

# Capteur de courant LT 300-T/SP45

$I_{PN} = 300 \text{ A}$

Pour la mesure électronique des courants : DC, AC, Impulsionnels..., avec une isolation galvanique entre le circuit primaire (courant fort) et le circuit secondaire (circuit électronique).



## Caractéristiques électriques principales

$I_{PN}$	Courant primaire efficace nominal	300	A		
$I_P$	Courant primaire, plage de mesure	0 .. $\pm 600$	A		
$R_M$	Résistance de mesure avec $\pm 24 \text{ V}$	$R_{M \min}$	$R_{M \max}$		
			$\pm 300 \text{ A}_{\max}$	25	140
		$\pm 600 \text{ A}_{\max}$	25	40	$\Omega$
$I_{SN}$	Courant secondaire efficace nominal	100	mA		
$K_N$	Rapport de transformation	1 : 3000			
$V_C$	Tension d'alimentation (+ 5 %, - 10 %)	$\pm 24$	V		
$I_C$	Courant de consommation	$28 + I_S$	mA		
$V_d$	Tension efficace d'essai diélectrique, 50 Hz, 1 mn	12 <sup>1)</sup>	kV		
		1 <sup>2)</sup>	kV		

## Généralités

- Capteur de courant de type boucle fermée (à compensation) utilisant l'effet Hall
- Boîtier injecté en matière isolante auto-extinguible de classe UL 94-V0.

## Particularités

- $I_P = 0 .. \pm 600 \text{ A}$
- $K_N = 1 : 3000$
- $V_C = \pm 24 (+ 5 \%, - 10 \%) \text{ V}$
- $V_d = 12 \text{ kV}^{1)}$
- $T_A = - 25^\circ\text{C} .. + 70^\circ\text{C}$
- Ecran entre primaire et secondaire
- Connexion secondaire sur 4 tiges filetées M4
- Déverminage VRT
- Matériel ferroviaire.

## Précision - Performances dynamiques

$X_G$	Précision globale @ $I_{PN}, T_A = 25^\circ\text{C}$	$\pm 0.5$	%
$e_L$	Erreur de linéarité	< 0.1	%
$I_O$	Courant de décalage @ $I_P = 0, T_A = 25^\circ\text{C}$	Typ	Max
$I_{OT}$	Dérive en température de $I_O$ - $25^\circ\text{C} .. + 70^\circ\text{C}$	$\pm 0.2$	$\pm 0.4$ mA
$t_r$	Temps de retard <sup>3)</sup> @ 90 % de $I_{PN}$	< 1	$\mu\text{s}$
di/dt	di/dt correctement suivi	> 50	A/ $\mu\text{s}$
f	Bande passante (- 1 dB)	DC .. 150	kHz

## Caractéristiques générales

$T_A$	Température ambiante de service	- 25 .. + 70	$^\circ\text{C}$
$T_S$	Température ambiante de stockage	- 40 .. + 85	$^\circ\text{C}$
$R_S$	Résistance bobine secondaire @ $T_A = 70^\circ\text{C}$	65	$\Omega$
m	Masse	230	g
	Normes	EN 50155 : 1995	

## Avantages

- Excellente précision
- Très bonne linéarité
- Faible dérive en température
- Temps de retard court
- Bande passante élevée
- Pas de pertes d'insertion apportées dans le circuit à mesurer
- Grande immunité aux perturbations extérieures
- Surcharges de courant supportées sans dommage.

