

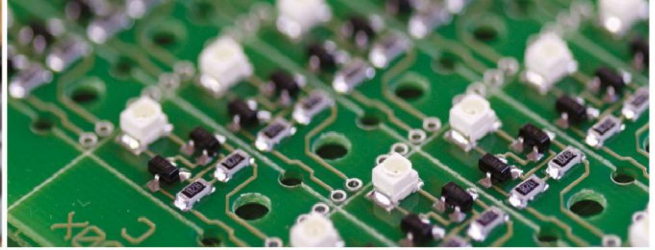
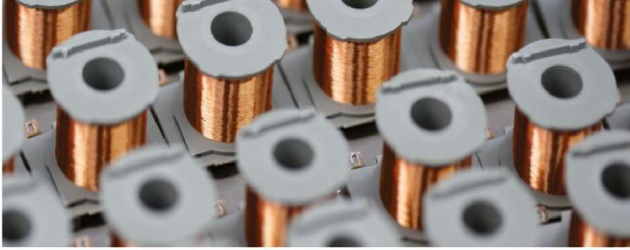


E- Catalogue



Distribution Partner:-

CONCORD
Automation & Controls



ComatReleco at a glance

ComatReleco is one of the world's leading suppliers of high-quality relays and contactors of all kinds. With one of the broadest product portfolios, including customized solutions, ComatReleco serves customers in the industrial automation and building installation, rail and transportation segments. Our core competencies are industrial relays, timing relays, monitoring relays and contactors. These are installed with the latest semiconductor technologies or also with the traditional electromechanical design.

Designed in Switzerland, assembled in...

ComatReleco continuously invests in research and development, thus ensuring a consistently high rate of innovation. Several international patent applications support this fact. Our research and development team is headquartered in Switzerland and has access to additional qualified employees in our subsidiaries in Germany and China. With a share of more than 20% of total research and development costs, we outperform many global players in our segment.

Customer orientation and quality management

ComatReleco has a group-wide quality management system with real-time access to test and inspection protocols. Our relays and contactors are 100% tested at the end of the production line. On arrival of the goods at our central warehouse in Switzerland, another quality test is carried out.

Are you using a ComatReleco product or are you looking for a suitable solution? Our support centre in Switzerland will be happy to help you find the right relay or contactor for your application. ComatReleco is known for the world's largest number of customized solutions for industrial, time and monitoring relays and contactors.

Headquarters in Switzerland – international presence

The warehouse and logistics are managed centrally at the headquarters in Switzerland. Production is diversified and optimized in terms of quality, costs and logistics criteria. Our production sites are located in Europe and Asia. Through our network of distribution partners, the Group is present on all world markets. ComatReleco has been part of the management team since 2003.

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CRINT 1x1 series

1 pole | changeover contact

Maximum contact load	6 A/250 V AC-1	6 A/30 V DC-1
Recommended minimum contact load	100 mA / 12 V	

Contact		
Type	1 CO	
Material	⚡ AgSnO ₂	
Switching current _{TH}	6 A 250 V AC	
Switching power DC-1 30 V	180 W	
Switching power AC-1 230 V	1500 VA	
Switching power AC-15 230 V	300 VA	
Max. inrush current (2.5 ms)	15 A	

Coil		
Operation voltage AC 50/60 Hz / DC	0.8 ... 1.25 U _N	
Nominal power DC / AC	408 / 900 mW	

Insulation		
Test voltage I / O	6 kV rms / 1 min	
Pollution degree	3	
Over voltage category	III	
Open contact	1000 Vrms dielectric strength 1 min	
Standard	EN61810-1	

Specifications		
Ambient temperature: operation / storage	-40 ... 70 °C / -40 ... 85 °C (no ice)	
Typical response time @ V _n	7 ms	
Typical release time @ V _n	15 ms	
Switching cycles: mech./elec.	10 x 1 000 000 / 3 x 10 000	
Cond. cross section screw terminal	2.5 mm ²	
Cond. cross section spring cage	0.75 ... 2.5 mm ²	
Protection degree	IP 20	
Mounting position	any, TS35 or Back Panel Mounting	
Weight	30 g	

Product References		
Screw terminal	CRINT-C111/UC...V	
UC 12V, 24V, 48V, 60V, 110-125V, 220-240V		
Cage clamp terminal	CRINT-C121/UC...V	
UC 12V, 24V, 48V, 60V, 110-125V, 220-240V		
Railway EN 50155	CRINT-C121R/UC...V	
„...“ List Coil Voltage to complete Product References		

Accessories		
Jumper link	blue:	CRINT-BR20-BU (BAG 5 PCS)
	red:	CRINT-BR20-RD (BAG 5 PCS)
	black:	CRINT-BR20-BK (BAG 5 PCS)
Label plate	CRINT-LAB (BAG 4x16 PCS)	
Spacer	CRINT-SEP (BAG 5 PCS)	

Replacement relays		
DC 12V, 24V, 48V, 60V*	CRINT-R11/DC...V	
„...“ List Coil Voltage to complete Product References		
*60V Relay used for all sockets with a nominal voltage higher or equal 60V		



Connection diagram

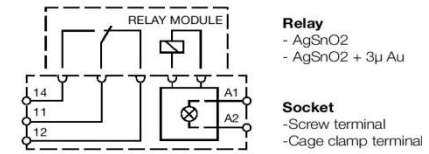


fig. 1 AC voltage endurance

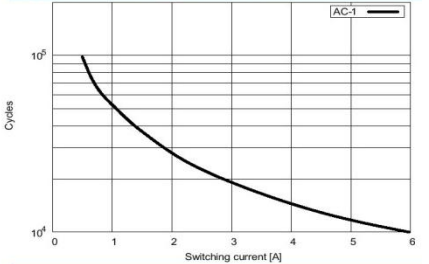
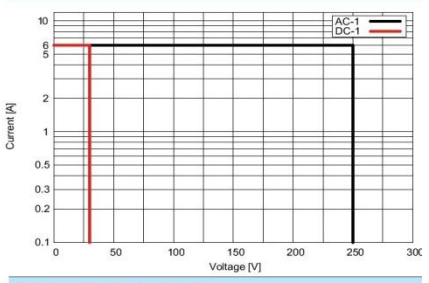
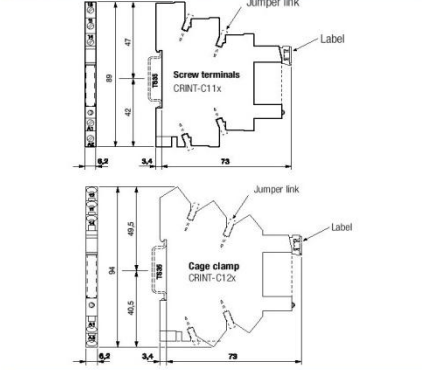


fig. 2 DC load limit curve



Dimensions (mm)



