

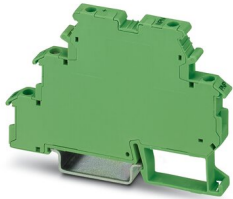
# Switching amplifier - DEK-TR/INV



2964319

<https://www.phoenixcontact.com/pc/products/2964319>

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Inverter module. The inverter module inverts the signals of ground switching n-p-n transistor outputs into plus switching p-n-p outputs, and vice versa.

## Your advantages

- The DEK-TR/INV inverter module inverts the signals of ground switching NPN transistor outputs into positive switching PNP outputs and vice versa

## Commercial Data

Item number	2964319
Packing unit	10 pc
Minimum order quantity	1 pc
Product Key	CK6153
Catalog Page	Page 455 (C-5-2019)
GTIN	4017918176068
Weight per Piece (including packing)	20.61 g
Weight per Piece (excluding packing)	19.9 g
Customs tariff number	85364190
Country of origin	CN

## Technical Data

### Notes

Note on application	Use of EB 80-DIK... bridges in the DEK terminal blocks: Absorption of humidity from the ambient air as well as an unfavorable tolerance between a larger number of DEK terminal blocks and the EB 80-DIK... bridge may cause (minor) expansion of the DEK housing. When the EB 80-DIK... bridges are used, therefore, it is recommended that these be disconnected after about 10 to 12 DEK terminal blocks and a wire bridge to the next DEK terminal block be inserted in their place.
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### Product properties

Product type	Solid-state relay module
Application	Inverter module

### Insulation characteristics

Overvoltage category	II
Pollution degree	2

### Electrical properties

Maximum power dissipation for nominal condition	4.8 W
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### Supply

Supply voltage range	20 V DC ... 30 V DC
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### Input data

Typical input current at $U_N$	200 mA
Transmission frequency	15 kHz

### NPN

Switching threshold "1" signal voltage	< 5 V (at $U_V = 24$ V; < ( $U_V - 19$ V))
Switching threshold "0" signal, voltage	> 15 V (at $U_V = 24$ V; > ( $U_V - 9$ V))
Min. voltage input signal	-2 V
Max. voltage input signal	26 V (at $U_V = 24$ V; $U_V + 2$ V)

### PNP

Switching threshold "1" signal voltage	> 19 V
Switching threshold "0" signal, voltage	< 9 V
Min. voltage input signal	-2 V
Max. voltage input signal	26 V (at $U_V = 24$ V; $U_V + 2$ V)

### Output data

Continuous load current	200 mA
Leakage current	< 1 mA
Residual voltage	< 1 V
Transmission frequency	15 kHz
Contact type	1 N/O contact

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Output nominal voltage	max. $\pm 26$ V
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## Connection data

Connection method	Screw connection
Stripping length	8 mm
Screw thread	M3
Conductor cross section solid	0.2 mm <sup>2</sup> ... 4 mm <sup>2</sup>
Conductor cross section flexible	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross section AWG	24 ... 12

## Dimensions

Width	6.2 mm
Height	80 mm
Depth	56 mm

## Material specifications

Housing material	Polyamide PA non-reinforced
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## Environmental and real-life conditions

### Ambient conditions

Ambient temperature (operation)	-20 °C ... 50 °C
Ambient temperature (storage/transport)	-20 °C ... 70 °C

## Standards and regulations

Standards/regulations	IEC 60947-5-1
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## Mounting

Mounting type	DIN rail mounting
Assembly instructions	in rows with zero spacing
Mounting position	any

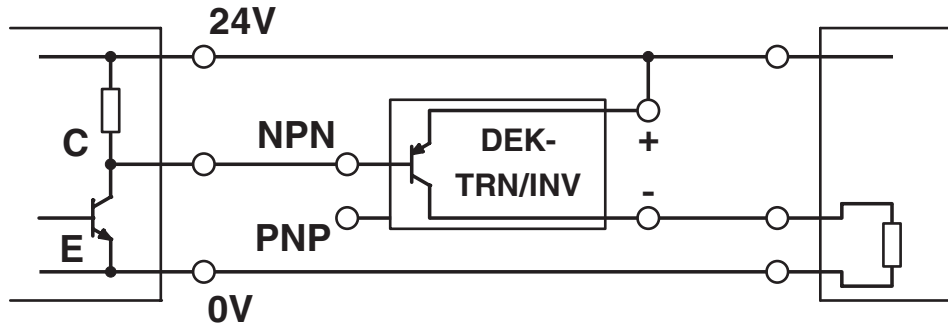
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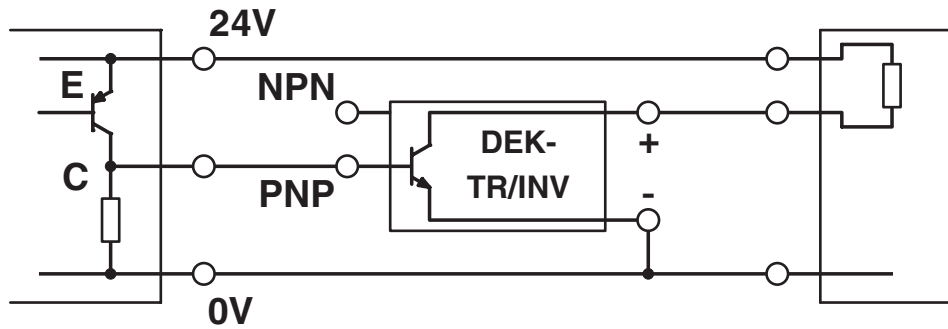
## Drawings

