

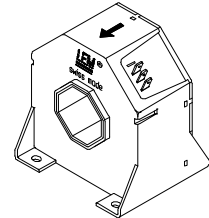
# Current Transducer LT 1005-S/SP26

$$I_{PN} = 1000 \text{ A}$$

For the electronic measurement of currents : DC, AC, pulsed..., with a galvanic isolation between the primary circuit (high power) and the secondary circuit (electronic circuit).



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## Electrical data

$I_{PN}$	Primary nominal r.m.s. current	1000	A	
$I_P$	Primary current, measuring range	0 .. $\pm 2800$	A	
$\hat{I}_P$	Overload capability during 20 $\mu$ s	20	kA	
$R_M$	Measuring resistance @			
			$T_A = 70^\circ\text{C}$	$T_A = 85^\circ\text{C}$
			$R_{Mmin}$	$R_{Mmax}$
			$R_{Mmin}$	$R_{Mmax}$
	with $\pm 24 \text{ V}$	@ $\pm 1000 \text{ A}_{max}$	2 60   2.4 58.5 $\Omega$	
		@ $\pm 2000 \text{ A}_{max}$	2 16   2.4 14.5 $\Omega$	
		@ $\pm 2800 \text{ A}_{max}$	2 3.6   3.5 <sup>1)</sup> 3.5 $\Omega$	
$I_{SN}$	Secondary nominal r.m.s. current	250	mA	
$K_N$	Conversion ratio	1 : 4000		
$V_C$	Supply voltage ( $\pm 3 \%$ )	$\pm 24$	V	
$I_C$	Current consumption	$30 + I_S$	mA	
$V_d$	R.m.s. voltage for AC isolation test, 50 Hz, 1 mn	6	kV	

## Features

- Closed loop (compensated) current transducer using the Hall effect
- Insulated plastic case recognized according to UL 94-V0.

## Special features

- $I_P = 0 .. \pm 2800 \text{ A}$
- $V_C = \pm 24 (\pm 3 \%) \text{ V}$
- $K_N = 1 : 4000$
- $T_A = -40^\circ\text{C} .. +85^\circ\text{C}$
- Potted
- Railway equipment.

## Advantages

- Excellent accuracy
- Very good linearity
- Low temperature drift
- Optimized response time
- Wide frequency bandwidth
- No insertion losses
- High immunity to external interference
- Current overload capability.

## Applications

- AC variable speed drives and servo motor drives
- Static converters for DC motor drives
- Battery supplied applications
- Uninterruptible Power Supplies (UPS)
- Switched Mode Power Supplies (SMPS)
- Power supplies for welding applications.

## Accuracy - Dynamic performance data

$X_G$	Overall accuracy @ $I_{PN}, T_A = 25^\circ\text{C}$	$\pm 0.4$	%
$e_L$	Linearity	$< 0.1$	%
$I_O$	Offset current @ $I_P = 0, T_A = 25^\circ\text{C}$	Typ	Max
$I_{OT}$	Thermal drift of $I_O$	-40 $^\circ\text{C} .. -25^\circ\text{C}$	$\pm 0.35$ $\pm 0.80$ mA
		-25 $^\circ\text{C} .. +70^\circ\text{C}$	$\pm 0.25$ $\pm 0.30$ mA
		+70 $^\circ\text{C} .. +85^\circ\text{C}$	$\pm 0.35$ $\pm 0.70$ mA
$t_r$	Response time <sup>2)</sup> @ 90 % of $I_{PN}$	$< 1$	$\mu$ s
$di/dt$	di/dt accurately followed	$> 50$	A/ $\mu$ s
$f$	Frequency bandwidth (-1 dB)	DC .. 150	kHz

