Components for 50-pin connecting cable

The table below lists the SIMATIC TOP connect system cabling components for a 50-pin connecting cable.

Components of SIMATIC TOP connect system cabling				
Front connector modules	...for digital I/O modules		Voltage supply with - Screw-type terminals - Push-in system	 6ES7921-5CB20-0AA0 6ES7921-5CH20-0AA0
	...for analog modules			6ES7921-5CK20-0AA0
Terminal modules	TP1	…digital, for 1-wire connection, without LED	- Screw-type terminals - Push-in system	6ES7924-2AA20-0AA0 6ES7924-2AA20-0AC0
		…digital, for 1-wire connection, with LED	- Screw-type terminals - Push-in system	6ES7924-2AA20-0BA0 6ES7924-2AA20-0BC0
	TP3	…digital, for 3-wire connection, without LED	- Screw-type terminals - Push-in system	6ES7924-2CA20-0AA0 6ES7924-2CA20-0AC0
		…digital, for 3-wire connection, with LED	- Screw-type terminals - Push-in system	6ES7924-2CA20-0BA0 6ES7924-2CA20-0BC0
	TPA	...for analog modules, without LED	- Screw-type terminals - Push-in system	6ES7924-2CC20-0AA0 6ES7924-2CC20-0AC0

Pre-assembled round cable with IDC connectors	Length	Unshielded	Shielded
	0.5 m	6ES7923-5BA50-0CB0	...not available
	1.0 m	6ES7923-5BB00-0CB0	6ES7923-5BB00-0DB0
	1.5 m	6ES7923-5BB50-0CB0	...not available
	2.0 m	6ES7923-5BC00-0CB0	6ES7923-5BC00-0DB0
	2.5 m	6ES7923-5BC50-0CB0	6ES7923-5BC50-0DB0
	3.0 m	6ES7923-5BD00-0CB0	6ES7923-5BD00-0DB0
	4.0 m	6ES7923-5BE00-0CB0	6ES7923-5BE00-0DB0
	5.0 m	6ES7923-5BF00-0CB0	6ES7923-5BF00-0DB0
	6.5 m	6ES7923-5BG50-0CB0	6ES7923-5BG50-0DB0
	8.0 m	6ES7923-5BJ00-0CB0	6ES7923-5BJ00-0DB0
	10.0 m	6ES7923-5CB00-0CB0	6ES7923-5CB00-0DB0

Accessories	20 x 7 mm label, pale turquoise, for fitting to terminal modules (x 340)	3RT1900-1SB20

Selection guide for 50-pin connecting cable

The tables below list the SIMATIC TOP connect system cabling components which you can use to wire the I/O modules of the automation system.

Front connector module for ...	…I/O modules, connectable with…	TP1		TP3		TPA
		Without LED	With LED	Without LED	With LED	Without LED
Front connector module 6ES7921-5CB20-0AA0 6ES7921-5CH20-0AA0	DI 16 x 24 VDC HF 6ES7521-1BH00-0AB0	X	X	X	X	
	DI 16 x 24 VDC SRC BA 6ES7521-1BH50-0AB0	X		X		
	DI 32 x 24 VDC HF 6ES7521-1BL00-0AB0	X	X	X	X	
	DQ 16 x 24 VDC/0.5A ST 6ES7522-1BH00-0AB0	X	X	X	X	
	DQ 32 x 24 VDC/0.5A ST 6ES7522-1BL00-0AB0	X	X	X	X	
Front connector module 6ES7921-5CK20-0AA0	AI 8 x U/I/RTD/TC ST 6ES7531-7KF00-0AB0					X
	AI 8 x U/I HS 6ES7531-7NF10-0AB0					X
	AQ 4 x U/I ST 6ES7532-5HD00-0AB0					X
	AQ 8 x U/I ST 6ES7532-5HF00-0AB0					X

1-wire or 3-wire connection

With a 1-wire or 3-wire connection, you can connect the supply voltage for the I/O modules either at the front connector module or at the terminal module.

Table 6- 3 Technical specifications front connector module for analog input and output modules

For analog input and output modules, for 16-pin connecting cable: 6ES7921-5AK20-0AA0	
Type of supply voltage	DC
Rated value	24 V
Lower limit of admissible range (DC)	20.4 V
Upper limit of admissible range (DC)	28.8 V
Max. permissible continuous current	
Per connector pin	0.5 A
Permissible ambient temperature	0 to 60 °C

Table 6- 4 Technical specifications front connector module for digital input and output modules

