

2966320

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PLC-INTERFACE for input functions, consisting of PLC-BSC.../SEN basic terminal block with screw connection and plug-in miniature relay with multi-layer gold contact, for mounting on DIN rail NS 35/7,5, 1 N/O contact, input voltage 120 V AC/110 V DC

#### Your advantages

- Time savings of up to 60 %
- · No need for additional modular terminal blocks
- · Efficient connection to system cabling using V8 adapter
- Relay modules with safe isolation according to DIN EN 50178 between coil and contact
- Space savings of up to 80 %
- · Sensor connected directly to relay module
- Functional plug-in bridges

#### Commercial data

Item number	2966320
Packing unit	10 pc
Minimum order quantity	10 pc
Sales key	C461
Product key	CK6227
Catalog page	Page 380 (C-5-2019)
GTIN	4017918130688
Weight per piece (including packing)	39.43 g
Weight per piece (excluding packing)	34.24 g
Customs tariff number	85364900
Country of origin	DE



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#### Technical data

### Product properties

Product type	Relay Module
Product family	PLC-INTERFACE
Application	Input function
Operating mode	100% operating factor
Mechanical service life	2x 10 <sup>7</sup> cycles
Data management status	
Date of last data management	12.11.2024
Article revision	12

#### Electrical properties

Maximum power dissipation for nominal condition	0.42 W
Test voltage (Winding/contact)	4 kV AC (50 Hz, 1 min., winding/contact)

#### Insulation characteristics: Coil/contact

Rated insulation voltage	250 V
Rated impulse withstand voltage	6 kV
Overvoltage category	III
Degree of pollution	3

#### Input data

#### Coil side

Nominal input voltage U <sub>N</sub>	120 V AC
	110 V DC
Input voltage range	93.6 V AC/DC 168 V AC/DC (20 °C)
Nominal voltage (plugged-in electromechanical relay)	60 V DC
Drive and function	monostable
Drive (polarity)	polarized
Typical input current at U <sub>N</sub>	3.5 mA
Typical response time	6 ms
Typical release time	15 ms
Protective circuit	Bridge rectifier; Bridge rectifier
Operating voltage display	Yellow LED

#### Output data

#### Switching

Contact switching type	1 N/O contact
Type of switch contact	Single contact
Contact material	AgSnO, hard gold-plated
Maximum switching voltage	30 V AC



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	36 V DC
Minimum switching voltage	100 mV (at 10 mA)
Limiting continuous current	50 mA
Maximum inrush current	50 mA
Min. switching current	1 mA (24 V)
Short-circuit current	200 A (conditional short-circuit current)
Interrupting rating (ohmic load) max.	1.2 W (at 24 V DC)
Output fuse	4 A gL/gG NEOZED

#### Switching: when the gold layer is destroyed

Note	the following values are applicable if a gold layer is destroyed
Maximum switching voltage	250 V AC/DC
Minimum switching voltage	5 V (at 100 mA)
Limiting continuous current	6 A
Min. switching current	10 mA (at 12 V)
Interrupting rating (ohmic load) max.	140 W (at 24 V DC)
	20 W (at 48 V DC)
	18 W (at 60 V DC)
	23 W (at 110 V DC)
	40 W (at 220 V DC)
	1500 VA (for 250 V AC)
Switching capacity	2 A (at 24 V, DC13)
	0.2 A (at 110 V, DC13)
	0.1 A (at 220 V, DC13)
	3 A (at 24 V, AC15)
	3 A (at 120 V, AC15)
	3 A (at 230 V, AC15)

#### 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 mm <sup>2</sup> 1.5 mm <sup>2</sup> (TWIN ferrule)
Conductor cross section AWG	26 14
Tightening torque	0.6 Nm 0.8 Nm

#### **Dimensions**

Width	6.2 mm
Height	80 mm
Depth	94 mm



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#### Material specifications

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

#### Environmental and real-life conditions

#### Ambient conditions

Degree of protection (Relay base)	IP20 (Relay base)
Ambient temperature (operation)	-40 °C 60 °C
Ambient temperature (storage/transport)	-40 °C 85 °C

#### Approvals

CE

CE			
Certificate	CE-compliant CE-compliant		
UKCA			
Certificate	UKCA-compliant		
Shipbuilding approval			
Certificate	TAE0000196		
Corrosive gas test			
Identification	ISA-S71.04. G3 Harsh Group		
	FN 60068-2-60		

#### DNV GL data

DNV GL data		
Temperature	D	
Humidity	A	
Vibration	B/C	
EMC	В	
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

