

1. INTRODUCTION

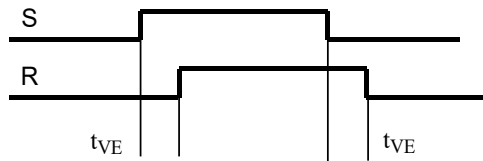
In the compact ComatReleco DIN control device system with the basic grid dimension of 17.5 mm, a control relay with two separate control circuits and one switch-over contact for max. 6/5A at 250V is provided. There are various contact systems available for switching performances as low as the signal voltage range. The feeding voltage range is covered by various versions from 12-240V. The starting status is indicated via LED. In the version C103.06, the output is achieved with 2 parallel switched 3 μ gold-plated twin contacts .

We reserve the right to technical changes without prior notice.

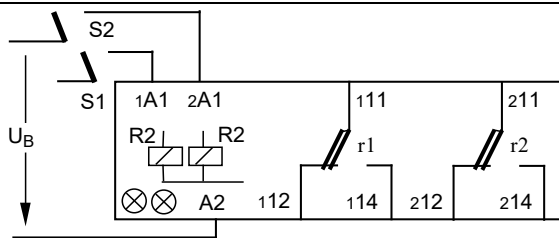
2. ORDER ITEMS

Power relay	Control relay	Signal control relay
C203.01/12V DC	C203.04/12-15V DC	C203.06/DC12V
C203.01/24V DC	C203.04/24V DC	
C203.01/24V UC	C203.04/48V DC	C203.06/UC36V
C203.01/48V UC		C203.06/UC24V
C203.01/110-127V AC		C203.06/UC48V
C203.01/220-240V AC		C203.06/AC110-127V
Contact material XX=.01: AgNi	.XX=.04 : Ag alloy	C203.06/AC220-240V
		XX=.06 : AgSnO ₂ + 3 μ Au twin contact

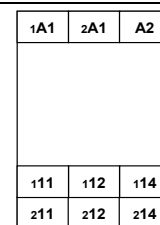
3. FUNCTION



4. CIRCUIT



CONNECTION DIAGRAM



5. TECHNICAL DATA

5.1. General data

5.1.1. Mechanical data

Housing	DIN housing C5
Housing material	Noryl SE1 = UL 94V-1
Type of protection	IP40 housing / IP20 terminals

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Control relay

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Weight approx. 80g
 Fastening TS35 DIN/EN 50022; screw fastening M3; torque <05Nm
 Connection terminal screw terminal 1 x 2.5mm² / 2 x 1.5mm²
 Resistance to vibration IEC 68-2-6/FC; IEC 571

5.1.2. Environment conditions

Ambient temperature storage -40°C - +85°C
 Ambient temperature operation -25°C - +60°C
 Relative humidity 10% - 95% non-condensing
 Transient protection IEC 255, Annex E, Class III

5.2. **Electrical data**

5.2.1. Main /Control input

Type	DC12V	DC24V	UC24V	DC48V	UC36 V	UC48V	AC110-127V	AC220-240V
V _{NOMINAL}	12V	24V	24V	48V	36 V	48V	110-127V	220-240
V _{OPERATION}	10 -15V	20-29V	20-29V	38-57V	DC: +25% AC: +13% UC -30%	38-57V	90-150V	190-265V
V _{DROPOUT} .01	≤ 2V	≤ 3V	≤ 3V	≤ 5V		≤ 5V	≤ 20V	≤ 40V
V _{DROPOUT} .06	≤ 2V	≤ 3V	≤ 3V	≤ 5V	≤ 5 V	≤ 5V	≤ 15V	≤ 25V
I _{OPERATION} C203.01	60mA	30mA	30mA	30mA		25mA	40mA	35mA
I _{OPERATION} C203.06	17mA	10mA	18mA	7mA	DC 9 mA AC 15 mA	9mA	10mA	10mA
Parallel load energy	100V / 50mWs // 1Hz						500V / 50mWs // 1Hz	
	Single pulse 500V / 0,5Ws						Single pulse 2,5kV / 0,5Ws	

V_{NOMINAL} — Nominal voltage range
 V_{OPERATION} — Operation voltage range (at 25°C)
 I_{OPERATION max} — Max. operation voltage U_{B max}

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5.2.2. Output circuit

The data stated apply to each of the output circuits.

