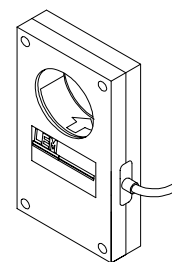


Current Transducer HA 100-SRI/SP1

$I_{PN} = 100 \text{ A}$

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



Electrical data

I_{PN}	Primary nominal DC or rms current	100	A
I_P	Primary current measuring range	± 140	A
\hat{I}_P	Overload capacity (Ampere Turns)	30000	A
I_{OUT}	Analogue output current @ $I_p = 0$	4	mA
I_{OUT}	Analogue output current @ $\pm I_{PN}$	20	mA
$R_{M \max}$	Maximum measuring resistance	200	Ω
V_C	Supply voltage	+ 24	V
I_C	Current consumption (max) ¹⁾	55	mA
V_d	Rms voltage for AC isolation test, 50 Hz, 1 mn	2.2	kV

Accuracy - Dynamic performance data

X	Accuracy ²⁾ @ $I_{PN}, T_A = 25^\circ\text{C}$	± 2	%
		Max	
I_{OE}	Electrical offset current @ $I_p = 0, T_A = 25^\circ\text{C}$	± 0.1	mA
I_{OM}	Residual offset current @ $I_p = 0$ after an overload of $3 \times I_{PN}$	$< \pm 0.025$	mA
I_{OT}	Thermal drift of offset current $T_A = -25 \dots +70^\circ\text{C}$	± 0.02	mA/ $^\circ\text{C}$
TCE_G	Thermal drift of gain $T_A = -25 \dots +70^\circ\text{C}$	± 0.05	%/ $^\circ\text{C}$
t_{av}	Averaging time constant	100	ms
K_{CF}	Crest factor for stated accuracy	2	
f	Frequency bandwidth (-3 dB) ³⁾	DC and 0.045 .. 25	kHz

General data

T_A	Ambient operating temperature	- 25 .. + 70	$^\circ\text{C}$
T_S	Ambient storage temperature	- 25 .. + 85	$^\circ\text{C}$
m	Mass	250	g
	Standards ⁴⁾	EN50155, ENV50121-3-2 (1996)	

Notes : ¹⁾ Including I_{OUT}

²⁾ Excludes the electrical offset

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

⁴⁾ A list of corresponding tests is available

Features

- Open loop transducer using Hall Effect
- Panel mounting
- Insulated plastic case to UL 94-V0
- Fully potted construction
- True Rms output.

Advantages

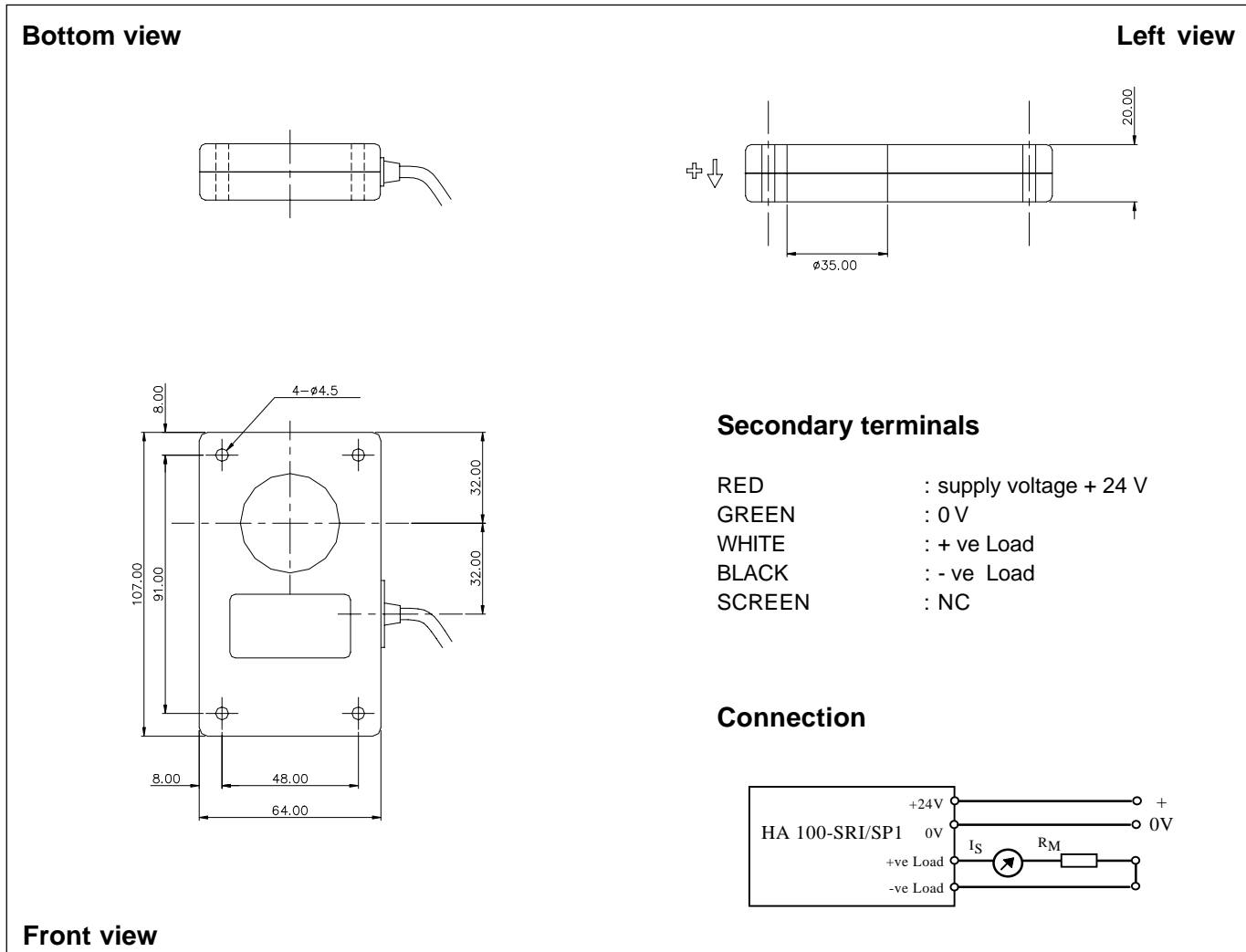
- Very good accuracy
- Low temperature drift
- Wide frequency bandwidth
- Very low insertion losses
- High immunity to external interference
- Current overload capability
- Low power consumption

Applications

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

HA101RI990804/2

Dimensions HA 100-SRI/SP1 (in mm. 1 mm = 0.0394 inch)



Mechanical characteristics

- General tolerance ± 0.5 mm
- Primary through-hole Ø 35 mm
- Connection of secondary via 4 core Halogen free screened cable 1 m in length

Remarks

- I_{OUT} is positive when I_p flows in the direction of the arrow.
- When generating a voltage by insertion of R_M , the developed voltage will be floating with respect to zero volts. The output terminals must therefore not be grounded.
- Temperature of the primary conductor should not exceed 90°C.
- This is a standard model. For different versions (supply voltages, secondary connections, unidirectional measurements, operating temperatures, etc.) please contact us.