

Current Transducers HAZ 4000..20000-SRI/SP1

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).

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

$$I_{OUT} = 4 - 20 \text{ mA}$$



Preliminary



Electrical data

Primary nominal r.m.s. current I_{PN} (A)	Primary current measuring range I_P (A)	Type
4000	± 4000	HAZ 4000-SRI/SP1
6000	± 6000	HAZ 6000-SRI/SP1
10000	± 10000	HAZ 10000-SRI/SP1
12000	± 12000	HAZ 12000-SRI/SP1
14000	± 14000	HAZ 14000-SRI/SP1
20000	± 20000	HAZ 20000-SRI/SP1

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 ¹⁾	V
R_{IS}	Isolation resistance @ 500 VDC	> 1000	MΩ
I_{OUT}	Output current @ ± I_{PN} , $T_A = 25^\circ\text{C}$	4-20	mA DC
R_{OUT}	Output internal resistance	approx. 20	Ω
R_L	Load resistance	< 300	Ω

Features

- Hall effect measuring principle
- Galvanic isolation between primary and secondary circuit
- Isolation voltage 12kV~
- Low power consumption
- Package in PBT meets UL 94-V0

Special Features

- True-rms, 4-20mA DC current output

Accuracy - Dynamic performance data

X	Accuracy @ I_{PN} , $T_A = 25^\circ\text{C}$ (without offset)	< ± 1	%
e_L	Linearity ²⁾ (0 .. ± I_{PN})	< ± 1	% of I_{PN}
I_{OE}	Electrical offset current, $T_A = 25^\circ\text{C}$	< ± 0.08	mA
I_{OM}	Residud 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 ³⁾ (- 3 dB)	DC .. 3	kHz

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.

General data

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

Notes : ¹⁾ Pollution class 2, overvoltage category III, reinforced insulation

²⁾ Linearity data exclude the electrical offset.

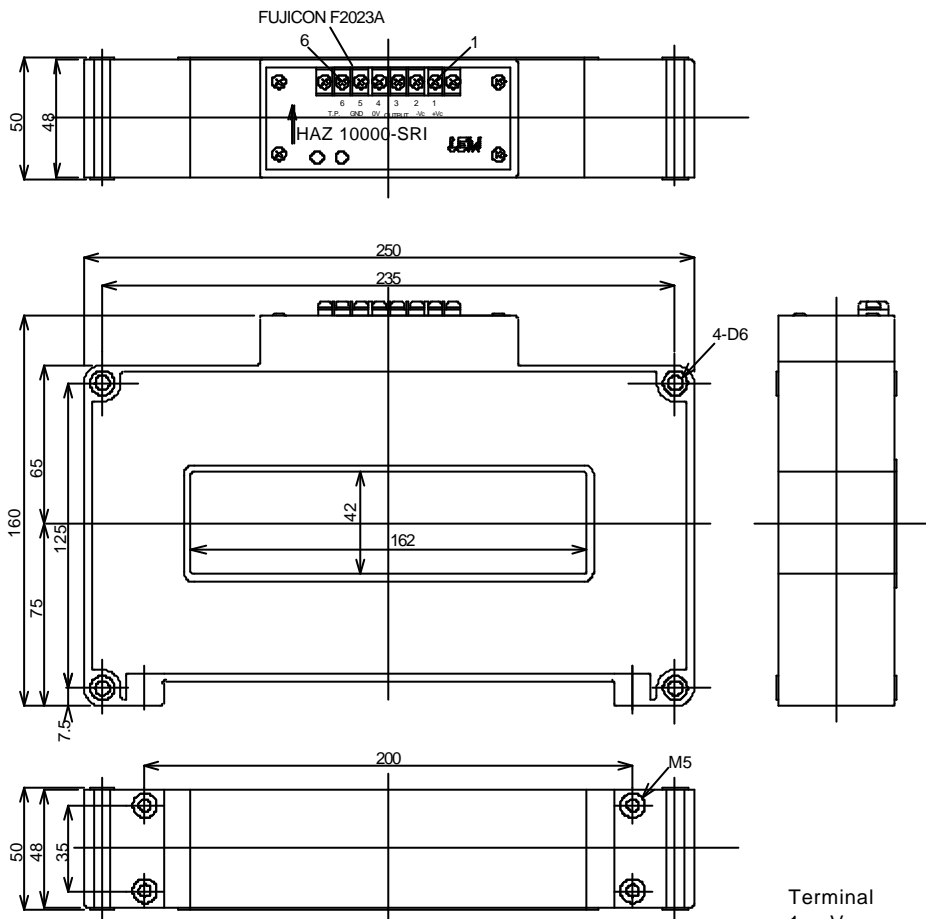
³⁾ Please refer to derating curves in the technical file to avoid excessive core heating at high frequency

⁴⁾ Please consult characterisation report for more technical details and application advice.

040317/0

HAZ 4000 .. 20000-SRI/SP1 (in mm)

Preliminary



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