

Flexible connection



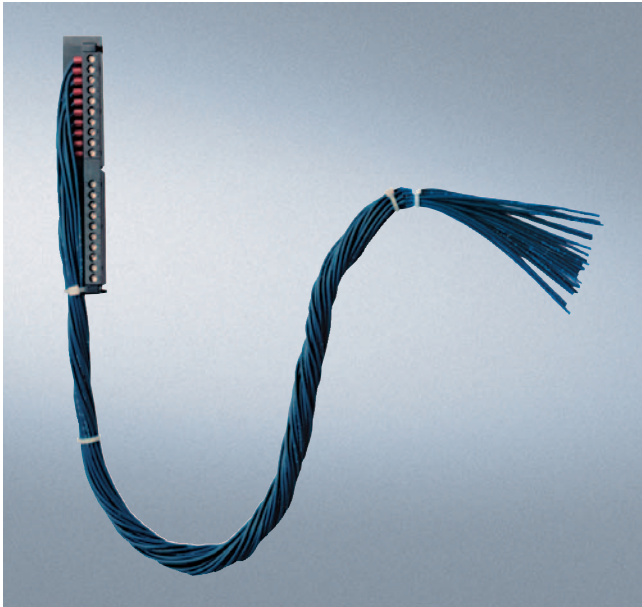
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Flexible connection

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Overview



The flexible connection guarantees a fast and direct connection from the input/output modules of the SIMATIC S7-300/400 to the individual elements in the control cabinet.

Already attached single cores reduce the wiring effort.

The core cross-sections of 0.5 mm^2 also allow higher currents.

Benefits

- Individual cores can be routed directly to each element in the control cabinet
- Higher currents possible due to greater cross-section with lower voltage drop
- Reduction in wiring overhead through simple connection of the pre-assembled cable to the I/O module
- Easy wiring. The number printed on the cores corresponds to the connection point on the I/O connector
- Clear control cabinet wiring due to bundled single cores

Application

On the front connector with single cores, up to 16 or 32 digital input and output channels can be connected directly with the I/O. The single cores are fitted with screw contacts or crimp contacts and are cut off straight at the other end. The cores can be easily assigned since they are coded in accordance with the pin designations on the front connector.

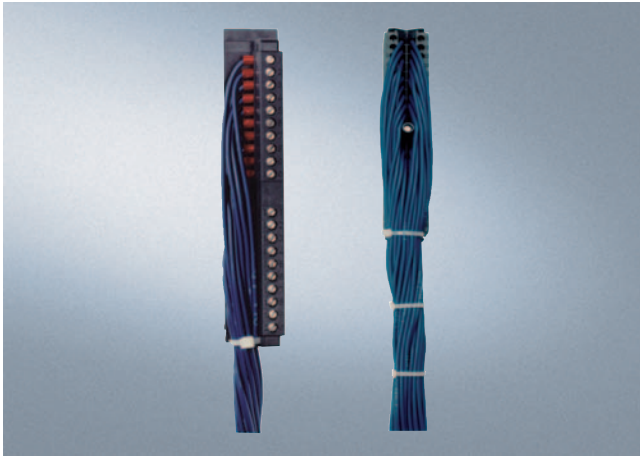
The single cores are available as H05V-K version or with UL/CSA certification.

The UL/CSA single cores are certified in accordance with UL 1007/1569 or TR64.

Design

- Front connector with attached single cores.
- The front connectors are available in the version with screw contacts or crimp contacts.
- The single cores are available as H05V-K version or with UL/CSA certification.
- The cores have a cross-section of 0.5 mm^2 and are labelled with a printed number.
- Cable ties combine the single cores into a bundle.
- The standard lengths are 2.5 m, 3.2 m and 5.0 m. Special lengths are available on request.

Overview



- Can be used with SIMATIC S7-300 modules
- The front connectors with single cores replace the SIMATIC standard connectors
 - 6ES7392-1AJ00-0AA0
 - 6ES7392-1BJ00-0AA0
 - 6ES7921-3AH00-0AA0
 - 6ES7392-1AM00-0AA0
 - 6ES7392-1BM01-0AA0
 - 6ES7921-3AH20-0AA0

Technical data

Front connector with single cores 16 channels	
Rated operating voltage	24 V DC
Permissible continuous current with simultaneous load on all cores, max.	1.5 A
Permissible ambient temperature	0 to +60 °C
Core type	H05V-K or with UL 1007/1569; CSA TR64
Number of single cores	20
Core cross-section	0.5 mm ² ; Cu
Bundle diameter in mm	Approx. 15
Color of core	Blue, RAL 5010
Designation of cores	Numbered from 1 to 20 (front connector contact = core number)
Fabrication	Screw or crimp contacts