## General data

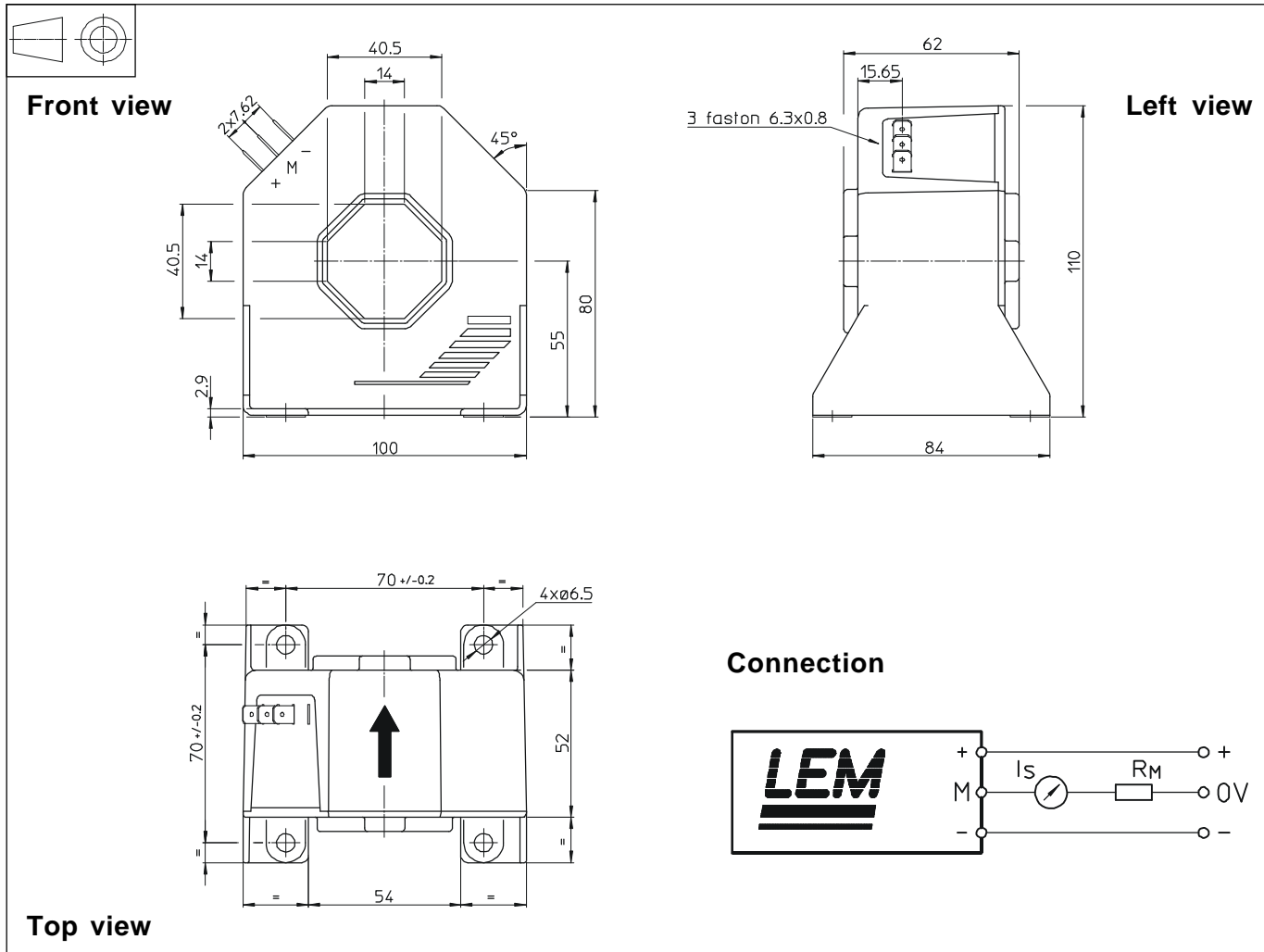
$T_A$	Ambient operating temperature	-40 .. +85	$^\circ\text{C}$
$T_S$	Ambient storage temperature	-45 .. +95	$^\circ\text{C}$
$R_S$	Secondary coil resistance	@ $T_A = 70^\circ\text{C}$	28 $\Omega$
		@ $T_A = 85^\circ\text{C}$	29.5 $\Omega$
$m$	Mass	600	g
	Standards	EN 50155 : 1995	

Notes : <sup>1)</sup> Measuring range limited to  $\pm 2680 \text{ A}$  @  $T_A = 85^\circ\text{C}$

<sup>2)</sup> With a di/dt of 100 A/ $\mu$ s.

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## Dimensions LT 1005-S/SP26 (in mm. 1 mm = 0.0394 inch)



### Mechanical characteristics

- General tolerance  $\pm 1.0$  mm
- Transducer fastening 4 holes  $\varnothing 6.5$  mm  
4 M6 steel screws  
Recommended fastening torque 5 Nm or 3.69 Lb - Ft
- Primary through-hole 40.5 x 40.5 mm
- Connection of secondary Faston 6.3 x 0.8 mm

### 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
- Dynamic performances (di/dt and response time) are best with a single bar completely filling the primary hole.

单击下面可查看定价，库存，交付和生命周期等信息

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