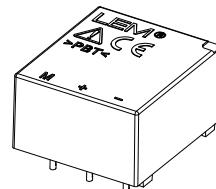


# Current Transducer LA 25-NP/SP39

For the electronic measurement of currents: DC, AC, pulsed..., with galvanic separation between the primary circuit and the secondary circuit.



$I_{PN} = 2 A$



## Electrical data

$I_{PN}$	Primary nominal RMS current	2	A
$I_{PM}$	Primary current, measuring range	0 ... $\pm 2.5$	A
$R_M$	Measuring resistance with $\pm 15$ V	$R_{M\ min}$ 50	$R_{M\ max}$ 172
	@ $\pm 2 A_{max}$	50	$\Omega$
	@ $\pm 2.5 A_{max}$	115	$\Omega$
$I_{SN}$	Secondary nominal RMS current	40	mA
$N_P/N_S$	Turns ratio	20 : 1000	
$U_c$	Supply voltage ( $\pm 5$ %)	$\pm 15$	V
$I_c$	Current consumption	$10 + I_s$	mA

## Accuracy - Dynamic performance data

$\varepsilon_{tot}$	Total error @ $I_{PN}$ , $T_A = 25$ °C	$\pm 0.6$	%
$\varepsilon_L$	Linearity error	$< 0.2$	%
$I_{OE}$	Electrical offset current <sup>1)</sup> @ $I_p = 0$ , $T_A = 25$ °C	$\pm 0.05$	mA
$I_{OM}$	Magnetic offset current <sup>2)</sup> @ $I_p = 0$ and specified $R_M$ , after an overload of $3 \times I_{PN}$	$\pm 0.05$	mA
$I_{OT}$	Temperature variation of $I_O$ $-40$ °C ... $+85$ °C	$\pm 0.25$	mA
$t_{D\ 90}$	Delay time to 90 % of the final output value for $I_{PN}$ step <sup>3)</sup> < 1		μs
$BW$	Frequency bandwidth (-1 dB)	DC ... 150	kHz

## General data

$T_A$	Ambient operating temperature	-40 ... +85	°C
$T_{A\ st}$	Ambient storage temperature	-50 ... +100	°C
$R_p$	Resistance of primary (winding) @ $T_A = 25$ °C	< 40	mΩ
$R_s$	Resistance of secondary winding @ $T_A = 85$ °C	115	Ω
$L_p$	Insertion inductance	21	μH
$R_{INS}$	Insulation resistance @ 500 V, $T_A = 25$ °C	> 1500	MΩ
$m$	Mass Standard	22 EN 50155: 2017 <sup>4)</sup>	g

Notes: <sup>1)</sup> Measurement carried out after 15 mn functioning

<sup>2)</sup> The result of the coercive field of the magnetic circuit

<sup>3)</sup> For a  $di/dt = 50$  A/μs

<sup>4)</sup> Additional information available on request.

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### Insulation coordination

$U_d$	RMS voltage for AC insulation test, 50 Hz, 1 min	3	kV
$U_{Ni}$	Impulse withstand voltage 1.2/50 $\mu$ s	16	kV
		Min	
$d_{Cp}$	Creepage distance	19.5	mm
$d_{Cl}$	Clearance	19.5	mm
CTI	Comparative tracking index (group IIIa)	175	

### 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).

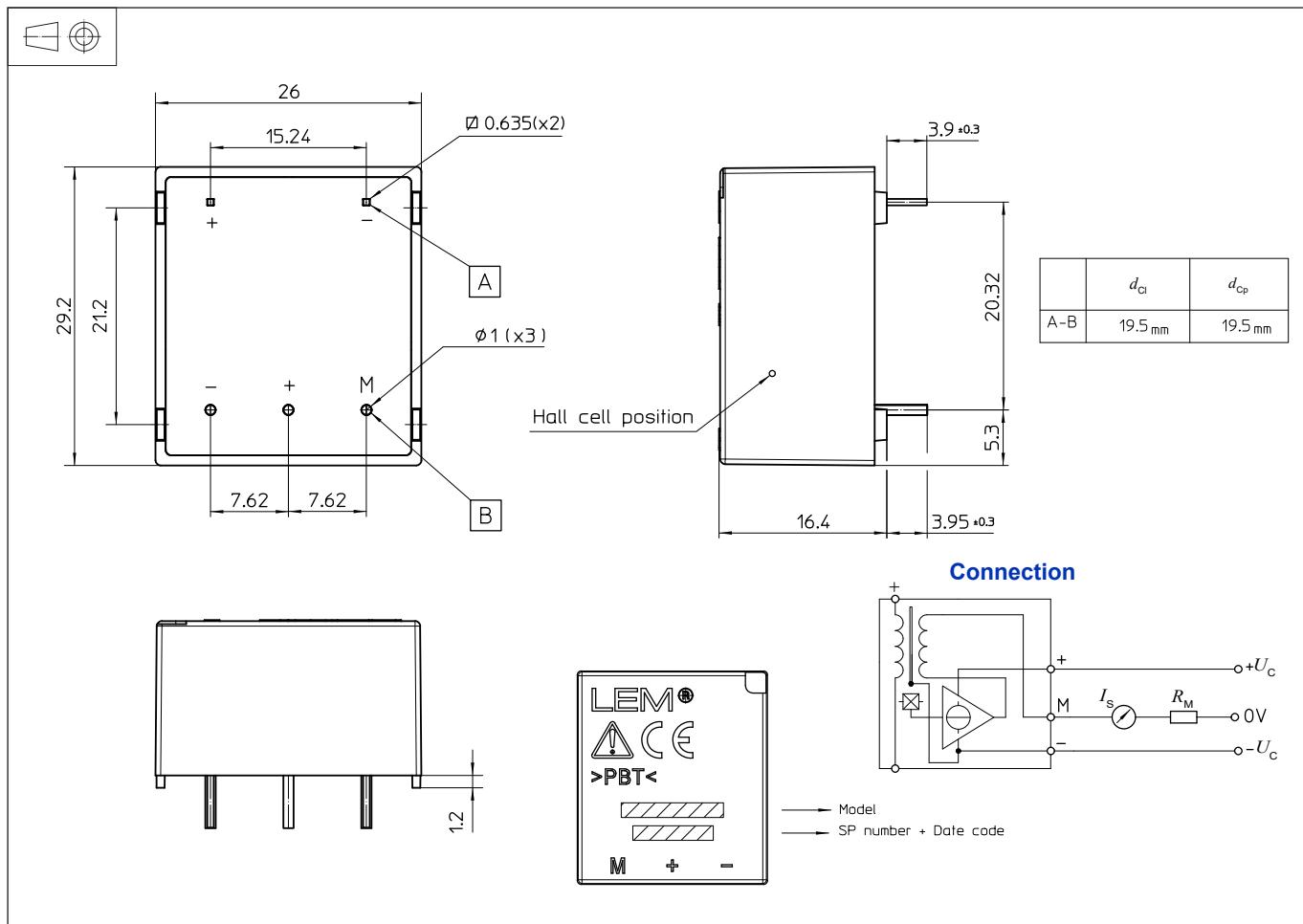
Ignoring this warning can lead to injury and/or cause serious damage.

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 LA 25-NP/SP39 (in mm)



### Mechanical characteristics

- General tolerance ±0.2 mm
- Fastening & connection of primary 2 pins
- Fastening & connection of secondary 3 pins Ø 1 mm
- Recommended PCB hole 1.2 mm

### Remark

- $I_s$  is positive when  $I_p$  flows from terminal + to terminal -.