

# CTX<sup>3</sup> Control relays

Cat. N°(s) : 4 168 00..04/06/09..14/16/19..24/26/29



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## 1. DESCRIPTION - USE

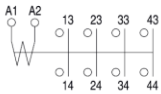
. Switch of light loads for control logic applications.

### Symbol:

**4 NO**

**3 NO + 1 NC**

**2 NO + 2 NC**



## 2. RANGE

### Number of contacts:

- . 4 NO.
- . 3 NO + 1 NC.
- . 2 NO + 2 NC.

### Rated Voltage U<sub>e</sub> / Frequency:

. 600 [V], 50 / 60 [Hz].

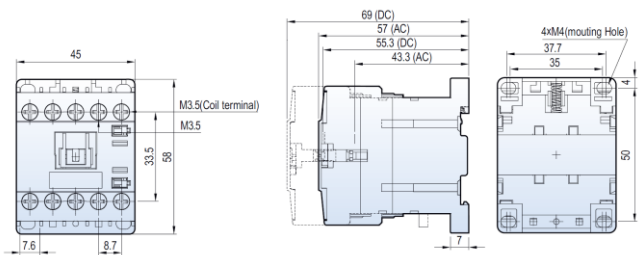
### Control voltage U<sub>c</sub>:

. 24 [V~], 24 [V=], 48 [V~], 48 [V=], 110 [V~], 230 [V~], 400 [V~].

## 3. OVERALL DIMENSIONS

. CTX<sup>3</sup> Control relays.

- Type AC and type DC:



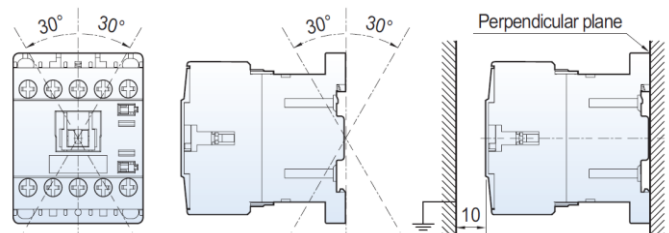
## 4. INSTALLATION - CONNECTION

### Fixing:

. Clip-on mounting on 35 [mm] rail DIN or screw fixing.

### Operating position:

- . ± 30 [°] possible, in relation to normal vertical mounting plane.
- . Keep the distance more than 10 [mm] with front panel.



### Supply:

. Either from the top or the bottom.

### Size of wire connecting torque:

Screw	Wire	Torque
M3.5	1.25 to 2 [mm <sup>2</sup> ]	0.8 [Nm]

## 5. GENERAL CHARACTERISTICS

### Connection:

- . Terminals protected against direct contact (IP20).
- . Terminals with release and captive screws.
- . Screw head : slotted and pozidriv n°2.

### Tools required:

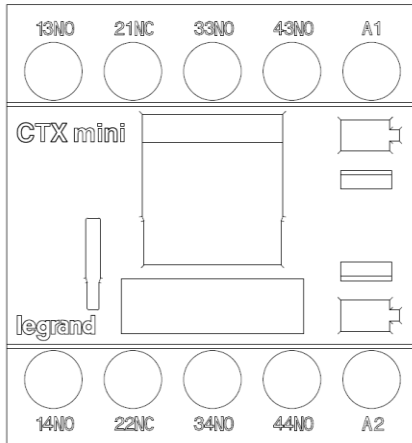
- . Pozidriv N°2 screwdriver recommended.
- . Flat screwdriver Ø5 to Ø6 [mm] Maximum.

### Front side:

- . By dark grey laser or pad printing:

- Brand: Legrand
- Range: CTX mini
- Coil terminals

### CTX<sup>3</sup> Control relays: (Example of marking)



### Left side:

- . By identification label (referring to IEC standard)

Uc		24V	48V	110V	230V	400V
Us		20.4~26.4V	40.8~52.8V	93.5~121V	195.5~253V	340~440V
AC		4168 00	4168 02	4168 04	4168 06	4168 09
DC		4168 01	4168 03	4NO		

		JISC4531 IEC60947 VDE0660 Ui=690V Ith=10A	
AC15   DC13			
Ue(V)	Ie(A)	Ue(V)	Ie(A)
120	6	125	0.55
240	3	250	0.27
380	1.9		
480	1.5	440	0.15
500	1.4	500	0.13
600	1.2	600	0.1

