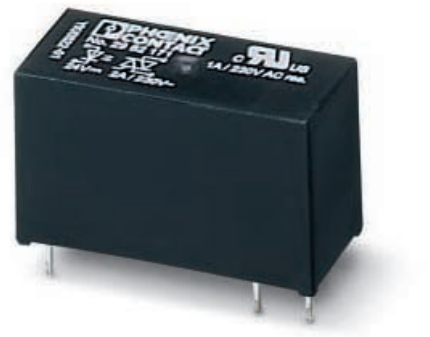
OPT-...-DC/230AC/2

Power Optocouplers for Switching AC Loads up to 2 A



INTERFACE

Data Sheet

© PHOENIX CONTACT - 01/2006

Description

The pluggable and solder-in power optocoupler is designed for use in applications in which electromechanical relays quickly reach the end of their service life due to the high switching frequency.

Powerful Optocouplers

In practice, the 6.2 mm PLC optocoupler series with a maximum switching current of 750 mA is insufficient for some applications. Users who wish to switch e.g. motors with a current consumption of up to 2 A, can now insert the OPT-...-DC/230AC/2 power optocoupler in the corresponding 14 mm wide PLC-... basic terminal blocks (see right).

The optocoupler can also be used on Phoenix Contact PR1 relay bases and suitable VARIOFACE modules.

Features

- Wear-resistant switching up to 230 V / 2 A
- Electrical isolation between input and output 2.5 kV
- Integrated protective circuit on the output side
- Sealed IP67 housing for protection against external influences
- Resistant to vibrations and shocks
- Zero voltage switch

Suitable PLC basic terminal blocks for OPT-24DC/230AC/2

PLC-BSC-24DC/21-21, PLC-BSC-48DC/21-21, PLC-BSC-24DC/1-1/ACT, PLC-BSC-24DC/1IC/ACT, PLC-BSC-24DC/21HC, PLC-BSC-48DC/21HC, PLC-BSP-24DC/21-21, PLC-BSP-48 DC/21-21, PLC-BSP-24DC/1IC4ACT, PLC-BSP-24DC/21HC, PLC-BSP-48DC/21HC

Suitable PLC basic terminal blocks for OPT-60DC/230AC/2

PLC-BSC-60DC/21-21, PLC-BSC-60DC/21HC, PLC-BSP-60DC/21-21, PLC-BSP-60DC/21HC

Make sure you always use the latest documentation.
It can be downloaded at www.download.phoenixcontact.com.

A conversion table is available on the Internet at
www.download.phoenixcontact.com/general/7000_en_00.pdf.

This data sheet is valid for all products listed on the following page:

PHOENIX CONTACT GmbH & Co. KG • 32823 Blomberg • Germany
Phone: +49-(0) 5235-3-00 • Fax: +49-(0) 5235-3-4 12 00 • www.phoenixcontact.com
www.phoenixcontact.com/salesnetwork

Ordering Data

Description	Type	Order No.	Pcs./Pck.
Power optocoupler for switching AC loads up to 2 A, input voltage 5 V DC	OPT- 5DC/230AC/2	29 82 16 8	20
Power optocoupler for switching AC loads up to 2 A, input voltage 24 V DC	OPT-24DC/230AC/2	29 82 17 1	20
Power optocoupler for switching AC loads up to 2 A, input voltage 60 V DC	OPT-60DC/230AC/2	29 82 18 4	20

Technical Data

Input Data	...5DC...	...24DC...	...60DC...
Nominal input voltage U_N	5 V DC	24 V DC	60 V DC
Permissible input voltage range	0.8 - 1.2 x U_N	0.8 - 1.2 x U_N	0.9 - 1.1 x U_N
Typical input current at U_N	15 mA	7 mA	2.6 mA
Typical switch-on time at U_N	10 ms	10 ms	10 ms
Typical switch-off time at U_N	10 ms	10 ms	10 ms

Output Data	
Maximum switching voltage	253 V AC
Minimum switching voltage	24 V AC
Limiting continuous current	2 A (see "Derating Curve for PLC Power Optocouplers" on page 3)
Maximum load value at 25 °C	4 A^2s/t_P = 10 ms
Surge current at 25 °C	30 A for 10 ms
Minimum switching current	25 mA
Output switching	2-wire floating ground
Output wiring	RC element
Voltage drop on limiting continuous current	≤ 1 V

