

## Current Transducers HAZ 4000..20000-SRI

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

$$I_{PN} = 4000..20000 \text{ A}$$

$$I_{OUT} = 0 - 20 \text{ mA}$$



Preliminary



### Electrical data

Primary nominal current $I_{PN}$ (A)	Primary current measuring range $I_P$ (A)	Type
4000	± 4000	HAZ 4000-SRI
6000	± 6000	HAZ 6000-SRI
10000	± 10000	HAZ 10000-SRI
12000	± 12000	HAZ 12000-SRI
14000	± 14000	HAZ 14000-SRI
20000	± 20000	HAZ 20000-SRI

$V_C$	Supply voltage (± 5 %)	± 15	V
$I_C$	Current consumption	± 50	mA
$I_{OC}$	Overload capacity	30,000	At
$V_d$	R.m.s. voltage for AC isolation test, 60 Hz, 1 mn	12	kV
$V_b$	R.m.s. rated voltage, safe separation	2000 <sup>1)</sup>	V
$R_{IS}$	Isolation resistance @ 500 VDC	> 1000	MΩ
$I_{OUT}$	Output current @ ± $I_{PN}$ , $T_A = 25^\circ\text{C}$	0-20	mA DC
$R_{OUT}$	Output internal resistance	approx. 20	Ω
$R_L$	Load resistance	< 300	Ω

### Accuracy - Dynamic performance data

$X$	Accuracy @ $I_{PN}$ , $T_A = 25^\circ\text{C}$ (without offset)	< ± 1	%
$e_L$	Linearity <sup>2)</sup> (0 .. ± $I_{PN}$ )	< ± 1	% of $I_{PN}$
$I_{OE}$	Electrical offset current, $T_A = 25^\circ\text{C}$	< ± 0.08	mA
$I_{OM}$	Residual offset current @ $I_P = 0$ ; after an excursion of $1 \times I_{PN}$	< ± 0.025	mA
$I_{OT}$	Thermal drift of $I_{OE}$	< ± 0.05 % of $I_N$ /K	
$TCE_G$	Thermal drift of the gain (% of reading)	< ± 0.05	%/K
$t_r$	Arranging time constant	< 400	ms
$f$	Frequency bandwidth <sup>3)</sup> (- 3 dB)	DC .. 3	kHz

### General data

$T_A$	Ambient operating temperature	- 10 .. + 80	°C
$T_S$	Ambient storage temperature	- 25 .. + 80	°C
$m$	Mass	approx. 6	kg
	Standards <sup>4)</sup>	EN 50178	
	Minimum creepage & clearance	45	mm
	Housing PBT 30% glassfiber	CTI IIIa, UL94-V0	

### Features

- Hall effect measuring principle
- Galvanic isolation between primary and secondary circuit
- True-rms, 0-20mA DC current output
- Isolation voltage 12kV~
- Low power consumption
- Package in PBT meets UL 94-V0

### Advantages

- Easy mounting
- Small size and space savings
- Only one design for wide current ratings range
- High immunity against external interference

### Applications

- Battery supplied applications
- Uninterruptible Power Supplies (UPS)
- Power supplies for welding and telecommunication applications.

**Notes :** <sup>1)</sup> Pollution class 2, overvoltage category III, reinforced insulation

<sup>2)</sup> Linearity data exclude the electrical offset.

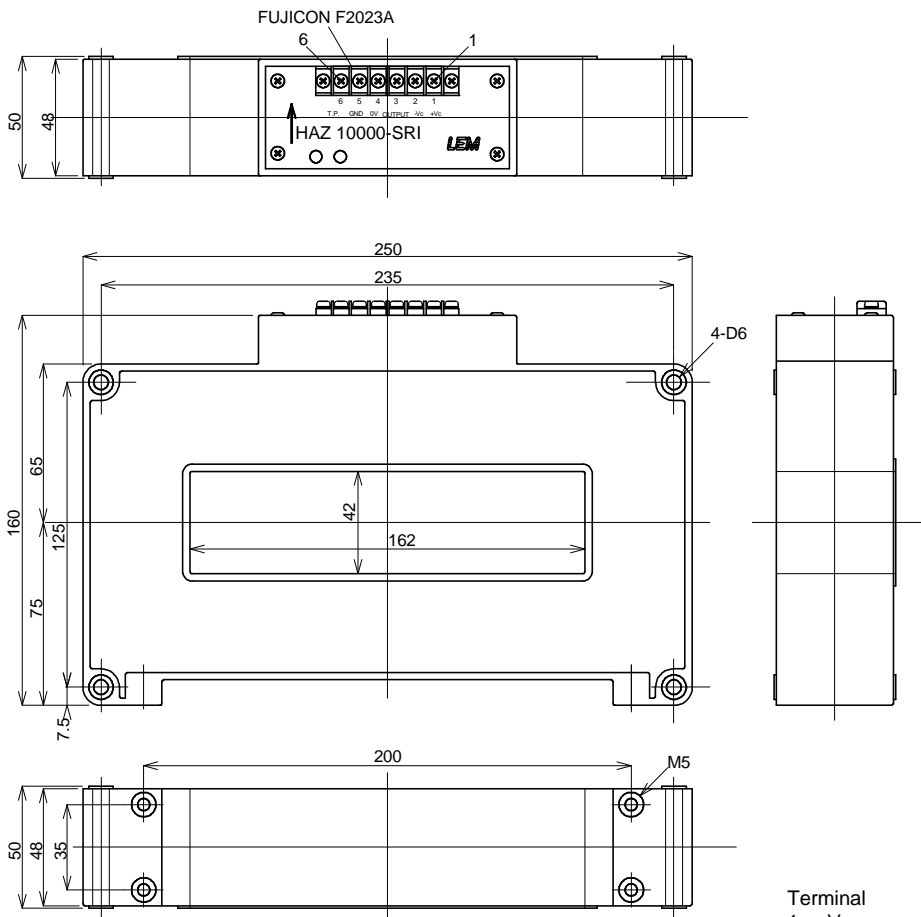
<sup>3)</sup> Please refer to derating curves in the technical file to avoid excessive core heating at high frequency

<sup>4)</sup> Please consult characterisation report for more technical details and application advice.

040713/0

# HAZ 4000 .. 20000-SRI (in mm)

Preliminary



- Terminal
- 1...+Vc
  - 2...-Vc
  - 3...OUTPUT
  - 4...0V
  - 5...GND
  - 6...T.P.