



System cabling for controllers

Efficient wiring

Reducing wiring effort

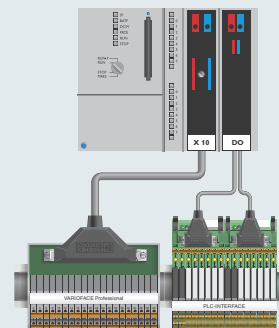
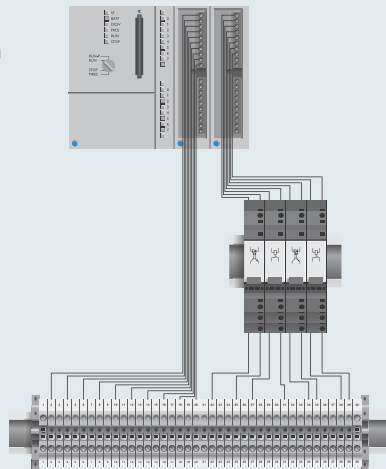
In this day and age, machines and systems are becoming more and more complex. As a result, the wiring effort of individual components in an automation system is becoming more extensive. Planning, assembly and startup often take a large amount of time. Wiring errors and lengthy troubleshooting cannot be ruled out.

With the product portfolio from Phoenix Contact, these difficulties are a thing of the past.



Wiring with single wires

- Time-consuming connection of 80+ individual terminal points for each I/O module.
- Messy bundles of cables and error-prone wiring.



Wiring with system cables is 90% faster

Wiring with VARIOFACE system cabling is at least 90% faster than with single wires.

"Efficient wiring requires solutions that enable simple planning, assembly and startup of automation systems."



Contents

Controller-specific system cabling

The wiring concept	04 – 05
PLC-V8 adapters	06 – 09
Signal and power wiring	10 – 15

Potential distributors and universal modules

16 – 19

Universal cables

20 – 23

Customer-specific products

24 – 25

PHOENIX CONTACT Products and solutions for your success

26 – 27

Find out more with the web code

You can find web codes in this brochure: a pound sign followed by a four-digit number combination.



Web code: #1234 (example)

This allows you to reach more information on our website quickly.

It couldn't be simpler:

1. Go to the Phoenix Contact website
2. Enter # and the number combination in the search field
3. Receive more information and product versions

Or use the direct link:
phoenixcontact.net/webcode/#1234

Controller-specific system cabling – The wiring concept

VARIOFACE system cabling is a wiring concept that has been specially designed to connect I/O modules from various automation devices. Plug-in components are used here in place of conventional, complex and error-prone single wires. As a result, you benefit from fast, easy and error-free wiring.

Solutions for the following controller manufacturers are available:

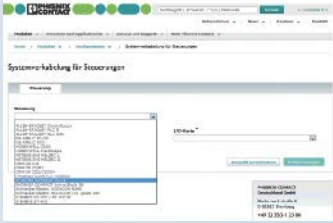
- **ABB**
- **Allen Bradley**
- **Emerson**
- **Honeywell**
- **GE Fanuc**
- **Phoenix Contact**
- **Mitsubishi Electric**
- **OMRON**
- **Schneider Electric**
- **Siemens**
- **Yokogawa**

Your advantages

- Fast, error-free and uniform wiring thanks to preassembled system cables
- Individual design due to modules in single-, double- or three-conductor connection technology
- Flexible connection with screw, spring-cage or push-in connection technology
- Extremely versatile: Selection of various module functions with optional relay or feed-through coupling
- Simple planning with project planning cross list or online configurator



Our system at a glance



Find the right solution for your application with the help of our online configurator.

Just enter the web code into the search field on our website.



Web code: #0007

1) Front adapter

The front adapter patches the signals so that complex wiring with single wires is not necessary. Simply plug the adapter into the correct input/output card of the controller.

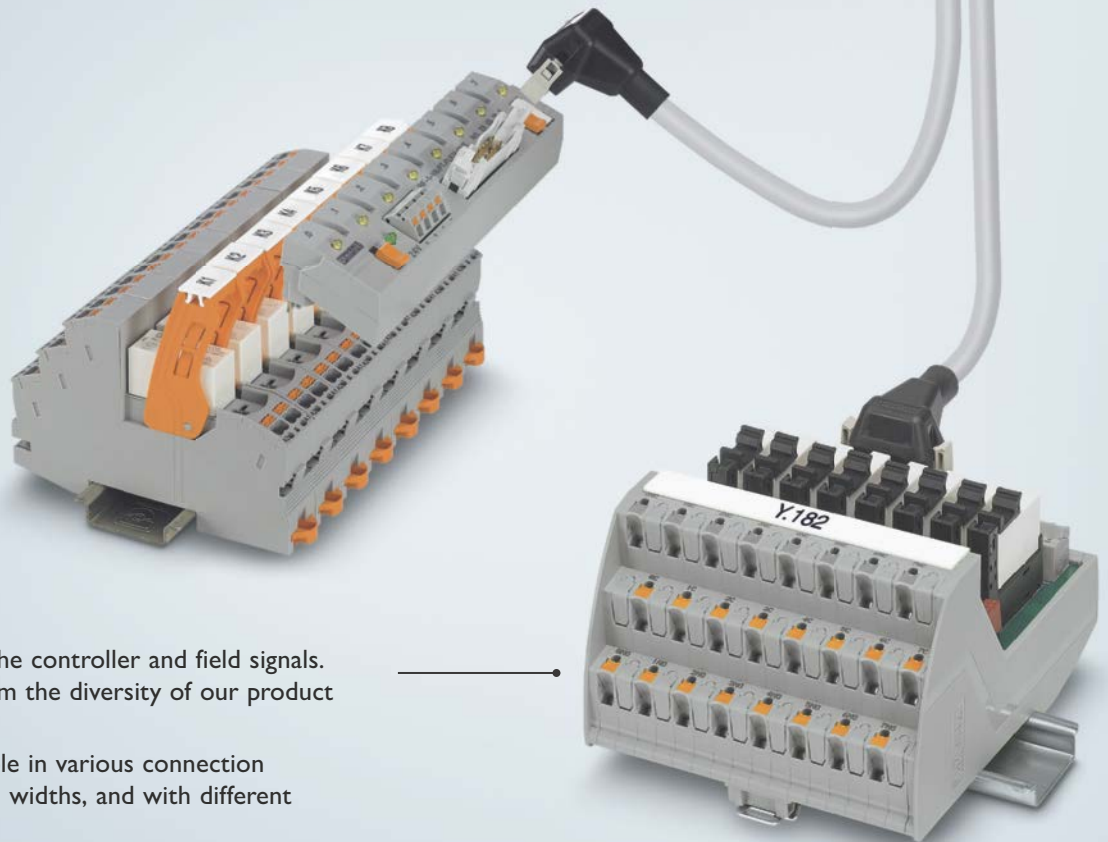
2) System cable

The signals from the controller to the module are patched through a preassembled system cable. They are available in various versions (length, number of positions and shielding).

3) Modules

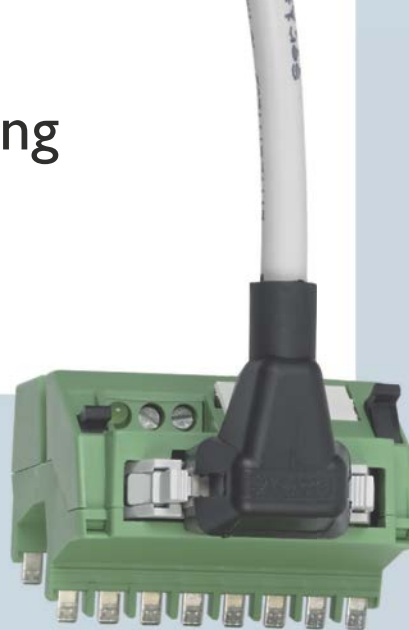
The module transmits the controller and field signals. You can also benefit from the diversity of our product range in this area.

