 %
Ambient temperature	
• Storage	-40 ... +70 °C (-40 ... +158 °F)
• Transport	-40 ... +70 °C (-40 ... +158 °F)
• Operation	0 ... 55 °C (32 ... 131 °F)
Dimensions	
• Width	80 mm (3.15 in)
• Height	125 mm (4.92 in)
• Depth	120 mm (4.72 in)
Weight, approx.	0.35 kg (0.77 lb)

Selection and ordering data

Designation	Order No.
SINUMERIK 802S base line	6FC5500-0AA00-1AA0
Complete package comprising of:	
• Operator panel control incl. machine control panel and I/O (48 digital inputs and 16 digital outputs)	
• Toolbox	
• Logbook	
Emergency stop button	
On the operator panel	
• Actuating element	3SB3000-1HA20
• Contact block	3SB3400-0A
Adapter block with installation kit	6FC5511-0CB00-0AA0
For one-time expansion of inputs and outputs with digital I/O module 16I/16O	
Digital I/O module 16I/16O	6FC5511-0CA00-0AA0
16 digital inputs/ 16 digital outputs	

Basic components

CNC controls

SINUMERIK 802C base line

Overview



The SINUMERIK 802C base line is a CNC control that was developed for operation with up to 3 analog drives and one analog spindle. The target market is that of turning and milling machines in the low-end performance range and the retrofit market.

It is possible in this case to implement simple drives with TTL encoders or resolvers. A typical example is the SIMODRIVE base line drive.

The "manual machine" user interface allows you to operate a turning machine as either a CNC machine or a conventional (cycle) machine.

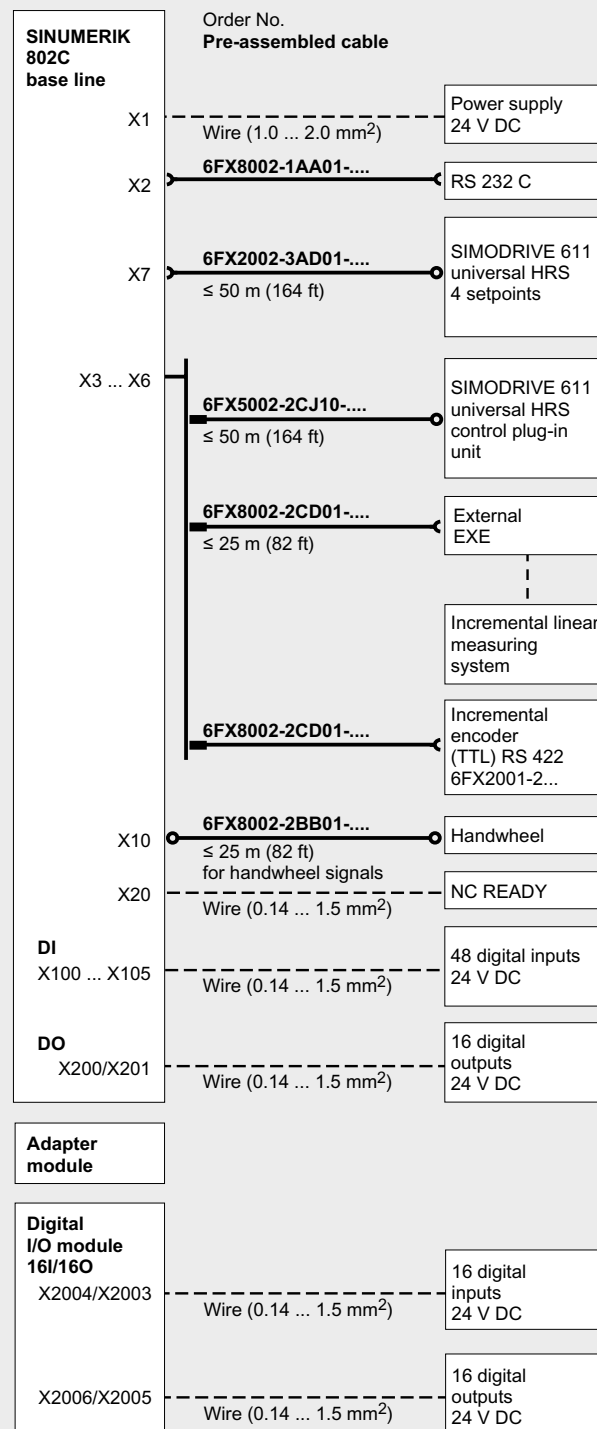
Benefits

- Very compact mounting dimensions
- Easy operation thanks to DIN programming
- High reliability thanks to operator panel mounting
- Compact control comprising of CNC, PLC, MCP and I/O section
- Complete delivery with CNC, Toolbox and logbook
- All tools are included in the scope of supply
- Maintenance-free: Without battery and fan

Function

- Up to 3 analog axes and one analog spindle (without C-axis)
- Analog spindle via ± 10 V interface
- Turning or milling are freely selectable
- Pre-assigned machine data
- RS 232 C interface
- 48 digital inputs and 16 digital outputs 0.5 A
 - Can be expanded by one module with 16 digital inputs and 16 digital outputs
- Sample program and PLC templates
- "Manual machine" user interface (can be loaded as second user interface for Turning function)

Integration



Connection overview for SINUMERIK 802D base line

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

G_NC01_EN_002749

Technical specifications

Order No.	6FC5500-0AA11-1AA0
Product name	SINUMERIK 802C base line
Input voltage	24 V DC
Basic unit	2.6 A
24 V current requirement	
Power consumption, max.	24 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	5 ... 95 %
• Transport	5 ... 95 %
• Operation	5 ... 95 %
Ambient temperature	
• Storage	-40 ... +70 °C (-40 ... +158 °F)
• Transport	-40 ... +70 °C (-40 ... +158 °F)
• Operation	0 ... 55 °C (32 ... 131 °F)
Dimensions	
• Width	420 mm (16.5 in)
• Height	300 mm (11.8 in)
• Depth	83 mm (3.27 in)
Weight, approx.	4.5 kg (9.92 lb)

Order No.	6FC5511-0CA00-0AA0
Product name	SINUMERIK 802S/802C digital I/O module, 16I/16O
Input voltage	24 V DC
Number of digital inputs	16
Number of digital outputs	16
Degree of protection to EN 60529 (IEC 60529)	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	5 ... 95 %
• Transport	5 ... 95 %
• Operation	5 ... 95 %
Ambient temperature	
• Storage	-40 ... +70 °C (-40 ... +158 °F)
• Transport	-40 ... +70 °C (-40 ... +158 °F)
• Operation	0 ... 55 °C (32 ... 131 °F)
Dimensions	
• Width	80 mm (3.15 in)
• Height	125 mm (4.92 in)
• Depth	120 mm (4.72 in)
Weight, approx.	0.35 kg (0.77 lb)

Selection and ordering data

Designation	Order No.
SINUMERIK 802C base line	6FC5500-0AA11-1AA0
Complete package comprising of:	
• Operator panel control incl. machine control panel and I/O (48 digital inputs and 16 digital outputs)	
• Toolbox	
• Logbook	
Emergency stop button	
On the operator panel	
• Actuating element	3SB3000-1HA20
• Contact block	3SB3400-0A
Adapter block with installation kit	6FC5511-0CB00-0AA0
For one-time expansion of inputs and outputs with digital I/O module 16I/16O	
Digital I/O module 16I/16O	6FC5511-0CA00-0AA0
16 digital inputs/ 16 digital outputs	