

# TC-2KS50-DO16-ESD-AR-RS - Module carrier



2904113

<https://www.phoenixcontact.com/us/products/2904113>

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Termination carrier for redundantly connecting 16 PSR-FSP modules to digital output cards of the Yokogawa ProSafe-RS controller, via two KS50 connectors, 50-pos. Solution for Emergency Shut Down (ESD) applications. Suitable for Yokogawa SDV541 card.

## Your advantages

- Mechanically decoupled PCB
- Robust aluminum profile with integrated DIN rail
- Side parts with integrated end clamps
- Redundant system connection, 50-pos. (KS/AKB-compatible)
- Simple or redundant supply, decoupled from diode, protected against polarity reversal
- Error message in the event of power supply failure or fuse fault
- Relay output (N/O contact, floating) and flashing LED for error message
- Undervoltage monitoring at input at < 18 V DC
- Suitable for safe state off applications
- Cable sets for signal connection are not supplied as standard and must be ordered separately

## Commercial data

Item number	2904113
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Sales key	C420
Product key	CK274C
Catalog page	Page 525 (C-5-2017)
GTIN	4046356783743
Weight per piece (including packing)	1,447 g
Weight per piece (excluding packing)	1,447 g
Customs tariff number	85369010
Country of origin	DE

## Technical data

### Notes

Notes on operation	For proper use, the specifications of the installation directive (see Downloads) must be observed. For applications or use with third-party products, the specifications, and the safety and warning instructions of the respective third-party manufacturer must also be met.
Utilization restriction	
EMC note	EMC: class A product, see manufacturer's declaration in the download area

### Product properties

Product type	Module carrier
Data management status	
Article revision	05
Insulation characteristics: Air clearances and creepage distances	
Insulation	Basic insulation

### Electrical properties

Max. permissible current	1 A (Per signal/channel)
Nominal voltage $U_N$	24 V DC (21.1 V ... 26.4 V)
Air clearances and creepage distances	
Rated insulation voltage	50 V
Rated surge voltage	0.5 kV
Supported controller YOKOGAWA ProSafe-RS	
Suitable I/O card	SDV541
Supply	
Designation	Device supply
Fuse	2.5 A on PCB, slow-blow (replaceable)
Input voltage range	21.1 V ... 26.4 V
Input current	≤ 2 A
Redundant supply	yes, decoupled from diodes
Polarization and surge protection	Yes
Output name	Switching output
Contact switching type	1 N/C contact (alarm = open)

### Connection data

Power supply	
Connection method	Screw connection
Stripping length	7 mm

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Number of connections	1
Number of positions	6
Conductor cross section rigid	0.14 mm² ... 2.5 mm²
Conductor cross section flexible	0.14 mm² ... 2.5 mm²
Conductor cross section AWG	24 ... 12

## Controller level

Connection method	Yokogawa KS-compatible
Number of connections	2
Number of positions	50

## Signaling

Status display	2 x red LED (error) 2x green LEDs (PWR1 and PWR2)
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## Dimensions

Width	304 mm
Height	170 mm
Depth	159.5 mm

## Environmental and real-life conditions

### Ambient conditions

Degree of protection	IP00
Ambient temperature (operation)	-20 °C ... 60 °C
Ambient temperature (storage/transport)	-40 °C ... 80 °C
Permissible humidity (operation)	5 % ... 95 % (non-condensing)
Shock	15g, according to IEC 60068-2-27
Vibration (operation)	2g, according to IEC 60068-2-6

## Approvals

### UL, USA/Canada

Identification	UL 61010 Listed Class I, Div. 2, Groups A, B, C, D T4 Class I, Zone 2, Group IIC
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## Standards and regulations

### Air clearances and creepage distances

Standards/regulations	DIN EN 50178
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## Mounting

Mounting type	DIN rail mounting
Assembly note	No end clamp
Mounting position	vertical, horizontal