## Applications

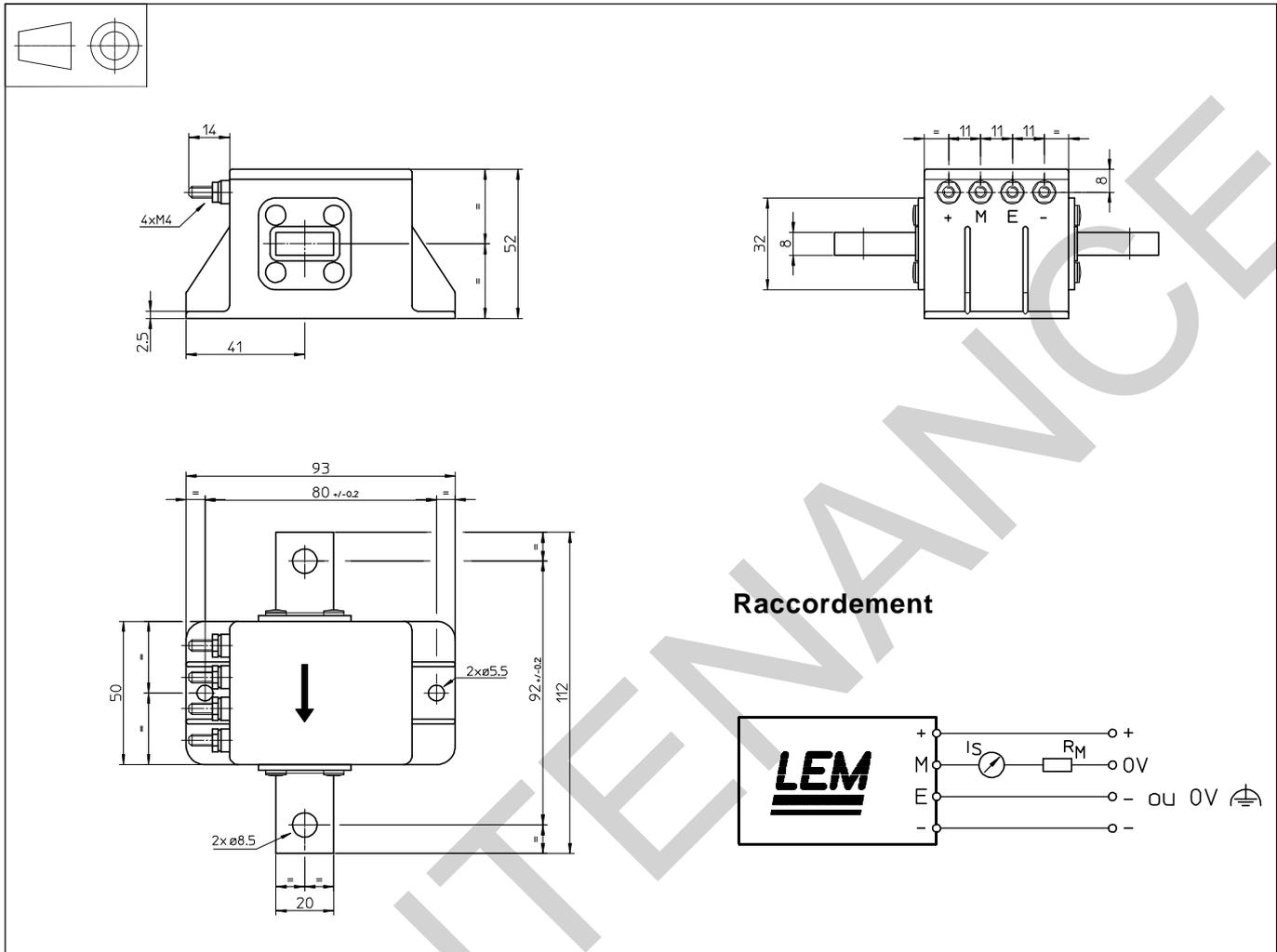
- Variateurs de vitesse et entraînements à servomoteur AC
- Convertisseurs statiques pour entraînements à moteur DC
- Applications alimentées par batteries
- Alimentations Sans Interruption (ASI).

Notes : <sup>1)</sup> Entre primaire et secondaire + écran

<sup>2)</sup> Entre secondaire et écran

<sup>3)</sup> Avec un di/dt de 100 A/ $\mu\text{s}$ .

## Dimensions LT 300-T/SP45 (en mm)



### Caractéristiques mécaniques

- Tolérance générale  $\pm 0.5$  mm
- Fixation
  - Par le capteur 2 trous  $\varnothing 5.5$  mm  
2 vis acier M5
  - Couple de serrage recommandé 4 Nm
  - Ou
  - Par la barre primaire 2 trous  $\varnothing 8.5$  mm  
tiges filetées M4
- Connexion secondaire
  - Couple de serrage recommandé 1.2 Nm

### Remarques générales

- $I_s$  est positif lorsque  $I_p$  circule dans le sens de la flèche.
- La température du conducteur primaire ne doit pas dépasser 100°C.

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