

## Interface relays CA 3056, CB 3056, CC 3056

Translation  
of the original instructions



0255081



### Your Advantages

- As option goldplated contacts (5 µm Au) to switch low loads
- CA 3056 and CB 3056:  
Protective separation acc. to IEC/EN 61140, IEC/EN 60947-1: 6 kV / 2

### Features

- According to IEC/EN 60947-5-1
- LED indication
- Optionally with 1 NO contact, 1 NC contact, 1 C/O contact, 2 C/O contacts, 2 NO contacts
- Optionally with MOV on input to achieve higher surge immunity
- Width: 11.5 mm

### Approval and Markings



### Application

- Link between the control and the power level
- For separating potentials

### Product Description

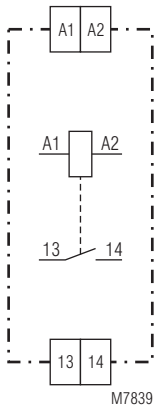
The interface relays CA 3056, CB 3056 and CC 3056 are used for contact multiplication and are suitable as a link between the control and power level. The interface relays are available with different contact combinations and partly for switching small loads.

### Indication

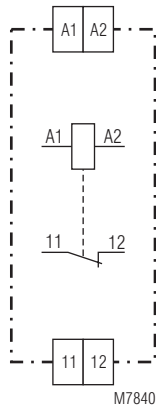
LED

On, when supply connected

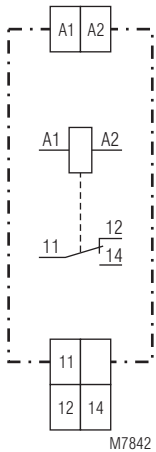
## Circuit Diagrams



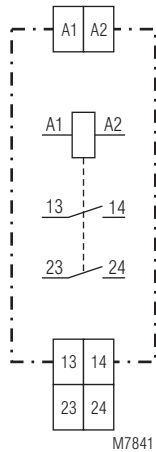
CA 3056.01



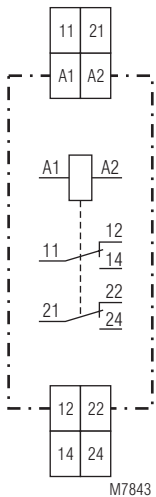
CA 3056.05



CB 3056.11



CB 3056.02



CC 3056.12

## Connection Terminals

Terminal designation	Signal description
A1, A2	Operating voltage
11 ... 24	Output contacts see circuit diagrams

## Technical Data

### Input

#### Nominal voltage $U_N$

CA 3056: DC 24, 48\* V  
AC 110 ... 130\* V, 220 ... 240 V  
AC/DC 12 V

CB 3056, CC 3056: AC/DC 24, 48\* V  
AC 110 ... 130\* V, 220 ... 240 V  
\* on request

#### Voltage range

CA 3056: DC 90 ... 125 %  $U_N$   
(residual ripple < 10 % )  
AC 80 ... 110 %  $U_N$

CB 3056, CC 3056: DC 80 ... 110 %  $U_N$   
(residual ripple  $\geq$  10 ... 48 %)

#### Nominal consumption:

DC 24 V / 0.5 W  
AC 230 V / 0.8 VA

#### Nominal frequency:

50 / 60 Hz

#### Frequency range:

$\pm$  5 %

### Output

#### Contacts

CA 3056.01: 1 NO contact  
CA 3056.05: 1 NC contact  
CB 3056.11: 1 C/O contact  
CB 3056.02: 2 NO contacts  
CC 3056.12: 2 C/O contacts

#### Operate time:

< 10 ms

#### Release time:

< 20 ms

#### Nominal output voltage:

AC 250 V

#### Thermal current $I_{th}$ :

5 A (not at CA 3056.01/100)

#### Switching capacity

to AC 15

NO contact:

3 A / AC 230 V

IEC/EN 60947-5-1

NC contact:

1 A / AC 230 V

IEC/EN 60947-5-1

to DC 13

NO contact:

1 A / DC 24 V

IEC/EN 60947-5-1

NC contact:

1 A / DC 24 V

IEC/EN 60947-5-1

(not at CA 3056.01/100)

permissible contact-loading capacity at

CA 3056.01/100: 0.2 ... 60 V / 2 ... 300 mA

#### Electrical life

to AC 15 at 3 A, AC 230 V:

> 8 x 10<sup>5</sup> switch. cycles IEC/EN 60947-5-1  
(not at CA 3056.01/100)

#### Permissible switching frequency:

20 switching cycles / s

#### Short circuit strength

Max. fuse rating:

6 A gG / gL IEC/EN 60947-5-1

#### Mechanische Lebensdauer:

> 30 x 10<sup>6</sup> switching cycles

## Technical Data

### General Data

**Nominal operating mode** Continuous operation

### Temperature range:

Operation: - 25 ... + 60 °C

Storage: - 25 ... + 60 °C

**Altitude:** ≤ 2000 m

### Air gap and creepage distance

Rated insulation voltage: 300 V

Overvoltage category: III

Rated impulse voltage /

pollution degree:

