

DC Current transducer DK-B020/420

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 current output.

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



Electrical data

Primary Nominal Current	Analogue Output Signal ¹⁾	Types	RoHS
I_{PN} (A.t)	I_{OUT} (mA)		Date Code
50,75,100	0-20	DK 100 B020	MAY 2006
100,150,200	0-20	DK 200 B020	planned
150,225,300	0-20	DK 300 B020	planned
200,300,400	0-20	DK 400 B020	planned
50,75,100	4-20	DK 100 B420	planned
100,150,200	4-20	DK 200 B420	MAY 2006
150,225,300	4-20	DK 300 B420	planned
200,300,400	4-20	DK 400 B420	planned
V_c Supply voltage	20-50 V DC	22-38	V AC
R_L Load resistance (max)		650 max.	Ω
V_b Rated voltage (CAT III, PD2)		150	V AC
V_d Isolation voltage		3000	V
f Frequency		DC	
I_c Current consumption (max)		100	mA

Features

- DC Measurement
- Split core box
- Current 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

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}	< 100	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
IPXX	Protection type	IP 20	
	Safety	IEC 61010-1	
	EMC	EN 61326 ²⁾	

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

Application domain

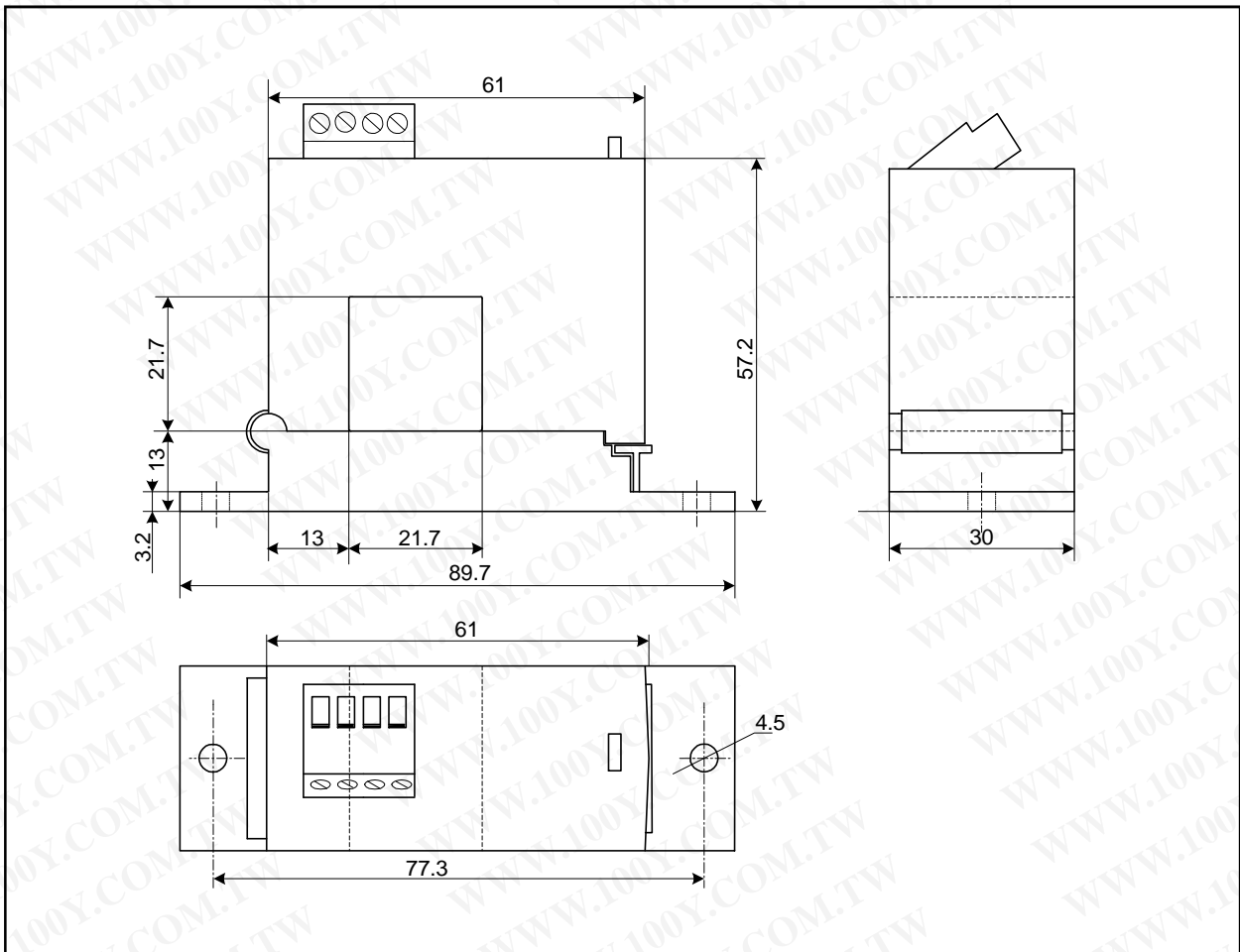
- Industrial.

Notes : ¹⁾ For 0-20 mA and 4-20 mA outputs models, no saturation outputs up to 23 mA

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

Remark : Temperature of the primary conductor should not exceed 60°C.

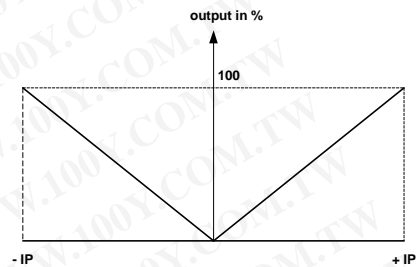
Dimensions DK-B020/420 (unit : mm, 1 mm = 0.0394 inch)



Mechanical characteristics

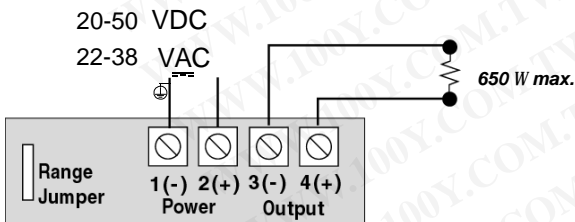
- General tolerance ± 1 mm
- Primary aperture 21.7 mm sq.
- Panel mounting 2 holes $\varnothing 4.5$ mm
- Distance between holes 77.3 mm

Standard output



Connections

- 2 x UNC8 Cylindric Head



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