The cumulative current of all contacts of a device should not permanently exceed the following values:

$$I_U \leq 45^\circ\text{C} : 10\text{A}$$

$$I_U \leq 60^\circ\text{C} : 8\text{A}$$

Type	C203.01	C203.04	C203.06
Contact	2 x change over (NC), not trailing		
Contact material	AgNi	Ag alloy	AgSnO ₂ + 3μ Au (hard gold)
Contact features		hermetically sealed	twin contacts splash proof enc.
Switch voltage range	(12)-250V	0.1V-250V	10mV-250V
Switch curr.	(AC1) (AC11)	6A 3A	5A 2A 3A —
Switch curr. I _{max} (10ms)	16A	26A	—
Switch capacity	1250VA ... 330W 120W/30V 100W/250V	1250VA ... 150W 150W/30V 60W/250V	100VA ... 60W
Recommended min. load	12V 100mA	0.1V 1mA	10mV 10μA
Lifetime mech.	≥ 2 x 10 ⁷	≥ 5 x 10 ⁷	10 ⁸
Lifetime electr.	≥ 10 ⁵ /6A, 250V	≥ 10 ⁵ /5A, 250V	≥ 5 x 10 ⁵ /1A 30V DC
Insulation	≥ 2kV rms		

The contact type .06, hard gold-plated, is intended for use in signal and measurement circuits.

At 24V=01A, the lifetime of the gold plating will be approximately 10⁴ switching cycles.

5.2.3. Time behavior

Operating delay t _{EV}	2 - 15ms (AC)
Reset delay t _{AV}	10 - 35ms (AC)
Contact bounce time t _p	≤ 3ms

5.2.4. Additional properties

Induction voltage	≤ 5V
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6. **OPERATION**

Status display parallel to relay coil	LED
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7. **STANDARDS**

Vibration safety	IEC 571
EMC	IEC 255-4 Annex E, Class III
	EN 61000-6-2 EN 61000-4-2 Air: 8kV; Contact: 4kV
	EN 61000-4-4 ≥Level 3; ENV 50140 ≥10V/m
	ENV 50204 ≥10V/m; ENV 50141 ≥10V
Noise output	EN 61000-6-3 EN 55022 Class B
Low voltage	EN 60065; contact according to EN 60947
Approbation; Conformity	CE, cUR

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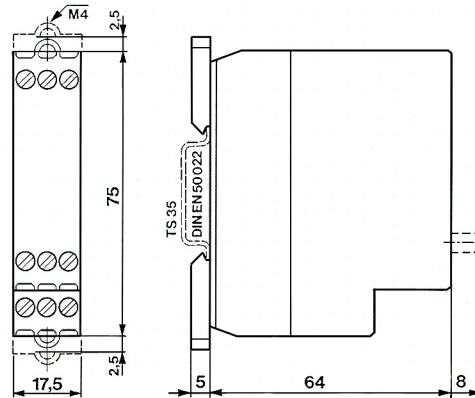
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8. HOUSING



9. APPLICATION

9.1. Contact application

.01 : AgNi	Suitable for AC, DC, high resistance to burn-up, low proneness to welding. Application range: > 12V, >0,1A
.04 : Ag-alloy	Suitable for AC, DC. Small contact resistance. Heavily gold-plated. Contact densely encapsulated. For general application, in particular suitable for small loads. Application range: > 0.1V > 0.1mA
.06 : AgSnO2 + 3μ Au	Dual contact, splash proof encapsulated, with very high switching safety, suitable for signal voltage circuits. Application range: > 10mV; >10μA

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