AWG12-18 60/75°C Cu-wire only Torque: 7lb.in(0.8Nm)	
70GK IND.CONT.EQ.	
A600	Q600

MADE IN KOREA	79611621125
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## 5. GENERAL CHARACTERISTICS (continued)

### Rated impulse voltage and rated insulation voltage:

Type of products	Rated impulse voltage (Uimp)	Rated insulation voltage (Ui)
CTX <sup>3</sup> Control relays	6 [kV]	690 [V]

### Ambient operating temperature: (standard +20°C)

- . Min. = -5°C. Max. = +40°C.

### Ambient storage temperature:

- . Min. = -30°C. Max. = +65°C.

### Max. temperature inside a panel:

- . +55°C.

### Weight:

Type of products	AC Control	DC Control
CTX <sup>3</sup> Control relays	0.17 [kg]	0.23 [kg]

### Degree of protection:

- . IP20.

### Flame resistance:

- . Conforming to UL = V0.
- . Conforming to IEC 695-2-1 = 960 [°C].

### Maximum operating altitude:

- . 2000 [m].

### Relative humidity:

- . 45 ~ 85% RH.

### Shock resistance:

- . 5 [g].

### Vibration resistance:(10 - 55 [Hz])

- . 2 [g].

## 5. GENERAL CHARACTERISTICS *(continued)*

### Coil characteristic:

Coil type		AC coil - (50 / 60 [Hz])	DC
Power consumption inrush - [W]		2	3
Power consumption holding - [W]		2	3
Control voltage (Uc) - [V]		24, 48, 110, 230, 440	24, 48
Operation voltage (Us) - [%]	Pick-up	≤ 80	≤ 75
	Release	≥ 30	≥ 12
Operation time - [ms]	Coil ON ⇒ Contact ON	≤ 20	≤ 50
	Coil OFF ⇒ Contact OFF	≤ 45	≤ 45

**Rating:** In accordance with IEC 60947-4 and UL 508 certifications

. For contactors CTX<sup>3</sup> Control relays.

. Contact rating:

		Rated currents		Making / Breaking currents	
		Inductive load - [A]	Resistive load - [A]	Inductive load - [A]	Resistive load - [A]
AC duty	120 [V]	6	10	66	66
	240 [V]	3	8	33	33
	480 [V]	1.5	5	16.5	16.5
	600 [V]	2	5	13.2	13.2
DC duty	125 [V]	1.1	5	3.7	-
	250 [V]	0.55	3	1.8	-
	440 [V]	0.31	2.5	1.4	-
	600 [V]	0.2	1	0.7	-
Continuous current, Ith - [A]		10			

. Performance:

Operating cycles (operations / hour)			1 800	
Endurance (in millions of operations)	Mechanical lifetime		20	
	Electrical lifetime	AC15 duty	220 [V]	0.5
			440 [V]	0.5
		AC12 duty	220 [V]	0.25
			440 [V]	0.25
DC13, 12 duty		24~220 [V]	0.5	

## 6. CONFORMITIES AND APPROVALS

### Compliance to standards:

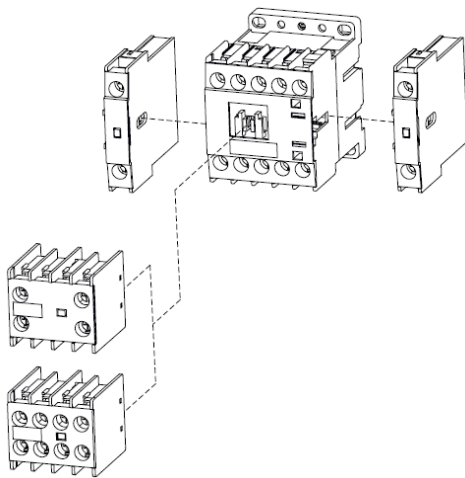
- . Reference standards: IEC/EN 60 947-4 and UL 508.
- . Certifications: CE, UL.

## 7. AUXILIARIES AND ACCESSORIES

### Auxiliaries:

- . 6 Auxiliary contacts maximum.  
(CTX<sup>3</sup> Control relays fit the same auxiliaries as CTX<sup>3</sup> mini contactors)

- . Installation principle:



### Rated operational voltage:

- . U<sub>e</sub> = 600 [V].