Application drawing

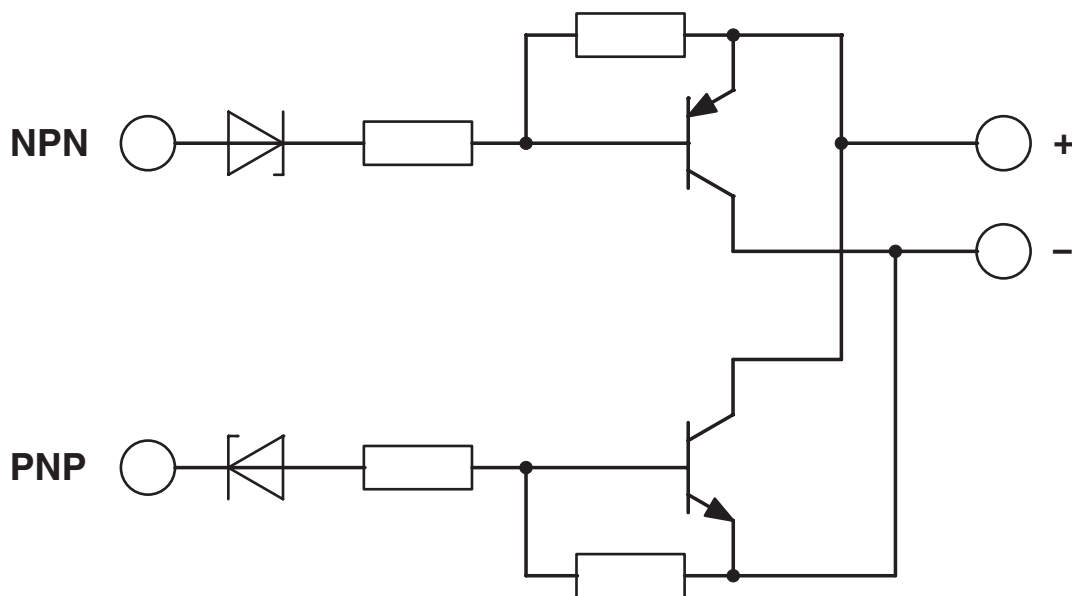


a = NPN output  
b = load

Application drawing



Circuit diagram



# Switching amplifier - DEK-TR/INV




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## Approvals

 <b>cUL Recognized</b> Approval ID: FILE E 238705				
	Nominal Voltage $U_N$	Nominal Current $I_N$	Cross Section AWG	Cross Section $\text{mm}^2$
			-	-

 <b>UL Recognized</b> Approval ID: FILE E 238705				
	Nominal Voltage $U_N$	Nominal Current $I_N$	Cross Section AWG	Cross Section $\text{mm}^2$
			-	-

 <b>EAC</b> Approval ID: RU C-DE.A*30.B.01742				
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<b>cULus Recognized</b>				
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# Switching amplifier - DEK-TR/INV



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## Classifications

### ECLASS

ECLASS-9.0	27371604
ECLASS-10.0.1	27371604
ECLASS-11.0	27371604

### ETIM

ETIM 8.0	EC001504
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### UNSPSC

UNSPSC 21.0	39122300
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# Switching amplifier - DEK-TR/INV



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## Environmental Product Compliance

China RoHS	Environmentally Friendly Use Period = 50 years
	For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads"

