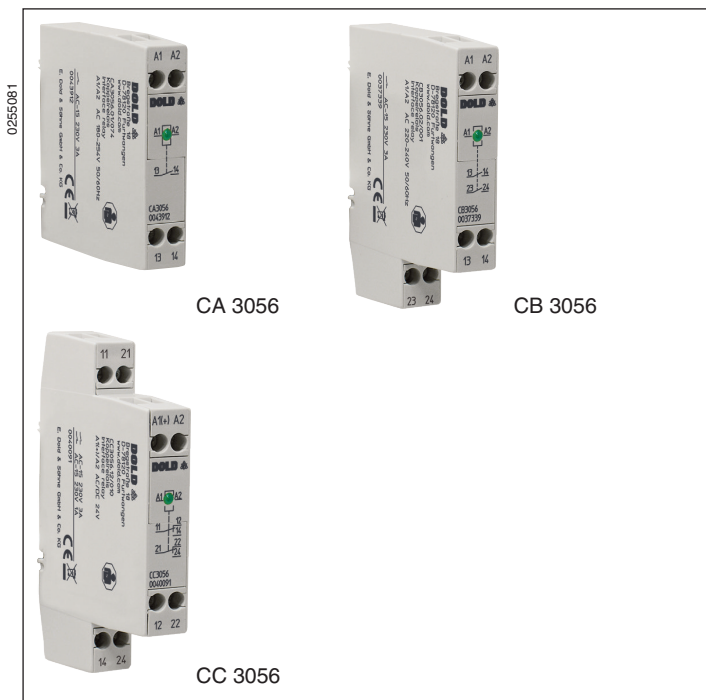


Interface relays CA 3056, CB 3056, CC 3056

Translation
of the original instructions



0255/081

CA 3056

CB 3056

CC 3056

Your Advantages

- As option goldplated contacts (5 μ m 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

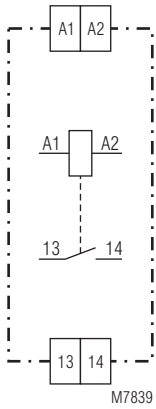
Indication

LED On, when supply connected

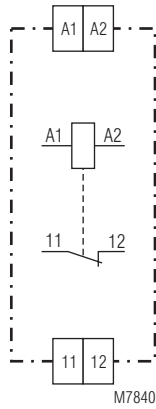
Notes

The interface relay CA 3056/1xx is for switching low loads 2 ... 60 V / 1 ... 300 mA / 10 mW ... 12 W. The contacts also permit the maximum switching current. However since the gold plating will be burnt off at this current level, the device is no longer suitable for switching small loads after this.

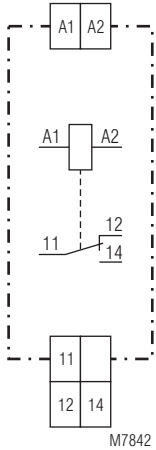
Circuit Diagrams



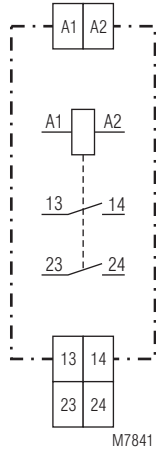
CA 3056.01



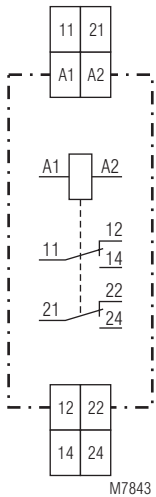
CA 3056.05



CB 3056.11



CB 3056.02



CC 3056.12

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 %)

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

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)

Electrical life

to AC 15 at 3 A, AC 230 V:

> 8 x 10⁵ 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

Mechanical life:

> 30 x 10⁶ switching cycles

Connection Terminals

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

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 mm² solid or
1 x 2.5 mm² 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

Fixing torque:

Mounting: DIN rail IEC/EN 60715

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

• Output: 1 NO contact

• Nominal voltage U_N : AC/DC 24 V

• Protective separation acc. to

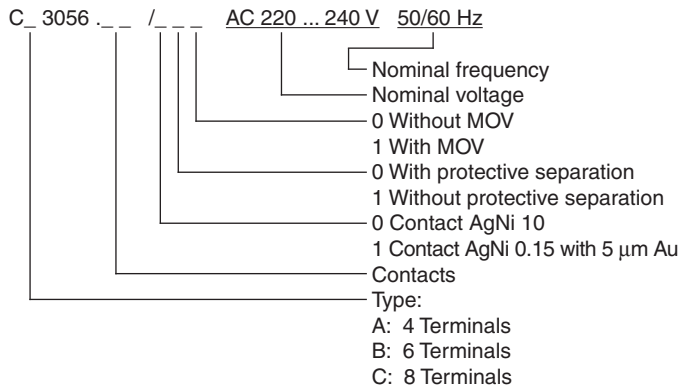
IEC/EN 61140,

IEC/EN 60947-1: 6 kV / 2

• Width: 11.5 mm

Variants

Ordering example for variants



CA 3056.___/_1__

CB 3056.___/_1__ : Contact with 5 µm Au

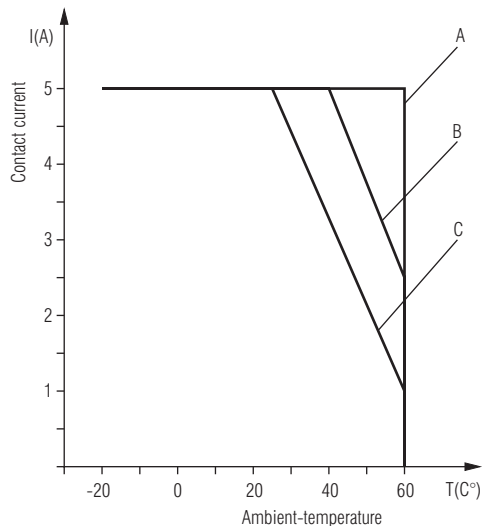
CC 3056.___/_1__

Without protective separation

CA 3056.___/_1__

CB 3056.___/_1__ : With MOV on input to achieve higher surge immunity

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

