

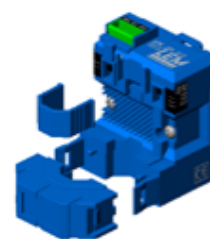
AC Current transducer AP-B10

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.

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



Preliminary



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	AP 50 B10
50,75,100	0-5V or 0-10V	AP 100 B10
100,150,200	0-5V or 0-10V	AP 200 B10
200,300,400	0-5V or 0-10V	AP 400 B10

R_L	Load resistance	≥ 10	k Ω
V_C	Supply voltage	$+24 \pm 5\%$	V DC
V_d	R.m.s. voltage for AC isolation test, 50/60Hz, 1 mn	5	kV
	Limitation voltage output	18	V

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}	± 1	mV/K
TCE_G	Thermal drift of the gain (% of reading)	± 0.1	%/K
t_r	Response time @ 90% of I_p	< 500	ms
f	Frequency bandwidth (-3 dB)	$10 \dots 6000$	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	
	Reliable isolation according to EN50178, EN61010	300	V AC
	Creepage distance	> 5.5	mm
	EMC in accordance with EN50082-2		
	Plastic according to UL94V0, CTI 1		

Notes : Installation and maintenance should be done with power supply disconnected.

Features

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

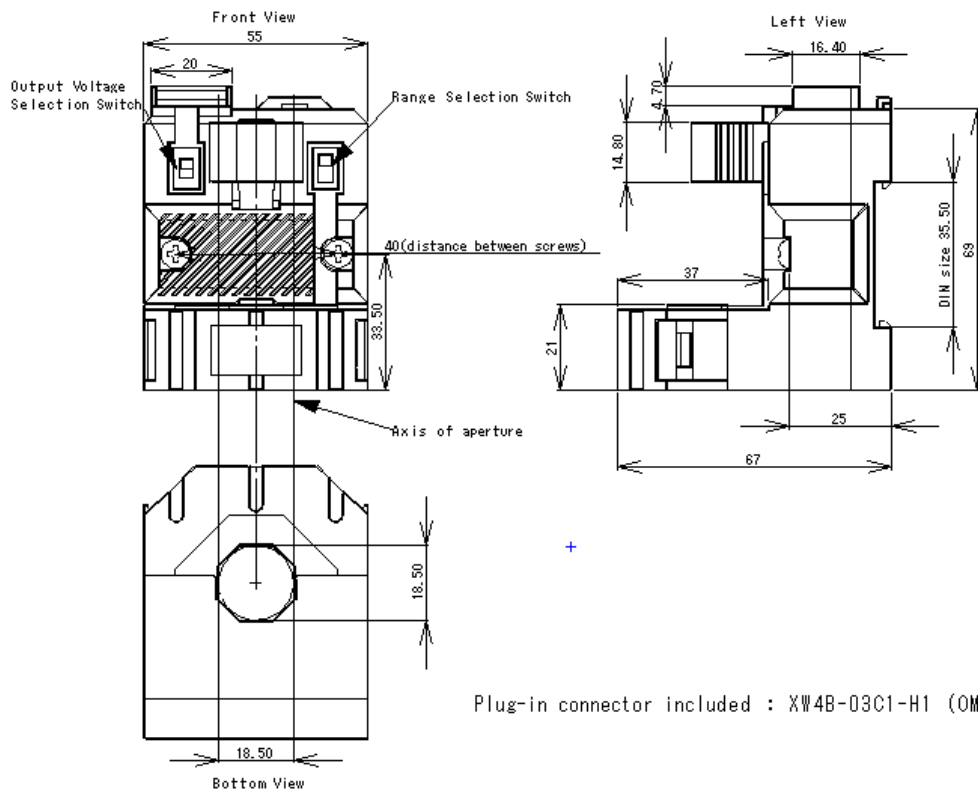
Advantages

- 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.

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



Mechanical characteristics

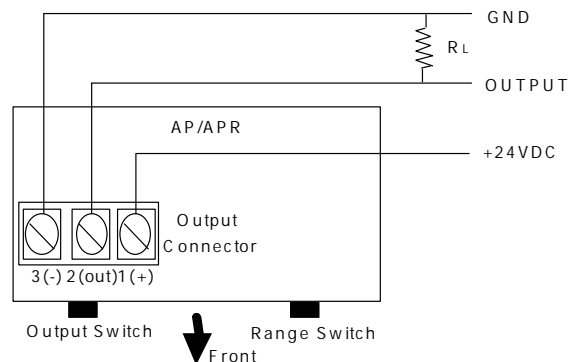
- General tolerance ± 1 mm
- Primary aperture $\varnothing 18.5$ mm
- Panel mounting 2 holes $\varnothing 4.0$ mm
- Distance between holes 40.0 mm

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.