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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2904113>

	<b>UL Listed</b> Approval ID: FILE E 330267			
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
	50 V	1 A	-	-

	<b>cUL Listed</b> Approval ID: FILE E 330267			
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
	50 V	1 A	-	-

	<b>cUL Listed</b> Approval ID: E199827			
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
	50 V	1 A	-	-

	<b>UL Listed</b> Approval ID: E199827			
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
	50 V	1 A	-	-

<b>cULus Listed</b>
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<b>cULus Listed</b>
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## Classifications

### ECLASS

ECLASS-11.0	27141152
ECLASS-13.0	27141152
ECLASS-12.0	27141152

### ETIM

ETIM 9.0	EC002780
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### UNSPSC

UNSPSC 21.0	39121400
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Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	6(c), 7(a), 7(c)-I

China RoHS

Environment friendly use period (EFUP)	EFUP-50
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.

EU REACH SVHC

REACH candidate substance (CAS No.)	Lead(CAS: 7439-92-1)
SCIP	e79ac243-77e8-4e78-87f6-8bc9a82403d2

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## Mandatory accessories

### PSR-SCP- 24DC/FSP/2X1/1X2 - Safety relays

2986960

<https://www.phoenixcontact.com/us/products/2986960>



Safe coupling relay for SIL 3 high- and low-demand applications, couples digital output signals to the periphery, two enabling current paths, one signal contact, module for safe state off applications, integrated test pulse filter, plug-in screw connection, width: 17.5 mm

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### PSR-SCP- 24DC/FSP2/2X1/1X2 - Coupling relay

2986575

<https://www.phoenixcontact.com/us/products/2986575>



Safe coupling relay for SIL 2 high- and low-demand applications, couples digital output signals to the periphery, two enabling current paths, one signal contact, module for safe state off applications, integrated test pulse filter, plug-in screw connection, width: 17.5 mm

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## PSR-SCP- 24DC/FSP/1X1/1X2 - Coupling relay

2981978

<https://www.phoenixcontact.com/us/products/2981978>



Safe coupling relay for SIL 3 high- and low-demand applications, couples digital output signals to the periphery, one enabling current path, one signal contact, module for safe state off applications, test pulse filter, fuse, plug-in screw connection, width: 17.5 mm

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## TC-C-PSR3-SC-A10000A20000 - Cable set

2903389

<https://www.phoenixcontact.com/us/products/2903389>



Cable set for signal transmission on the Termination Carrier for coupling relays from the PSR-FSP series. Connection of terminal points A1 and A2 (signal transmission) to the signal PCB. Suitable for PSR-SCP-24DC/FSP/1X1/1X2 (Item No. 2981978).



# TC-2KS50-DO16-ESD-AR-RS - Module carrier



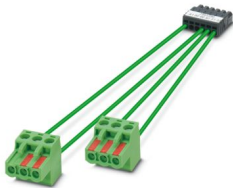
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## TC-C-PSR3-SC-A10000A23132 - Cable set

2903390

<https://www.phoenixcontact.com/us/products/2903390>



Cable set for signal transmission on the Termination Carrier for coupling relays from the PSR-FSP series. Connection of terminal points A1 and A2 (signal transmission) as well as 31 and 32 (confirmation). Suitable for PSR-SCP-24DC/FSP/2X1/1X2 (Item No. 2986960) and PSR-SCP-24DC/FSP2/2X1/1X2 (Item No. 2986575).

## TC-C-PTSM-50-00000000J1J1 - Plug

2903388

<https://www.phoenixcontact.com/us/products/2903388>



Jumper plug, for looping through the confirmation contacts of unused module slots. Use on the termination carrier for safety relay modules from the PSR-FSP series.