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## Accessories

**i** Note: Applying some accessories below might limit this product.

### Insertion bridge

Insertion bridge - EB 2- DIK RD - 2716693

<https://www.phoenixcontact.com/pc/products/2716693>



Insertion bridge, pitch: 6.15 mm, color: red

**i** Max. current carrying capacity: 26 A

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### Insertion bridge

Insertion bridge - EB 3- DIK RD - 2716745

<https://www.phoenixcontact.com/pc/products/2716745>



Insertion bridge, pitch: 6.15 mm, color: red

**i** Max. current carrying capacity: 26 A



# Switching amplifier - DEK-TR/INV

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## Insertion bridge

Insertion bridge - EB 4- DIK RD - 2716758

<https://www.phoenixcontact.com/pc/products/2716758>



Insertion bridge, pitch: 6.15 mm, color: red

 Max. current carrying capacity: 26 A

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## Insertion bridge

Insertion bridge - EB 5- DIK RD - 2716761

<https://www.phoenixcontact.com/pc/products/2716761>



Insertion bridge, pitch: 6.15 mm, color: red

 Max. current carrying capacity: 26 A

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## Insertion bridge

Insertion bridge - EB 10- DIK RD - 2716774

<https://www.phoenixcontact.com/pc/products/2716774>



Insertion bridge, pitch: 6.15 mm, color: red

 Max. current carrying capacity: 26 A

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## Insertion bridge

Insertion bridge - EB 2- DIK BU - 2716648

<https://www.phoenixcontact.com/pc/products/2716648>



Insertion bridge, pitch: 6.15 mm, color: blue

 Max. current carrying capacity: 26 A

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## Insertion bridge

Insertion bridge - EB 3- DIK BU - 2716651

<https://www.phoenixcontact.com/pc/products/2716651>

Insertion bridge, pitch: 6.15 mm, color: blue



 Max. current carrying capacity: 26 A

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## Insertion bridge

Insertion bridge - EB 4- DIK BU - 2716664

<https://www.phoenixcontact.com/pc/products/2716664>

Insertion bridge, pitch: 6.15 mm, color: blue



 Max. current carrying capacity: 26 A

# Switching amplifier - DEK-TR/INV

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## Insertion bridge

Insertion bridge - EB 5- DIK BU - 2716677

<https://www.phoenixcontact.com/pc/products/2716677>



Insertion bridge, pitch: 6.15 mm, color: blue

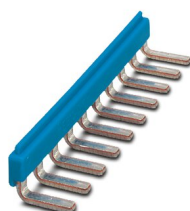
 Max. current carrying capacity: 26 A

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## Insertion bridge

Insertion bridge - EB 10- DIK BU - 2716680

<https://www.phoenixcontact.com/pc/products/2716680>



Insertion bridge, pitch: 6.15 mm, color: blue

 Max. current carrying capacity: 26 A

# Switching amplifier - DEK-TR/INV

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## Insertion bridge

Insertion bridge - EB 80- DIK BU - 2715940

<https://www.phoenixcontact.com/pc/products/2715940>



Insertion bridge, pitch: 6.2 mm, color: blue

 Max. current carrying capacity: 26 A

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## Insertion bridge

Insertion bridge - EB 80- DIK RD - 2715953

<https://www.phoenixcontact.com/pc/products/2715953>



Insertion bridge, pitch: 6.2 mm, color: red

 Max. current carrying capacity: 26 A

# Switching amplifier - DEK-TR/INV

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## Insertion bridge

Insertion bridge - EB 80- DIK WH - 2715788

<https://www.phoenixcontact.com/pc/products/2715788>

Insertion bridge, pitch: 6.15 mm, color: white



 Max. current carrying capacity: 26 A

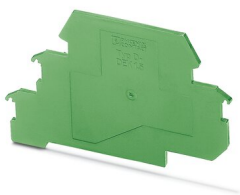
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## Separating plate

Separating plate - D-DEK 1,5 GN - 2716949

<https://www.phoenixcontact.com/pc/products/2716949>

Cover for setting the end of a terminal row, color: green



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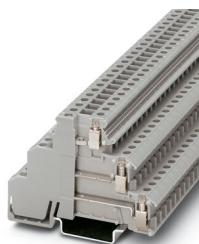
<https://www.phoenixcontact.com/pc/products/2964319>



## Sensor/actuator terminal block

Sensor/actuator terminal block - DIKD 1,5 - 2715979

<https://www.phoenixcontact.com/pc/products/2715979>



Sensor/actuator terminal block, nom. voltage: 250 V, nominal current: 24 A, connection method: Screw connection, 1st, 2nd and 3rd level, Rated cross section: 2.5 mm<sup>2</sup>, cross section: 0.2 mm<sup>2</sup> - 4 mm<sup>2</sup>, mounting type: NS 35/7,5, NS 35/15, color: gray

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## Zack marker strip

Zack marker strip - ZB 6:UNBEDRUCKT - 1051003

<https://www.phoenixcontact.com/pc/products/1051003>



Zack marker strip, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: snapped, for terminal block width: 6.2 mm, lettering field size: 6.15 x 10.5 mm, Number of individual labels: 10

# Switching amplifier - DEK-TR/INV

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## Zack marker strip

Zack marker strip - ZB 6,LGS:FORTL.ZAHLEN - 1051016

<https://www.phoenixcontact.com/pc/products/1051016>



Zack marker strip, Strip, white, labeled, can be labeled with: CMS-P1-PLOTTER, printed horizontally: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 491 ... 500, mounting type: snapped, for terminal block width: 6.2 mm, lettering field size: 6.15 x 10.5 mm, Number of individual labels: 10

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## Zack marker strip

Zack marker strip - ZB 6/WH-100:UNBEDRUCKT - 5060935

<https://www.phoenixcontact.com/pc/products/5060935>



Zack marker strip, Strip, white, unlabeled, can be labeled with: PLOTMARK, CMS-P1-PLOTTER, mounting type: snapped, for terminal block width: 6.2 mm, lettering field size: 6.15 x 10.5 mm, Number of individual labels: 1000

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