



INTERFACE

System cabling for
SIMATIC® S7
Plug it in and go!

VARIOFACE system cabling – The perfect fit for SIMATIC® S7 300 and S7 400

Conventional wiring of I/O modules takes up considerable time. The signals are transferred from the controller to modular terminal blocks, relays or optocouplers using 1-wire connection systems. This requires a complex wiring process. Wiring faults cannot be ruled out. VARIOFACE system cabling cuts the manufacturing costs using fast, fault-free and uniform wiring, with a system concept. The system design comprises the following pluggable components:

Front adapter

The front adapters with integrated plug connectors are simply plugged into the I/O modules, enabling the transfer of 1 x 32, 4 x 8 or 2 x 8 signals.

System cable

The system cables have plug connectors at both ends and are available in all lengths. Tested and coded, wiring faults are almost totally ruled out.

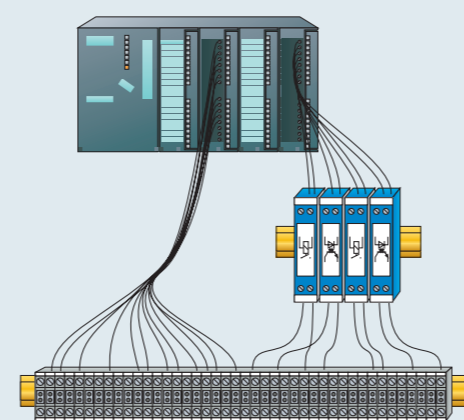
Controller boards

The controller boards are used as modular terminal blocks. The product spectrum ranges from simple 1:1 interface modules to fuse modules and relay modules. A wide field of applications can thus be covered.

- Fast assembly
- Fault-free connection
- Clearly structured wiring
- Pluggable components
- Preamsembled system cable

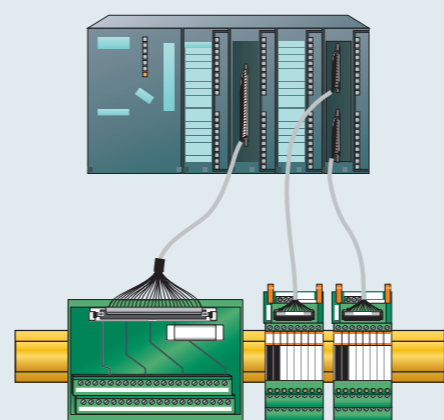
The system cabling concept is based on three pluggable components:

- Front adapter
- System cable
- Controller board



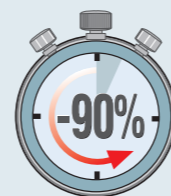
Wiring with single wires

- Connecting 80 and more individual wires per I/O module
- 80 and more possible sources of errors and sometimes even a wrong contact
- Confusing cable bundles and tiresome troubleshooting



Wiring with system cables

90% faster
Compared to wiring with single wires, the time saving for VARIOFACE system cabling is 90% and more.



INTERFACE Select
Fast and simple configuration of the VARIOFACE system cabling components

<http://select.phoenixcontact.com>

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Select from:

The choice range at a glance

S7 300

- 6ES7 321-1BH02-0AA0 C or D
- 6ES7 321-1BH50-0AA0 D
- 6ES7 321-1BL00-0AA0 A, B or E
- 6ES7 321-7BH01-0AB0 D
- 6ES7 322-1BH01-0AA0 C or D
- 6ES7 322-1BL00-0AA0 A, B or E
- 6ES7 322-8BF00-0AB0 D
- 6ES7 323-1BH01-0AA0 C or D
- 6ES7 323-1BL00-0AA0 A, B or E
- 6ES7 331-1KF01-0AB0 E
- 6ES7 331-7HF00-0AB0 D
- 6ES7 331-7KB02-0AB0 D
- 6ES7 331-7KF02-0AB0 D
- 6ES7 331-7PF00-0AB0 E
- 6ES7 331-7PF10-0AB0 E
- 6ES7 331-7NF00-0AB0 E
- 6ES7 331-7NF10-0AB0 E
- 6ES7 332-5HD01-0AB0 D
- 6ES7 332-5HB01-0AB0 D
- 6ES7 332-7ND01-0AB0 D
- 6ES7 332-8CE01-0AA0 D
- 6ES7 334-0KE01-0AB0 D
- 6ES7 335-7HG01-0AB0 D
- 6ES7 338-4BC01-0AB0 D
- 6ES7 350-1AH03-0AE0 D
- 6ES7 350-2AH00-0AE0 D
- 6ES7 351-1AH01-0AE0 D
- 6ES7 352-1AH01-0AE0 D
- 6ES7 353-1AH01-0AE0 D
- 6ES7 354-1AH01-0AE0 D
- 6ES7 355-0VH10-0AE0 D
- 6ES7 355-1VH10-0AE0 D
- 6ES7 357-4AH01-0AE0 D
- CPU 312 C E
- CPU 313 C E
- CPU 314 C E

