

SAFEMASTER Interface Module UG 3088



Product Description

The interface module UG3088 includes 2 separate devices in one enclosure. Because of its forcibly guided contacts a safe interfacing between control circuit and load circuit is provided. It can also be used to multiply and reinforce the contacts of safety modules. Different internal configuration possibilities allow to offer interface modules for various applications. To switch e.g. high DC loads the the output contacts can be connected in series. On the module with 2NO and 2 NC contacts these can be connected internally as changeover contacts. Also a common control of both relays with only one input can be done.

Your Advantages

- Economic and space saving because of 2 separate interface modules in one enclosure
- Simple contact multiplication and reinforcement - also of safety modules
- Cost and space saving alternative compared to contactors
- Simple contact monitoring by forcibly guided contacts
- With pluggable terminal blocks for easy exchange of devices - with screw terminals

Features

- With forcibly guided contacts according to EN 50 205
- Version with up to 2 x 4 contacts
- Variant to switch high DC-load
- Width: 22,5 mm

Approvals and Markings

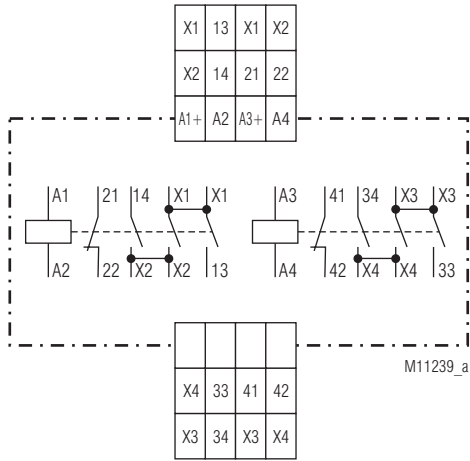


Application

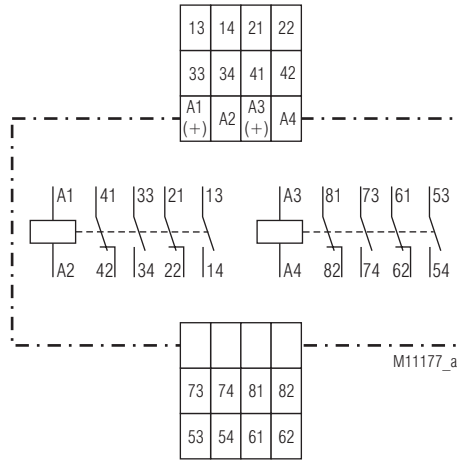
- Interfacing between control and load circuits
- Contact multiplication and reinforcement
- Separate switching of several current circuits, e. g. at
 - Machines and plants
 - Energy production and transport

Indication

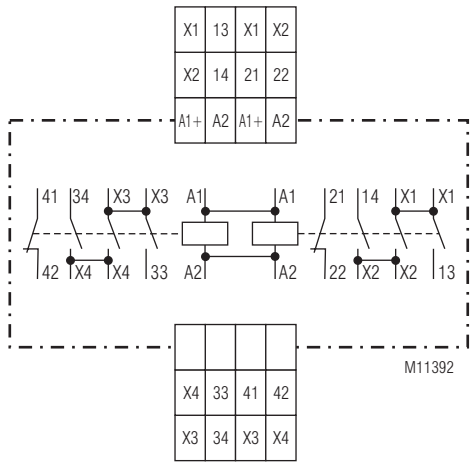
green LED 1:	on, when supply connected at Relay 1
green LED 2:	on, when supply connected at Relay 2



