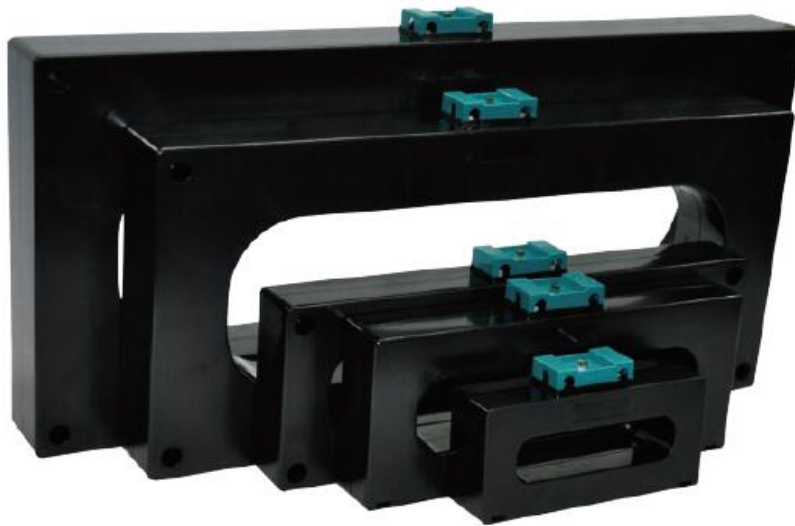




The LO-JRCT-XX series residual current transformers are primarily used in low voltage distribution cabinets, such as 380V and 660V, to continuously detect and monitor the residual current at the corresponding installation nodes of the circuits.

This series features an enclosure made of environmentally friendly flame-retardant ABS engineering plastic, high magnetic conductivity nanocrystalline soft magnetic material. These characteristics give the products high accuracy, good balance, small size, high insulation strength, strong impact resistance, and easy installation, ensuring reliable and stable operation in indoor environments.

The LO-JRCT-XX series include seven rectangular window products suitable for busbar circuits. These products can meet the residual current detection needs for distribution circuits of 3200A and below.

The entire series can be customized with an additional unified casing at the wiring terminal part, upgrading the product to a signal collection terminal with signal processing and communication functions according to customer requirements.

All products are designed with four wiring terminals. The secondary output of the transformer occupies two terminals, and an additional test winding can be added as needed to simulate leakage by inputting a small current, allowing real-time monitoring of the transformer's working state.

Larger products installed on busbar circuits, due to their heavier weight, come with a special mounting bracket to securely fix the heavier products inside the distribution cabinet. However, the strength of the distribution cabinet's mounting plate must be high. It is recommended to use a flat mounting bracket to increase the stability of the installation.

Features:

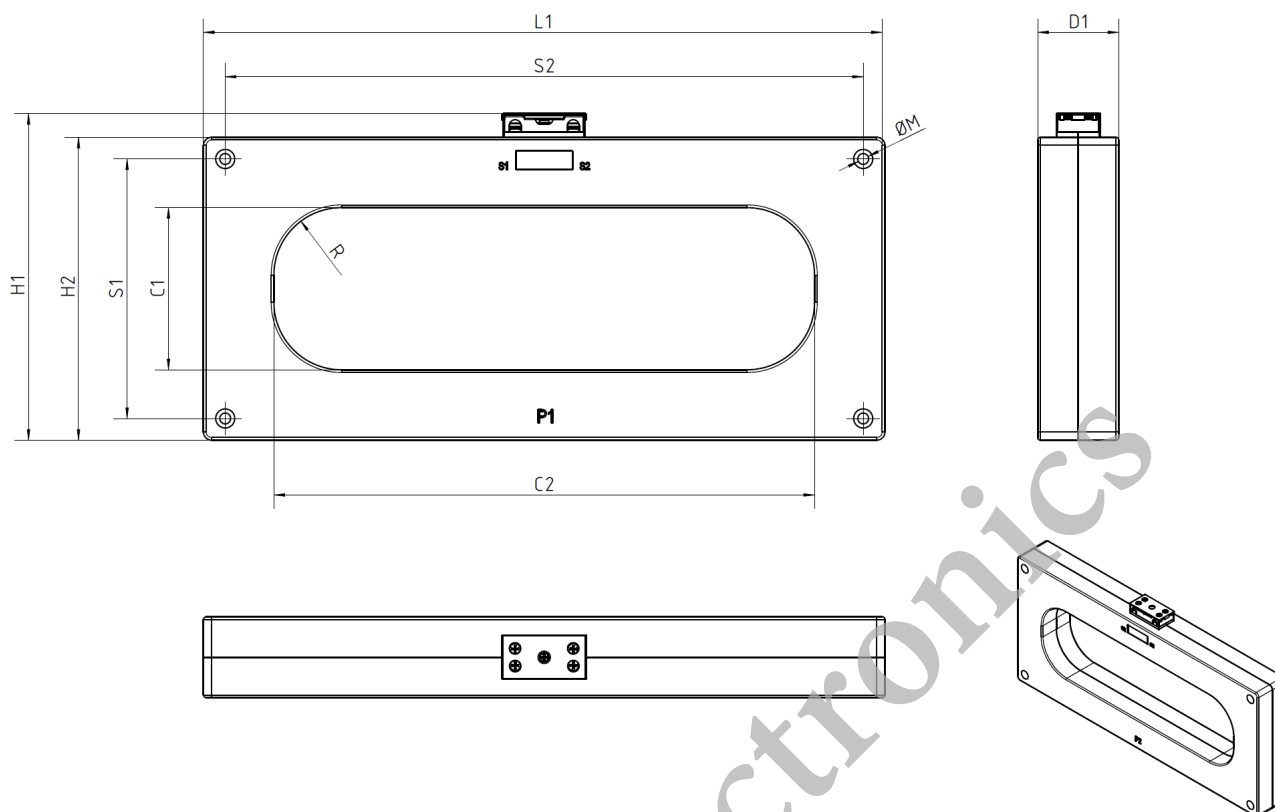
- Resin casting process, excellent waterproof and moisture-proof performance
- It has strong overload capability and can be overloaded 20 times the rated current for a long time if necessary.
- Excellent balance characteristics, small size products meet the detector alarm threshold requirement of 20mA
- High precision: precision level 0.5/1.0/3, optional compact design, small size