Technical approvals, conformities



C10-A1x

1 pole | changeover contact | Faston

Maximum contact load	10 A/250 V AC-1	0.5 A/110 V DC-1
	10 A/30 V DC-1	0.2 A/220 V DC-1
Recommended minimum contact load	10 mA/10 V Code 0, 5	
	5 mA/5 V Code 8	

Contacts

Material	Standard	Code 0	AgNi
	Optional	Code 8	AgNi + 5 μ Au
	Optional	Code 5	AgSnO ₂
Rated Load	10 A		
Max. inrush current (20 ms)	30 A (120 A for code 5)		
Switching voltage max.	250 V		
AC load fig. 1	2.5 kVA		
DC load	see fig. 2		

Coil

Coil resistance	see table; tolerance ± 10 %
Pick-up voltage	≤ 0.8 × U _n
Release voltage	≥ 0.1 × U _n
Nominal power	1.1 VA (AC)/0.7 W (DC)

Coil table

V AC	Ω	mA	V DC	Ω	mA
24	290	45	12	224	53
48	1200	23	24	742	32
115	7.300	9.5	48	3.500	13.7
230	28.800	4.7	110	19.900	5.5

Insulation

Contact open	1000 V
Contact/coil	5 kV
Insulation resistance at 500 V	≥ 1 GΩ
Insulation, IEC 61810-1	4 kV

Specifications

Ambient temperature operation/storage	-40 ... 70 °C / -40 ... 80 °C (no ice)
Pick-up time/bounce time	10 ms / ≤ 1 ms
Release time/bounce time	5 ms / ≤ 3 ms
Mechanical life ops	AC: 10 Mill./DC: 20 Mill.
DC voltage endurance at rated load	≥ 100 000 switching cycles
Max. switching frequency at rated load	1200/h
Weight	21g

Product References

V AC 50 Hz/60 Hz: 24, 48, 115 (120), 230 (240)	C10-A10/AC...V	C10-A18/AC...V	C10-A15/AC...V
LED	C10-A10X/AC...V	C10-A18X/AC...V	C10-A15X/AC...V
RC Suppressor	C10-A10R/AC...V	C10-A18R/AC...V	C10-A15R/AC...V
V DC 12, 24, 48, 110	C10-A10/DC...V	C10-A18/DC...V	C10-A15/DC...V
LED	C10-A10X/DC...V	C10-A18X/DC...V	C10-A15X/DC...V
Polarity and free wheeling diode	C10-A10FX/DC...V	C10-A18FX/DC...V	C10-A15FX/DC...V
V AC/DC bridge rectifier 24 V, 48 V	C10-A10BX/UC...V	C10-A18BX/UC...V	C10-A15BX/UC...V

Other voltages on request

"..." List Coil Voltage to complete Product References

Accessories

Socket	S10, S10-P
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Connection diagram

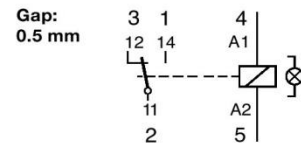


fig. 1 AC voltage endurance

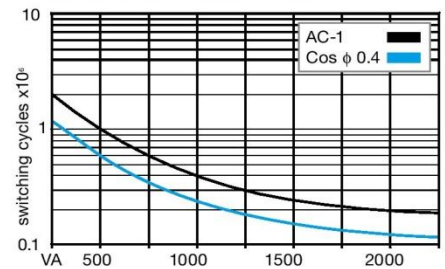
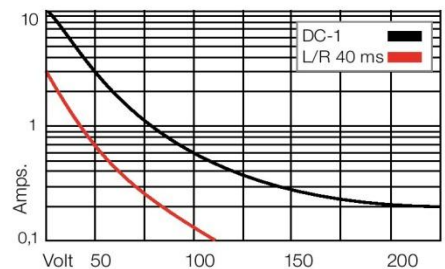
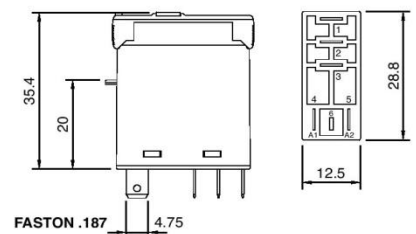


fig. 2 DC load limit curve



Dimensions (mm)



Technical approvals, conformities



IEC/EN 61810; IEC/EN 60947

C2-A2x

2 pole | changeover contact

Maximum contact load	10 A/250 V AC-1	0.5 A/110 V DC-1
	10 A/30 V DC-1	0.2 A/220 V DC-1
Recommended minimum contact load	10 mA/10 V Code 0	
	5 mA/5 V Code 8	

Contacts

Material	Standard	Code 0	AgNi
	Optional	Code 8	AgNi + 5 μ Au
Max. switching current	10 A		
Max. peak inrush current (20 ms.)	30 A		
Max. switching voltage	250 V		
Max. AC load fig. 1	2.5 kVA		
Max. DC load	See fig. 2		

Coils

Coil resistance	see table; tolerance ± 10 %
Pick up voltage	≤ 0.8 × U _n
Pick up voltage	≥ 0.1 × U _n
Nominal power	2.2 VA (AC)/1.3 W (DC)

Coil Table

V AC	Ω	mA	V DC	Ω	mA
24	67	92	24	443	54
48	296	46	48	1K8	27
115	1K7	19	110	9K	12
230	7K1	9.5	220	36K1	6

Insulation

	Volt rms / 1 min
Open contact	1000 V
Between adjacent poles	2.5 kV
Between contacts and coil	2.5 kV
Insulation resistance at 500 V	≥ 1 GΩ
Insulation, IEC 61810-1	2.5 kV

Specifications

Ambient temperature operation/storage	-40...60 °C / -40 ... 80 °C (no ice)
Pick-up time + bounce time	16 ms / ≤ 3 ms
Release time + bounce time	8 ms / ≤ 1 ms
Mechanical life ops	AC: 10 Mill./DC: 20 Mill.
DC voltage endurance at rated load	≥ 100 000 ops. switching cycles
Max. switching frequency at rated load	1200/h
Weight	79 g

Product References

V AC 50 Hz/60 Hz: 24, 48, 115 (120), 230 (240)

