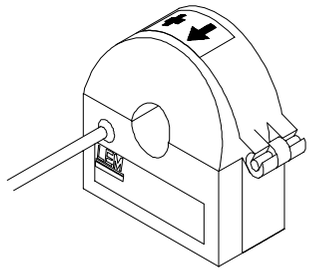
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Current Transducer HT 200 to 500-SID

I_{PN} = 200 .. 500 A

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



Electrical data

Type	Primary nominal DC or Rms current I_{PN}	Primary current measuring range I_P
HT 200-SID	200 A	0 .. + 400 A
HT 300-SID	300 A	0 .. + 600 A
HT 400-SID	400 A	0 .. + 800 A
HT 500-SID	500 A	0 .. + 1000 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 @ + I_{PN}	20	mA
$R_{M\ max}$	Maximum measuring resistance	430	Ω
V_C	Supply voltage (± 5 %)	±15	V
I_C	Current consumption (max)[1]	40	mA
V_b	Rms rated voltage [2]	50	V

Accuracy - Dynamic performance data

X	Accuracy [3] @ I_{PN}, T_A = 25°C, @ ± 15 V	± 1	%
ε_L	Linearity [3]	± 0.5	%
		Max	
I_{OE}	Electrical offset current @ $I_P = 0$, T_A = 25°C	± 0.08	mA
I_{OM}	Residual offset current @ $I_P = 0$ after an overload of 3 x I_{PN}	< ± 0.025	mA
I_{OT}	Thermal drift of offset current T_A = 0 .. + 70°C	± 0.014	mA/°K
$TC\varepsilon_G$	Thermal drift of gain T_A = 0 .. + 70°C	± 0.05	%/°K
t_r	Response time @ 90 % of I_P	< 7	µs
di/dt	di/dt accurately followed	> 50	A/µs
f	Frequency bandwidth (- 3 dB) [4]	DC .. 50	kHz

General data

T_A	Ambient operating temperature	0 .. + 70	°C
T_S	Ambient storage temperature	- 10 .. + 85	°C
m	Mass	160	g

Features

- Open loop transducer using Hall Effect
- Panel mounting
- Split core design for easy installation
- Insulated plastic case to UL 94-HB.

Advantages

- Very good linearity
- Very good accuracy
- Low temperature drift
- Wide frequency bandwidth
- Very low insertion losses
- High immunity to external interference
- Current overload capability
- Low power consumption
- Wide dynamic range 200 to 500 A in one package.

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.

Notes : [1] Including I_{OUT}

[2] For use on SELV systems or with insulated conductors on higher rated systems

[3] Excludes the electrical offset

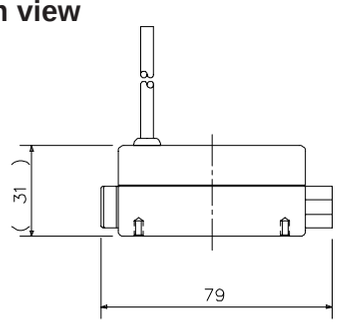
[4] Refer to derating curves in the technical file to avoid excessive core heating at high frequency

HT2/500I980902/1

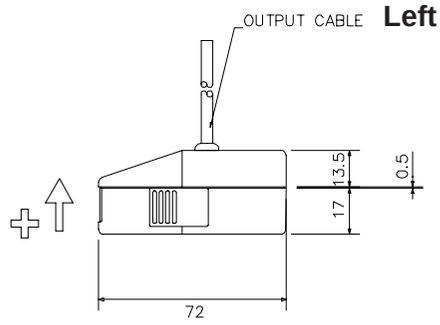
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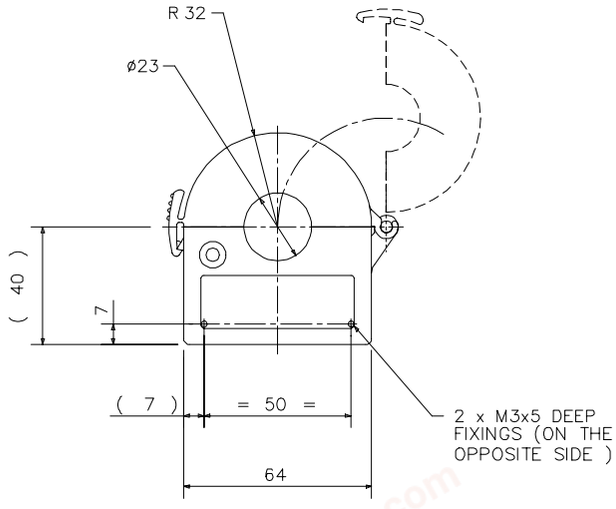
Dimensions HT 200 to 500-SID (in mm. 1 mm = 0.0394 inch)

Bottom view



Left view



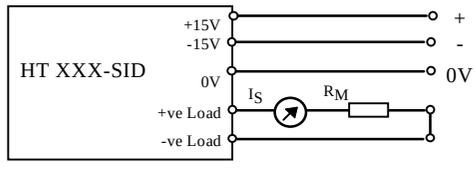


Front view

Secondary terminals

RED	: supply voltage +15 V
BLUE	: supply voltage -15 V
WHITE	: +ve Load
GREEN	: -ve Load
SCREEN	: 0V

Connection



Mechanical characteristics

• General tolerance	± 0.5 mm
• Primary through-hole	Ø 23 mm
• Connection of secondary	Via 4 core screened PVC cable 1.5 m in length
• Enclosure	Moulded ABS plastic

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.

LEM have a policy of continual product improvement and the company reserves the right to revise the above specification without prior notice.