Front connector with single cores 32 channels	
Rated operating voltage	24 V DC
Permissible continuous current with simultaneous load of all wires, max.	1.5 A
Permissible ambient temperature	0 to +60 °C
Core type	H05V-K or with UL 1007/1569; CSA TR64
Number of single cores	40
Core cross-section	0.5 mm ² ; Cu
Bundle diameter in mm	Approx. 17
Color of core	Blue, RAL 5010
Designation of cores	Numbered from 1 to 40 (front connector contact = core number)
Fabrication	Screw or crimp contacts

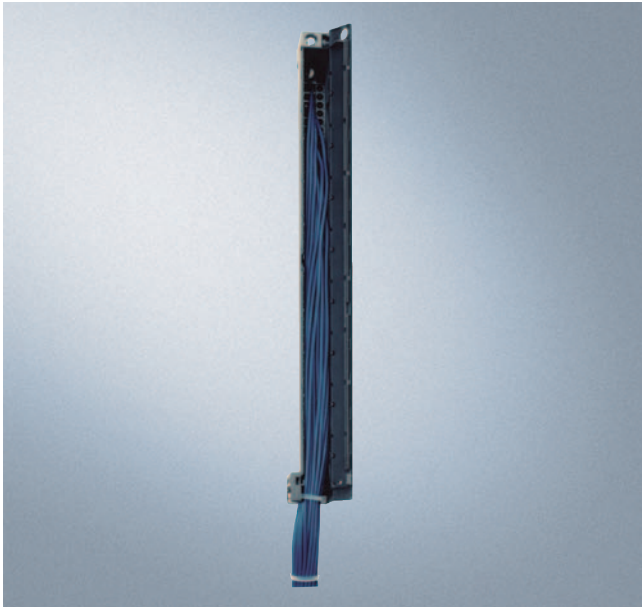
Selection and ordering data

Designation	Order No.
Front connector with single cores for 16-channel digital modules SIMATIC S7-300, 20 x 0,5 mm²	
Core type H05V-K	
<u>Screw version</u>	
Packaging unit (1 unit)	
Length:	
• 2.5 m	6ES7922-3BC50-0AB0
• 3.2 m	6ES7922-3BD20-0AB0
• 5.0 m	6ES7922-3BF00-0AB0
• Special lengths	on request
Packaging unit (5 units)	
Length:	
• 2.5 m	6ES7922-3BC50-5AB0
• 3.2 m	6ES7922-3BD20-5AB0
• 5.0 m	6ES7922-3BF00-5AB0
<u>Crimp version</u>	
Packaging unit (1 unit)	
Length:	
• 2.5 m	6ES7922-3BC50-0AF0
• 3.2 m	6ES7922-3BD20-0AF0
• 5.0 m	6ES7922-3BF00-0AF0
• Special lengths	on request
Core type UL/CSA-certified	
<u>Screw version</u>	
Packaging unit (1 unit)	
Length:	
• 3.2 m	6ES7922-3BD20-0UB0
• 5.0 m	6ES7922-3BF00-0UB0
Front connector with single cores for 32-channel digital modules SIMATIC S7-300, 40 x 0,5 mm²	
Core type H05V-K	
<u>Screw version</u>	
Packaging unit (1 unit)	
Length:	
• 2.5 m	6ES7922-3BC50-0AC0
• 3.2 m	6ES7922-3BD20-0AC0
• 5.0 m	6ES7922-3BF00-0AC0
• Special lengths	on request
Packaging unit (5 units)	
Length:	
• 2.5 m	6ES7922-3BC50-5AC0
• 3.2 m	6ES7922-3BD20-5AC0
• 5.0 m	6ES7922-3BF00-5AC0
<u>Crimp version</u>	
Packaging unit (1 unit)	
Length:	
• 2.5 m	6ES7922-3BC50-0AG0
• 3.2 m	6ES7922-3BD20-0AG0
• 5.0 m	6ES7922-3BF00-0AG0
• Special lengths	on request
Core type UL/CSA-certified	
<u>Screw version</u>	
Packaging unit (1 unit)	
Length:	
• 3.2 m	6ES7922-3BD20-0UC0
• 5.0 m	6ES7922-3BF00-0UC0

Flexible connection

Front connector with S7-400 single cores

Overview



- Can be used for SIMATIC S7-400 modules
- The front connectors with single cores replace the SIMATIC standard connectors
 - 6ES7492-1AL00-0AA0
 - 6ES7492-1BL00-0AA0
 - 6ES7492-1CL00-0AA0

Technical data

Front connector with single cores	
Rated operating voltage	24 V DC
Max. permissible continuous current with simultaneous load on all cores	1.0 A
Permissible ambient temperature	0 to +60 °C
Core type	H05V-K or with UL style 1007/1569 CSA TR64
Number of cores	46
Core cross-section	0.5 mm ² , Cu
Bundle diameter in mm	Approx. 17
Color of core	Blue, RAL 5010
Designation of cores	Numbered from 3 to 48 (adapter contact = core number)
Fabrication	Screw or crimp contacts

Selection and ordering data

Designation

Order No.