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## FLK 50-PA/EZ-DR/KS/ 100/YUC - Front adapter

2900991

<https://www.phoenixcontact.com/us/products/2900991>



Cast front adapter with attached round cable and a 50-pos. socket strip injection-molded on both sides for the connection of Yokogawa controllers. Cable length: 1.0 m

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## FLK 50-PA/EZ-DR/KS/ 200/YUC - Front adapter

2314299

<https://www.phoenixcontact.com/us/products/2314299>



Cast front adapter with attached round cable and a 50-pos. socket strip injection-molded on both sides for the connection of Yokogawa controllers. Cable length: 2.0 m

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## FLK 50-PA/EZ-DR/KS/ 300/YUC - Front adapter

2314309

<https://www.phoenixcontact.com/us/products/2314309>



Cast front adapter with attached round cable and a 50-pos. socket strip injection-molded on both sides for the connection of Yokogawa controllers. Cable length: 3.0 m

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## FLK 50-PA/EZ-DR/KS/ 400/YUC - Front adapter

2314312

<https://www.phoenixcontact.com/us/products/2314312>



Cast front adapter with attached round cable and a 50-pos. socket strip injection-molded on both sides for the connection of Yokogawa controllers. Cable length: 4.0 m

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## FLK 50-PA/EZ-DR/KS/ 500/YUC - Front adapter

2321499

<https://www.phoenixcontact.com/us/products/2321499>



Cast front adapter with attached round cable and a 50-pos. socket strip injection-molded on both sides for the connection of Yokogawa controllers. Cable length: 5.0 m

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## FLK 50-PA/EZ-DR/KS/ 600/YUC - Front adapter

2314927

<https://www.phoenixcontact.com/us/products/2314927>



Cast front adapter with attached round cable and a 50-pos. socket strip injection-molded on both sides for the connection of Yokogawa controllers. Cable length: 6.0 m

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## FLK 50-PA/EZ-DR/KS/ 700/YUC - Front adapter

2321509

<https://www.phoenixcontact.com/us/products/2321509>



Cast front adapter with attached round cable and a 50-pos. socket strip injection-molded on both sides for the connection of Yokogawa controllers. Cable length: 7.0 m

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## FLK 50-PA/EZ-DR/KS/ 800/YUC - Front adapter

2314930

<https://www.phoenixcontact.com/us/products/2314930>



Cast front adapter with attached round cable and a 50-pos. socket strip injection-molded on both sides for the connection of Yokogawa controllers. Cable length: 8.0 m

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## FLK 50-PA/EZ-DR/KS/ 900/YUC - Front adapter

2321512

<https://www.phoenixcontact.com/us/products/2321512>



Cast front adapter with attached round cable and a 50-pos. socket strip injection-molded on both sides for the connection of Yokogawa controllers. Cable length: 9.0 m

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## FLK 50-PA/EZ-DR/KS/1000/YUC - Front adapter

2314325

<https://www.phoenixcontact.com/us/products/2314325>



Cast front adapter with attached round cable and a 50-pos. socket strip injection-molded on both sides for the connection of Yokogawa controllers. Cable length: 10.0 m

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## FLK 50-PA/EZ-DR/KS/1100/YUC - Front adapter

2321389

<https://www.phoenixcontact.com/us/products/2321389>



Cast front adapter with attached round cable and a 50-pos. socket strip injection-molded on both sides for the connection of Yokogawa controllers. Cable length: 11.0 m

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## FLK 50-PA/EZ-DR/KS/1200/YUC - Front adapter

2321525

<https://www.phoenixcontact.com/us/products/2321525>



Cast front adapter with attached round cable and a 50-pos. socket strip injection-molded on both sides for the connection of Yokogawa controllers. Cable length: 12.0 m

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## FLK 50-PA/EZ-DR/KS/1300/YUC - Front adapter

2321392

<https://www.phoenixcontact.com/us/products/2321392>



Cast front adapter with attached round cable and a 50-pos. socket strip injection-molded on both sides for the connection of Yokogawa controllers. Cable length: 13.0 m

