PLC-BSC-120UC/21/SO46 - Relay base

2980319

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6.2 mm PLC basic terminal block with protection against interference currents/voltages on the control side, with screw connection, without relay or solid-state relay, for mounting on DIN rail NS 35/7,5, with integrated RCZ filter, 1 changeover contact, input voltage 120 V AC

Your advantages

- Resistant to interference currents
- High relay release voltage

Commercial data

Item number	2980319
Packing unit	10 pc
Minimum order quantity	10 pc
Sales key	C461
Product key	DK622M
GTIN	4017918895709
Weight per piece (including packing)	35.345 g
Weight per piece (excluding packing)	30.2 g
Customs tariff number	85366990
Country of origin	DE

Technical data

Notes

Utilization restriction

EMC note	EMC: class A product, see manufacturer's declaration in the download area

Product properties

Product type	Relay socket
Product family	PLC-INTERFACE
Application	Filter to prevent interference
Operating mode	100% operating factor

Insulation characteristics

Pollution degree	3

Electrical properties

Protective circuit	Bridge rectifier; Bridge rectifier
	RCZ filter; RCZ filter

Input data

Nominal input voltage U_N	120 V AC
	110 V DC
	The nominal voltage of the plug-on electromechanical relay or solid-state relay (see necessary accessories) deviates from the nominal input voltage of the base with integrated upstream circuit
	120 V AC
	110 V DC
	The nominal voltage of the plug-on electromechanical relay or solid-state relay (see necessary accessories) deviates from the nominal input voltage of the base with integrated upstream circuit

Relay assembly

Nominal input voltage U_N	120 V AC
	110 V DC
Input voltage range in reference to U_N	0.8 ... 1.4
Typical input current at U_N	7 mA (50 Hz)
	8 mA (60 Hz)
Typical response time	7 ms
Typical release time	20 ms
Typical release voltage	50 V AC
Operating voltage display	Yellow LED
Protective circuit	Bridge rectifier; Bridge rectifier
	Filter; Filter

Optocoupler assembly

Nominal input voltage U_N	120 V AC
	110 V DC
Input voltage range in reference to U_N	0.85 ... 1.1
Typical input current at U_N	7 mA (50 Hz)
	8 mA (60 Hz)
Switching threshold "0" signal in reference to U_N	≤ 0.4
Typical response time	6 ms
Typical release time	10 ms
Operating voltage display	Yellow LED
Protective circuit	Bridge rectifier; Bridge rectifier
	Filter; Filter

Output data

Maximum switching voltage	48 V DC
Minimum switching voltage	3 V DC
Limiting continuous current	100 mA
Voltage drop at max. limiting continuous current	< 1 V
Output circuit	2-conductor, floating
Protective circuit	Reverse polarity protection
	Surge protection
Maximum switching voltage	30 V DC
Minimum switching voltage	3 V DC
Limiting continuous current	3 A
Voltage drop at max. limiting continuous current	< 200 mV
Maximum inrush current	15 A (10 ms)
Output circuit	2-conductor, floating
Protective circuit	Reverse polarity protection
	Surge protection
Maximum switching voltage	253 V AC (Divider plate PLC-ATP must be installed for voltages larger than 250 V (L1, L2, L3) between identical terminal points in adjacent modules. Potential bridging is then carried out with FBST 8-PLC... or ...FBST 500...)
Minimum switching voltage	24 V AC
Limiting continuous current	0.75 A
Voltage drop at max. limiting continuous current	< 1 V
Maximum inrush current	30 A (10 ms)
Output circuit	2-conductor, floating
Protective circuit	RCV circuit
Leakage current	< 1 mA
Phase angle cos phi min	0.5
Max. load value	4.5 A^2s

Connection data

Connection method	Screw connection
Stripping length	8 mm

Screw thread	M3
Conductor cross-section rigid	0.14 mm² ... 2.5 mm²
Conductor cross-section flexible	0.14 mm² ... 2.5 mm²
	0.2 mm² ... 2.5 mm² (Single ferrule)
	2x 0.5 mm² ... 1.5 mm² (TWIN ferrule)
Conductor cross-section AWG	26 ... 14
Tightening torque	0.6 Nm ... 0.8 Nm

