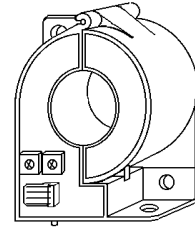


Current transducers HTR 50 to 500-SB

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).



$I_{PN} = 50 \dots 500 \text{ A}$



Electrical data

	Primary nominal R.m.s or DC current	Primary current measuring range	Type
	I_{PN} (A)	I_p (A)	
	50	± 100	HTR 50-SB
	100	± 200	HTR 100-SB
	200	± 400	HTR 200-SB
	300	± 600	HTR 300-SB
	400	± 800	HTR 400-SB
	500	± 1000	HTR 500-SB
I_{OC}	Overload capacity	30000	At
V_{OUT}	Analog output voltage @ $\pm I_{PN}$	± 4	V
R_L	Load resistance	> 10	K Ω
V_C	Supply voltage ($\pm 5\%$)	$\pm 12 \dots 15$	V
I_C	Current consumption (max)	20	mA
V_d	R.m.s. voltage for AC isolation test, 50 Hz, 1 mn	3	kV

Accuracy - Dynamic performance data

X	Accuracy ¹⁾ @ I_{PN} , $T_A = 25^\circ\text{C}$, @ $\pm 12 \dots 15 \text{ V}$ ($\pm 5\%$)	$\leq \pm 2$	%
e_L	Linearity ¹⁾	$< \pm 1$	%
V_{OE}	Electrical offset voltage @ $I_p = 0$, $T_A = 25^\circ\text{C}$	Typ Max ± 45 ± 65	mV
V_{OM}	Residual offset voltage @ $I_p = 0$, after an overload of $3 \times I_{PN}$	± 10	± 20 mV
V_{OT}	Thermal drift of electrical offset voltage, $T_A = -10 \dots +70^\circ\text{C}$	Typ : ± 70 mV Max : ± 240 mV	
$T_C e_G$	Thermal drift of the gain, $T_A = -10 \dots +70^\circ\text{C}$	Typ : ± 140 mV Max : ± 450 mV	
t_r	Response time @ 90% of I_{PN}	< 10	μs
di/dt	di/dt accurately followed	> 50	A/ μs
f	Frequency bandwidth (-1dB)	DC .. 10	KHz

General data

T_A	Ambient operating temperature	-10 .. +70	$^\circ\text{C}$
T_S	Ambient storage temperature	-20 .. +85	$^\circ\text{C}$
m	Mass	80	g
	Standard	EN 50178	

Note : ¹⁾ Excludes the electrical offset.

Features

- Open loop Hall effect transducer
- Busbar mounting or panel mounting
- Insulated plastic case recognized according to UL 94-V0.