S7 400




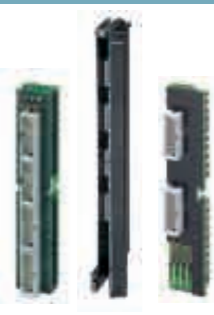









- 6ES7 421-1BL01-0AA0 A or B
- 6ES7 421-7BH01-0AB0 F
- 6ES7 421-7DH00-0AB0 F
- 6ES7 422-1BL00-0AA0 A or B
- 6ES7 422-7BL00-0AB0 A or B
- 6ES7 431-0HH00-0AB0 F
- 6ES7 431-1KF00-0AB0 F
- 6ES7 431-1KF10-0AB0 F
- 6ES7 431-1KF20-0AB0 F
- 6ES7 431-7KF00-0AB0 F
- 6ES7 431-7KF10-0AB0 F
- 6ES7 431-7QH00-0AB0 F
- 6ES7 432-1HF00-0AB0 F

The combinations

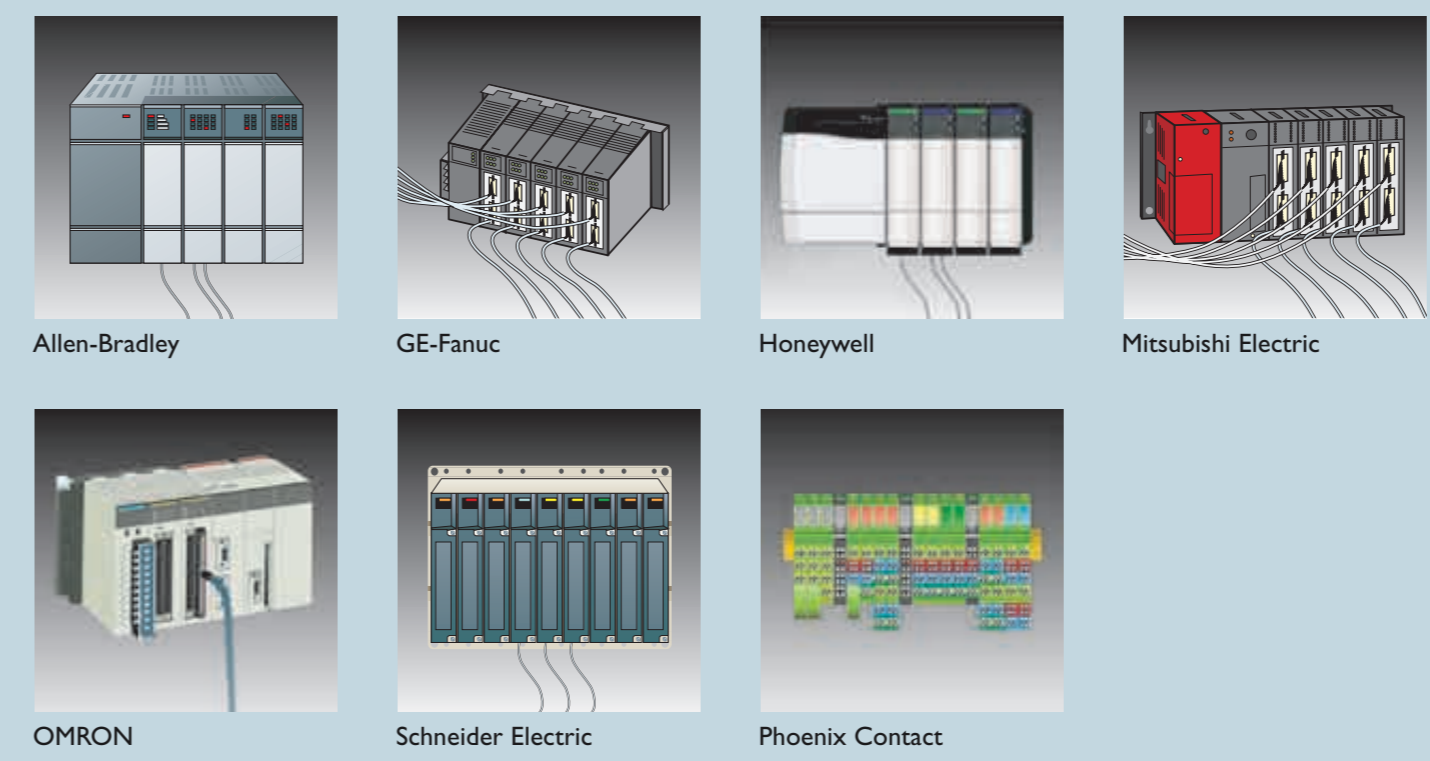
Front adapter

System cable

Controller boards

Combination	Front adapter	System cable	Controller boards	
A	<p>S7 300, S7 400 Connecting 1 x 32 channels via: • 1 front adapter, • 1 system cable and • 1 controller board with byte by byte labeling.</p> 	<p>50-position FLK 50/EZ-DR.../KONFEK Length: Order No.: 0.5 22 89 06 5 1.0 22 89 07 8 1.5 22 89 08 1 2.0 22 89 09 4 3.0 22 89 11 7 4.0 22 89 13 3 6.0 22 89 60 9 8.0 22 89 64 1 10 22 89 68 3</p> 	<p>With one-wire connection Screw connection Type Order No.: Without LED UM 45-FLK 50/PLC 29 62 48 9 With LED UM 45-FLK 50/LA/PLC 29 62 48 9 Spring-cage connection Type Order No.: Without LED UM 45-FLK 50/ZFKDS/PLC 29 65 19 8 With LED UM 45-FLK 50/LA/ZFKDS/PLC 29 65 34 7</p>  <p>Module width 126</p>	
	B	<p>S7 300, S7 400 Connecting 4 x 8 channels via: • 1 front adapter, • 4 system cables and • 4 controller boards with byte by byte labeling.</p> 	<p>14-position FLK 14/EZ-DR.../KONFEK Length: Order No.: 0.5 22 88 90 1 1.0 22 88 91 4 1.5 22 88 92 7 2.0 22 88 93 0 3.0 22 88 95 6 4.0 22 88 97 2 6.0 22 90 86 3 8.0 22 99 56 3 10 22 99 57 6</p> 	<p>With one-wire connection Screw connection Type Order No.: Without LED UM 45-FLK 14/PLC 29 62 47 6 With LED UM 45-FLK 14/LA/PLC 29 62 49 2 Spring-cage connection Type Order No.: Without LED UM 45-FLK 14/ZFKDS/PLC 29 65 17 2 With LED UM 45-FLK 14/LA/ZFKDS/PLC 29 65 33 4</p>  <p>Module width 59</p>
