

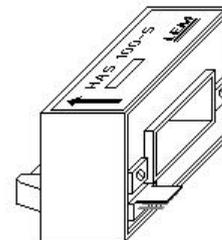


Current Transducers HAS 50 to 600-S

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).

$$I_{PN} = 50 \dots 600 \text{ A}$$

$$V_{OUT} = \pm 4 \text{ V}$$



Electrical data

Primary nominal r.m.s. current I_{PN} (A)	Primary current measuring range I_P (A)	Type
50	± 150	HAS 50-S
100	± 300	HAS 100-S
200	± 600	HAS 200-S
300	± 900	HAS 300-S
400	± 900	HAS 400-S
500	± 900	HAS 500-S
600	± 900	HAS 600-S

V_C	Supply voltage ($\pm 5\%$)	± 15	V
I_C	Current consumption	± 15	mA
I_{OC}	Overload capacity	30,000	At
V_d	R.m.s. voltage for AC isolation test, 50/60 Hz, 1 mn	3	kV
V_b	R.m.s. rated voltage, safe separation	500 ¹⁾	V
R_{IS}	Isolation resistance @ 500 VDC	> 1000	M Ω
V_{OUT}	Output voltage @ $\pm I_{PN}$, $R_L = 10 \text{ k}\Omega$, $T_A = 25^\circ\text{C}$	$\pm 4 \text{ V} \pm$	
40	mV		
R_{OUT}	Output internal resistance	approx. 100	Ω
R_L	Load resistance	> 1	k Ω

Accuracy - Dynamic performance data

X	Accuracy @ I_{PN} , $T_A = 25^\circ\text{C}$ (without offset)	$< \pm 1$	%
e_L	Linearity ²⁾ ($0 \dots \pm I_{PN}$)	$< \pm 1$	% of I_{PN}
V_{OE}	Electrical offset voltage, $T_A = 25^\circ\text{C}$	$< \pm 20$	mV
V_{OH}	Hysteresis offset voltage @ $I_P = 0$; after an excursion of $1 \times I_{PN}$	$< \pm 20$	mV
V_{OT}	Thermal drift of V_{OE}	HAS 50-S $< \pm 2$ HAS 100 to HAS 600-S $< \pm 1$	mV/K
TCE_G	Thermal drift of the gain (% of reading)	$< \pm 0.1$	%/K
t_r	Response time @ 90% of I_P	< 3	μs
di/dt	di/dt accurately followed	> 50	A/ μs
f	Frequency bandwidth (-3 dB) ³⁾	DC .. 50	kHz

General data

T_A	Ambient operating temperature	-10 .. +80	$^\circ\text{C}$
T_S	Ambient storage temperature	-25 .. +80	$^\circ\text{C}$
m	Mass	approx. 60	g
	Standards ⁴⁾	EN 50178	

Features

- Hall effect measuring principle
- Galvanic isolation between primary and secondary circuit
- Isolation voltage 3000 V~
- Low power consumption
- Extended measuring range ($3 \times I_{PN}$)
- Insulated plastic case made of polycarbonate PBT recognized according to UL 94-V0

Advantages

- Easy mounting
- Small size and space saving
- Only one design for wide current ratings range
- High immunity to external interference.

Applications

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

Notes : ¹⁾ Pollution class 2, overvoltage category III.

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.

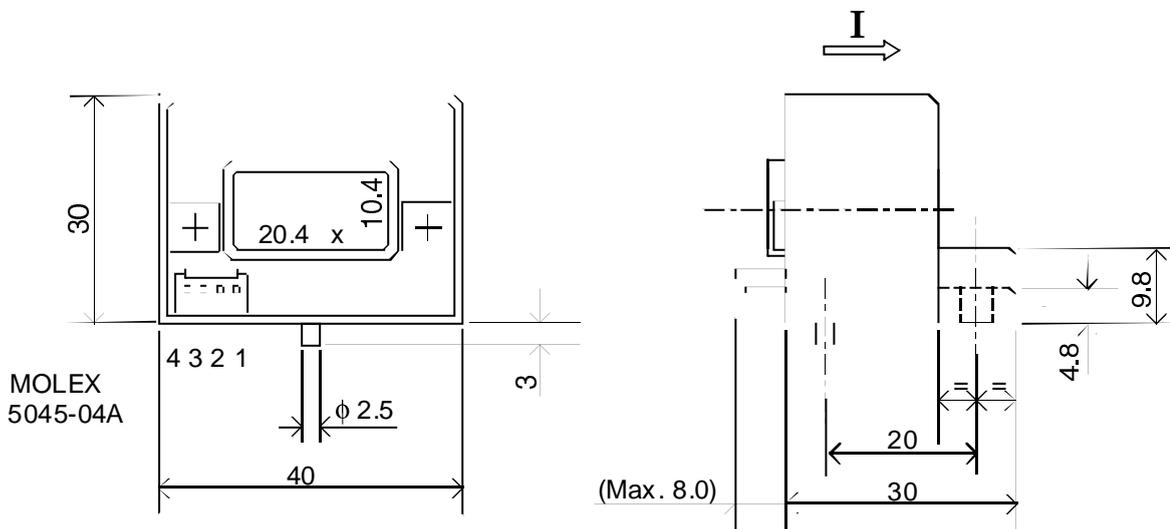
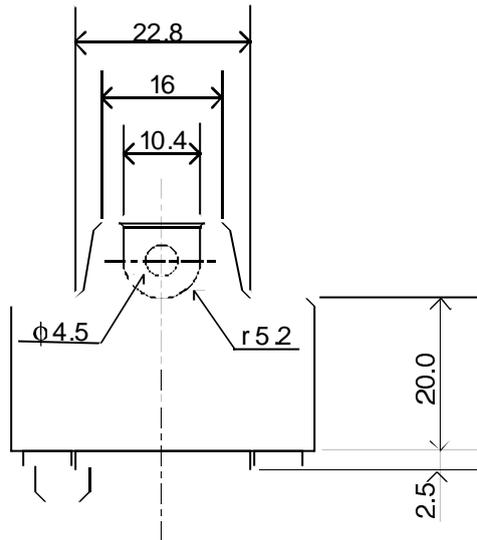
⁴⁾ Please consult characterisation report for more technical details and application advice.

981007/4



HAS 50 to 600-S

Dimensions (in mm)



PINS ARRANGEMENT

- 1 = +15V
- 2 = -15V
- 3 = OUTPUT
- 4 = 0V

LEM reserves the right to change limits and dimensions.