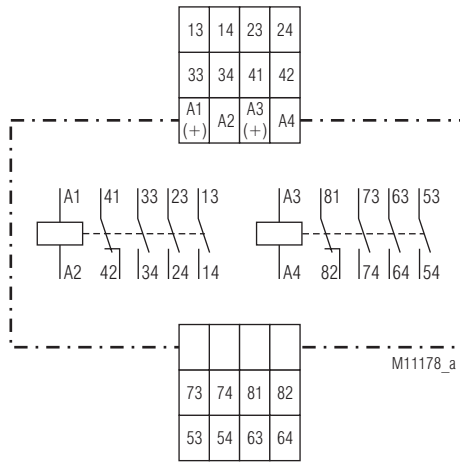
UG 3088.52PS/100



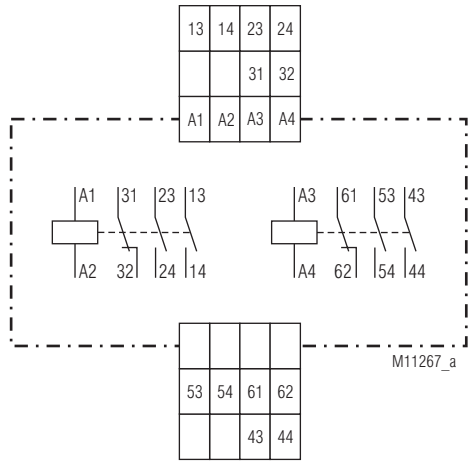
UG 3088.57



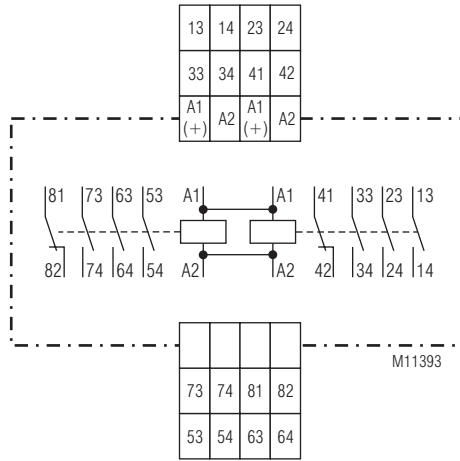
UG 3088.52/101



UG 3088.59



UG 3088.54 (AC 230 V, DC 220 V)



UG3088.59/001

Connection Terminals

Terminal designation	Signal designation
A1, A2	Operation voltage Relay 1
A3, A4	Operation voltage Relay 2
13, 14, 23, 24, 33, 34 53, 54, 63, 64, 73, 74	Positive guided NO contacts for release circuit
21, 22, 41, 42, 61, 62, 81, 82	Positive guided NO contacts

Technical Data

Input

Nominal voltage U_N:	AC 24, 48, 110, 230 V DC 24, 48, 110, 220 V
Voltage range:	0.8 ... 1.1 U_N
Nominal consumption	
DC 24 V:	1.1 W
DC 110 V:	1.3 W
AC 230 V:	2.1 W
Nominal frequency:	50 / 60 Hz
Min. Off-time:	250 ms

Output

Contacts:

UG 3088.52/100, /101: 2 NO contacts, 2 NC contacts

UG 3088.54

(AC 230 V, DC 220 V): 4 NO contacts, 2 NC contacts

UG 3088.57: 4 NO contacts, 4 NC contacts

UG 3088.59, /001: 6 NO contacts, 2 NC contacts

Contact material: AgNi + 0.2 μ m Au

Operate time U_N : typical 10 ms (only for DC devices)

Release time: typical 15 ms (only for DC devices)

Nominal output voltage: AC 250 V, DC 24 V

Thermal current I_{th} : 2,5 A

Switching capacity

to AC 15:

NO contacts: 3 A / AC 230 V IEC/EN 60 947-5-1

NC contacts: 1 A / AC 230 V IEC/EN 60 947-5-1

to DC 13:

NO contacts: 2 A / DC 24 V IEC/EN 60 947-5-1

NC contacts: 2 A / DC 24 V IEC/EN 60 947-5-1

to DC 13:

NO contacts: 0.5 A / DC 110 V IEC/EN 60 947-5-1

NC contacts: 0.5 A / DC 110 V IEC/EN 60 947-5-1

Switching capacity variant /100 (internal 3 NO connected in series)

to DC 13:

NO contacts: 3 A / DC 110 V at 0.1 Hz

NC contacts: 3 A / DC 110 V at 0.1 Hz

Electrical life

NO contacts

to AC 15 at 1 A, AC 230 V: 1,5 x 10⁶ switch. cycl. IEC/EN 60 947-5-1

NC contacts

to AC 15 at 1 A, AC 230 V: 1 x 10⁶ switch. cycl. IEC/EN 60 947-5-1

NO contacts

to DC 13 at 1 A, DC 24 V: 0,5 x 10⁶ switch. cycl. IEC/EN 60 947-5-1

Permissible switching

frequency: 2 switching cycles / s

Switching voltage min./max.: AC/DC 10 V / AC/DC 250 V

Switching current min./max.: 10 mA / 2,5 A

Short circuit strength

max. fuse rating: 6 A gL IEC/EN 60 947-5-1

Mechanical life: $\geq 40 \times 10^6$ switching cycles

General Data

Mounting-position: any

Operating mode: Continuous operation

Temperature range: - 20 ... + 60°C

Clearance and creepage distances

rated impulse voltage / pollution degree: 4 kV / 2 (base insulation) IEC 60 664-1

EMC

Electrostatic discharge (ESD): 8 kV (air) IEC/EN 61 000-4-2

Fast transients: 4 kV IEC/EN 61 000-4-4

Surge voltages

between

wires for power supply: 2 kV IEC/EN 61 000-4-5

between wire and ground: 4 kV IEC/EN 61 000-4-5

Interference suppression: Limit value class B EN 55 011

Degree of protection

Housing: IP 20 IEC/EN 60 529

Terminals: IP 20 IEC/EN 60 529

Housing: Thermoplast mit V0-Verhalten nach

UL Subjekt 94

Vibration resistance: Amplitude 0,35 mm, frequency 10 ... 55 Hz, IEC/EN 60 068-2-6

Climate resistance: 20 / 060 / 04 IEC/EN 60 068-1

Technical Data

Terminal designation: EN 50 005

Wire connection:

Plugin with

screw terminals

max. cross section

for connection:

1 x 0.25 ... 2.5 mm² solid or stranded ferruled (isolated) or 2 x 0.25 ... 1.0 mm² massiv oder stranded ferruled (isolated)

Insulation of wires

or sleeve length:

7 mm

Wire fixing:

captive slotted screw

Mounting:

DIN rail

IEC/EN 60 715

Weight:

approx. 180 g

Dimensions

Width x height x depth: 22.5 x 105 x 120.3 mm

Standard Types

UG 3088.59PS DC 24 V

Article number: 0066280

• 6 NO contacts, 2 NC contacts

• Width: 22.5 mm

UG 3088.57PS DC 110 V

Article number: 0066380

• 4 NO contacts, 4 NC contacts

• Width: 22.5 mm

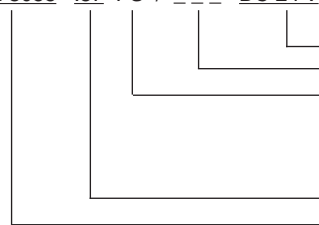
Variants

UG 3088._PS/100: With contacts connected in series to switch high DC-loads. Separate control of the 2 relays

UG 3088._PS/101: With contacts connected in series to switch high DC-loads. Common control of the 2 relays

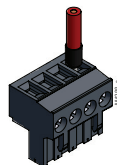
Ordering example for variants

UG 3088 .57 PS / _ _ _ DC 24 V



Nominal voltage
Variant, if required
Type of terminals
PS (plugin screw):
pluggable terminal blocks,
with screw terminals
Contacts
Type

Options with Pluggable Terminal Blocks



Screw terminal
(PS/plugin screw)