LED

RC Suppressor

V DC 24, 48, 110, 220

LED

Free wheeling diode

Polarity and free wheeling diode

AC/DC bridge rectifier 24 V, 48 V, 60 V

Other voltages on request

C2-A20/AC ... V

C2-A20X/AC ... V

C2-A20R/AC ... V

C2-A20/DC ... V

C2-A20X/DC ... V

C2-A20DX/DC ... V

C2-A20FX/DC ... V

C2-A20BX/UC ... V

C2-A28/AC ... V

C2-A28X/AC ... V

C2-A28R/AC ... V

C2-A28/DC ... V

C2-A28X/DC ... V

C2-A28DX/DC ... V

C2-A28FX/DC ... V

C2-A28BX/UC ... V

"..." List Coil Voltage to complete Product References

Accessories (See also Section Sockets)

Socket

Blanking Plug

S2-B, S2-PO

SO-NP (BAG 10 PCS)



Connection diagram

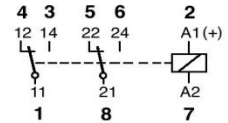


fig. 1 AC voltage endurance

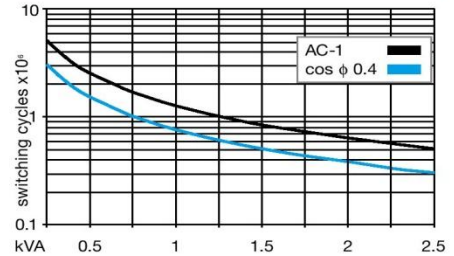
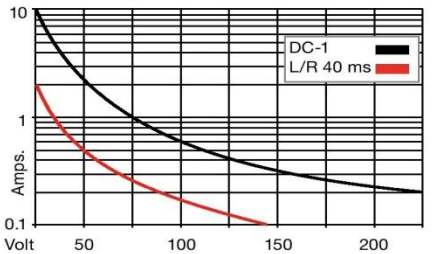
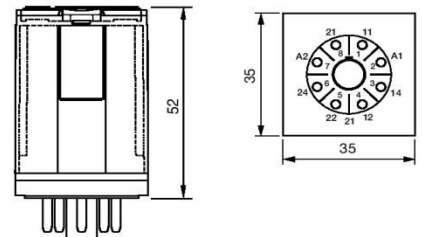


fig. 2 DC load limit curve



Dimensions (mm)



Technical approvals, conformities



IEC/EN 61810; IEC/EN 60947

C3-G3x

3 pole | normally open contact

Maximum contact load	10 A/250 V AC-1	1.2 A/110 V DC-1
Recommended minimum contact load	10 A/30 V DC-1	0.4 A/220 V DC-1

Contacts

Material	Standard	Code 0	⚡ AgNi
Rated Load			10 A
Max. inrush current (20 ms)			30 A
Switching voltage max.			250 V
AC load fig. 1			2.5 kVA
DC load			see fig. 2

Coil

Coil resistance	see table; tolerance $\pm 10\%$
Pick-up voltage	$\leq 0.8 \times U_N$
Release voltage	$\geq 0.1 \times U_N$
Nominal power	2.4 VA (AC)/1.6 W (DC)

Coil table

V AC	Ω	mA	V DC	Ω	mA
24	65	100	24	360	66
48	286	50	48	1K4	34
115	1K7	21	110	7K6	15
230	6K8	10	220	30K3	7.5

Insulation

Contact open	2000 V
Contact/contact	2.5 kV
Contact/coil	2.5 kV
Insulation resistance at 500 V	≥ 1 G Ω
Insulation, IEC 61810-1	2.5 kV

Specifications

Ambient temperature operation/storage	-40...60 °C / -40 ... 80 °C (no ice)
Pick-up time/bounce time	20 ms / ≤ 3 ms
Release time/bounce time	8 ms / ≤ 1 ms
Mechanical life ops	AC: 10 Mill./DC: 20 Mill.
DC voltage endurance at rated load	≥ 100 000 switching cycles
Max. switching frequency at rated load	1200/h
Weight	81 g

Product References

V AC 50 Hz/60 Hz: 24, 48, 115 (120), 230 (240)

LED

RC Suppressor

V DC 24, 48, 110, 220

LED

Free wheeling diode

Polarity and free wheeling diode

AC/DC bridge rectifier 24 V, 48 V, 60 V

Other voltages on request

"..." List Coil Voltage to complete Product References

Accessories

Socket	S3-B, S3-S, S3-PO, S3-M, S3-M0, S3-M1
Blanking Plug	SO-NP (BAG 10 PCS)

C3-G30/AC ... V

C3-G30X/AC ... V

C3-G30R/AC ... V

C3-G30/DC ... V

C3-G30X/DC ... V

C3-G30DX/DC... V

C3-G30FX/DC ... V

C3-G30BX/UC ... V



Connection diagram

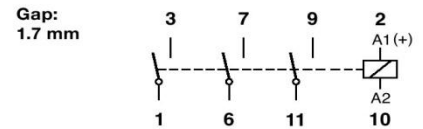


fig. 1 AC voltage endurance

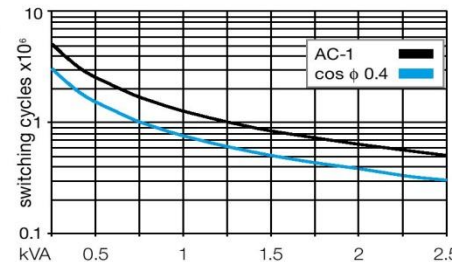
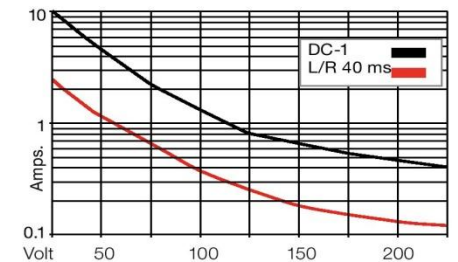
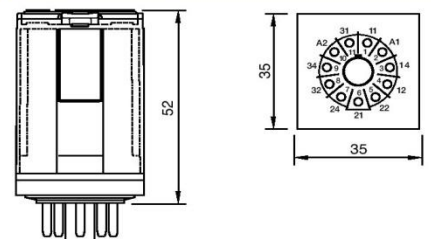


fig. 2 DC load limit curve



Dimensions (mm)



Technical approvals, conformities



IEC/EN 61810; IEC/EN 60947

C4-A4x

4 pole | changeover contact | Faston

Maximum contact load	10 A/250 V AC-1	0.5 A/110 V DC-1
	10 A/30 V DC-1	0.2 A/220 V DC-1
Recommended minimum contact load	10 mA/5 V Code 0	
	5 mA/5 V Code 8	