The modules are available in various connection technologies and overall widths, and with different functions.



Controller-specific system cabling with PLC-V8 adapters

The system cabling adapter enables fast, error-free connection of relay modules to the control level. This solution combines the product features of PLC-INTERFACE and VARIOFACE system cabling. Depending on the switching requirement, the I/O module enables a channel-specific configuration thanks to its modular design.



Channel-specific configuration with electromechanical and solid-state relays



Your advantages

- Easy, fast connection of the coupling level and controller since wiring using single wires is omitted
- High flexibility since the modular design enables a channel-specific configuration of the relay output module
- In the event of a service call, the relay modules can be replaced without disconnecting the wiring
- Clearly arranged wiring in the control cabinet due to compact design
- Error-free connection of the signals with plug-in components
- Sensor and actuator series enables direct connection of supply and return conductors

A comparison of wiring options

Conventional wiring

Due to complex wiring using single wires, conventional wiring of sensors and actuators is complicated and time-consuming.

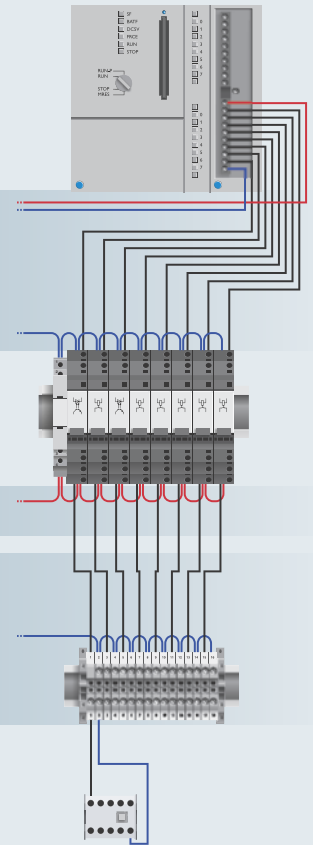
This graphic illustrates the savings you will achieve by switching to a state-of-the-art wiring solution from Phoenix Contact.

Your potential savings:

Wiring using single wires between the controller and interface levels

Potential distribution with loop bridge

Potential terminal blocks for signal patching including wiring



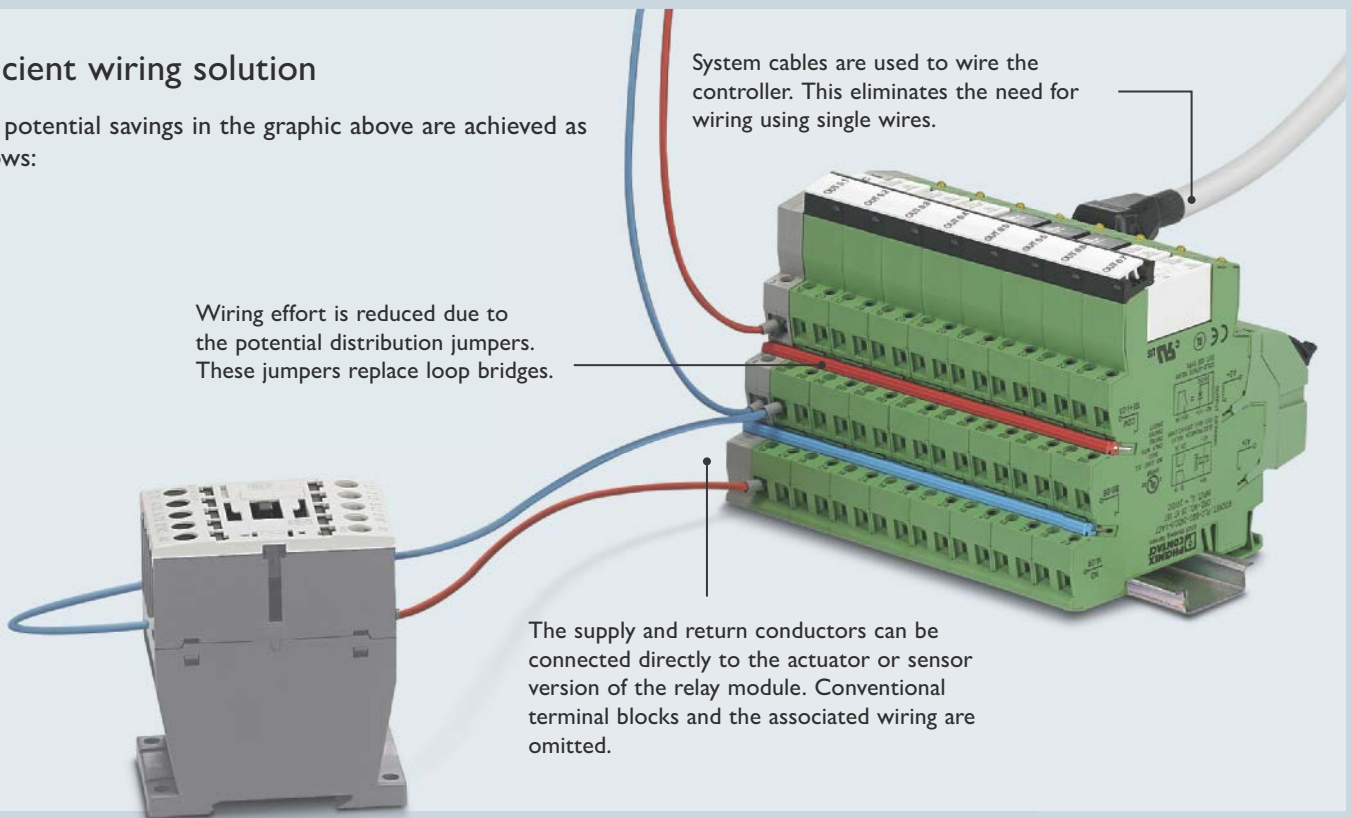
Efficient wiring solution

The potential savings in the graphic above are achieved as follows:

Wiring effort is reduced due to the potential distribution jumpers. These jumpers replace loop bridges.

System cables are used to wire the controller. This eliminates the need for wiring using single wires.

The supply and return conductors can be connected directly to the actuator or sensor version of the relay module. Conventional terminal blocks and the associated wiring are omitted.



Combination examples for controller-specific system cabling

Digital in		Digital out		Digital in/out		Analog in	
Siemens card	Row	Siemens card	Row	Siemens card	Row	Siemens card	Row
6ES7 321-1BH02-0AA0	C or D	6ES7 322-1BH01-0AA0	C or D	6ES7 323-1BH01-0AA0	C or D	6ES7 331-1KF02-0AB0	E
6ES7 321-1BH10-0AA0	C or D	6ES7 322-1BH10-0AA0	C or D	6ES7 323-1BL00-0AA0	A, B or E	6ES7 331-7HF01-0AB0*	D
6ES7 321-1BH50-0AA0*	D	6ES7 322-1BL00-0AA0	A, B or E			6ES7 331-7KB02-0AB0*	D
6ES7 321-1BL00-0AA0	A, B or E	6ES7 322-8BH01-0AB0	E			6ES7 331-7KF02-0AB0*	D
6ES7 321-7BH01-0AB0*	D	6ES7 322-8BH10-0AB0	E			6ES7 331-7PF01-0AB0*	E
		6ES7 322-8BF00-0AB0*	D			6ES7 331-7PF11-0AB0*	E
						6ES7 331-7NF00-0AB0*	E
						6ES7 331-7NF10-0AB0*	E
						6ES7 331-7TF01-0AB0*	D