Standards/regulations	IEC 60664
	IEC 60947-5-1

#### Mounting

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



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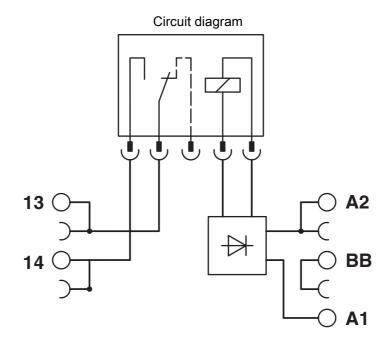
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## Drawings

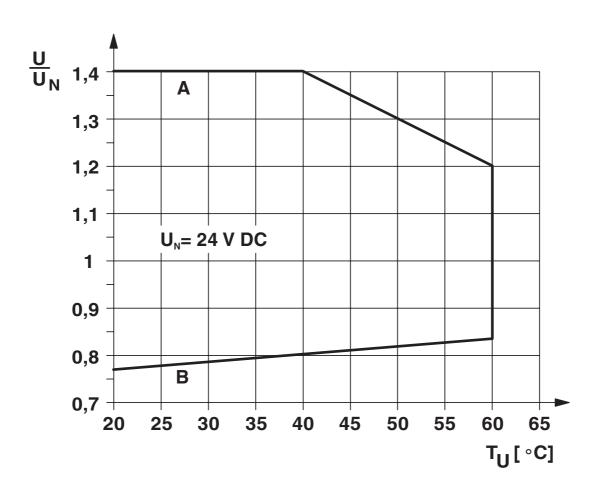




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#### Diagram



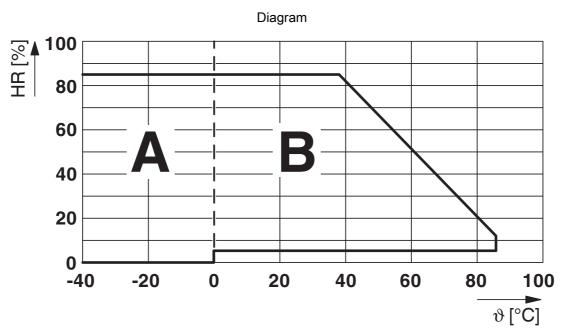
# Curve A Maximum permissible continuous voltage $U_{max}$ with limiting continuous current on the contact side (see relevant technical data) Curve B

Minimum permissible operate voltage  $\mathbf{U}_{\mathrm{op}}$  after pre-excitation (see relevant technical data)



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Permissible humidity for operation and storage.

The maximum permissible ambient temperature as specified in the data sheet must be observed.

Area A: Ice buildup at ambient temperatures ≤ 0°C must be prevented

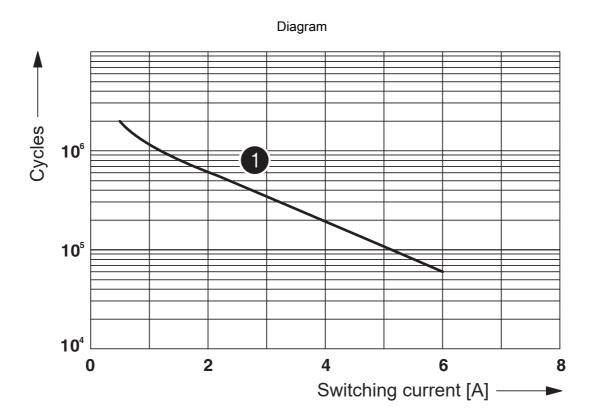
Area B: Condensation at ambient temperatures > 0°C must be prevented

On 30 full days that are naturally distributed across an entire year, a humidity level of 95% is permissible at an ambient temperature ≤ 25°C.



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1 250 V AC, ohmic load

Electrical service life



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#### **Approvals**

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/2966320



cUL Recognized





**UL Recognized**Approval ID: E238705



EAC

Approval ID: RU\*C-DE.\*08.B.00010



**DNV GL** 

Approval ID: TAE0000196



**UL Listed** 

Approval ID: FILE E 172140



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Approval ID: FILE E 172140



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Approval ID: E140324

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## Classifications

#### **ECLASS**

	ECLASS-11.0	27371601		
	ECLASS-12.0	27371601		
	ECLASS-13.0	27371601		
ETIM				
	ETIM 9.0	EC001437		
UNSPSC				
	UNSPSC 21.0	39122300		



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## Environmental product compliance

#### EU RoHS

Yes		
7(a), 7(c)-l		
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		
Hexahydromethylphthalic anhydride(CAS: n/a)		
Lead(CAS: 7439-92-1)		
be08495d-2440-419a-a617-7bb65d7da099		

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