Contacts

Material	Standard	Code 0	AgNi
	Optional	Code 8	AgNi + 5 μ Au
Rated Load	10 A		
Max. inrush current (20 ms)	30 A		
Switching voltage max.	250 V		
AC load fig. 1	2.5 kVA		
DC load	see fig. 2		

Coil

Coil resistance	see table; tolerance ± 10 %
Pick-up voltage	≤ 0.8 × U _n
Release voltage	≥ 0.1 × U _n
Nominal power	2.4 VA (AC)/1.4 W (DC)

Coil table

V AC	Ω	mA	V DC	Ω	mA
24	65	100	24	414	58
48	286	50	48	1K6	30
115	1K7	21	110	8K1	13
—	—	—	120-125	10K	12.3
230	6K8	10	220	35K7	6.2

Insulation

Contact open	1000 V
Contact/contact	2.5 kV
Contact/coil	2.5 kV
Insulation resistance at 500 V	≥ 1 GΩ
Insulation, IEC 61810-1	2.5 kV

Specifications

Ambient temperature operation/storage	-40...60 °C / -40 ... 80 °C (no ice)
Pick-up time/bounce time	20 ms / ≤ 3 ms
Release time/bounce time	8 ms / ≤ 1 ms
Mechanical life ops	AC: 10 Mill./DC: 20 Mill.
DC voltage endurance at rated load	≥ 100 000 switching cycles
Max. switching frequency at rated load	1200/h
Weight	90 g

Product References

V AC 50 Hz/60 Hz: 24, 48, 115, (120), 230, (240)
LED
RC Suppressor

C4-A40/AC ... V
C4-A40X/AC ... V
C4-A40R/AC ... V

C4-A48/AC ... V
C4-A48X/AC ... V
C4-A48R/AC ... V

V DC 24, 48, 110, 220

LED
Free wheeling diode
Polarity and free wheeling diode

C4-A40/DC ... V
C4-A40X/DC ... V
C4-A40DX/DC ... V
C4-A40FX/DC ... V

C4-A48/DC ... V
C4-A48X/DC ... V
C4-A48DX/DC ... V
C4-A48FX/DC ... V

AC/DC bridge rectifier 24 V, 48 V, 60 V

Other voltages on request

C4-A40BX/UC ... V

C4-A48BX/UC ... V

"..." List Coil Voltage to complete Product References

Accessories

Socket
 Wall Mounting Adapter
 Blanking Plug

S4-J, S4-L, S4-P
S5-R (BAG 5 PCS)
SO-NP (BAG 10 PCS)



Connection diagram

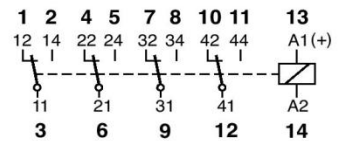


fig. 1 AC voltage endurance

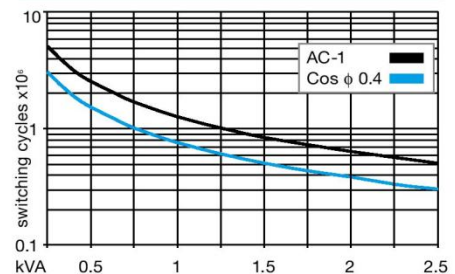
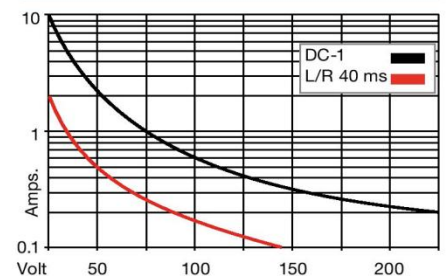
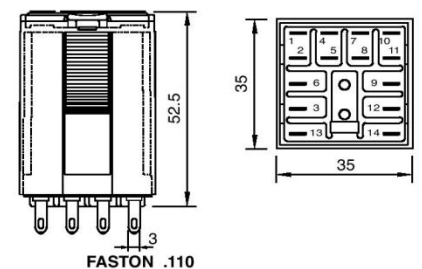


fig. 2 DC load limit curve



Dimensions (mm)



Technical approvals, conformities



IEC/EN 61810; IEC/EN 60947

C7-A2x

2 pole | changeover contact | Faston

Maximum contact load	10 A/250 V AC-1	0.5 A/110 V DC-1
	10 A/30 V DC-1	0.2 A/220 V DC-1
Recommended minimum contact load	10 mA/10 V Code 0	
	5 mA/5 V Code 8	

Contacts

Material	Standard	Code 0	AgNi
	Optional	Code 8	AgNi + 5 μ Au
Rated Load			10 A
Max. inrush current (20 ms)			30 A
Switching voltage max.			250 V
AC load fig. 1			2.5 kVA
DC load			see fig. 2

Coil

Coil resistance	see table; tolerance ± 10 %
Pick-up voltage	≤ 0.8 × U _N
Release voltage	≥ 0.1 × U _N
Nominal power	1.2 VA (AC)/1 W (DC)

Coil table

V AC	Ω	mA	V DC	Ω	mA
24	174	50	12	148	85
48	686	25	24	594	43
115	4K3	10.4	48	2K3	21
230	18K6	5.2	110	11K4	10

Insulation

Contact open	1000 V
Contact/contact	2.5 kV
Contact/coil	2.5 kV
Insulation resistance at 500 V	≥ 1 GΩ
Insulation, IEC 61810-1	2.5 kV

Specifications

Ambient temperature operation/storage	-40...60 °C /-40 ... 80 °C (no ice)
Pick-up time/bounce time	16 ms /≤ 3 ms
Release time/bounce time	8 ms /≤ 1 ms
Mechanical life ops	AC: 10 Mill./DC: 20 Mill.
DC voltage endurance at rated load	≥ 100 000 switching cycles
Max. switching frequency at rated load	1200/h
Weight	43 g

Product References

V AC 50 Hz/60 Hz: 24, 48, 115 (120), 230 (240)

LED

C7-A20X/AC ... V C7-A28X/AC ... V

V DC 12, 24, 48, 110

LED

C7-A20X/DC ... V C7-A28X/DC ... V

Free wheeling diode (only 24 DC)

C7-A20DX/DC 24 V C7-A28DX/DC 24 V

Polarity and free wheeling diode

C7-A20FX/DC ... V C7-A28FX/DC ... V

AC/DC bridge rectifier 24 V, 48 V, 60 V

C7-A20BX/UC ... V C7-A28BX/UC ... V

Other voltages on request

"..." List Coil Voltage to complete Product References

Accessories

Socket	S7-C, S7-IO, S7-P,
Push only	S9-OP (BAG 10 PCS)
Blanking Plug	S9-NP (BAG 10 PCS)