General Data	
Rated insulation voltage	250 V AC
Rated surge voltage	4 kV
Nominal operating mode	100% ED
Ambient operating temperature range	-20 °C ... +60 °C
Mounting position	Any
Mounting	see "Derating Curve for PLC Power Optocouplers" on page 3
Degree of contamination	2
Surge voltage category	III
Inflammability class	V0 according to UL 94
Basic insulation	According to EN 50178

Dimensions

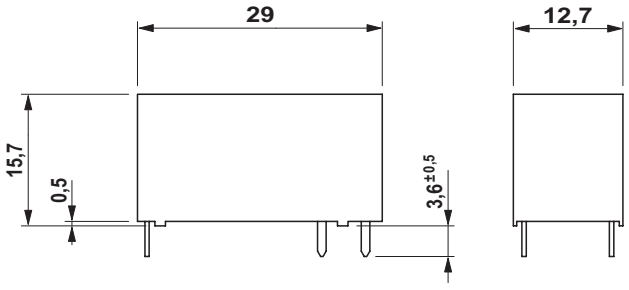


Figure 1 Dimensions (in mm)

Perforations for Assembly

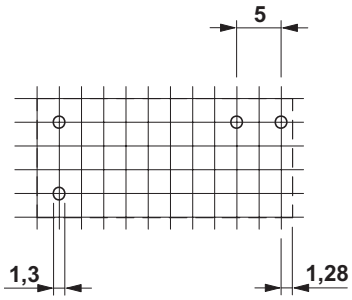


Figure 2 Perforations for assembly: View of the connections

Block Diagram

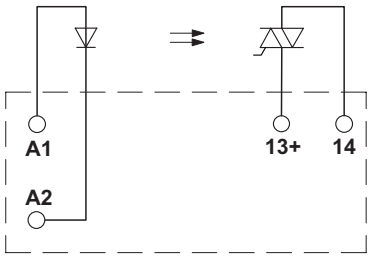
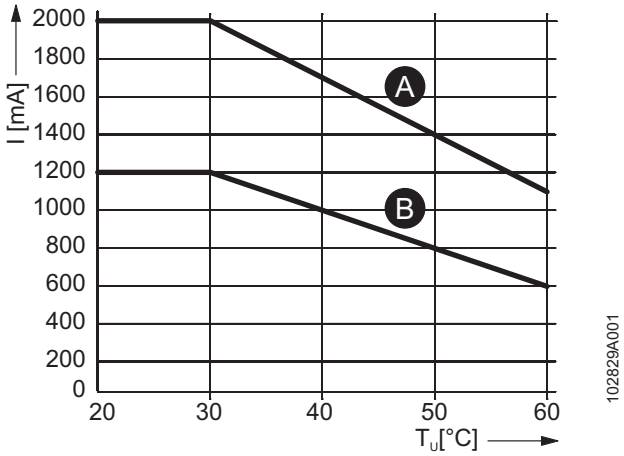


Figure 3 Block diagram

Derating Curve for PLC Power Optocouplers



A Aligned with 10 mm spacing

B Aligned with zero spacing

© PHOENIX CONTACT 01/2006

ООО «НИОКРсистемс» - это оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов. Реализуемая нашей компанией продукция насчитывает более полумиллиона наименований.

Благодаря этому наша компания предлагает к поставке практически не ограниченный ассортимент компонентов как оптовыми, мелкооптовыми партиями, так и в розницу.

Благодаря развитой сети поставщиков, помогаем в поиске и приобретении экзотичных или снятых с производства компонентов.

Наша компания это:

- Гарантия качества поставляемой продукции
- Широкий ассортимент
- Минимальные сроки поставок
- Техническая поддержка
- Подбор комплектации
- Индивидуальный подход
- Гибкое ценообразование
- Работаем по 275 ФЗ

ООО «НИОКР СИТЕМС»
Москва, 125362, Россия, ул. Вишневая, д. 9, к. 1, Блок 104 а и 104 в

Телефон: 8 (495) 268-14-82
Email: n@nsistems.ru

ИНН: 7735154786
ОГРН: 1167746717709