

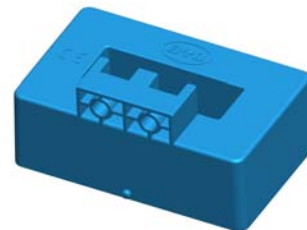


### Description

For the electronic measurement of currents : DC, AC, pulsed, mixed, with a galvanic isolation between the primary circuit and the secondary circuit.

### Features

- ◆ Hall effect measuring principle
- ◆ Low power consumption
- ◆ Extended measuring range  
Isolation voltage 3000 V
- ◆ Galvanic isolation between primary and secondary circuit



$$I_{PN} = 200...2000A$$

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

### Advantages

- ◆ Easy installation
- ◆ Small size and space saving
- ◆ Only one design for wide current ratings range
- ◆ High immunity to external interference

### Industrial applications

- ◆ DC motor drives
- ◆ Switched Mode Power Supplies(SMPS)
- ◆ AC variable speed drives
- ◆ Uninterruptible Power Supplies(UPS)
- ◆ Battery supplied applications
- ◆ Power supplies for welding application

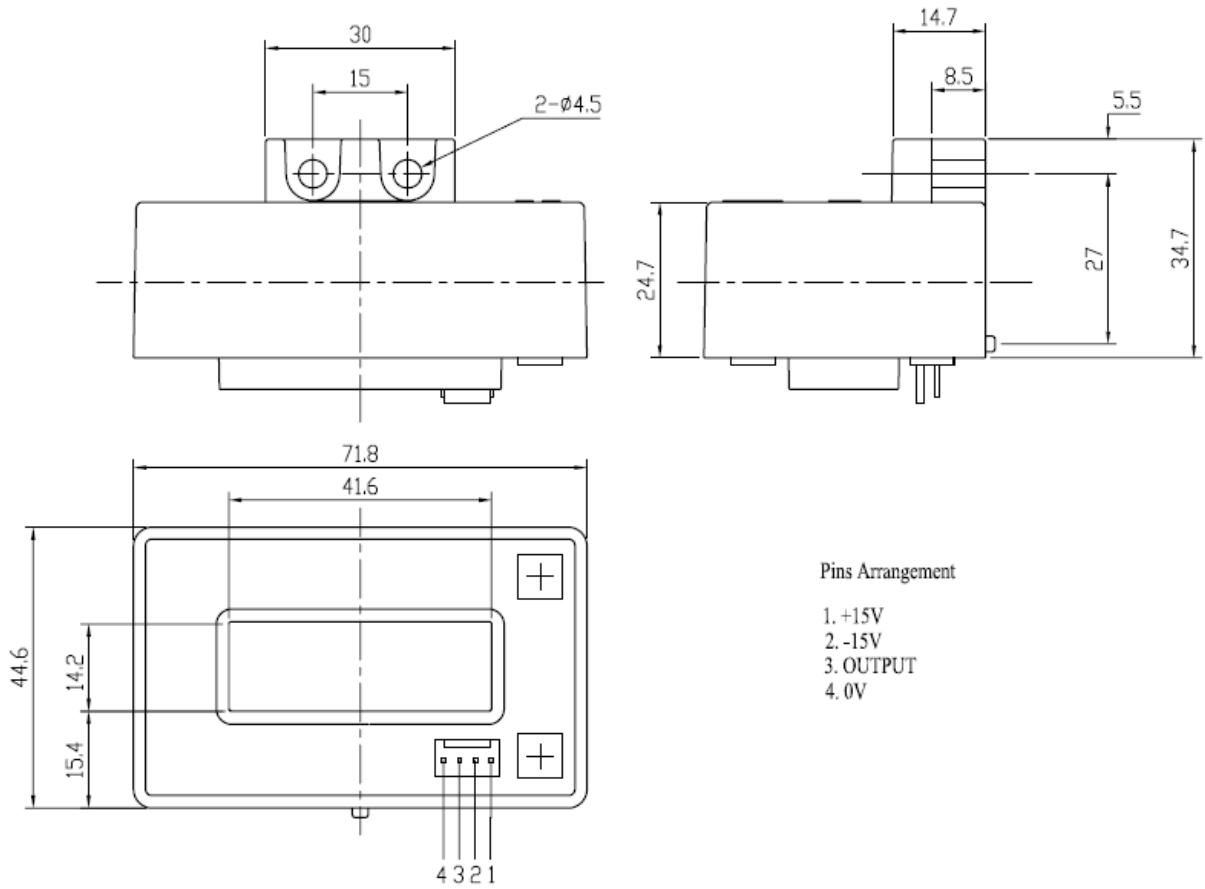
TYPES OF PRODUCTS		
Type	Primary nominal current r. m. s $I_{PN}$ (A)	Primary current measuring range $I_P$ (A)
BSL-200IOV2L	200	±400
BSL-400IOV2L	400	±800
BSL-600IOV2L	600	±1200
BSL-800IOV2L	800	±1600
BSL-1000IOV2L	1000	±2000
BSL-2000IOV2L	2000	±3000