Connection diagram

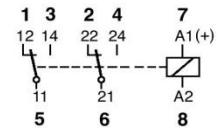


fig. 1 AC voltage endurance

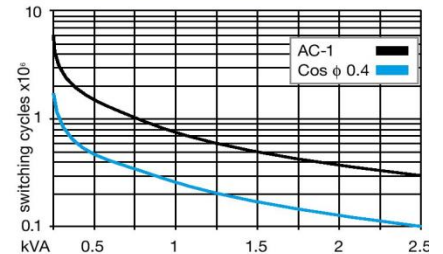
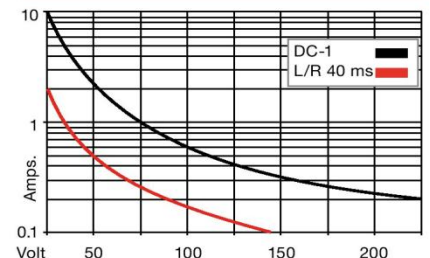
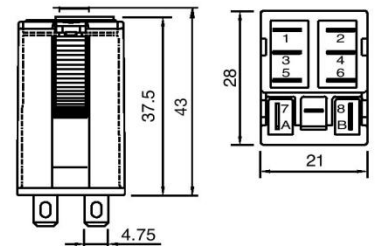


fig. 2 DC load limit curve



Dimensions (mm)



Technical approvals, conformities



IEC/EN 61810; IEC/EN 60947

C9-A4x

4 pole | changeover contact | Faston

Maximum contact load	5 A/250 V AC-1	5 A/30 V DC-1
Recommended minimum contact load	10 mA/10 V Code 1	
	1 mA/5 V Code 2	

Contacts

Material	Standard	Code 1	AgNi + 0.2 μ Au
	Optional	Code 2	AgNi + 5 μ Au
Rated Load	5 A		
Max. inrush current (20 ms)	15 A		
Switching voltage max (same polarity)	250 V		
AC load fig. 1	1250 VA		
DC load	see fig. 2		

Coil

Coil resistance	see table; tolerance ± 10 %
Pick-up voltage	≤ 0.8 × U _n
Release voltage	≥ 0.1 × U _n
Nominal power	1.2 VA (AC)/1 W (DC)

Coil table

V AC	Ω	mA	V DC	Ω	mA
24	174	50	12	148	81
48	686	25	24	594	40
115	4K3	10.4	48	2K3	21
230	18K6	5.2	110	11K4	11

Insulation

Contact open	1000 V
Contact/contact	2 kV
Contact/coil	2.5 kV
Insulation resistance at 500 V	≥ 1 GΩ
Insulation, IEC 61810-1	2.5 kV

Specifications

Ambient temperature operation/storage	-40...60 °C / -40 ... 80 °C (no ice)
Pick-up time/bounce time	10 ms / ≤ 3 ms
Release time/bounce time	6 ms / ≤ 1 ms
Mechanical life ops	AC: 10 Mill./DC: 20 Mill.
DC voltage endurance at rated load	≥ 100 000 switching cycles
Max. switching frequency at rated load	1200/h
Weight	43 g

Product References

V AC 50 Hz/60 Hz: 24, 48, 115, 230 (240)

LED

C9-A41X/AC ... V

C9-A42X/AC ... V

V DC 12, 24, 48, 110

LED

C9-A41X/DC ... V

C9-A42X/DC ... V

Free wheeling diode (only 24 DC)

C9-A41DX/DC 24 V

C9-A42DX/DC 24 V

Polarity and free wheeling diode

C9-A41FX/DC ... V

C9-A42FX/DC ... V

AC/DC bridge rectifier 24 V, 48 V, 60 V

C9-A41BX/UC ... V

C9-A42BX/UC ... V

Other voltages on request

"..." List Coil Voltage to complete Product References

Accessories

Socket	S9-M, S9-P
Push only	S9-OP (BAG 10 PCS)
Blanking Plug	S9-NP (BAG 10 PCS)



Connection diagram

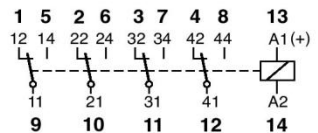


fig. 1 AC voltage endurance

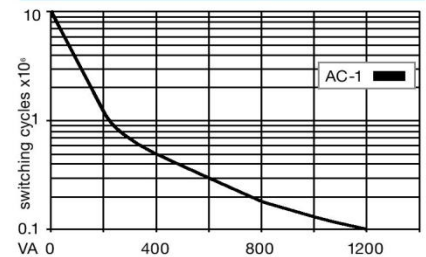
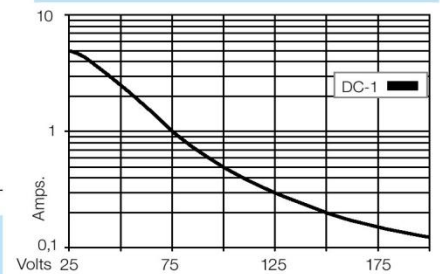
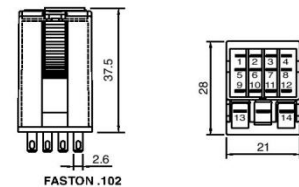


fig. 2 DC load limit curve



Dimensions (mm)



Technical approvals, conformities



IEC/EN 61810; IEC/EN 60947



Maximum voltage between two separate circuits on neighbouring contacts: 150 V
Not permitted: 24 V DC next to 230 V AC, 230 V AC next to neutral, 230 V AC next to 230 V AC of different phases
Permitted: 230 V AC next to 230 V AC same phase

CC1H230

Solid State Contactor | 1 phase | 230 V | 30 A

Main circuit

Output type	⚡ Thyristor
Number of outputs	1
Rated voltage	230 V
Output voltage range	12 ... 240 V AC
Reverse voltage	1000 V _{rrm}
Peak reverse voltage	1100 V _{rrm}
Rated current AC-1	30 A
Rated current AC-3	15 A
Minimum load	10 mA
Typ. leakage current	1 mA
Rated limit load	1800 A ² t

Control circuit

Nominal voltage	24 ... 230 V UC
Operating voltage range	0.85 ... 1.1 U _N
Typ. pick-up voltage	20.4 V
Typ. release voltage	7.2 V
Pick-up time	20 ms
Release time	20 ms
Power consumption AC / DC	1.5 VA / 150 mW
Rated frequency	50 / 60 Hz

