

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 ¹⁾ V_{OUT} (V)	Type	RoHs Date Code
50,75,100	0-5	DK 100 B5	planned
100,150,200	0-5	DK 200 B5	planned
150,225,300	0-5	DK 300 B5	planned
200,300,400	0-5	DK 400 B5	planned
50,75,100	0-10	DK 100 B10	MAY 2006
100,150,200	0-10	DK 200 B10	MAY 2006
150,225,300	0-10	DK 300 B10	planned
200,300,400	0-10	DK 400 B10	planned
V_c Supply voltage		20-50	V DC
		22-38	V AC
R_L Load resistance		50 .. 250	k Ω
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

Accuracy - Dynamic performance data

X	Accuracy @ $I_{PN}, T_A=25^\circ\text{C}$	± 1	%
	DK 300 BXX	± 1.5	%
	DK 400 BXX	± 2	%
ϵ_L	Linearity error	± 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 ²⁾	

Notes : ¹⁾ 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

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

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.

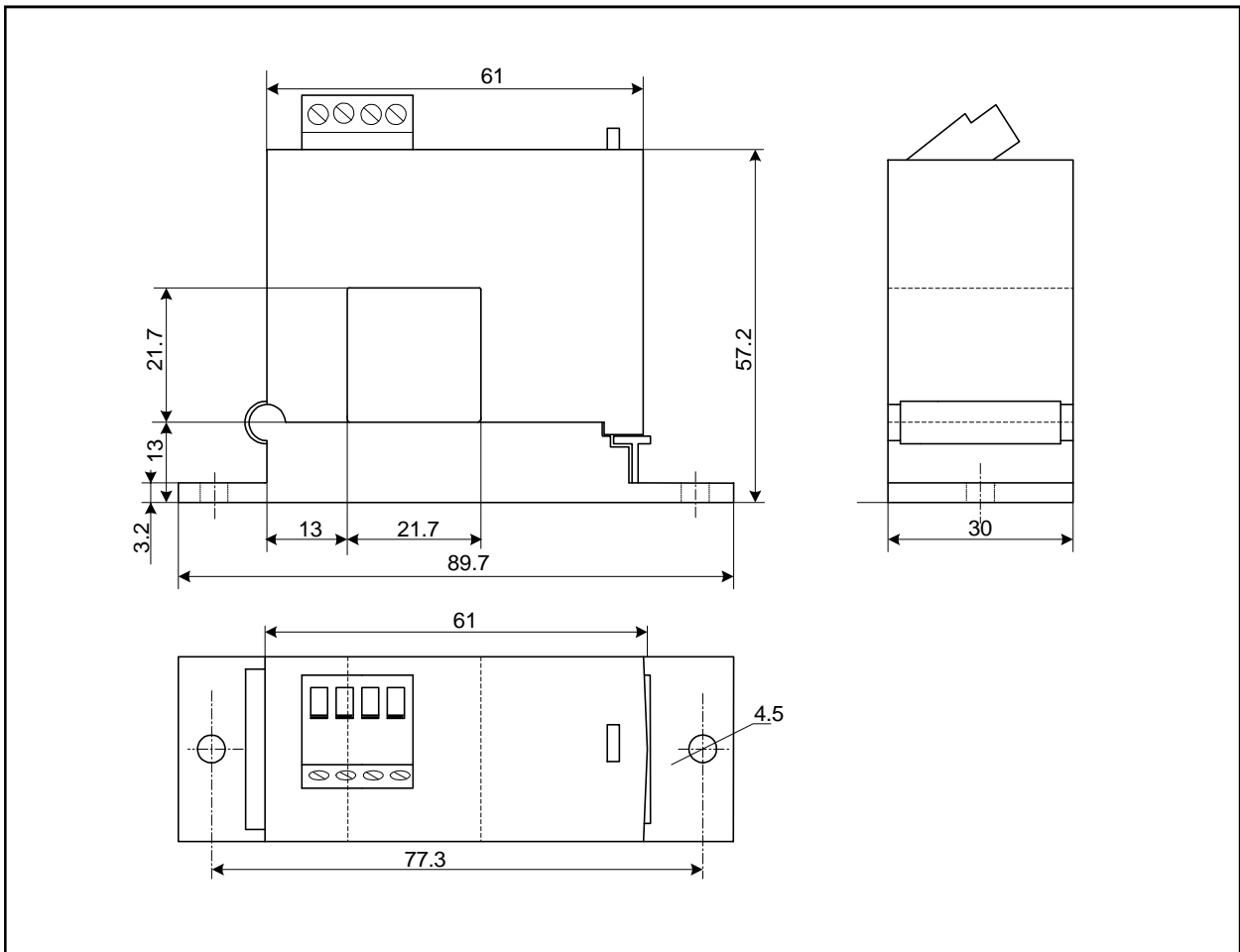
Applications

- 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.

Options on request

- DIN mounting.

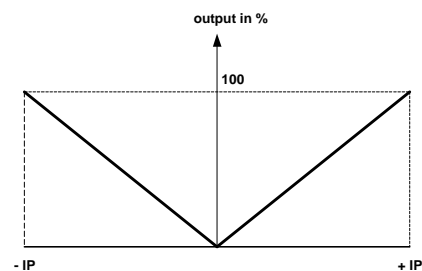
Dimensions DK-B5/10 (unit : mm, 1mm = 0.0394 inch)



Mechanical characteristics

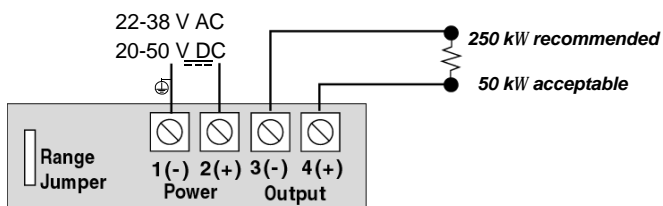
- General tolerance ± 1 mm
- Primary aperture 21.7 mm sq.
- Panel mounting 2 holes $\varnothing 4.5$ mm
- Distance between holes 77.3 mm

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.