



LUMEL LCTM Transformer User Manual

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LCTM Transformer

Low Voltage-Current Transformer –

- LCTM
- LCTR
- LCTB
- LCTS
- LCTP



Functional description

Current transformers of the model range mentioned above are inductive single conductor-current transformers operating according to the transformer principle. Due to the applied measuring principle, current transformers of this type may only be installed in alternating current (AC) networks.

Safety instructions



In order to avoid personal and material damage the following assembling steps must be performed only by authorised, qualified and trained personnel.



If the secondary circuit is operated without a burden/load (open) high voltages may appear. These voltage values are dangerous for persons as well as for the functional reliability of the current transformer.

It is forbidden to operate the current transformer without a secondary circuit (open)!

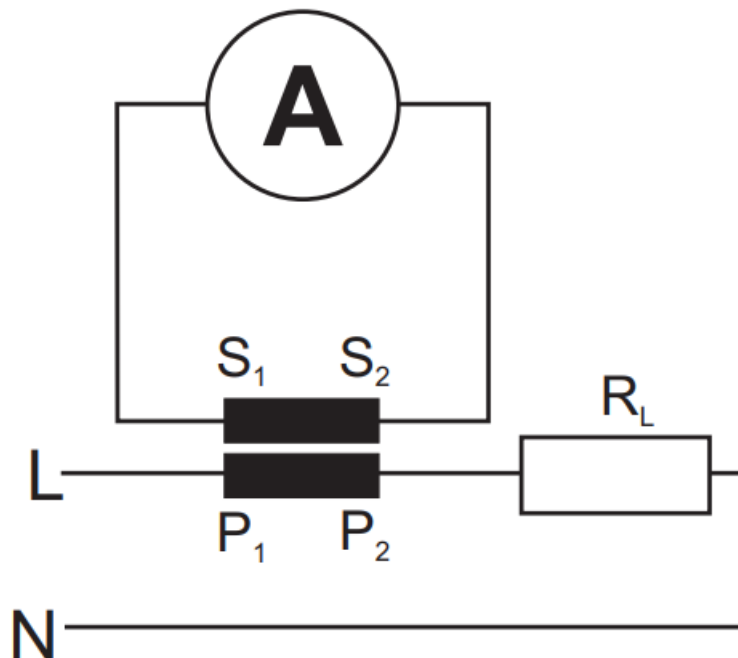
Technical parameters

Primary current:	30A to 6000A
Secondary current:	1A or 5A
Accuracy class:	0.2, 0.2s, 0.5, 0.5s & 1
Over current limiting factor:	FS5, FS10, FS15
Rated frequency:	50Hz or 60Hz
Rated continuous thermal current (standard):	$1,2 \times I_n$
Rated short time thermal current I_{th} :	$60 \times I_n$, 1 s (Max 40kA)
Rated isolation level:	0,6/3/-kV or 0,6/4/-kV
Place of installation:	Indoor
Altitude:	up to 2000 m
Degree of protection:	IP20
Ambient temperature:	-5°C ...+50°C
Storage temperature:	-25°C ...+70°C
Applied standards:	IEC 60044-1 / IEC 61869-1/2 IEC 61010-2

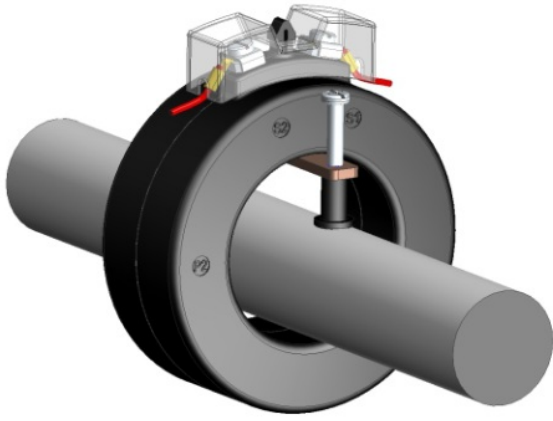
Assembly

1. Ensure a safe work environment during assembly, maintenance and inspection operations. If necessary interrupt the current supply of the primary conductor and take precautions against unintentional switching.
2. (i) For Split core CT : Open the current transformer and fix it on the primary conductor using the fixing clamps (mounting material).
(ii) For Window type CT : Bar or cable primary insert through primary cable or bus bar & fix it using mounting screw assembly.
P1: Direction of power supply
P2: Direction of power source
Attention: (i) Do not close the current transformer, high voltages may appear on the open secondary leads.
(ii) Check for cleanness of the cut surfaces of the split core.
3. Connect the secondary wires of the current transformer with the measuring device (ampere meter, energy meter).
Pay attention to the installation guide of the measuring device.
4. Now fasten the current transformer, press until the lock engage.
5. If necessary, start the current supply again.
6. Check whether the current transformer is assembled correctly and the secondary leads are connected properly.
7. For split core CT, use "lock pin" supplied along with CT to protect accidental opening of CT, during in use.