Insulation

Rated insulation voltage	660 V
Rated impulse withstand voltage	4 kV
Pollution degree	3
Overvoltage category	III

General data

Ambient temperature storage	-20 ... 80 °C
Ambient temperature operation	-5 ... 40 °C
Ambient temperature operation derated power	-5 ... 60 °C, 0.7 I _N
Conductor cross section Control / Main Circuit	1.5 mm ² / 10 mm ²
Nominal screw torque Control / Main Circuit	0.5 Nm / 1.2 Nm
Module width	fig. 2
Weight	650 g
Protection degree	IP 20
Housing material	PPE
Mounting	TS 35 or Back Panel Mounting

Product references

Description	Product reference
Solid State Contactor, 1 phase	CC1H230

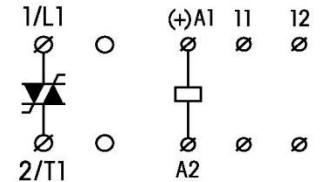
Other devices on request. Please contact support@comatreleco.com.

Accessories

Thermal overload protection	P82-100C
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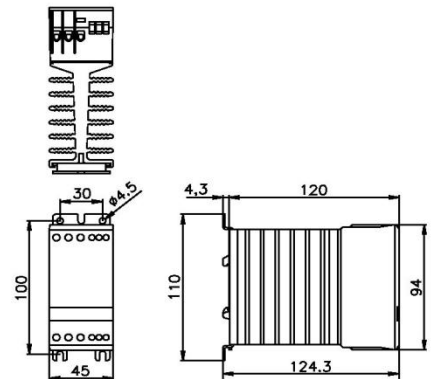


fig. 1. Wiring diagram



11-12: Thermostat

fig. 2. Dimensions (mm)



Standards and approvals

Standards IEC/EN 60947, 50022, 60068

Approvals



CC1H450

Solid State Contactor | 1 phase | 400 V | 50 A

Main circuit

Output type	⚡ Thyristor
Number of outputs	1
Rated voltage	400 V
Output voltage range	24 ... 480 VAC
Reverse voltage	1200 V _{rrm}
Peak reverse voltage	1300 V _{rrm}
Rated current AC-1	50 A
Rated current AC-3	15 A
Minimum load	10 mA
Typ. leakage current	1 mA
Rated limit load	1800 A ² t

Control circuit

Nominal voltage	24 ... 230 V UC
Operating voltage range	0.85 ... 1.1 U _N
Typ. pick-up voltage	20.4 V
Typ. release voltage	7.2 V
Pick-up time	20 ms
Release time	20 ms
Power consumption AC / DC	1.5 VA / 150 mW
Rated frequency	50 / 60 Hz

Insulation

Rated insulation voltage	660 V
Rated impulse withstand voltage	4 kV
Pollution degree	3
Overvoltage category	III

General data

Ambient temperature storage	-20 ... 80 °C
Ambient temperature operation	-5 ... 40 °C
Ambient temperature operation derated power	-5 ... 60 °C, 0.7 I _N
Conductor cross section Control / Main Circuit	1.5 mm ² / 10 mm ²
Nominal screw torque Control / Main Circuit	0.5 Nm / 1.2 Nm
Module width	fig. 2
Weight	1050 g
Protection degree	IP 20
Housing material	PPE
Mounting	TS 35 or Back Panel Mounting

Product references

Description	Product reference
Solid State Contactor, 1 phase	CC1H450

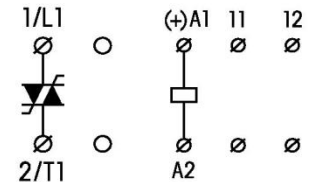
Other devices on request. Please contact support@comatreleco.com.

Accessories

Thermal overload protection	P82-100C
-----------------------------	----------

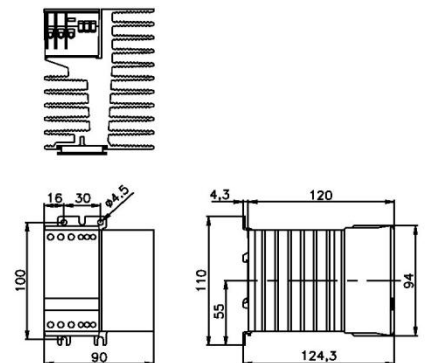


fig. 1. Wiring diagram



11-12: Thermostat

fig. 2. Dimensions (mm)



Standards and approvals

Standards IEC/EN 60947, 50022, 60068

Approvals

CT2

Single function | multivoltage

Time data

Timing functions	fig. 1 1: E, B 2: A, K 3: W
Timing range	0.2 s ... 30 min
Timing scale	3 s / 30 s / 3 min / 30 min

Control circuit 1 / 2

Operating voltage range	9.5 ... 18 V DC	20 ... 65 V UC	90 ... 150 V UC
Power consumption AC / DC	0.2 VA / W	0.4 VA / W	0.3 VA / W
Typ. input current on command input AC / DC	- / 0.2 mA	0.2 / 0.2 mA	0.2 / 0.2 mA
Typ. threshold voltage on command input AC / DC	9 V	18 V	75 V

Control circuit 2 / 2

Operating voltage range	180 ... 265 V UC	90 ... 265 V UC
Power consumption AC / DC	0.5 VA / W	0.5 VA / W
Typ. input current on command input AC / DC	0.2 / 0.2 mA	0.2 / 0.2 mA
Typ. threshold voltage on command input AC / DC	140 V	75 V

General data

Ambient temperature storage	-40 ... 85 °C
Ambient temperature operation	-25 ... 60 °C
Conductor cross section	2.5 mm ²
Nominal screw torque	0.5 Nm
Module width	fig. 2
Weight	35 g
Protection degree	IP 20
Housing material	PC

Product references

Types	Product reference	S DC9.5-18	L UC20-65	M 90-150	U 180-265	H 90-265
Off delay	CT2-A30/...V	✓	✓	✓	✓	
Blinker	CT2-B30/...V	✓	✓			✓
On delay	CT2-E30/...V	✓	✓			✓
Pulse shaping, one shot	CT2-K30/...V	✓	✓	✓	✓	

"..." list control circuit voltage to complete product references.
Other voltages on request. Please contact support@comatreleco.com.