		C	<p>S7 300 Connecting 2 x 8 channels via: • 1 front adapter, • 2 system cables and • 2 controller boards with byte by byte labeling.</p> 	<p>14-position FLK 14/EZ-DR.../KONFEK Length: Order No.: 0.5 22 88 90 1 1.0 22 88 91 4 1.5 22 88 92 7 2.0 22 88 93 0 3.0 22 88 95 6 4.0 22 88 97 2 6.0 22 90 86 3 8.0 22 99 56 3 10 22 99 57 6</p> 
D			<p>S7 300 Modules with 20 position connection Connection via: • 1 front adapter, • 2 system cables and • 1 controller board with numerical labeling (1-20).</p> 	<p>14-position FLK 14/EZ-DR.../KONFEK Length: Order No.: 0.5 22 88 90 1 1.0 22 88 91 4 1.5 22 88 92 7 2.0 22 88 93 0 3.0 22 88 95 6 4.0 22 88 97 2 6.0 22 90 86 3 8.0 22 99 56 3 10 22 99 57 6</p> 
	E		<p>S7 300 Modules with 40 position connection Connection via: • 1 front adapter, • 1 system cable and • 1 controller board with numerical labeling (1-40).</p> 	<p>50-position FLK 50/EZ-DR.../KONFEK Length: Order No.: 0.5 22 89 06 5 1.0 22 89 07 8 1.5 22 89 08 1 2.0 22 89 09 4 3.0 22 89 11 7 4.0 22 89 13 3 6.0 22 89 60 9 8.0 22 89 64 1 10 22 89 68 3</p> 
		F	<p>S7 400 Connection via: • 1 front adapter, • 1 system cable and • 1 controller board with numerical labeling (1-50).</p> 	<p>50-position FLK 50/EZ-DR.../KONFEK Length: Order No.: 0.5 22 89 06 5 1.0 22 89 07 8 1.5 22 89 08 1 2.0 22 89 09 4 3.0 22 89 11 7 4.0 22 89 13 3 6.0 22 89 60 9 8.0 22 89 64 1 10 22 89 68 3</p>