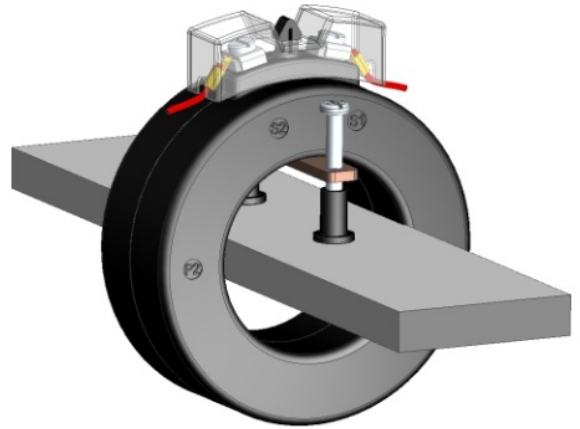
Wiring diagram



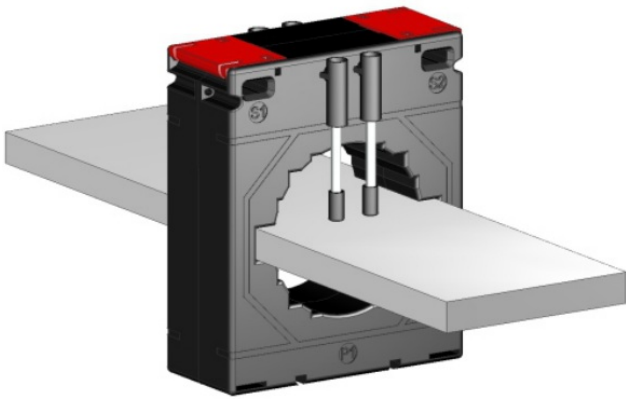
Mounting of CT



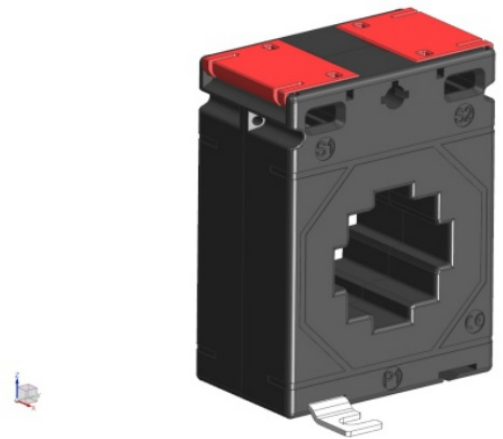
CABLE MOUNTING



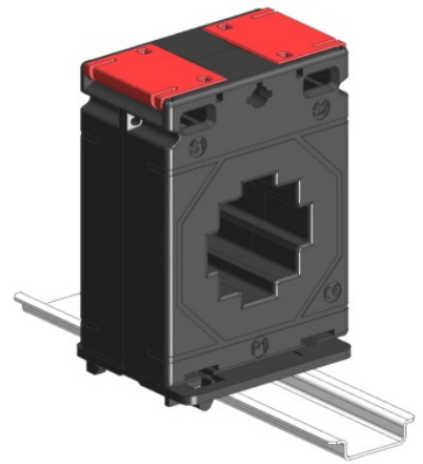
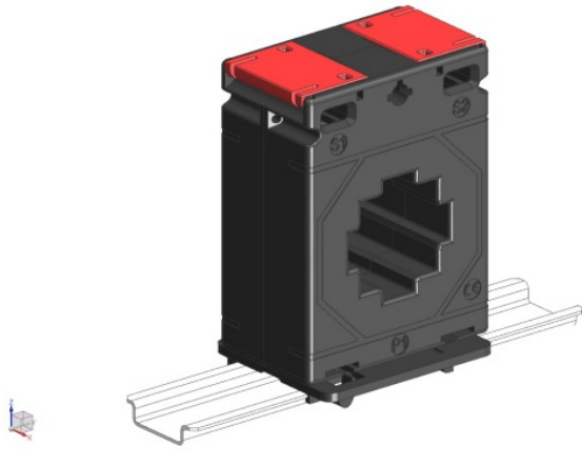
BUS BAR MOUNTING



