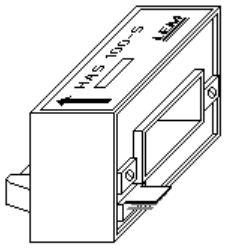
Current Transducers HAS 50 to 600-S

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 .. 600 A

V_{OUT} = ± 4 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 (± 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	MΩ
V_{OUT}	Output voltage @ ± I_{PN}, R_L = 10 kΩ, T_A = 25°C		± 4V ± 40	mV
R_{OUT}	Output internal resistance	approx.	100	Ω
R_L	Load resistance		> 1	kΩ

Accuracy - Dynamic performance data

X	Accuracy @ I_{PN}, T_A = 25°C (without offset)		< ± 1	%
ε_L	Linearity [2] (0 .. ± I_{PN})		< ± 1	% of I_{PN}
V_{OE}	Electrical offset voltage, T_A = 25°C		< ± 20	mV
V_{OH}	Hysteresis offset voltage @ I_P = 0; after an excursion of 1 x I_{PN}		< ± 20	mV
V_{OT}	Thermal drift of V_{OE}	HAS 50-S	< ± 2	mV/K
		HAS 100 to HAS 600-S	< ± 1	mV/K
$TC\varepsilon_G$	Thermal drift of the gain (% of reading)		< ± 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	°C
T_S	Ambient storage temperature		- 25 .. + 80	°C
m	Mass	approx.	60	g
	Standards [4]		EN 50178	

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.

Features

- Hall effect measuring principle
- Galvanic isolation between primary and secondary circuit
- Isolation voltage 3000 V~
- Low power consumption
- Extended measuring range (3 x 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.

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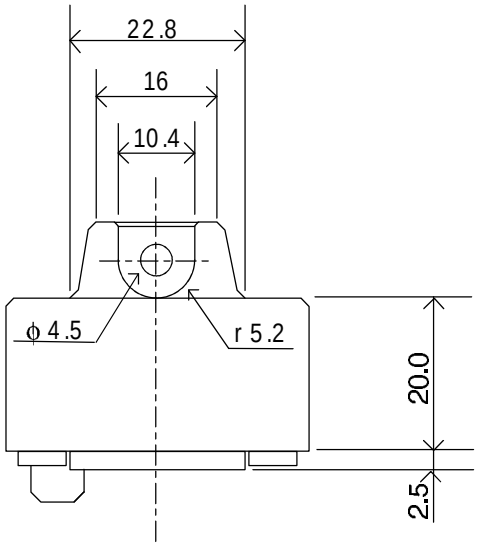
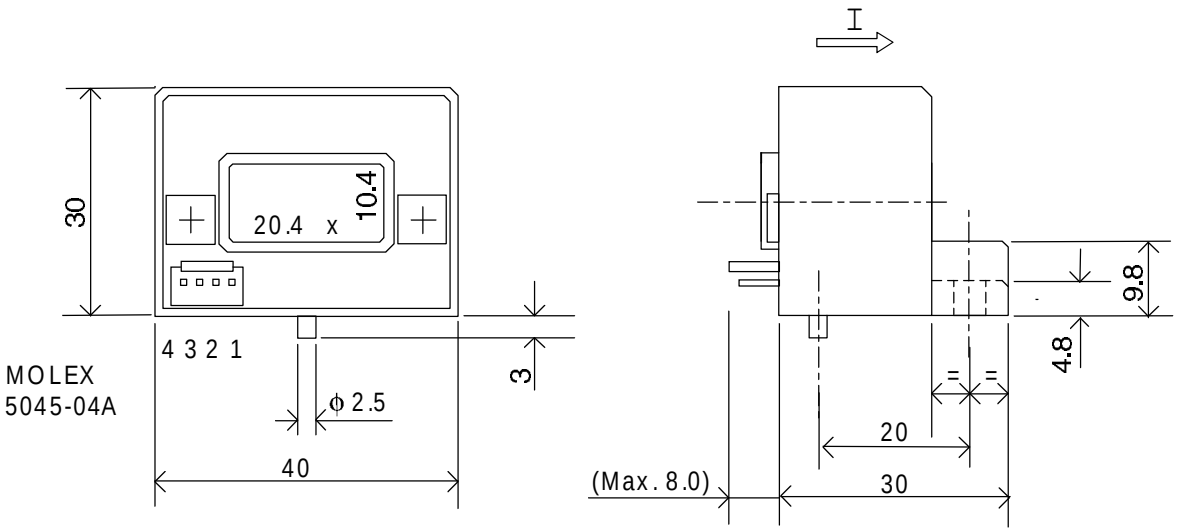
HAS 50 to 600-S
Dimensions (in mm)





PINS ARRANGEMENT

1 = +15V
2 = −15V
3 = OUTPUT
4 = 0V