### Rated insulation voltage:

- . U<sub>i</sub> = 690 [V].

### Rated impulse voltage:

- . U<sub>imp</sub> = 6 [kV].

### Mechanical and electrical endurance:

Type of products	Mechanical endurance (in millions of operations)	Electrical endurance (in millions of operations)
Auxiliary contacts	10	0.25

### Conventional free air thermal current:

- . I<sub>th</sub> = 10 [A].

## 7. AUXILIARIES AND ACCESSORIES (continued)

### Auxiliaries: (continued)

### Contacts sensibility:

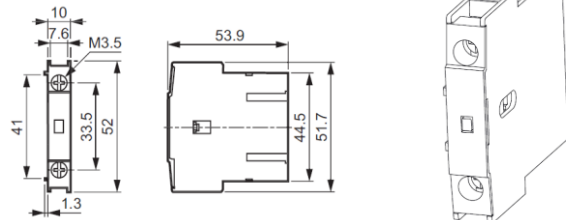
- . DC 24 [V] - 10 [mA].

**Rating:** In accordance with IEC 60947-4 and UL 508 certifications

Auxiliary contacts block			
Current and Power	AC 15	120 [V]	6 [A]
		240 [V]	3 [A]
		380 [V]	1.9 [A]
		480 [V]	1.5 [A]
		500 [V]	1.4 [A]
		600 [V]	1.2 [A]
	DC 13	125 [V]	0.55 [A]
		250 [V]	0.27 [A]
		400 [V]	0.15 [A]
		500 [V]	0.13 [A]
		600 [V]	0.1 [A]

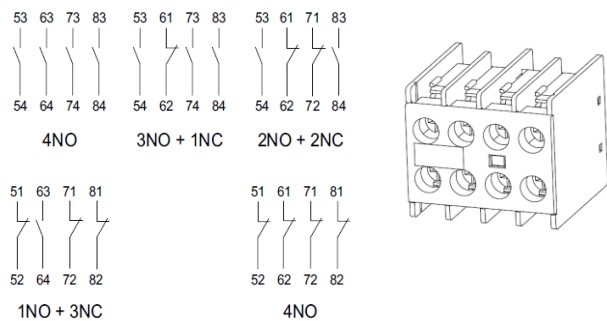
**CTX<sup>3</sup> control relays auxiliary contact side:** weight = 0.02 [kg]

- 1NO (cat n° 4 171 58)
- 1NC (cat n° 4 171 59)



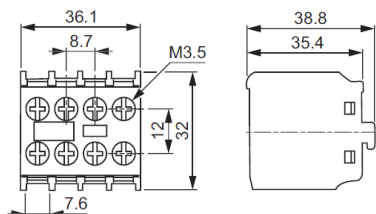
**CTX<sup>3</sup> control relays auxiliary contact front:** weight = 0.04 [kg]

- 4NO (cat n° 4 171 53)
- 3NO + 1NC (cat n° 4 171 54)
- 2NO + 2NC (cat n° 4 171 55)
- 1NO + 3NC (cat n° 4 171 56)
- 4NC (cat n° 4 171 57)



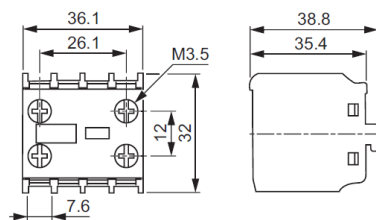
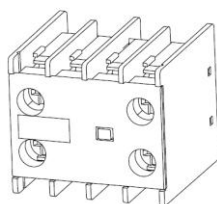
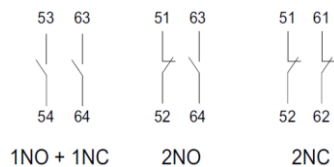
## 7. AUXILIARIES AND ACCESSORIES *(continued)*

CTX<sup>3</sup> control relays auxiliary contact front: *(continued)*



CTX<sup>3</sup> control relays auxiliary contact front: weight = 0.03 [kg]

- 1NO + 1NC (cat n° 4 171 50)
- 2NO (cat n° 4 171 51)
- 2NC (cat n° 4 171 52)



**Accessories:**

**Installation software:**

. XL PRO<sup>3</sup>.