Signaling

Status display	LED

Dimensions

Item dimensions

Width	6.2 mm
Height	80 mm
Depth	94 mm

Material specifications

Color	gray (RAL 7042)
Flammability rating according to UL 94 (Housing)	V0 (Housing)

Environmental and real-life conditions

Ambient conditions

Ambient temperature (operation)	-40 °C ... 55 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C

Approvals

CE

Certificate	CE-compliant

UKCA

Certificate	UKCA-compliant

Shipbuilding approval

Certificate	TAE0000196

Corrosive gas test

Identification	ISA-S71.04. G3 Harsh Group
	EN 60068-2-60

Shipbuilding data

Temperature	D
Humidity	A
Vibration	B/C
EMC	B

Enclosure	Required protection according to the Rules shall be provided upon installation on board

EMC data

Electromagnetic compatibility	Conformance with EMC directive
Low Voltage Directive	Conformance with Low Voltage Directive

Standards and regulations

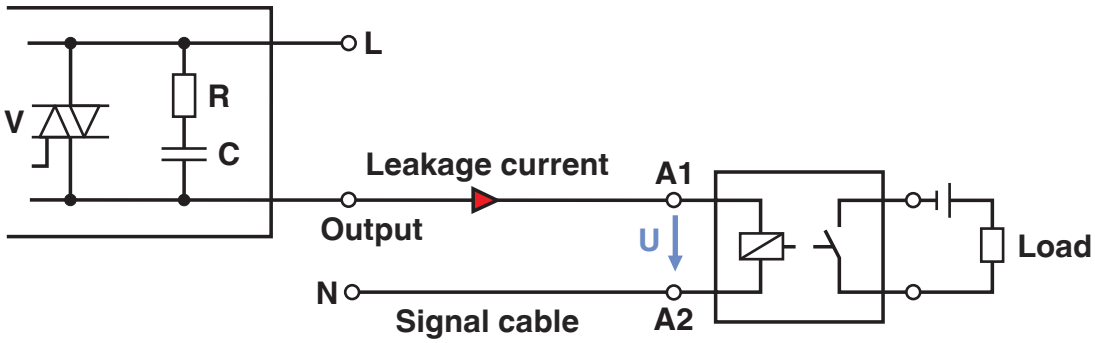
Standards/regulations	IEC/EN 60664-1

Mounting

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

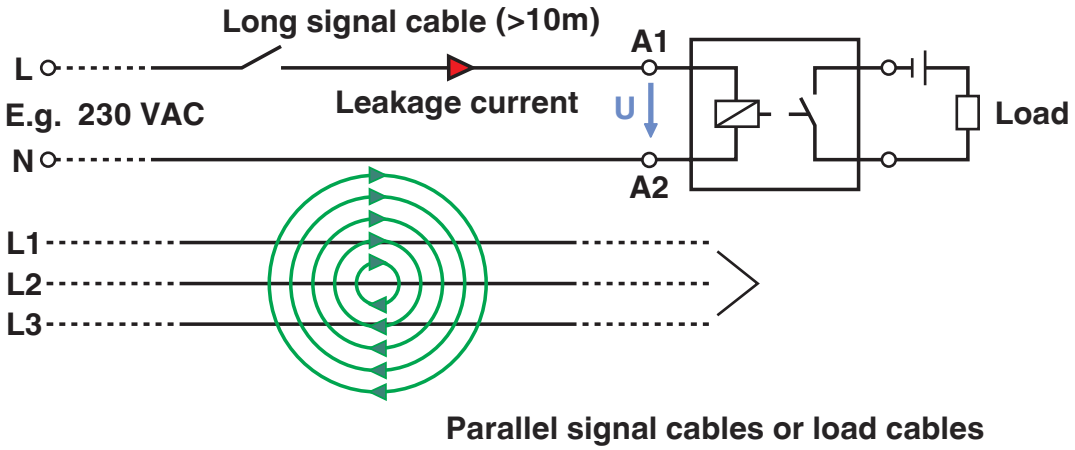
Drawings

Application drawing



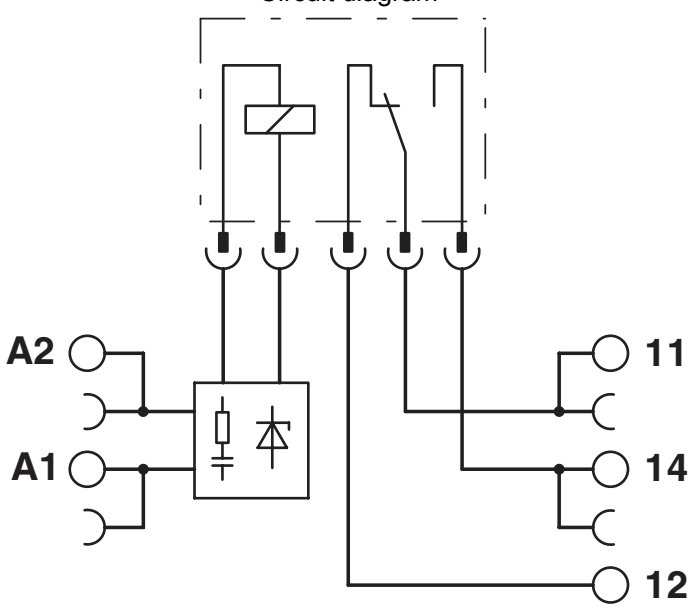
Occurrence of interference signals
Scenario 1: controller - AC output card

