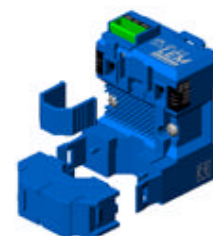


# AC Current transducer AP-B10

$I_{PN} = 10 \dots 400 \text{ A}$

Split core transducer for the electronic measurement AC waveforms current, with galvanic isolation between the primary (High power) and the secondary circuits (Electronic circuit). Switch selectable ranges and RMS 0-5V and 0-10V switch selectable voltage output.



## Electrical data

Primary Nominal Current $I_{PN}$ (A.t.RMS)	Analogue Output Signal $V_{OUT}$ (V)	Type
10,25,50	0-5V or 0-10V	<b>AP 50 B10</b>
50,75,100	0-5V or 0-10V	<b>AP 100 B10</b>
100,150,200	0-5V or 0-10V	<b>AP 200 B10</b>
200,300,400	0-5V or 0-10V	<b>AP 400 B10</b>

$R_L$	Load resistance	$\geq 10$	k $\Omega$
$V_C$	Supply voltage	+24 $\pm$ 5%	V DC
$I_C$	Current Consumption	< 30	mA
	Limitation of voltage output (0-10V)	14	V
	Limitation of voltage output (0-5V)	7	V
	Overloaded input current	no limitation	

## Accuracy-Dynamic performance data

$X$	Accuracy @ $I_{PN}, T_A = 25^\circ\text{C}$ (without offset)	< $\pm 1$	% of $I_{PN}$
$e_L$	Linearity ( $0 \dots \pm I_{PN}$ )	< $\pm 0.5$	% of $I_{PN}$
$V_{OE}$	Electrical offset voltage, $T_A = 25^\circ\text{C}$	< $\pm 0.5$	% of $I_{PN}$
$V_{OT}$	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 $I_p$	< 150	ms
$f$	Frequency bandwidth ( $\pm 1\%$ )	30 .. 2000	Hz

## General data

$T_A$	Ambient operating temperature	-20 .. +60	$^\circ\text{C}$
$T_S$	Ambient storage temperature	-20 .. +85	$^\circ\text{C}$
$m$	Mass	90	g
	Protection type	IP20	
$dCp$	Creepage distance	5.5	mm
$dCI$	Clearance distance	5.5	mm
$CTI$	Comparative tracking index (Group I)	600	V
	UL94 classification	V0	

## Insulation category

$V_b$	Rated Voltage with IEC 61010-1 standards and following conditions : - Single insulation - Over voltage category CAT III - Pollution degree PD2 - None uniform field	300	V
$V_d$	R.m.s. voltage for AC insulation test, 50Hz, 1mn	5	kV
$V_e$	R.m.s. voltage for partial discharge extinction @ 10pC	1.5	kV
$V_w$	Peak impulse withstand voltage 1.2/50 $\mu$ s	6.1	kV
	If insulated cable is used for the primary circuit, the voltage category could be improved with the following table :		
	Cable insulation (primary)	Category	
	HAR 05	600V CAT III	
	HAR 07	1000V CAT III	

## Features

- RMS output
- Split core type
- 5V & 10V switch selectable voltage output
- DIN mounting & Panel mounting
- Eliminates insertion loss
- Switch selectable ranges

## Advantages

- Large aperture for cable up to  $\varnothing 18\text{mm}$
- High isolation between primary and secondary circuits
- Easy to mount