Controller	Controller-specific system cabling		
			
S7-300 controller	VIP front adapter in different lengths	VIP interface modules with single-conductor screw or push-in connection	VIP interface modules with three-conductor screw or push-in connection

A	Connecting 1 x 32 channels via: 1 front adapter with one connected system cable 1 interface module with byte by byte labeling	Type: VIP-PA-FLK50/.../S7 Length: Order No.: 1.0 m 2322456 2.0 m 2321800 3.0 m 2322485 ...	With screw connection Type: VIP-2/SC/FLK50/PLC Order No.: 2315227 (without LED) Type: VIP-2/SC/FLK50/LED/PLC Order No.: 2322252 (with LED) With push-in connection Type: VIP-2/PT/FLK50/PLC Order No.: 2903803 (without LED) Type: VIP-2/PT/FLK50/LED/PLC Order No.: 2904280 (with LED)	
	Connecting 4 x 8 channels via: 1 front adapter with 4 connected system cables 4 interface modules with byte by byte labeling	Type: VIP-PA-FLK50/4X14/.../S7 Length: Order No.: 1.0 m 2322566 2.0 m 2321910 3.0 m 2322595 ...	With screw connection Type: VIP-2/SC/FLK14/PLC Order No.: 2315214 (without LED) Type: VIP-2/SC/FLK14/LED/PLC Order No.: 2322249 (with LED) With push-in connection Type: VIP-2/PT/FLK14/PLC Order No.: 2903801 (without LED) Type: VIP-2/PT/FLK14/LED/PLC Order No.: 2904279 (with LED)	With screw connection Type: VIP-3/SC/FLK14/8IM/PLC Order No.: 2322278 (without LED) Type: VIP-3/SC/FLK14/8IM/LED/PLC Order No.: 2322265 (with LED) With push-in connection Type: VIP-3/PT/FLK14/8IM/PLC Order No.: 2904282 (without LED) Type: VIP-3/PT/FLK14/8IM/LED/PLC Order No.: 2904281 (with LED)
B	Connecting 2 x 8 channels via: 1 front adapter with 2 connected system cables 2 interface modules with byte by byte labeling	Type: VIP-PA-FLK14/.../S7 Length: Order No.: 1.0 m 2322676 2.0 m 2321790 3.0 m 2322702 ...	With screw connection Type: VIP-2/SC/FLK14/PLC Order No.: 2315214 (without LED) Type: VIP-2/SC/FLK14/LED/PLC Order No.: 2322249 (with LED) With push-in connection Type: VIP-2/PT/FLK14/PLC Order No.: 2903801 (without LED) Type: VIP-2/PT/FLK14/LED/PLC Order No.: 2904279 (with LED)	With screw connection Type: VIP-3/SC/FLK14/8IM/PLC Order No.: 2322278 (without LED) Type: VIP-3/SC/FLK14/8IM/LED/PLC Order No.: 2322265 (with LED) With push-in connection Type: VIP-3/PT/FLK14/8IM/PLC Order No.: 2904282 (without LED) Type: VIP-3/PT/FLK14/8IM/LED/PLC Order No.: 2904281 (with LED)
	Modules with 20-pos. connection, connection via: 1 front adapter with 2 connected system cables 1 interface module with a numerical label (1–20)	Type: VIP-PA-FLK14/.../S7 Length: Order No.: 1.0 m 2322676 2.0 m 2321790 3.0 m 2322702 ...	With screw connection Type: VIP-2/SC/2FLK14(1-20)/S7 Order No.: 2315230 With push-in connection Type: VIP-2/PT/2FLK14(1-20)/S7 Order No.: 2903802	
C	Modules with 40-pos. connection, connection via: 1 front adapter with 1 connected system cable 1 interface module with a numerical label (1–40)	Type: VIP-PA-FLK50/.../S7 Length: Order No.: 1.0 m 2322456 2.0 m 2321800 3.0 m 2322485 ...	With screw connection Type: VIP-2/SC/FLK50(1-40)/S7 Order No.: 2315243 With push-in connection Type: VIP-2/PT/FLK50(1-40)/S7 Order No.: 2903804	
D				
E				

Analog out

Siemens card

6ES7 332-5HD01-0AB0*	D
6ES7 332-5HB01-0AB0*	D
6ES7 332-5HF00-0AB0*	E
6ES7 332-7ND02-0AB0*	D
6ES7 332-8TF01-0AB0	D

Row

Other

Siemens card

6ES7 334-0CE01-0AA0*	D
6ES7 334-0KE00-0AB0*	D
6ES7 335-7HG01-0AB0*	D
6ES7 338-4BC01-0AB0*	D
6ES7 350-1AH03-0AE0*	D
6ES7 350-2AH01-0AE0*	E
6ES7 351-1AH01-0AE0*	D

Row

Siemens card

6ES7 352-1AH02-0AE0	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	E

Row

Siemens controller

CPU 312C	E
CPU 313C	B or E
CPU 313C-2DP	B or E
CPU 313C-2PtP	B or E
CPU 314C-2DP	B or E
CPU 314C-2PtP	B or E

Row

i Web code: #0300



Module with knife disconnection and screw connection



VIP relay module with fuses and push-in connection



RIF-1 V8 adapter for 8 relays



PLC-V8 adapter for relays, solid-state relays, and feed-through terminal blocks



PLC-V8L adapter for relays and solid-state relays

Type: FLKM 50/KDS 3-MT/PPA/PLC
Order No.: [2290614](#)

Type: FLKM 14/KDS 3-MT/PPA/PLC
Order No.: [2290423](#)

Type: FLKM 14/KDS 3-MT/PPA/PLC
Order No.: [2290423](#)

Type: FLKM-2FLK14/KDS 3-MT/S7
Order No.: [2295062](#)

Type: FLKM 50/KDS 3-MT/PPA/S7-300
Order No.: [2304490](#)

For output cards
Type: VIP-8RPT-24DC/21/DO/FU/PLC
Order No.: [2903601](#)

For output cards
Type: VIP-8RPT-24DC/21/DO/FU/PLC
Order No.: [2903601](#)

For 8 compact 16-mm relay modules (e.g. 1 changeover contact)
For output cards
Type: RIF-1-8/PT/FLK14/OUT
Order No.: [2905195](#)

For 8 compact 16-mm relay modules (e.g. 1 PDT)
For output cards
Type: RIF-1-8/PT/FLK14/OUT
Order No.: [2905195](#)

For 8 compact 6.2-mm relay modules (e.g. 1 PDT)
For input cards
Type: PLC-V8/FLK14/IN
Order No.: [2296553](#)
For output cards
Type: PLC-V8/FLK14/IOUT
Order No.: [2295554](#)

For 8 compact 6.2-mm relay modules (e.g. 1 PDT)
For input cards
Type: PLC-V8/FLK14/IN
Order No.: [2296553](#)
For output cards
Type: PLC-V8/FLK14/IOUT
Order No.: [2295554](#)

For 8 compact 14-mm relay modules (e.g. 2 PDTs)
For output cards
Type: PLC-V8/FLK14/IOUT
Order No.: [2299660](#)

For 8 compact 14-mm relay modules (e.g. 2 PDTs)
For output cards
Type: PLC-V8/FLK14/IOUT
Order No.: [2299660](#)

Note: The front adapters are non-isolated on delivery. Removing jumpers can result in electrical isolation (in groups of 8).

Controller-specific system cabling for signal and power wiring

Using the universal VIP-Power Cabling front adapters, couple all signal types to your SIMATIC S7-300 controller modules via plug and play. The adapter versions with COMBI connector or open cable end are ideal for signal and power wiring.

Implement applications with various switching requirements reliably and flexibly. You also benefit from the full functional scope of the terminal block thanks to field-side connection to the CLIPLINE complete terminal block range.

