

## DC Current transducer DK-B5/10

A split core transducer for the electronic measurement DC current, with galvanic isolation between the primary (High power) and the secondary circuits (Electronic circuit) with voltage output.



$I_{PN} = 50..400 \text{ A}$



### Electrical data

Primary Nominal Current $I_{PN}$ (A.t)	Analogue Output Signal <sup>1)</sup> $V_{OUT}$ (V)	Type	RoHs Date Code
50,75,100	0-5	<b>DK 100 B5</b>	planned
100,150,200	0-5	<b>DK 200 B5</b>	planned
150,225,300	0-5	<b>DK 300 B5</b>	planned
200,300,400	0-5	<b>DK 400 B5</b>	planned
50,75,100	0-10	<b>DK 100 B10</b>	MAY 2006
100,150,200	0-10	<b>DK 200 B10</b>	MAY 2006
150,225,300	0-10	<b>DK 300 B10</b>	planned
200,300,400	0-10	<b>DK 400 B10</b>	planned
$V_c$ Supply voltage		20-50	V DC
		22-38	V AC
$R_L$ Load resistance		50 .. 250	k $\Omega$
$V_b$ Rated voltage (CAT III, PD2)		150	V AC
$V_d$ Isolation voltage		3000	V AC
f Frequency		DC	
$I_c$ Current consumption (max)		100	mA

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### Features

- DC Measurement
- Split core box
- Voltage output
- Jumper selectable ranges
- Panel mounting
- Extended measuring range.

### Advantages

- Large aperture
- High isolation between primary and secondary circuits
- Easy to mount
- No insertion losses.

### Applications

- Battery Banks
  - Monitors load current.
  - Monitors charging current.
  - Verifies operation.
- Transportation
  - Measures traction power or auxiliary loads.
- Electric Heating Elements
  - Faster response than temperature sensors.

### Accuracy - Dynamic performance data

X	Accuracy @ $I_{PN}$ , $T_A=25^\circ\text{C}$	$\pm 1$	%	
		<b>DK 300 BXX</b>	$\pm 1.5$	%
		<b>DK 400 BXX</b>	$\pm 2$	%
$\epsilon_L$	Linearity error	$\pm 0.75$	%	
$t_r$	Response time @ 90% of $I_{PN}$	< 300	mS	

### General data

$T_A$	Ambient operating temperature (0-95% RH)	- 20 .. + 50	$^\circ\text{C}$
$T_S$	Ambient storage temperature	- 20 .. + 85	$^\circ\text{C}$
m	Mass	120	g
	Protection type	IP 20	
	Safety	IEC 61010-1	
	EMC	EN 61326 <sup>2)</sup>	