Normal use and installation conditions:

- Installation location: indoor/outdoor. Ambient temperature $-40^{\circ}\text{C} \sim +45^{\circ}\text{C}$
- It is recommended that the relative humidity of the environment should not be greater than 80%
- The altitude does not exceed 3000m
- Atmospheric conditions: There are no seriously polluted, corrosive and explosive media in the atmosphere
- An environment without significant frequent vibration and shock. Storage temperature : ---
 $-20^{\circ}\text{C} \sim 75^{\circ}\text{C}$

Balance performance:

P/N	Main circuit rated operating current	Test current	Conductor diameter	Conductor insulation thickness	Unbalance current
LO-JRCT-30	$0 \leq I_n \leq 160\text{A}$	315A	10mm	1.5mm	$\leq 20\text{mA}@100\text{A}$
LO-JRCT-35	$0 \leq I_n \leq 250\text{A}$	315A	10mm	1.5mm	$\leq 20\text{mA}@315\text{A}$
LO-JRCT-40	$0 \leq I_n \leq 400\text{A}$	630A	14mm	2.0mm	$\leq 20\text{mA}@630\text{A}$
LO-JRCT-50	$0 \leq I_n \leq 630\text{A}$	630A	14mm	2.0mm	$\leq 20\text{mA}@630\text{A}$
LO-JRCT-60	$0 \leq I_n \leq 1000\text{A}$	1000A	20mm	2.0mm	$\leq 30\text{mA}@1000\text{A}$
LO-JRCT-120	$0 \leq I_n \leq 1600\text{A}$	2000A	50mm	2.0mm	$\leq 30\text{mA}@2000\text{A}$
LO-JRCT-160	$0 \leq I_n \leq 3200\text{A}$	3200A	60mm	2.0mm	$\leq 50\text{mA}@3200\text{A}$

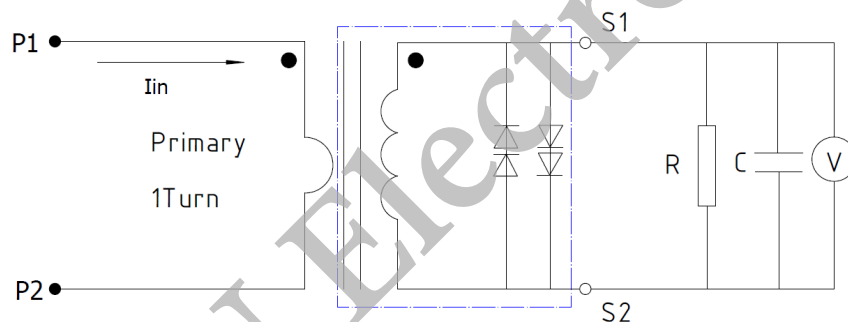
Dimensions:

Model specifications	Main circuit current (A)	Overall dimensions (mm)							Dimensions (mm)		
		H1	H2	L1	D1	C2	C1	R	S1	S2	M
LO-JRCT-30	$\leq 160A$	93	78	170	45	122	30	12	59	147	5
LO-JRCT-35	$\leq 250A$	99	83	198	45	150	35	14.5	64	175	5
LO-JRCT-40	$\leq 400A$	119	104	256	45	192	40	16.5	85	230	5
LO-JRCT-50	$\leq 630A$	134	118	288	45	220	50	21.5	99	262	5
LO-JRCT-60	$\leq 1000A$	144	128	368	45	300	60	25	103	343	8
LO-JRCT-120	$\leq 1600A$	240	224	504	60	400	120	50	192	472	8
LO-JRCT-160	$\leq 3200A$	288	272	612	60	500	160	70	240	580	8

General technical specs:

Technical Spec	Electrical specs				
Rated primary current	1000mA	5A	5A	10A	10A
Rated secondary current	0.5mA	2.5mA	5mA	5mA	10mA
Rated continuous thermal current	2000mA	10A	10A	50A	50A
Operating frequency	50-60Hz				
Rated Accuracy class	Equal or above Class 0.5				
Operating voltage	$\leq 660V$				
Flame retardant class	UL94V-0				
Insulation resistance	$\geq 1M\ \Omega$ @500VDC				
Dielectric strength	AC3KV/2mA/60s/50Hz				
Thermal Class	Class B				

When the corresponding AC current passes the residual current transformer, the output sampling voltage should meet the requirements listed in the table below



$R=1000\Omega$ $C=0.022\mu F$ Current source frequency: 50-60Hz, accuracy class better than 0.1%, the voltage meter accuracy class of mV testing range is better than 0.1%

Detection current value(mA)	Current range (mA)	Load resistor	Testing terminals	Sampling voltage range (mV)
50	49.75-50.25	1000 Ω /0.022 μF	S1-S2	24.64-25.64
200	199-201			97.18-101.14
500	498-502			243.01-253.01
800	796-804			388.7-404.7
1000	995-1005			486.25-506.26