Your advantages

- Reliable signal and power wiring up to max. 250 V AC/DC, 6 A
- Safe handling due to safe-to-touch design
- Maximum flexibility thanks to universal application options
- Convenient wiring via plug-and-play: Benefit from a universal 1:1 connection
- Versatile connection technologies from the CLIPLINE complete terminal block program

Controller connection

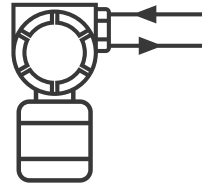
You can connect the front adapter corresponding to the number of positions to all common S7-300 modules and secure it to the assembly using the latch mechanism or mounting screw.

Plug-in connection

Finally, plug the COMBI connector into the correct terminal blocks. The signals can be assigned clearly through the use of numbers.

Wire all signal types

4 ... 20 mA



Analog IN/OUT

5 ... 250 V AC/DC



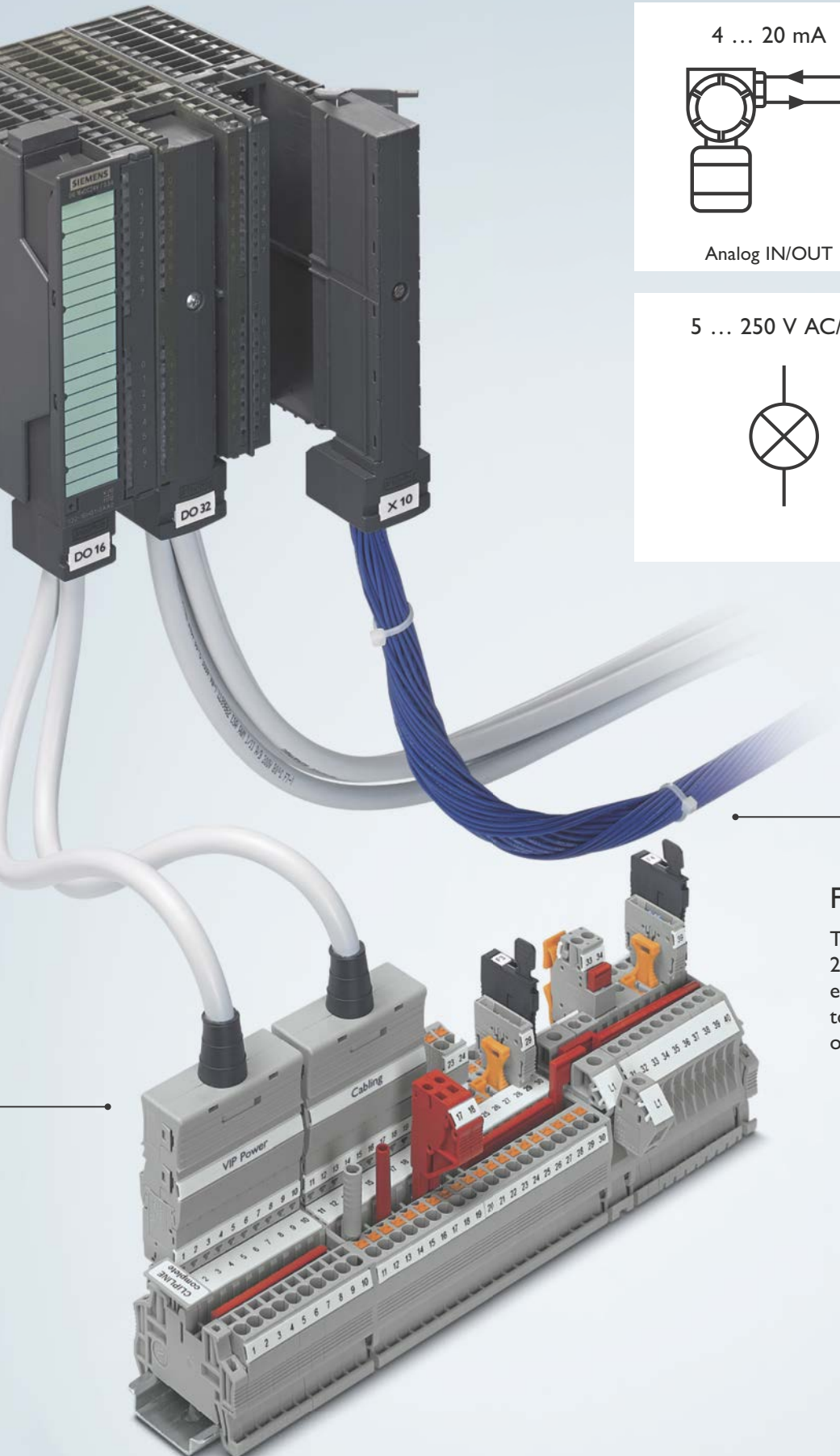
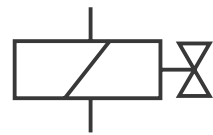
Digital IN

5 ... 250 V AC/DC



Digital OUT

Max. 6 A



Flexible signal patching

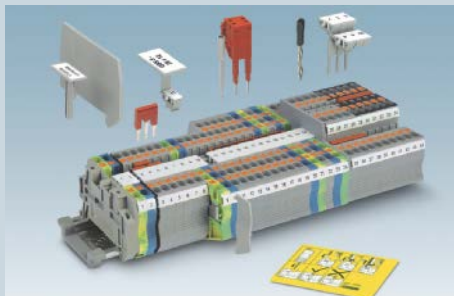
The controller signals are patched to a 20-pos. or 40-pos. cable with an open end. This cable end can be connected to terminal blocks or other connections on-site.

Combination examples of system cabling for signal and power wiring

SIMATIC S7-300 controller		Front adapter		i Web code: #0301	
					
				Feed-through terminal block	
		Length	Designation	Order No.	
Connecting 40-pos. modules using 4 cables, each with a 10-pos. COMBI connector. Pitch: 5.2 mm 	0.5 m	VIP-PA-PWR/4X10COMBI/ 0,5M/S7	2904702	UT 2,5/1P - 3045017	
	1.0 m	VIP-PA-PWR/4X10COMBI/ 1,0M/S7	2904703	PT 2,5/1P - 3210033	
	1.5 m	VIP-PA-PWR/4X10COMBI/ 1,5M/S7	2904704	ST 2,5/ 1P - 3040012	
	2.0 m	VIP-PA-PWR/4X10COMBI/ 2,0M/S7	2904705	QTC 1,5/1P - 3050073	
	2.5 m	VIP-PA-PWR/4X10COMBI/ 2,5M/S7	2904706		
	3.0 m	VIP-PA-PWR/4X10COMBI/ 3,0M/S7	2904707		
	...				
	10.0 m	VIP-PA-PWR/4X10COMBI/ 10,0M/ S7	2904712		
		Length	Designation	Order No.	
Connecting 20-pos. modules using 2 cables, each with a 10-pos. COMBI connector. Pitch: 5.2 mm 	0.5 m	VIP-PA-PWR/2X10COMBI/ 0,5M/S7	2904713	UT 2,5/1P - 3045017	
	1.0 m	VIP-PA-PWR/2X10COMBI/ 1,0M/S7	2904714	PT 2,5/1P - 3210033	
	1.5 m	VIP-PA-PWR/2X10COMBI/ 1,5M/S7	2904715	ST 2,5/ 1P - 3040012	
	2.0 m	VIP-PA-PWR/2X10COMBI/ 2,0M/S7	2904716	QTC 1,5/1P - 3050073	
	2.5 m	VIP-PA-PWR/2X10COMBI/ 2,5M/S7	2904717		
	3.0 m	VIP-PA-PWR/2X10COMBI/ 3,0M/S7	2904718		
	...				
	10.0 m	VIP-PA-PWR/2X10COMBI/ 10,0M/S7	2904723		
		Length	Designation	Order No.	
Connecting 40-pos. modules using 4 cables, each with a 10-pos. COMBI connector. Reduced overall width Pitch: 3.5 mm 	0.5 m	VIP-PA-PWR/4X10 PT/ 0,5M/S7	2905516	PT 1,5/S/1P - 3208582	
	1.0 m	VIP-PA-PWR/4X10 PT/ 1,0M/S7	2905517		
	1.5 m	VIP-PA-PWR/4X10 PT/ 1,5M/S7	2905518		
	2.0 m	VIP-PA-PWR/4X10 PT/ 2,0M/S7	2905519		
	2.5 m	VIP-PA-PWR/4X10 PT/ 2,5M/S7	2905520		
	3.0 m	VIP-PA-PWR/4X10 PT/ 3,0M/S7	2905521		
	...				
	10.0 m	VIP-PA-PWR/4X10 PT/ 10,0M/S7	2905526		
		Length	Designation	Order No.	
Connecting 20-pos. modules using 2 cables, each with a 10-pos. COMBI connector. Reduced overall width Pitch: 3.5 mm 	0.5 m	VIP-PA-PWR/2X10 PT/ 0,5M/S7	2905528	PT 1,5/S/1P - 3208582	
	1.0 m	VIP-PA-PWR/2X10 PT/ 1,0M/S7	2905529		
	1.5 m	VIP-PA-PWR/2X10 PT/ 1,5M/S7	2905531		
	2.0 m	VIP-PA-PWR/2X10 PT/ 2,0M/S7	2905532		
	2.5 m	VIP-PA-PWR/2X10 PT/ 2,5M/S7	2905533		
	3.0 m	VIP-PA-PWR/2X10 PT/ 3,0M/S7	2905534		
	...				
	10.0 m	VIP-PA-PWR/2X10 PT/10,0M/S7	2905539		