BUS BAR MOUNTING

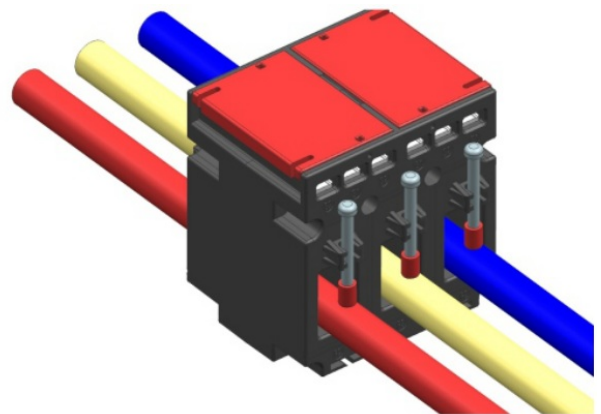
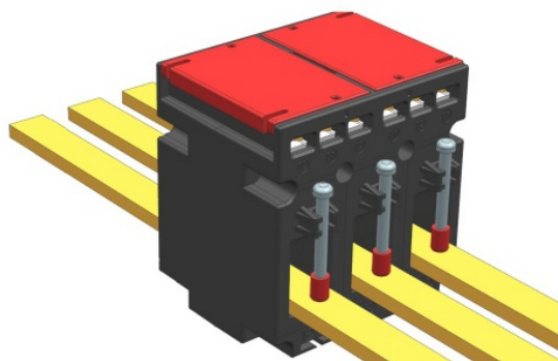


WALL MOUNTING



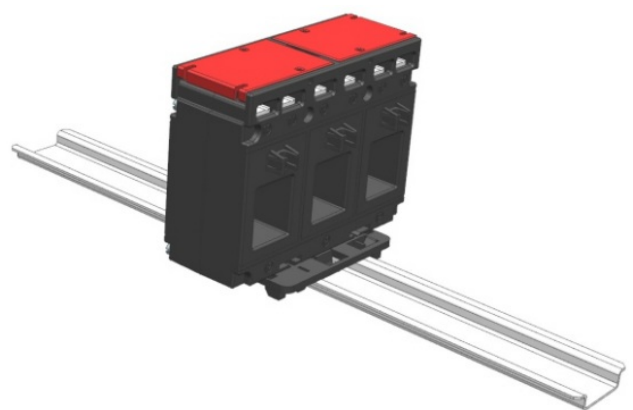
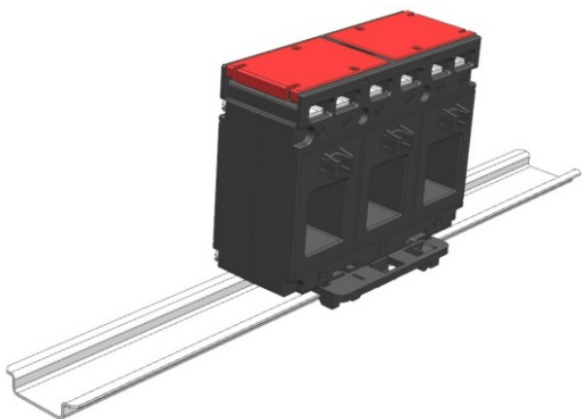
DINRAIL MOUNTING HORIZONTAL

DINRAIL MOUNTING VERTICAL



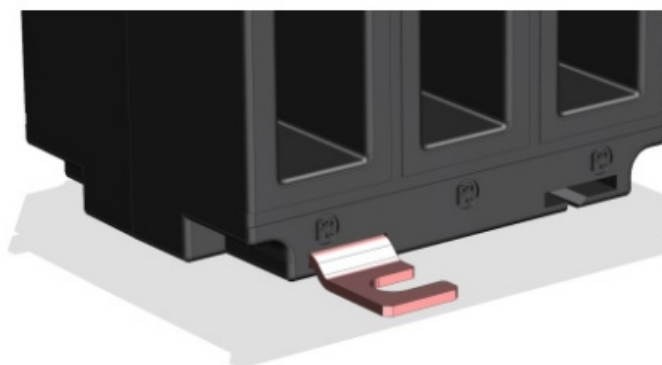
BUS BAR MOUNTING 3PH CT

CABLE MOUNTING 3PH CT



DINRAIL MOUNTING
HORIZONTAL 3PH CT

DINRAIL MOUNTING
VERTICAL 3PH CT



WALL MOUNTING 3PH CT

Environmental instruction

When the product has reached its "end of life", it must be recycled. Pass it to an electrical waste disposal. Do not dispose as unsorted municipal waste!



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Documents / Resources



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LCTM, LCTR, LCTB, LCTS, LCTP, LCTM Transformer, LCTM, Transformer

References

- [Lumel | Automation devices and systems | SMT/THT assembly | Lumel](#)