Advantages

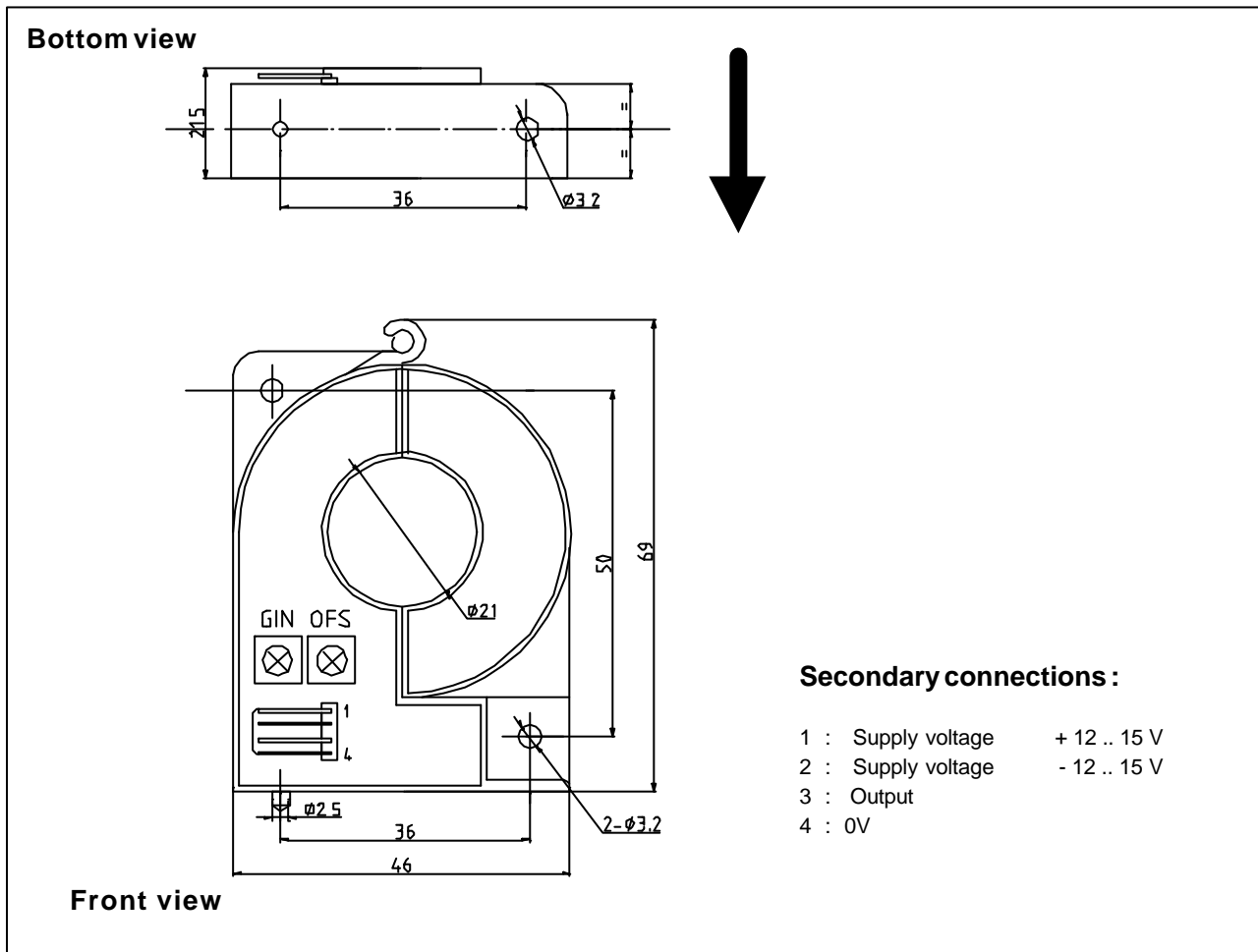
- Low power consumption
- Split core easy for mounting
- Through-hole, no insertion losses
- High isolation between the primary and the secondary circuits.

Applications

- Battery supplied applications
- Uninterruptible Power Supplies (UPS)
- Switched Mode Power Supplies (SMPS)
- Electrical-chemistry
- Chopper
- Power supply for TELECOM (monitoring & measuring).



Dimensions HTR 50 to 500-SB (in mm, 1 mm = 0.0394 inch)



Mechanical characteristics

- General tolerance ± 1 mm
- Primary aperture $\varnothing 21$ mm
- Fastening
 - 2 holes $\varnothing 3.2$
 - Distance between holes axes 50 x 36 mm
 - or 1x hole $\varnothing 3.2$ and 1 spigot $\varnothing 25$
 - Distance between hole and sigot axes 36 mm
- Secondary connection Molex 5046-04/AG
"Mating connector provided with the transducer"

Remarks

- V_{out} is positive when I_p flows in the direction of the arrow.
- The temperature of the primary busbar can not exceed 90°C.
- The return busbar and primary conductor elbow must be located at least at 2,5 x window length more far away from the transducer case.
- Dynamic performances are the best with a primary busbar completely filling the primary aperture.
- This is a standard model. For different versions (supply voltages, different outputs, unidirectional measurements...), please contact us.