SIMATIC S7-300 controller		Front adapter		Web code: #0486	
		Length	Designation	Order No.	
Connecting 40-pos. modules via 40 individual wires in the wire harness (non-assembled).		1.0 m	VIP-PA-PWR/40XOE/ 1,0M/S7	2904731	
		2.0 m	VIP-PA-PWR/40XOE/ 2,0M/S7	2904732	
		3.0 m	VIP-PA-PWR/40XOE/ 3,0M/S7	2904733	
		...			
		10.0 m	VIP-PA-PWR/40XOE/10,0M/S7	2904737	
		Length	Designation	Order No.	
Connecting 20-pos. modules via 20 individual wires in the wire harness (non-fabricated).		1.0 m	VIP-PA-PWR/20XOE/ 1,0M/S7	2904724	
		2.0 m	VIP-PA-PWR/20XOE/ 2,0M/S7	2904725	
		3.0 m	VIP-PA-PWR/20XOE/ 3,0M/S7	2904726	
		...			
		10.0 m	VIP-PA-PWR/20XOE/10,0M/S7	2904730	

The right tool is available to you for each individual work step.



Use the accessory parts from the comprehensive terminal block range.



Clear labeling helps you get your bearings in the control cabinet.



Terminal blocks			Connection technology			
						
Double-level terminal block	Feed-through terminal block with three connections	Knife disconnect terminal block	Screw	Push-in	Spring-cage	IDC cutting contact

UTTB 2,5 - 3044636	UT 2,5-TWIN - 3044513	UT 2,5-MT - 3046362	•			
PTTB 1,5/S - 3208511	PT 1,5/S-TWIN - 3208155			•		
PTTB 2,5 - 3210567	PT 2,5-TWIN - 3209549	PT 2,5-MT - 3210156		•		
STTB 1,5 - 3031157	ST 1,5-TWIN - 3031128				•	
STTB 2,5 - 3031270	ST 2,5-TWIN - 3031241	ST 2,5-MT - 3036343			•	
QTTCB 1,5 - 3205116	QTC 1,5-TWIN - 3205048	QTC 1,5-MT - 3205103				•
	QTC 2,5-TWIN - 3206445	QTC 2,5-MT - 3206487				•

UTTB 2,5 - 3044636	UT 2,5-TWIN - 3044513	UT 2,5-MT - 3046362	•			
PTTB 1,5/S - 3208511	PT 1,5/S-TWIN - 3208155			•		
PTTB 2,5 - 3210567	PT 2,5-TWIN - 3209549	PT 2,5-MT - 3210156		•		
STTB 1,5 - 3031157	ST 1,5-TWIN - 3031128				•	
STTB 2,5 - 3031270	ST 2,5-TWIN - 3031241	ST 2,5-MT - 3036343			•	
QTTCB 1,5 - 3205116	QTC 1,5-TWIN - 3205048	QTC 1,5-MT - 3205103				•
	QTC 2,5-TWIN - 3206445	QTC 2,5-MT - 3206487				•

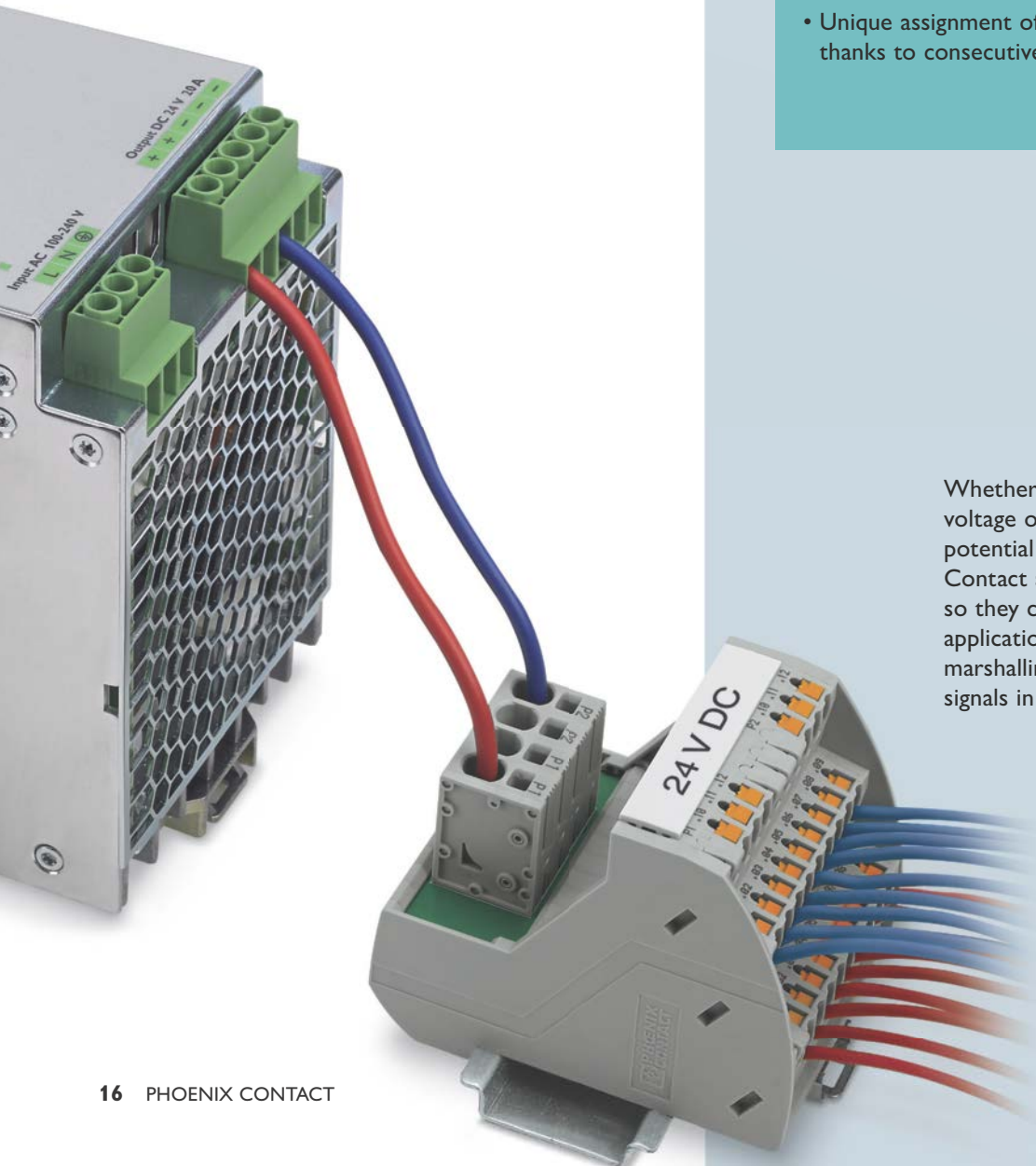
Potential distributors and universal modules