Accessories

Sockets	S2-B, S2-PO
Retaining clip	HF-33



fig. 1. Wiring diagram

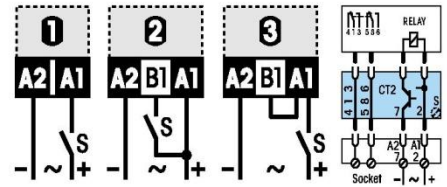
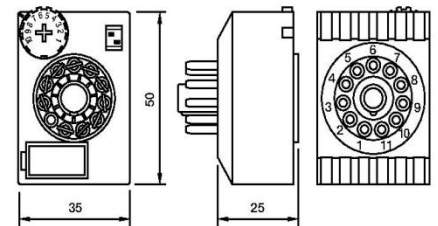


fig. 2. Dimensions (mm)



Standards and approvals

Standards IEC/EN 60947

Approvals

CT3

Single function | multivoltage

Time data

Timing functions	fig. 1 1: E, B 2: A, K 3: W
Timing range	0.2 s ... 30 min
Timing scale	3 s / 30 s / 3 min / 30 min

Control circuit 1 / 2

Operating voltage range	9.5 ... 18 V DC	20 ... 65 V UC	90 ... 150 V UC
Power consumption AC / DC	0.2 VA / W	0.4 VA / W	0.3 VA / W
Typ. input current on command input AC / DC	- / 0.2 mA	0.2 / 0.2 mA	0.2 / 0.2 mA
Typ. threshold voltage on command input AC / DC	9 V	18 V	75 V

Control circuit 2 / 2

Operating voltage range	180 ... 265 V UC	90 ... 265 V UC
Power consumption AC / DC	0.5 VA / W	0.5 VA / W
Typ. input current on command input AC / DC	0.2 / 0.2 mA	0.2 / 0.2 mA
Typ. threshold voltage on command input AC / DC	140 V	75 V

General data

Ambient temperature storage	-40 ... 85 °C
Ambient temperature operation	-25 ... 60 °C
Conductor cross section	2.5 mm ²
Nominal screw torque	0.5 Nm
Module width	fig. 2
Weight	35 g
Protection degree	IP 20
Housing material	PC

Product references

Types	Product reference	S DC9.5-18	L UC20-65	M 90-150	U 180-265	H 90-265
Off delay	CT3-A30/...V	✓	✓	✓	✓	
Blinker	CT3-B30/...V	✓	✓			✓
On delay	CT3-E30/...V	✓	✓			✓
Pulse shaping, one shot	CT3-K30/...V	✓	✓	✓	✓	

"..." list control circuit voltage to complete product references.
Other voltages on request. Please contact support@comatreleco.com.

Accessories

Sockets	S3-M
Retaining clip	HF-33



fig. 1. Wiring diagram

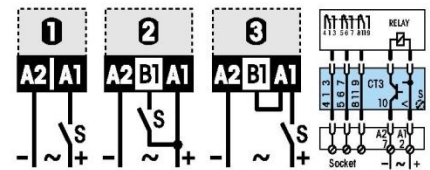
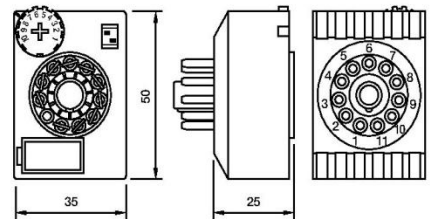


fig. 2. Dimensions (mm)



Standards and approvals

Standards IEC/EN 60947

Approvals

S2-B

Socket for 8-pin Relays and Time Cubes

Rated Load **10 A / 300 V**

Specifications

Rated impulse withstand voltage	2.5 kV rms / 1 min
- All terminals / DIN rail	2.5 kV rms / 1 min
- Terminal / Terminal	2.5 kV rms / 1 min
Cross-section of connecting wire	
- Single-wire	4 mm ² / AWG 12 or 2 x 2.5 mm ² / AWG 14
- Multi-wire	0.34 mm ² / AWG 22 - 2.5 mm ² / AWG 14
Nominal screw torque	0.7 Nm
Screw Dimensions (mm)	M3 Pozi slot
Mounting	TS-35 or Back Panel Mounting
Ambient temperature operation / storage	-40...60 °C / -40 ... 80 °C (no ice)
Weight	48g

Included Accessories

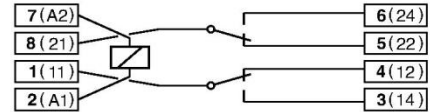
Retaining Clip, plastic S30-CM for C2 / C2x Relays

Optional Accessories

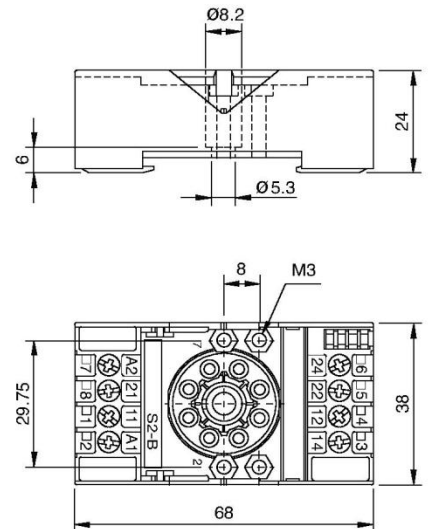
Retaining clip, steel HF-32 (BAG 10 PCS) for C2 / C2x Relays
HF-33 (BAG 10 PCS) for Time Cube CTx



Connection diagram



Dimensions (mm)



Technical approvals, conformities



S3-B

Socket for 11-pin Relays and Time Cubes

Rated Load **10 A / 300 V**

Specifications

Rated impulse withstand voltage	
- All terminals / DIN rail	2.5 kV rms / 1 min
- Terminal / Terminal	2.5 kV rms / 1 min
Cross-section of connecting wire	
- Single-wire	4 mm ² / AWG 12 or 2 x 2.5 mm ² / AWG 14
- Multi-wire	0.34 mm ² / AWG 22 - 2.5 mm ² / AWG 14
Nominal screw torque	0.7 Nm
Screw Dimensions (mm)	M3 Pozi slot
Mounting	TS-35 or Back Panel Mounting
Ambient temperature	-40 ... 60 °C / -40 ... 80 °C (no ice)
Weight	55 g