Front connector with single cores for 32-channel digital modules SIMATIC S7-400, 46 x 0,5 mm²

Core type H05V-K

Screw version

Packaging unit (1 unit)

Length:

- 2.5 m
- 3.2 m
- 5.0 m
- Special lengths

6ES7922-4BC50-0AD0
6ES7922-4BD20-0AD0
6ES7922-4BF00-0AD0
 on request

Packaging unit (5 units)

Length:

- 2.5 m
- 3.2 m
- 5.0 m

6ES7922-4BC50-5AD0
6ES7922-4BD20-5AD0
6ES7922-4BF00-5AD0

Crimp version

Packaging unit (1 unit)

Length:

- 2.5 m
- 3.2 m
- 5.0 m
- Special lengths

6ES7922-4BC50-0AE0
6ES7922-4BD20-0AE0
6ES7922-4BF00-0AE0
 on request

Packaging unit (5 units)

Length:

- 2.5 m
- 3.2 m
- 5.0 m

6ES7922-4BC50-5AE0
6ES7922-4BD20-5AE0
6ES7922-4BF00-5AE0

Core type UL/CSA-certified

Screw version

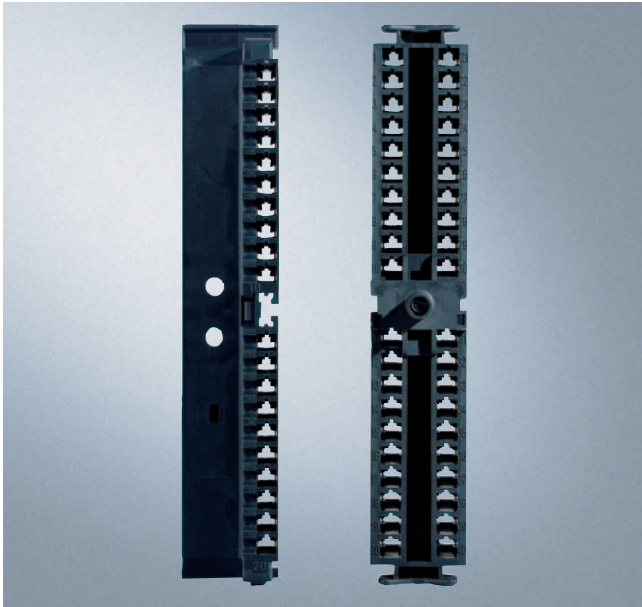
Packaging unit (1 unit)

Length:

- 3.2 m
- 5.0 m
- Special lengths

6ES7922-4BD20-0UD0
6ES7922-4BF00-0UD0
 on request

Overview



- For easy and user-friendly connection of sensors and actuators.
The front connector enables easy and user-friendly connection of sensors and actuators to signal modules. It is connected to the modules and covered by the door at the front.
- Retaining the wiring when the module is replaced.
When replacing modules, only the front connector has to be removed. Time-consuming replacement of all cables is not necessary.
- With a coding element to prevent mistakes when replacing modules.
To avoid mistakes when replacing modules, the front connector is coded when inserted for the first time. It will then only fit into modules of the same type.

Design

The front connector is available in two designs

The 20-pole front connector contains:

- 20 connections for crimp contacts for connecting the wiring
- Strain relief for the cables
- Unlatching key; for unlatching the front connector when replacing the module
- Holder for coding element attachment; there are two coding elements with attachments on the modules. The attachments latch in when inserting into the front connector for the first time.

The 40-pole front connector contains:

- 40 connections for crimp contacts for connecting the wiring
- Strain relief for the cables
- Locking screw; for fixing and detaching the front connector when the module is replaced
- Holder for coding element attachment; there is a coding element with an attachment on the modules. The attachment latches in when inserting into the front connector for the first time.

Integration

Use of the 20-pole front connector with

- 16-channel signal modules
- Function modules
- CPU 312 IFM

Use of the 40-pole front connector with

- 32-channel signal modules
- Compact CPUs

Selection and ordering data

Designation	Order No.
Front connector 20-pole, crimp version without crimp contacts	
Packaging unit (100 units)	6ES7921-3AH00-1AA0
Front connector 40-pole, crimp version without crimp contacts	
Packaging unit (100 units)	6ES7921-3AH20-1AA0
Accessories	
Crimp contacts for front connectors	6XX3070
Packaging unit (250 units)	
Crimping tool for crimping the crimp contacts	6XX3071
Unlocking tool for crimp contacts	6ES5497-4UC11

Flexible connection

Notes

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