The universal VIP modules form the interface between the electronics and control levels. They can be used in any application and enable the implementation of space-saving connections. Modules for signal transmission and potential distribution are available, depending on the application.

Your advantages

- Comprehensive collection of signals due to multiple potential levels
- Clearly arranged division of potentials due to separate power supply for large conductor cross sections
- Unique assignment of connection terminal blocks thanks to consecutive labeling

Whether you're distributing the operating voltage or dividing the control voltage, potential distributors from Phoenix Contact are designed up to 250 V/30 A, so they can be used in many different applications. They enable simple, precise marshalling and distribution of electrical signals in cramped spaces.





Universal modules

Universal modules from Phoenix Contact combine connectors 1:1 with screw-type, push-in or spring force terminals (this includes FLK, D-SUB, ELCO, DIN rail and RJ45).

Your advantages

- Space-saving thanks to the compact design
- Modules can be identified precisely due to different labels
- Control function: also available with status indicator
- Diverse product range due to the variety of products

Product overview of potential distributors and universal modules

Potential distributor

 Web code: #0489

Module with 2 potentials (P1, P2) for potential distribution:	Features • Separate power terminals • Consecutive labeling • Connection technology: push-in or screw-type • 2 potentials, each with 2 power terminals		Technical data • Voltage: 250 V AC/DC • Max. permissible current (for each distribution terminal block): 15 A • Total current for each potential: 30 A • Connection cross section: Supply: 0.2–4 mm² (AWG 24-10) Distribution: 0.2–2.5 mm² (AWG 24-12)			
	Double-level connection	Distributor terminal blocks	Push-in	Screw	Module width (mm)	Designation
	2 x 8		•	50	VIP-2/SC/PDM-2/16	2315256
	2 x 12		•	70	VIP-2/SC/PDM-2/24	2315269
	2 x 16		•	91	VIP-2/SC/PDM-2/32	2315272
	2 x 24		•	132	VIP-2/SC/PDM-2/48	2903717
Triple-level connection	Distributor terminal blocks	Push-in	Screw	Module width (mm)	Designation	Order No.
	2 x 8	•		42	VIP-3/PT/PDM-2/16	2903797
	2 x 12	•		58	VIP-3/PT/PDM-2/24	2903798
	2 x 16	•		68	VIP-3/PT/PDM-2/32	2903799
	2 x 24	•		98	VIP-3/PT/PDM-2/48	2903800

Universal modules with IDC/FLK connector

 Web code: #0488

	Features • 1:1 connection • 10 to 64-pos. • Optional with LED			Technical data • Voltage: 60 V AC/DC • Current: 1 A • Connection cross section: 0.2–2.5 mm² (AWG 24-12)		
Double-level connection	Push-in	Screw	Number of positions	Module width	Designation	Order No.
	•		10	37 mm	VIP-2/PT/FLK10	2903787
	•		14	42 mm	VIP-2/PT/FLK14	2903788
	•		16	47 mm	VIP-2/PT/FLK16	2903789
	•		20	58 mm	VIP-2/PT/FLK20	2903790
		•	10	35 mm	VIP-2/SC/FLK10	2315010
		•	14	40 mm	VIP-2/SC/FLK14	2315023
		•	16	45 mm	VIP-2/SC/FLK16	2315036
		•	20	55 mm	VIP-2/SC/FLK20	2315049
Triple-level connection	Push-in	Screw	Number of positions	Module width	Designation	Order No.
	•		26	58 mm	VIP-3/PT/FLK26	2903791
	•		34	68 mm	VIP-3/PT/FLK34	2903792
	•		40	78 mm	VIP-3/PT/FLK40	2903793
	•		50	93 mm	VIP-3/PT/FLK50	2903794
	•		60	108 mm	VIP-3/PT/FLK60	2903795
	•		64	119 mm	VIP-3/PT/FLK64	2903796
		•	26	58 mm	VIP-3/SC/FLK26	2315052
		•	34	68 mm	VIP-3/SC/FLK34	2315065
		•	40	78 mm	VIP-3/SC/FLK40	2315078
		•	50	93 mm	VIP-3/SC/FLK50	2315081
		•	60	108 mm	VIP-3/SC/FLK60	2315094
		•	64	119 mm	VIP-3/SC/FLK64	2315104

Universal modules with D-SUB connectors

 Web code: #0487

Features

- 1:1 connection
- 9 to 50-pos.
- Sockets or pin strips
- Optional with LED
- Connection technology: push-in or screw-type

Technical data

- Voltage: 25 V AC/60 V DC
- Current: 2 A
- Connection cross section: 0.2–2.5 mm² (AWG 24-12)

Double-level connection	Push-in	Screw	Number of positions	D-SUB	Module width	Designation	Order No.
	•		9	Pin	37 mm	VIP-2/PT/D 9SUB/M	2903777
	•		15	Pin	47 mm	VIP-2/PT/D15SUB/M	2903779
	•		9	Socket	37 mm	VIP-2/PT/D 9SUB/F	2903778
	•		15	Socket	47 mm	VIP-2/PT/D15SUB/F	2903780
		•	9	Pin	35 mm	VIP-2/SC/D 9SUB/M	2315117
		•	15	Pin	45 mm	VIP-2/SC/D15SUB/M	2315120
		•	9	Socket	35 mm	VIP-2/SC/D 9SUB/F	2315162
		•	15	Socket	45 mm	VIP-2/SC/D15SUB/F	2315175
Triple-level connection	Push-in	Screw	Number of positions	D-SUB	Module width	Designation	Order No.
	•		25	Pin	58 mm	VIP-3/PT/D25SUB/M	2903781
	•		37	Pin	73 mm	VIP-3/PT/D37SUB/M	2903783
	•		50	Pin	98 mm	VIP-3/PT/D50SUB/M	2903785
	•		25	Socket	58 mm	VIP-3/PT/D25SUB/F	2903782
	•		37	Socket	73 mm	VIP-3/PT/D37SUB/F	2903784
	•		50	Socket	98 mm	VIP-3/PT/D50SUB/F	2903786
		•	25	Pin	58 mm	VIP-3/SC/D25SUB/M	2315133
		•	37	Pin	73 mm	VIP-3/SC/D37SUB/M	2315146
		•	50	Pin	98 mm	VIP-3/SC/D50SUB/M	2315159
		•	25	Socket	58 mm	VIP-3/SC/D25SUB/F	2315188
		•	37	Socket	73 mm	VIP-3/SC/D37SUB/F	2315191
		•	50	Socket	98 mm	VIP-3/SC/D50SUB/F	2315201

Universal cables for fast, error-free connection

You only have to choose: Phoenix Contact carries various system cables for an error-free 1:1 connection between the automation device and module. Whether IDC/FLK or D-SUB connectors are used, universal cables allow you to achieve fast wiring that is protected from polarity reversal.