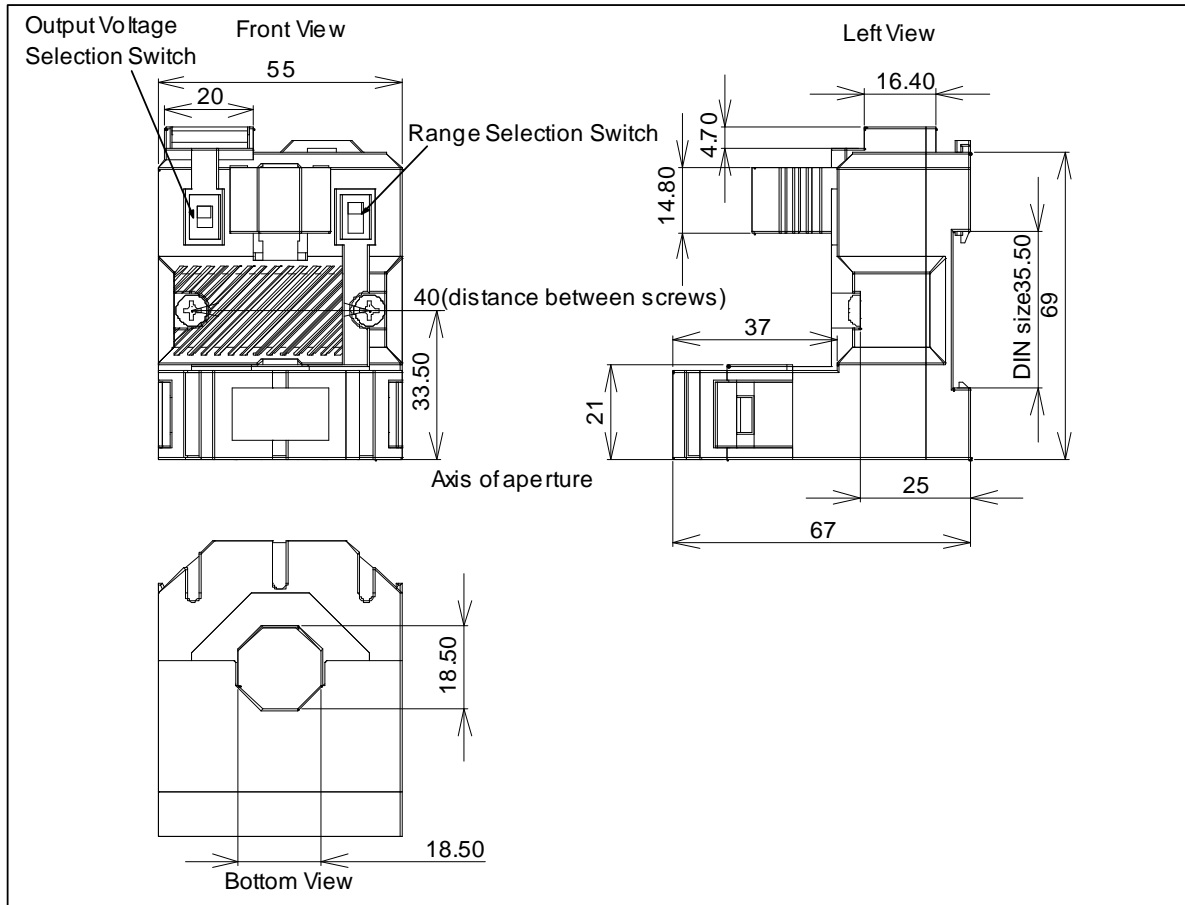
## Applications

- Automation systems  
Analog current reading for remote monitoring (e.g. motor) and software alarms.
- Panelmeters  
Simple connection displays power consumption.

**Notes :** Installation and maintenance should be done with power supply disconnected.  
The operator must have accreditation to install this material.  
The users must take care of all protection guarantee against electrical shock.

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## Dimensions AP(R)-B10 (unit : mm, 1mm = 0.0394 inch)



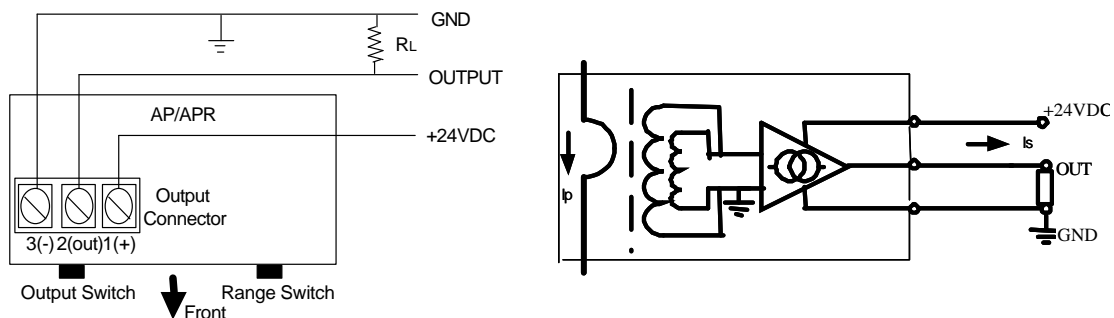
### Mechanical characteristics

- General tolerance  $\pm 1$  mm
- Primary aperture  $\varnothing 18.5$  mm
- Panel mounting 2 holes  $\varnothing 4.0$  mm
- Distance between holes 40.0 mm

For panel mounting, replace M4 screws by new one (not supplied) with appropriate length to panel's thickness.

### Connections

- Wires up to 2 mm  $\varnothing$
- 0-5, 10V Selectable



LEM reserves the right to carry out modifications on its transducers, in order to improve them, without previous notice.