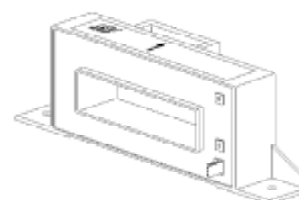


## Current Transducers HAX 500 to 2500-S

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).

$$I_{PN} = 500 \dots 2500 \text{ A}$$

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



### Electrical data

Primary nominal r.m.s. current $I_{PN}$ (A)	Primary current measuring range $I_p$ (A)	Type
500	$\pm 1500$	HAX 500-S
850	$\pm 2550$	HAX 850-S
1000	$\pm 3000$	HAX 1000-S
1200	$\pm 3600$	HAX 1200-S
1500	$\pm 4500$	HAX 1500-S
2000	$\pm 5500$	HAX 2000-S
2500	$\pm 5500$	HAX 2500-S

$V_C$	Supply voltage ( $\pm 5\%$ )	$\pm 15$	V
$I_C$	Current consumption	$\pm 15$	mA
$I_{OC}$	Overload capacity	30,000	At
$V_d$	R.m.s. voltage for AC isolation test, 60 Hz, 1 mn	5	kV
$V_b$	R.m.s. rated voltage, safe separation	500 <sup>1)</sup>	V
$R_{IS}$	Isolation resistance @ 500 VDC	> 1000	M $\Omega$
$V_{OUT}$	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	$\Omega$
$R_L$	Load resistance	> 1	k $\Omega$

### Accuracy - Dynamic performance data

$X$	Accuracy @ $I_{PN}$ , $T_A = 25^\circ\text{C}$ (without offset)	$< \pm 1$	%
$e_L$	Linearity <sup>2)</sup> ( $0 \dots \pm I_{PN}$ )	$< \pm 1$	% 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 $1 \times I_{PN}$	$< \pm 30$	mV
$V_{OT}$	Thermal drift of $V_{OE}$	$< \pm 1$	mV/K
$TCE_G$	Thermal drift of the gain (% of reading)	$< \pm 0.1$	%/K
$t_r$	Response time @ 90% of $I_p$	< 5	$\mu\text{s}$
$di/dt$	$di/dt$ accurately followed	> 50	A/ $\mu\text{s}$
$f$	Frequency bandwidth <sup>3)</sup> (-3 dB)	DC .. 25	kHz

### General data

$T_A$	Ambient operating temperature	-25 .. +85	$^\circ\text{C}$
$T_S$	Ambient storage temperature	-25 .. +85	$^\circ\text{C}$
$m$	Mass	approx. 450	g
	Min. internal creepage distance/clearance	$\geq 8.5$	mm
	Isolation material group	IIIa	
	Standards <sup>4)</sup>	EN 50178	

**Notes :** <sup>1)</sup> Pollution class 2, overvoltage category III

<sup>2)</sup> Linearity data exclude the electrical offset.

<sup>3)</sup> Please refer to derating curves in the technical file to avoid excessive core heating at high frequency

<sup>4)</sup> 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 5000 V~
- Low power consumption
- Extended measuring range ( $3 \times I_{PN}$ )
- Package in PBT meets UL 94-V0

### Advantages

- Easy mounting
- Small size and space savings
- Only one design for wide current ratings range
- High immunity against external interference

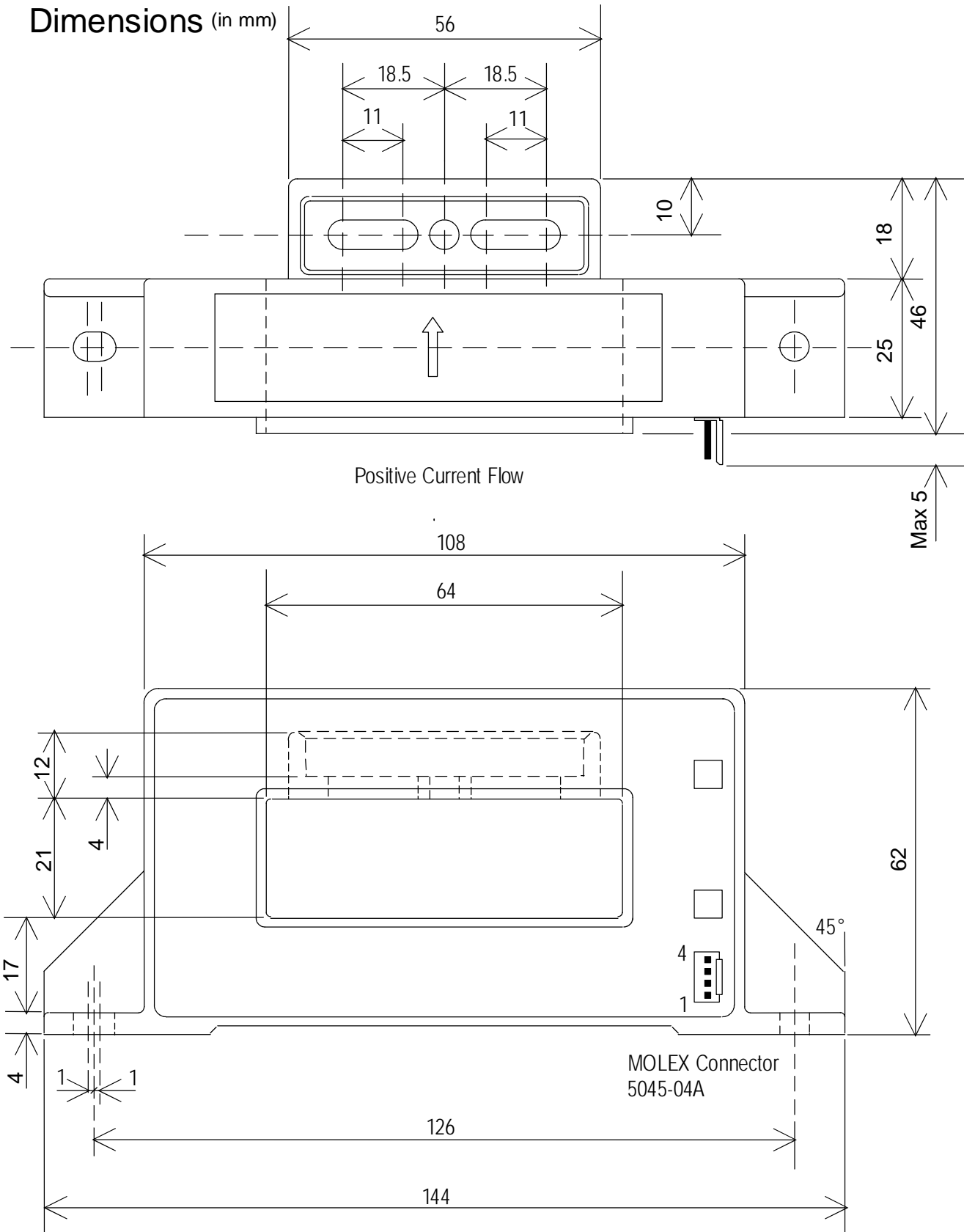
### Applications

- AC motor speed control
- Battery supplied applications
- Uninterruptible Power Supplies (UPS)
- Power supplies for welding, cable TV and telecommunication applications.

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# HAX 500 to 2500-S

Dimensions (in mm)



Positive Current Flow

MOLEX Connector  
5045-04A

Pins arrangement:  
1 2 3 4  
(+) (-) Output 0V

Fixation by base-plate or on bus bar  
with M5 screws