Versions for D-SUB connectors



Pin



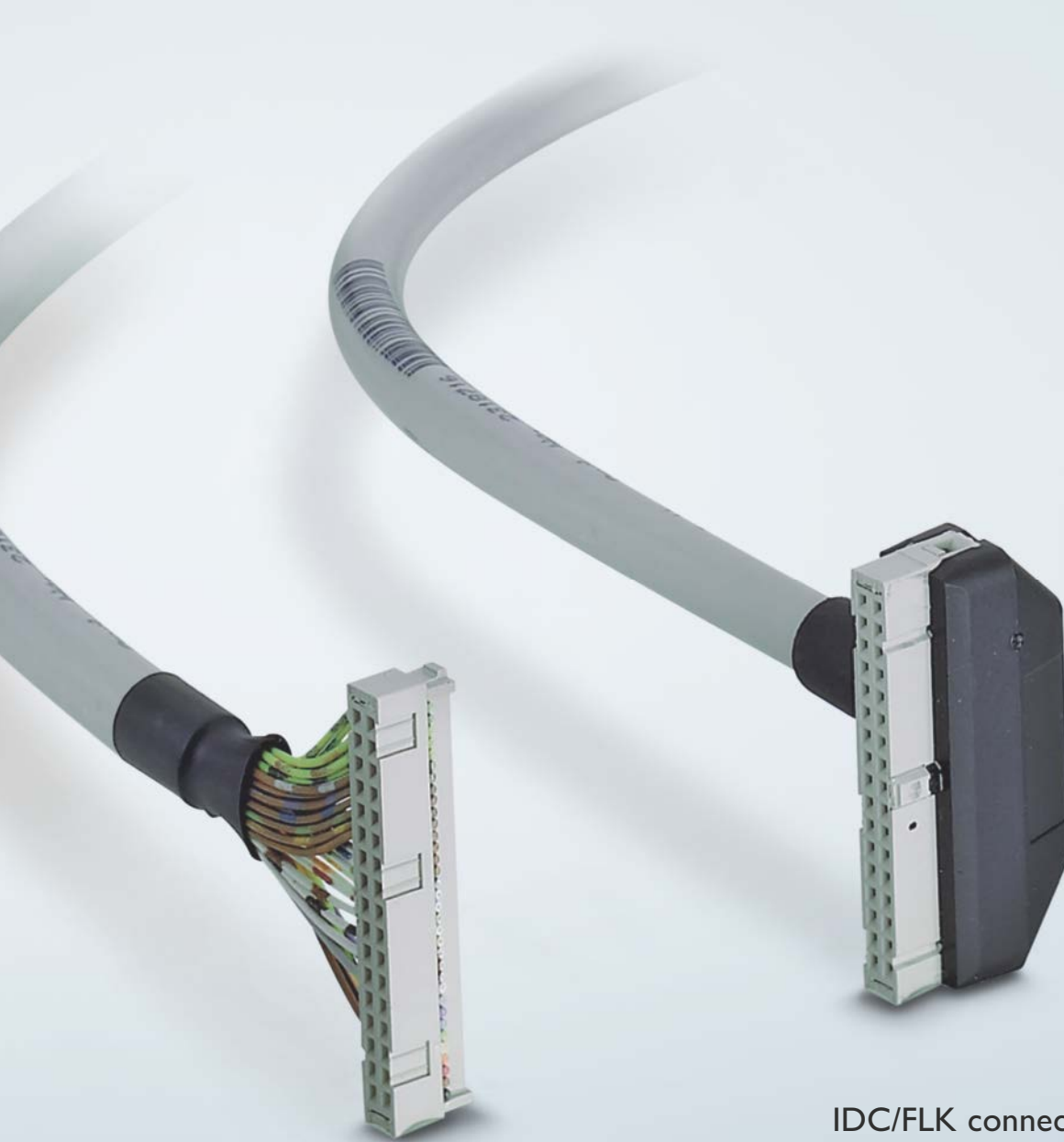
Socket

D-SUB connector

Number of positions: 9, 15, 25, 37, 50

Conductor cross section for
each wire: 0.25 mm²

Current carrying capacity for
each wire: 2 A



IDC/FLK connector

Number of positions: 10, 14, 16, 20, 26, 34, 40, 50
Conductor cross section for each wire: 0.14 mm²
Current carrying capacity for each wire: 1 A

IDC/FLK connector with enclosed housing

Number of positions: 10, 14, 16, 20, 26, 34, 40, 50
Conductor cross section for each wire: 0.14 mm²
Current carrying capacity for each wire: 1 A

Your advantages

- Excellent service: Standard lengths from 0.5 to 10 m, and individual lengths
- High current carrying capacity due to a large conductor cross section for each single wire
- Flexible thanks to an open cable end with a single-wire label
- Rugged design of the IDC/FLK connector due to enclosed housing

Product overview of universal cables

Features		D-SUB connector		
• 1:1 connection • Additional fixed lengths available • Lengths available on customer request		 • Socket on one side and pin strip on the other side • Shielded		
Technical data				
Voltage		25 V AC/60 V DC		
Current		2 A		
Resistance		≤ 0.09 Ω/m		
Conductor cross section		0.25 mm ² / AWG 24		
System cable	Cable length	Number of positions	Designation	Order No.
Assembled round cables, with two strips in fixed lengths	1.0 m	9	CABLE-D 9SUB/B/S/100/KONFEK/S	2299990
	2.0 m	9	CABLE-D 9SUB/B/S/200/KONFEK/S	2302010
Assembled round cables, with two strips in fixed lengths	1.0 m	15	CABLE-D 15SUB/B/S/100/KONFEK/S	2302065
	2.0 m	15	CABLE-D 15SUB/B/S/200/KONFEK/S	2302081
Assembled round cables, with two strips in fixed lengths	1.0 m	25	CABLE-D 25SUB/B/S/100/KONFEK/S	2302133
	2.0 m	25	CABLE-D 25SUB/B/S/200/KONFEK/S	2302159
Assembled round cables, with two strips in fixed lengths	1.0 m	37	CABLE-D 37SUB/B/S/100/KONFEK/S	2302201
	2.0 m	37	CABLE-D 37SUB/B/S/200/KONFEK/S	2302227
Assembled round cables, with two strips in fixed lengths	1.0 m	50	CABLE-D 50SUB/B/S/100/KONFEK/S	2302272
	2.0 m	50	CABLE-D 50SUB/B/S/200/KONFEK/S	2302298
Assembled round cables, with two strips in fixed lengths	1.0 m			
	2.0 m			
Assembled round cables, with two strips in fixed lengths	1.0 m			
	2.0 m			
Assembled round cables, with two strips in fixed lengths	1.0 m			
	2.0 m			

Features		D-SUB connector		
• Open end at one end • Individual wire marking: 1, 2, 3, etc. • Single wires with ferrules • Additional fixed lengths available • Lengths available on customer request		 • Socket strip at one end • Open end at one end		
Technical data				
Voltage		25 V AC/60 V DC		
Current		2 A		
Resistance		≤ 0.09 Ω/m		
Conductor cross section		0.25 mm ² / AWG 24		
System cable	Cable length	Number of positions	Designation	Order No.
Round cables assembled at one end, in fixed lengths	1.0 m	9	CABLE-D- 9SUB/F/OE/0,25/S/1,0M	2926027
	2.0 m	9	CABLE-D- 9SUB/F/OE/0,25/S/2,0M	2926043
Round cables assembled at one end, in fixed lengths	1.0 m	15	CABLE-D-15SUB/F/OE/0,25/S/1,0M	2926098
	2.0 m	15	CABLE-D-15SUB/F/OE/0,25/S/2,0M	2926111
Round cables assembled at one end, in fixed lengths	1.0 m	25	CABLE-D-25SUB/F/OE/0,25/S/1,0M	2926166
	2.0 m	25	CABLE-D-25SUB/F/OE/0,25/S/2,0M	2926182
Round cables assembled at one end, in fixed lengths	1.0 m	37	CABLE-D-37SUB/F/OE/0,25/S/1,0M	2926234
	2.0 m	37	CABLE-D-37SUB/F/OE/0,25/S/2,0M	2926250
Round cables assembled at one end, in fixed lengths	1.0 m	50	CABLE-D-50SUB/F/OE/0,25/S/1,0M	2926302
	2.0 m	50	CABLE-D-50SUB/F/OE/0,25/S/2,0M	2926328