### Parameters Table

PARAMETERS	SYMBOL	UNIT	VALUE	CONDITIONS
<b>Electrical Data</b>				
Supply voltage( $\pm 5\%$ ) <sup>(1)</sup>	$V_C$	V	$\pm 15$	
Current consumption	$I_C$	mA	$\pm 15$	
Output voltage	$V_{OUT}$	V	$\pm 4$	@ $\pm I_{PN}$ , $R_L = 10\text{ k}\Omega$ , $T_A = 25^\circ\text{C}$
Isolation resistance	$R_{IS}$	M $\Omega$	>1000	@ 500 VDC
Output internal resistance	$R_{OUT}$	$\Omega$	100	
Load resistance <sup>(2)</sup>	$R_L$	K $\Omega$	>10	
<b>Accuracy - Dynamic performance data</b>				
Linearity <sup>(3)</sup> ( $0 \dots \pm I_{PN}$ )	$\epsilon_L$	% of $I_{PN}$	< $\pm 1$	@ $I_{PN}$ , $T_A = 25^\circ\text{C}$
Accuracy	X	% of $I_{PN}$	< $\pm 1$	@ $I_{PN}$ , $T_A = 25^\circ\text{C}$ (excluding offset)
Electrical offset voltage	$V_{OE}$	mV	< $\pm 20$	@ $T_A = 25^\circ\text{C}$
Hysteresis offset voltage	$V_{OH}$	mV	< $\pm 10$	@ $I_P = 0$
Temperature coefficient of $V_{OE}$	$TCV_{OE}$	mV/K	< $\pm 1$	
Temperature coefficient of $V_{OUT}$	$TCV_{OUT}$	%/K	< $\pm 0.1$	
Response time	$t_r$	$\mu\text{s}$	<5	@ 90% of $I_{PN}$
Frequency bandwidth <sup>(4)</sup>	BW	kHz	DC~25	@ -3dB
<b>General data</b>				
Ambient operating temperature	$T_A$	$^\circ\text{C}$	-20...+85	
Ambient storage temperature	$T_S$	$^\circ\text{C}$	-40...+105	
Mass	m	g	300	
<b>Isolation characteristics</b>				
Rated isolation voltage rms	$V_b$	V	1000	
Rms voltage for AC isolation test	$V_d$	kV	3	@ 50 Hz, 1 min

#### Notes:

- (1) Operating at  $\pm 12\text{V} \leq V_C < \pm 15\text{V}$  will reduce the measuring range.
- (2) If the customer uses 10K $\Omega$  of the load resistor, the primary current has to be limited as the nominal.
- (3) Linearity data exclude the electrical offset.
- (4) Please refer to derating curves in the technical file to avoid excessive core heating at high frequency.

**Dimensions BSL-IOV2L (in mm. 1 mm = 0.0394 inch)****◆ Instructions of use**

1. When the test current passes through the sensors you can get the size of the output voltage.  
(Warning: wrong connection may lead to sensors damage)
2. Based on user needs, the sensors output range can be appropriately regulated.
3. According to user needs, different rated input currents and output voltages of the sensors can be customized.



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