CA 3056, CB 3056:

Input to Output: 6 kV / 2 IEC 60664-1

CC 3056:

Input to Output: 4 kV / 2 IEC 60664-1

### EMC

Electrostatic discharge (ESD): 8 kV (air) IEC/EN 61000-4-2

HF irradiation:

80 MHz ... 6 GHz: 10 V / m IEC/EN 61000-4-3

Fast transients: 4 kV IEC/EN 61000-4-4

Surge voltages

between

Wires for power supply: 1 kV IEC/EN 61000-4-5

Between wire and ground: 2 kV IEC/EN 61000-4-5

Interference suppression: Limit value class B EN 55011

### Degree of protection

Housing: IP 40 IEC/EN 60529

Terminals: IP 20 IEC/EN 60529

### Enclosure:

Thermoplastic with VO behaviour

according to UL Subject 94

**Vibration resistance:** Amplitude 0.35 mm

frequency 10 ... 55 Hz, IEC/EN 60068-2-6

20 / 060 / 04 IEC/EN 60068-1

**Climate resistance:** DIN 46228-1/-2/-3/-4

### Wire connection

#### Fixed screw terminals

Cross section: 1 x 4 mm<sup>2</sup> solid or

1 x 2.5 mm<sup>2</sup> stranded wire with sleeve

Insulation of wires or

sleeve length: 8 mm

**Wire fixing** Captive plus-minus terminal screws

M3.5 box terminals with wire protection

0,8 Nm

**Mounting:** DIN rail IEC/EN 60715

### Fixing torque:

**Weight:** CA 3056: 45 g

CB 3056: 50 g

CC 3056: 55 g

### Dimensions

#### Width x height x depth

CA 3056: 11.5 x 60 x 62 mm

CB 3056: 11.5 x 75 x 62 mm

CC 3056: 11.5 x 90 x 62 mm

## Standard Type

CA 3056.01 AC/DC 24 V 50 / 60 Hz

Article number: 0041412

• Ausgang: 1 NO contact

• Nominal voltage  $U_N$ : AC/DC 24 V

• Protective separation acc. to

IEC/EN 61140,

IEC/EN 60947-1: 6 kV / 2

• Width: 11.5 mm

## Variants

CA 3056.\_\_\_/\_1\_\_

CB 3056.\_\_\_/\_1\_\_ : Contact with 5 µm Au

CC 3056.\_\_\_/\_1\_:

Without protective separation

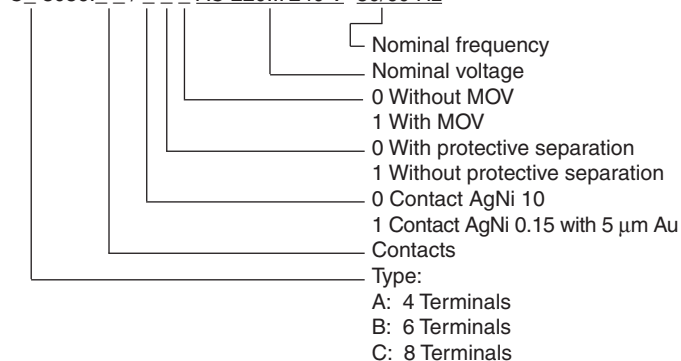
CA 3056.\_\_\_/\_\_1,

CB 3056.\_\_\_/\_\_1: With MOV on input to achieve higher

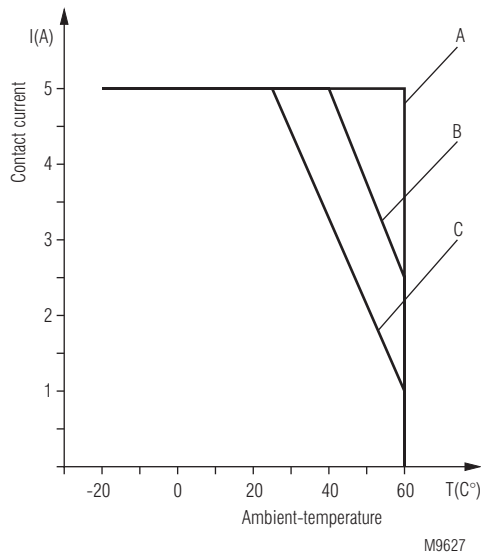
surge immunity

## Ordering example for variants

C\_ 3056. \_\_\_ / \_\_\_ AC 220... 240 V 50/60 Hz



## Characteristic



A = Mounted with 2 cm distance between units  
 B = Mounted without distance, 1 contact leading current  
 C = Mounted without distance, 2 contacts leading current

## Continuous current limit curve