Molded FLK strips



- FLK socket strips on both ends
- not shielded

FLK strips



- FLK socket strips on both ends
- not shielded
- 14 and 15-pos., also available in shielded or halogen-free versions

< 50 V AC/60 V DC

1 A

≤ 0.16 Ω/m

0.14 mm² / AWG 26

Number of positions	Designation	Order No.	Number of positions	Designation	Order No.
10	VIP-CAB-FLK10/0,14/1,0M	2318318	10	FLK 10/EZ-DR/ 100/KONFEK	2299217
10	VIP-CAB-FLK10/0,14/2,0M	2318334	10	FLK 10/EZ-DR/ 200/KONFEK	2299233
14	VIP-CAB-FLK14/0,14/1,0M	2318392	14	FLK 14/EZ-DR/ 100/KONFEK	2288914
14	VIP-CAB-FLK14/0,14/1,0M	2318415	14	FLK 14/EZ-DR/ 200/KONFEK	2288930
16	VIP-CAB-FLK16/0,14/1,0M	2318473	16	FLK 16/EZ-DR/ 100/KONFEK	2299301
16	VIP-CAB-FLK16/0,14/2,0M	2318499	16	FLK 16/EZ-DR/ 200/KONFEK	2299327
20	VIP-CAB-FLK20/0,14/1,0M	2318554	20	FLK 20/EZ-DR/ 100/KONFEK	2296401
20	VIP-CAB-FLK20/0,14/2,0M	2318570	20	FLK 20/EZ-DR/ 200/KONFEK	2296485
26	VIP-CAB-FLK26/0,14/1,0M	2318635	26	FLK 26/EZ-DR/ 100/KONFEK	2299398
26	VIP-CAB-FLK26/0,14/1,0M	2318651	26	FLK 26/EZ-DR/ 200/KONFEK	2299411
34	VIP-CAB-FLK34/0,14/1,0M	2318716	34	FLK 34/EZ-DR/ 100/KONFEK	2299482
34	VIP-CAB-FLK34/0,14/1,0M	2318732	34	FLK 34/EZ-DR/ 200/KONFEK	2299505
40	VIP-CAB-FLK40/0,14/1,0M	2318790	40	FLK 40/EZ-DR/ 100/KONFEK	2288998
40	VIP-CAB-FLK40/0,14/1,0M	2318813	40	FLK 40/EZ-DR/ 200/KONFEK	2289010
50	VIP-CAB-FLK50/0,14/1,0M	2318871	50	FLK 50/EZ-DR/ 100/KONFEK	2289078
50	VIP-CAB-FLK50/0,14/2,0M	2318897	50	FLK 50/EZ-DR/ 200/KONFEK	2289094

Molded FLK strips



- FLK socket strips at one end
- Open end at one end

FLK strips



- FLK socket strips at one end
- Open end at one end

< 50 V AC/60 V DC

1 A

≤ 0.16 Ω/m

0.14 mm² / AWG 26

Number of positions	Designation	Order No.	Number of positions	Designation	Order No.
			10	CABLE-FLK10/OE/0,14/ 1,0M	2904074
			10	CABLE-FLK10/OE/0,14/ 2,0M	2904076
14	VIP-CAB-FLK14/FR/OE/0,14/1,0M	2900123	14	CABLE-FLK14/OE/0,14/ 100	2305253
14	VIP-CAB-FLK14/FR/OE/0,14/2,0M	2900126	14	CABLE-FLK14/OE/0,14/ 200	2305279
16	VIP-CAB-FLK16/FR/OE/0,14/1,0M	2900131	16	CABLE-FLK16/OE/0,14/ 1,0M	2318130
16	VIP-CAB-FLK16/FR/OE/0,14/2,0M	2900133	16	CABLE-FLK16/OE/0,14/ 2,0M	2318156
20	VIP-CAB-FLK20/FR/OE/0,14/1,0M	2900139	20	CABLE-FLK20/OE/0,14/ 100	2305305
20	VIP-CAB-FLK20/FR/OE/0,14/2,0M	2900142	20	CABLE-FLK20/OE/0,14/ 200	2305321
50	VIP-CAB-FLK50/FR/OE/0,14/1,0M	2900147	50	CABLE-FLK50/OE/0,14/ 100	2305350
50	VIP-CAB-FLK50/FR/OE/0,14/2,0M	2900149	50	CABLE-FLK50/OE/0,14/ 200	2305376

Customer-specific products – From the enquiry to the individual product

Can't find what you're looking for in our product range? No problem! From small adjustments to completely new product developments, the service team of Phoenix Contact caters to your requirements. We can create variants on products from the catalog or new products that meet your specifications for easy installation or modernization of your system.

Your direct line to us

Do you have a specific request?
If so, simply write a brief message using
our request form:

 Web code: [#0522](#)





Your advantages

- Personal consultation with just one contact partner throughout the entire project phase
- Individual concept creation for your application
- Fast, reliable processing by experienced specialists
- Large and small series in professional quality
- On-time delivery thanks to precise planning and project monitoring

PHOENIX CONTACT

Products and solutions for your success

As a leading manufacturer of connection technology and automation components, we are always working to transform the growing requirements placed on your application and markets into new innovations. Our products are the nervous system of your industrial system and help you design more efficient processes and reduce costs.



Your advantages:

- Unique product portfolio due to future-oriented innovations and a wide variety
- High quality thanks to standardized lab tests and high-end materials
- Professional service through personal consultation:
With 50 subsidiaries and over 30 agencies, we are always close by.
- High delivery reliability due to modern production processes, worldwide production locations and local stockkeeping



"Made by Phoenix Contact"

Phoenix Contact relies on its in-house skills and expertise in many respects. Product ideas aimed at developing solutions to customer requests are continuously being implemented in the design and development departments. Numerous patents illustrate this innovative power.

Quality down to the smallest detail

Quality can only be ensured when developers keep on an eye on the smallest detail. For this reason, we even manufacture our own screws. From our own plastic, metal and SMD fabrications, we produce components that go on to form the basis for high-quality components.

Global approvals and certificates

Our numerous certificates are proof that you can put full trust in our products because quality is essential.

We would like to meet this expectation for every product and process. For this reason, our systems, processes and products are inspected and certified multiple times.

In dialog with customers and partners worldwide

Phoenix Contact is a globally present, Germany-based market leader. Our group is synonym for future-oriented components, systems, and solutions in the fields of electrical engineering, electronics, and automation. A global network across more than 100 countries, and 15,000 employees ensure a close proximity to our customers, which we believe is particularly important.

The wide variety of our innovative products makes it easy for our customers to find future-oriented solutions for different applications and industries. We especially focus on the fields of energy, infrastructure, process and factory automation.



You will find our complete product range at:
phoenixcontact.com

PHOENIX CONTACT GmbH & Co. KG
Flachmarktstraße 8
32825 Blomberg, Germany
Phone: +49 52 35 3-00
Fax: +49 52 35 3-4 12 00
E-mail: info@phoenixcontact.com
phoenixcontact.com