A perfect fit for controllers from:



Selection of PLC relay

Connection Type	Order No.	Relay Type	Order No.	PLC-V...OUT	PLC-V...IN	PLC-V...OUT
Screw connection	29 66 26 5	PLC-RSP-24DC/21AU	29 66 54 0	X	X	X
	29 66 27 8	PLC-RSC-24UC/21AU	29 66 55 3	X	X	X
	29 66 14 2	PLC-RSP-60DC/21AU	29 66 57 9	X	X	X
	29 66 28 1	PLC-RSC-120UC/21AU	29 66 58 2	X	X	X
	29 66 29 4	PLC-RSP-230UC/21AU	29 66 64 7	X	X	X
	29 66 17 1	PLC-RSC-24DC/21	29 66 47 2	X	X	X
	29 66 18 4	PLC-RSP-24UC/21	29 66 48 5	X	X	X
	29 66 72 8	PLC-OSC-24DC/48DC/100	29 66 54 9	X	X	X
	29 67 45 5	PLC-OSC-60DC/48DC/100	29 67 75 6	X	X	X
	29 67 74 4	PLC-OSC-120UC/48DC/100	29 67 55 2	X	X	X
	29 67 75 7	PLC-OSC-230UC/48DC/100	29 67 56 5	X	X	X
	29 67 63 4	PLC-OSC-24DC/24DC/2	29 67 74 7	X	X	X
	29 67 84 0	PLC-OSC-24DC/230AC/1	29 67 89 5	X	X	X
	29 66 21 0	PLC-RSC-24DC/1/ACT	29 67 34 5	X	X	X
	29 66 67 6	PLC-OSC-24DC/24DC/2/ACT	29 67 50 7	X	X	X
Spring-cage connection	29 66 31 7	PLC-RSP-24DC/1AU/SEN	29 67 37 4	X	X	X
	29 66 32 0	PLC-RSC-120UC/1AU/SEN	29 67 39 0	X	X	X
	29 66 33 3	PLC-RSP-230UC/1AU/SEN	29 67 41 3	X	X	X
	29 66 77 3	PLC-OSC-24DC/48DC/100/SEN	29 67 57 8	X	X	X
	29 66 78 9	PLC-OSC-120UC/48DC/100/SEN	29 67 58 1	X	X	X
	29 66 80 9	PLC-OSC-230UC/48DC/100/SEN	29 67 59 4	X	X	X
	29 67 06 0	PLC-RSC-24DC/21-21	29 67 07 3	X	X	X
	29 67 12 5	PLC-RSC-24DC/21-21AU	29 67 11 2	X	X	X
	29 67 11 2	PLC-RSC-24UC/21-21AU	29 67 10 9	X	X	X
	29 67 10 9	PLC-RSC-24DC/1-1/ACT	29 67 60 4	X	X	X
	29 67 60 4	PLC-RSC-24DC/1HC/ACT	29 67 62 0	X	X	X
	29 67 62 0	PLC-RSC-24DC/21HC	29 67 63 3	X	X	X
	29 67 63 3	PLC-RSC-24UC/21HC				
	22 96 87 0	PLC-VT			X	X
	22 96 85 4	PLC-VT/LA			X	X
22 95 56 7	PLC-VT/IAKT			X	X	
22 95 86 7	PLC-VT/IAKT/LA			X	X	