Application drawing

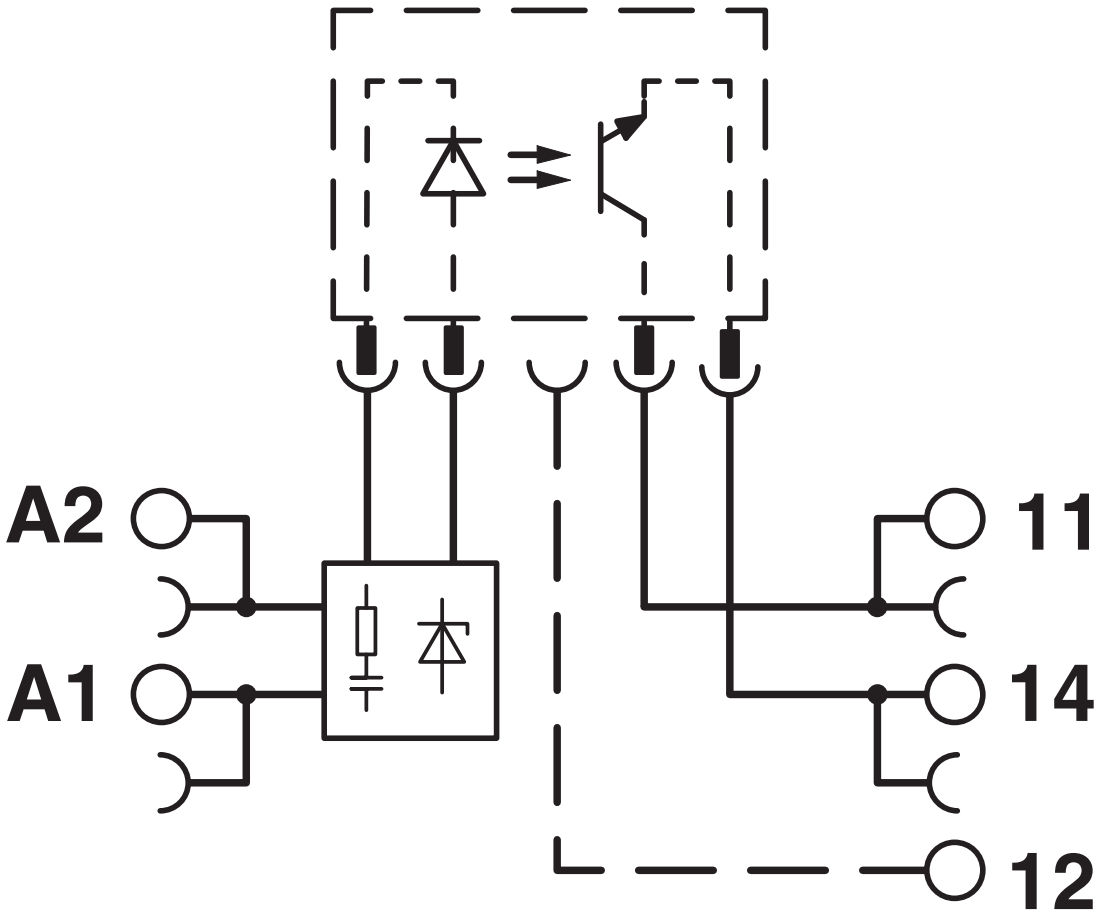


Occurrence of interference signals
Scenario 2: long signal cables

Circuit diagram

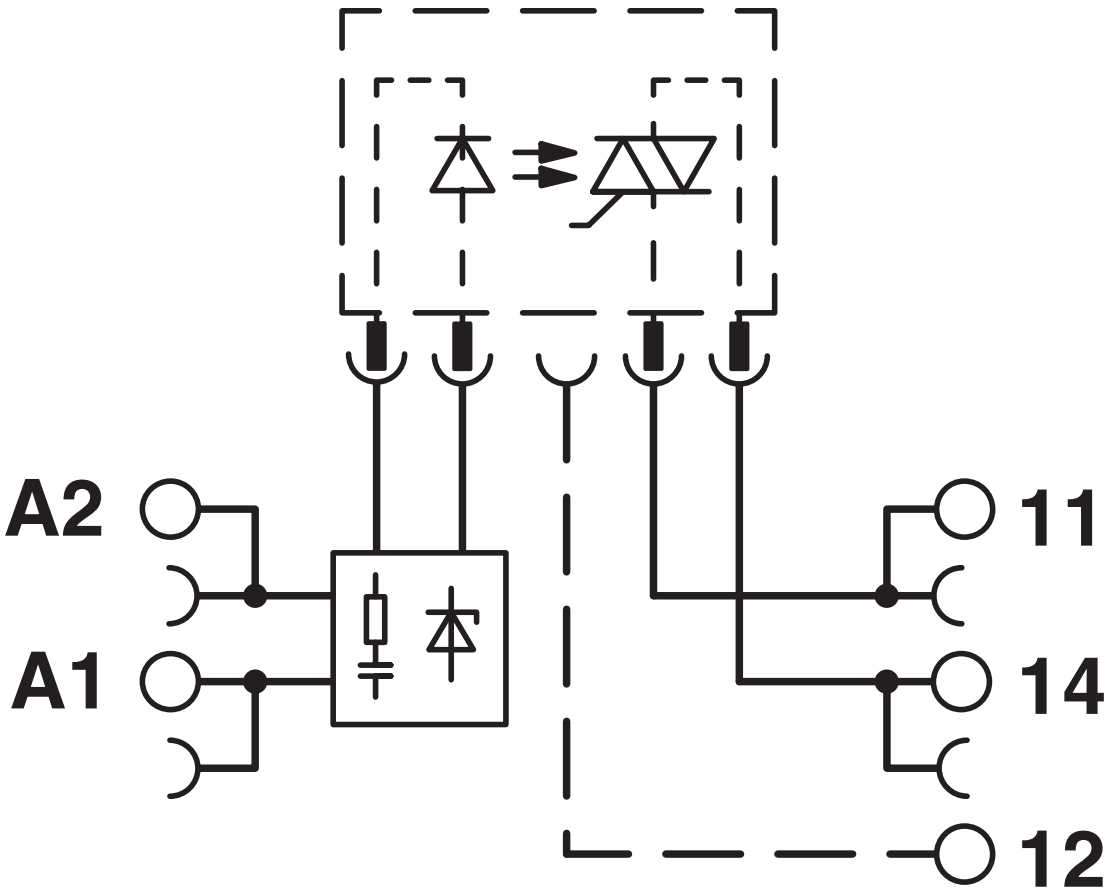


Circuit diagram



DC output

Circuit diagram



AC output

Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/2980319

cUL Recognized
Approval ID: E238705

UL Recognized
Approval ID: E238705

EAC
Approval ID: RU D-DE.B*00573/18

DNV
Approval ID: TAE0000196

Classifications

ECLASS

ECLASS-13.0	27371603
ECLASS-15.0	27371603

ETIM

ETIM 10.0	EC001456

UNSPSC

UNSPSC 21.0	39122300

Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	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.)	Hexahydromethylphthalic anhydride(CAS: n/a)
	Lead(CAS: 7439-92-1)
	2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol(CAS: 79-94-7)
SCIP	21bc45aa-b1c3-4d5e-a39a-db8d2c42bd99

EF3.1 Climate Change

CO2e kg	0.48 kg CO2e

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