For digital input and output modules, for 50-pin connecting cable: 6ES7921-5CB20-0AA0 and 6ES7921-5CH20-0AA0	
Type of supply voltage	DC
Rated value	24 V
Lower limit of admissible range (DC)	20.4 V
Upper limit of admissible range (DC)	28.8 V
Max. permissible continuous current	
Per connector pin	1 A
Max. permissible total current per group	
At 40 °C (mounted horizontally)	2 A
At 60 °C (mounted horizontally)	2 A
At 40 °C (mounted vertically)	2 A
Permissible ambient temperature	0 to 60 °C

Table 6- 5 Technical specifications front connector module for analog input and output modules

For analog input and output modules, for 50-pin connecting cable: 6ES7921-5CK20-0AA0	
Type of supply voltage	DC
Rated value	24 V
Lower limit of admissible range (DC)	20.4 V
Upper limit of admissible range (DC)	28.8 V
Max. permissible continuous current	
Per connector pin	0.5 A
Permissible ambient temperature	0 to 60 °C

Front connector module 6ES7921-5CK20-0AA0

32-bit, for analog modules

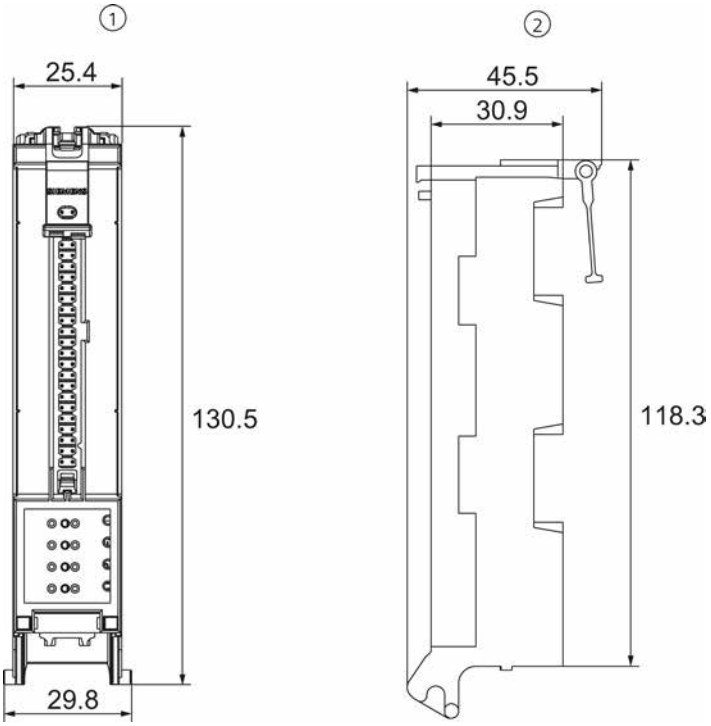


Figure A-8 6ES7921-5CK20-0AA0

Front connector module 6ES7921-5CK20-0AA0

For analog I/O modules

Front connector module for connecting 50-pin connecting cable

Article number

6ES7921-5CK20-0AA0

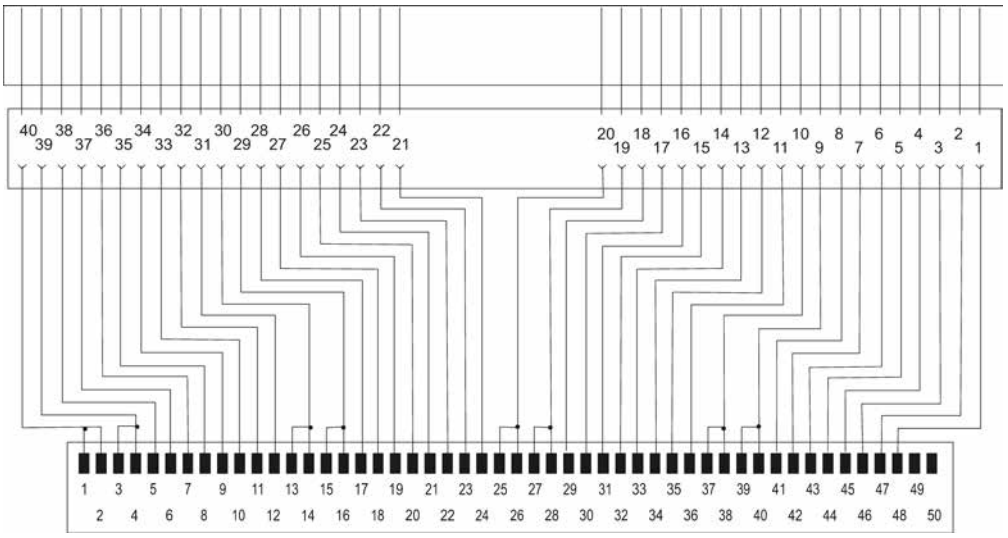


Figure B-5 6ES7921-5CK20-0AA0