

Current Transducer LF 205-S

Insulation coordination

U_d	RMS voltage for AC insulation test, 50/60 Hz, 1 min	3.5	kV
U_{Ni}	Impulse withstand voltage 1.2/50 μ s	8.8	kV
U_t	Partial discharge RMS test voltage ($q_m < 10$ pC)	> 2	kV
		Min	
d_{Cp}	Creepage distance	11	mm
d_{Cl}	Clearance	10.2	mm
CTI	Comparative Tracking Index (group IIIa)	175	

Applications examples

According to EN 50178 and IEC 61010-1 standards and following conditions:

- Over voltage category OV 3
- Pollution degree PD2
- Non-uniform field

	EN 50178	IEC 61010-1
d_{Cp} , d_{Cl} , U_{Ni}	Rated insulation voltage	Nominal voltage
Basic insulation	500 V	500 V
Reinforced insulation	250 V	250 V

Safety

This transducer must be used in limited-energy secondary circuits according to IEC 61010-1.



This transducer must be used in electric/electronic equipment with respect to applicable standards and safety requirements in accordance with the manufacturer's operating instructions.



Caution, risk of electrical shock

When operating the transducer, certain parts of the module can carry hazardous voltage (eg. primary busbar, power supply).

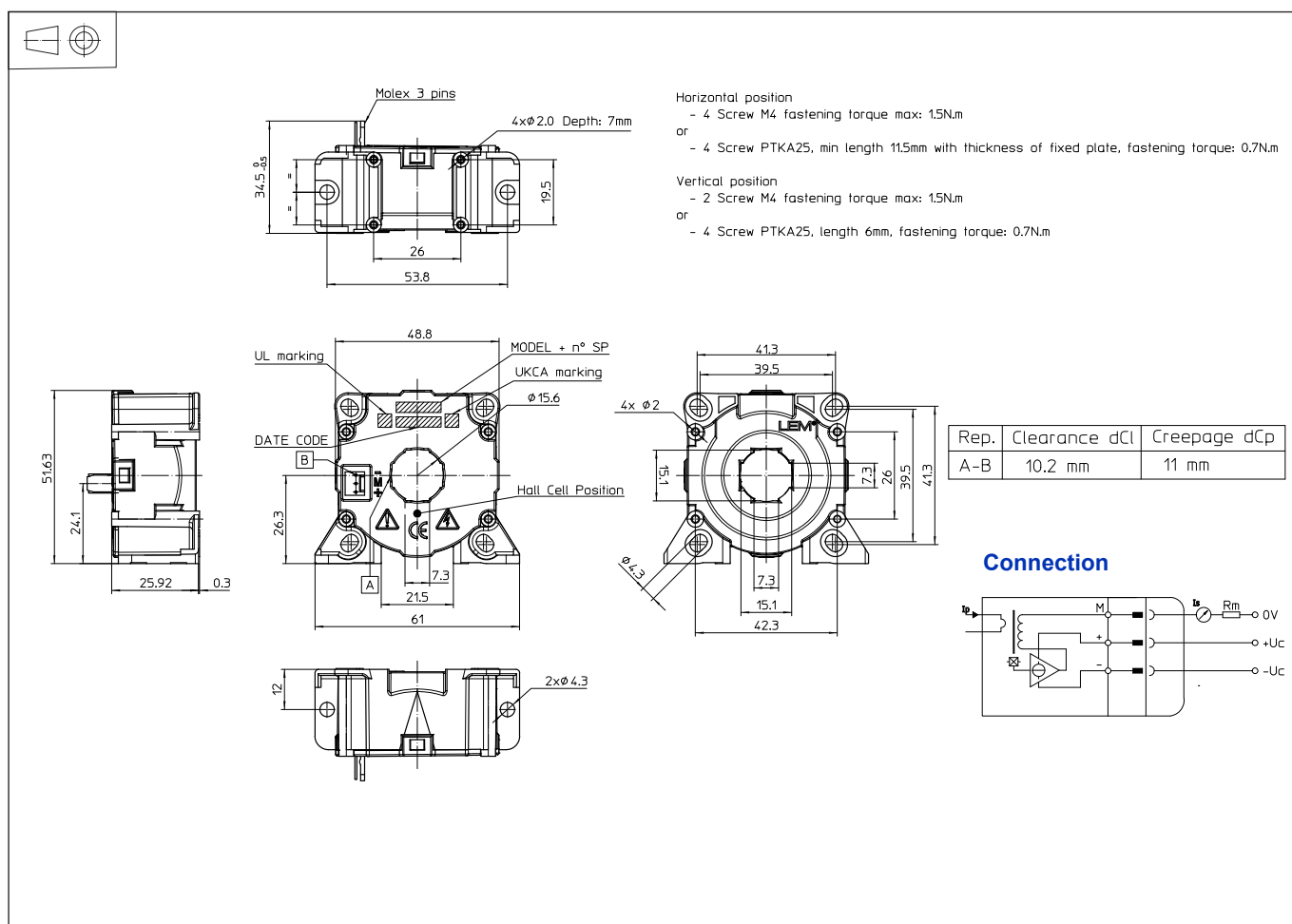
Ignoring this warning can lead to injury and/or cause serious damage.

This transducer is a build-in device, whose conducting parts must be inaccessible after installation.

A protective housing or additional shield could be used.

Main supply must be able to be disconnected.

Dimensions LF 205-S (in mm)



Mechanical characteristics

- General tolerance ± 0.2 mm
- Transducer fastening
 - Vertical position
 - 2 holes $\varnothing 4.3$ mm
 - 2 steel screws M4
 - Recommended fastening torque 1.5 N.m
 - Or
 - 4 holes $\varnothing 2.0$ mm
 - depth: 7 mm
 - 4 screws PTKA 25
 - length: 6 mm
 - Horizontal position
 - 4 holes $\varnothing 4.3$ mm
 - 4 steel screws M4
 - Recommended fastening torque 1.5 N.m
 - Or
 - 4 holes $\varnothing 2.0$ mm
 - 4 screws PTKA 25
 - min length: 11.5 mm with thickness of fixed plate
 - Recommended fastening torque 0.7 N.m
- Primary through-hole $\varnothing 15.5$ mm
- Connection of secondary
 - Molex 6410
 - 3 Tin plated pins

Remarks

- I_s is positive when I_p flows in the direction of the arrow.
- Temperature of the primary conductor should not exceed 100 °C.
- Installation of the transducer must be done unless otherwise specified on the datasheet, according to LEM Transducer Generic Mounting Rules. Please refer to LEM document N°ANE120504 available on our Web site: <https://www.lem.com/en/file/3137/download>.
- Dynamic performances (di/dt and delay time) are best with a single bar completely filling the primary hole.
- This is a standard model. For different versions (supply voltages, turns ratios, unidirectional measurements...), please contact us.

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