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## FLK 50-PA/EZ-DR/KS/1400/YUC - Front adapter

2321402

<https://www.phoenixcontact.com/us/products/2321402>



Cast front adapter with attached round cable and a 50-pos. socket strip injection-molded on both sides for the connection of Yokogawa controllers. Cable length: 14.0 m



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## FLK 50-PA/EZ-DR/KS/1500/YUC - Front adapter

2314338

<https://www.phoenixcontact.com/us/products/2314338>



Cast front adapter with attached round cable and a 50-pos. socket strip injection-molded on both sides for the connection of Yokogawa controllers. Cable length: 15.0 m

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## FLK 50-PA/EZ-DR/KS/1600/YUC - Front adapter

2321538

<https://www.phoenixcontact.com/us/products/2321538>



Cast front adapter with attached round cable and a 50-pos. socket strip injection-molded on both sides for the connection of Yokogawa controllers. Cable length: 16.0 m

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## FLK 50-PA/EZ-DR/KS/1700/YUC - Front adapter

2321541

<https://www.phoenixcontact.com/us/products/2321541>



Cast front adapter with attached round cable and a 50-pos. socket strip injection-molded on both sides for the connection of Yokogawa controllers. Cable length: 17.0 m

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## FLK 50-PA/EZ-DR/KS/1800/YUC - Front adapter

2321554

<https://www.phoenixcontact.com/us/products/2321554>



Cast front adapter with attached round cable and a 50-pos. socket strip injection-molded on both sides for the connection of Yokogawa controllers. Cable length: 18.0 m

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## FLK 50-PA/EZ-DR/KS/1900/YUC - Front adapter

2321567

<https://www.phoenixcontact.com/us/products/2321567>



Cast front adapter with attached round cable and a 50-pos. socket strip injection-molded on both sides for the connection of Yokogawa controllers. Cable length: 19.0 m

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## FLK 50-PA/EZ-DR/KS/2000/YUC - Front adapter

2314503

<https://www.phoenixcontact.com/us/products/2314503>



Cast front adapter with attached round cable and a 50-pos. socket strip injection-molded on both sides for the connection of Yokogawa controllers. Cable length: 20.0 m

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## FLK 50-PA/EZ-DR/KS/2500/YUC - Front adapter

2314516

<https://www.phoenixcontact.com/us/products/2314516>



Cast front adapter with attached round cable and a 50-pos. socket strip injection-molded on both sides for the connection of Yokogawa controllers. Cable length: 25.0 m

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## FLK 50-PA/EZ-DR/KS/3000/YUC - Front adapter

2314529

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Cast front adapter with attached round cable and a 50-pos. socket strip injection-molded on both sides for the connection of Yokogawa controllers. Cable length: 30.0 m

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## FLK 50-PA/EZ-DR/KS/5000/YUC - Front adapter

2318981

<https://www.phoenixcontact.com/us/products/2318981>



Cast front adapter with attached round cable and a 50-pos. socket strip injection-molded on both sides for the connection of Yokogawa controllers. Cable length: 50.0 m

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## Accessories

### EMLF (108XE)R - Label, highly flexible

0800549

<https://www.phoenixcontact.com/us/products/0800549>



Label, highly flexible, Roll, white, unlabeled, can be labeled with: THERMOMARK E.300 (D)/600 (D), THERMOMARK ROLL 2.0, THERMOMARK ROLL, THERMOMARK ROLL X1, THERMOMARK ROLLMaster 300/600, THERMOMARK X1.2, mounting type: adhesive, lettering field size: 108 x 48000 mm, Number of individual labels: 1

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## ZBF 15:UNBEDRUCKT - Zack Marker strip, flat

0811202

<https://www.phoenixcontact.com/us/products/0811202>



Zack Marker strip, flat, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: snapped, for terminal block width: 15 mm, lettering field size: 15 x 5.2 mm, Number of individual labels: 5

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