Included Accessories

Retaining Clip, plastic S30-CM for C3 / C3x Relays

Optional Accessories

Retaining clip, steel HF-32 (BAG 10 PCS) for C3 / C3x Relays

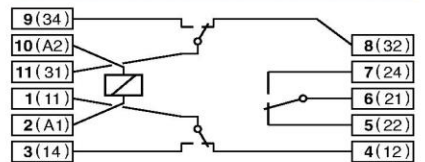
Coding Ring

HF-33 (BAG 10 PCS) for Time Cube CTx

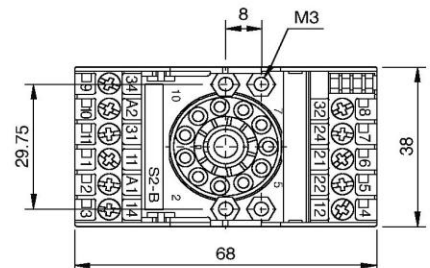
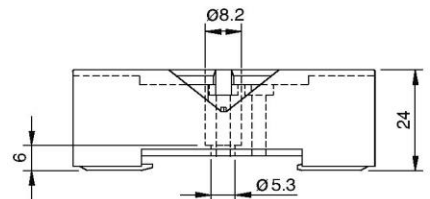
S3-BC (BAG 5 PCS) for C3 / C3x Relays



Connection diagram



Dimensions (mm)



Technical approvals, conformities



S7-C

Socket for 8-pin Relays

Rated Load 10A, 16A for 1 pole / 250 V

Specifications

Rated impulse withstand voltage	2.5 kV rms / 1 min
- All terminals / DIN rail	2.5 kV rms / 1 min
- Terminal / Terminal	2.5 kV rms / 1 min
Cross-section of connecting wire	
- Single-wire	4 mm ² / AWG 12, 2 x 1.5 mm ² / AWG 16
- Multi wire	2.5 mm ² / AWG 14, 2 x 1 mm ² / AWG 18
Nominal screw torque	0.7 Nm
Screw Dimensions (mm)	M3 Pozi slot
Mounting	TS-35 or Back Panel Mounting
Ambient temperature operation/storage	-40...60°C (50°C for 16A) / -40...80°C (no ice)
Weight	37g

Included Accessories

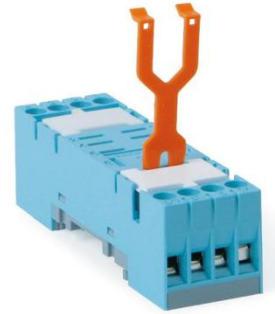
Retaining clip, plastic CP-07B for C7 / C7x Relays

Optional Accessories

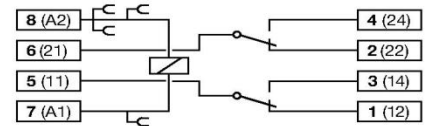
Retaining clip, plastic CP-07B (BAG 50 PCS) for C7 / C7x Relays
 A2-Connector S7-BB (BAG 20 PCS)
 Panel Adapter S9-G (BAG 10 PCS)

Please Note:

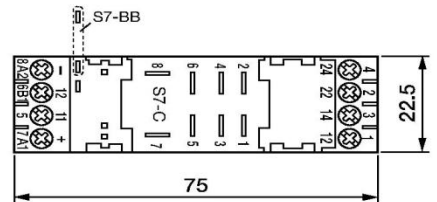
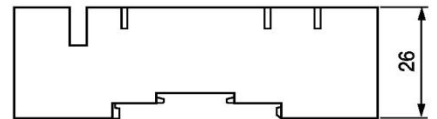
This socket replaces former socket S7-M and S7-16



Connection diagram



Dimensions (mm)



Technical approvals, conformities



S9-M

Socket for 14-pin Relays

Rated Load **6 A / 250 V**

Specifications

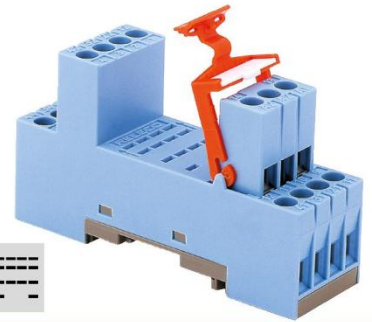
Rated impulse withstand voltage	2.5 kV rms / 1 min
- All terminals / DIN rail	2.5 kV rms / 1 min
- Terminal / Terminal	2.5 kV rms / 1 min
Cross-section of connecting wire	
- Single-wire	4 mm ² / AWG 12 or 2 x 2.5 mm ² / AWG 14
- Multi-wire	0.34mm ² / 22 - 2.5 mm ² / AWG 14
Nominal screw torque	0.7 Nm
Screw Dimensions (mm)	M3 Pozi slot
Mounting	TS-35 or Back Panel Mounting
Ambient temperature operation/storage	-40 ... 60 °C / -40 ... 80 °C (no ice)
Weight	54g

Included Accessories

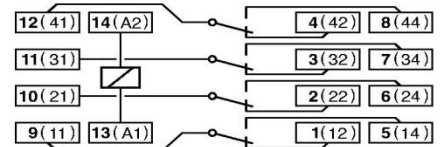
Retaining clip, plastic S9-C for C9 / C9x Relays

Optional Accessories

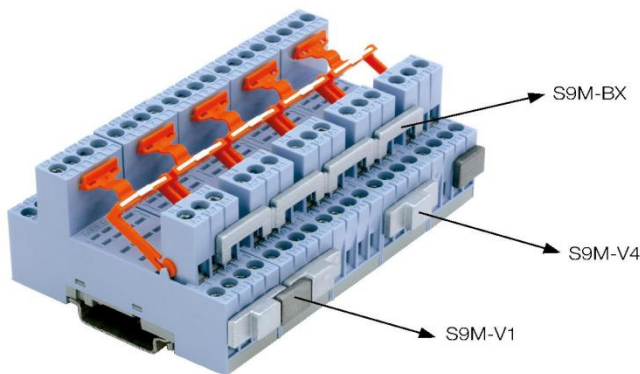
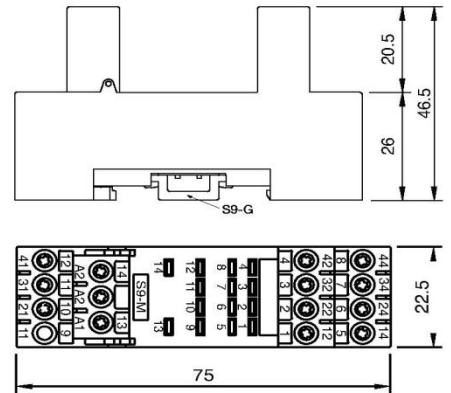
Retaining clip, plastic S9-C (BAG 10 PCS) for C9 / C9x Relays
 Panel Adapter S9-G (BAG 10 PCS)
 Bridge Bar S9M-V1 (BAG 5 PCS)
 Bridge Bar S9M-V4 (BAG 5 PCS)
 Bridge Bar S9M-BX (BAG 5 PCS)



Connection diagram



Dimensions (mm)



Technical approvals, conformities



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