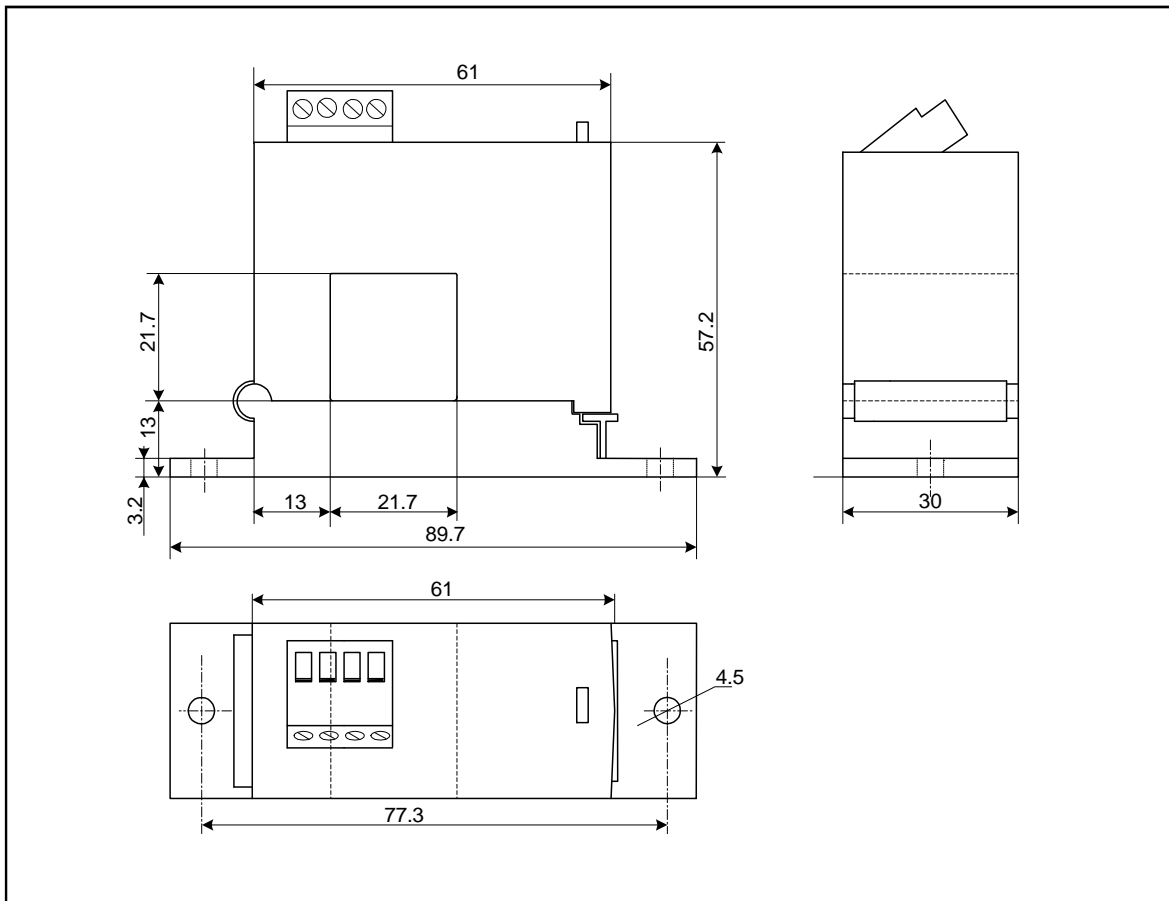
**Notes :** <sup>1)</sup> For 0-3 V output model, no saturation output up to 3.5 V for 0-5 V output model, no saturation output up to 5.75 V and for 0-10 V output model, no saturation output up to 11.5 V

<sup>2)</sup> For IEC 61000-4-3, IEC 61000-4-6 and IEC 61000-4-4 Criterion B : temporary impairment to operational behavior.

### Options on request

- DIN mounting.

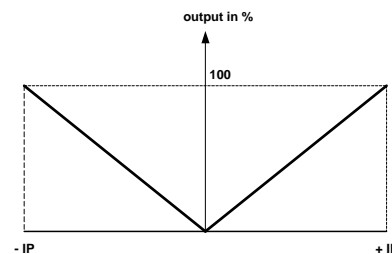
## Dimensions DK-B5/10 (unit : mm, 1mm = 0.0394 inch)



### Mechanical characteristics

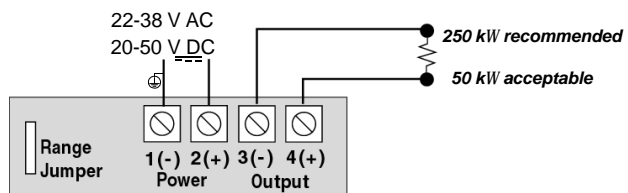
- General tolerance  $\pm 1$  mm
- Primary aperture 21.7 mm sq.
- Panel mounting  
Distance between holes 77.3 mm

### Output



### Connections

- 2 x UNC8 Cylindric Head



- Dead front captive screw terminals
- 12-22AWG solid or stranded

### Remark

- Temperature of the conductor should not exceed 60°C.