

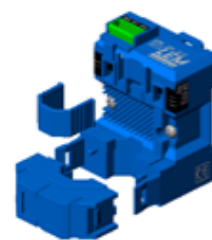
# AC Current transducer AP-B420L

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

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 4-20mA current output.



Preliminary



## Electrical data

Primary Nominal Current $I_{PN}$ (A.t.RMS)	Analogue Output Signal $I_{OUT}$ (mA)	Type
10,25,50	4-20	<b>AP 50 B420L</b>
50,75,100	4-20	<b>AP 100 B420L</b>
100,150,200	4-20	<b>AP 200 B420L</b>
200,300,400	4-20	<b>AP 400 B420L</b>

$R_L$	Load resistance	< 350	$\Omega$
$V_C$	Supply voltage (loop powered)	+24	V DC
$V_d$	R.m.s. voltage for AC isolation test, 50/60Hz, 1 mn	5	kV
	Limitation of output current	< 25	mA

## 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 $I_{PN}$
$I_{OE}$	Electrical offset current, $T_A = 25^\circ\text{C}$	4	mA
$I_{OT}$	Thermal drift of $I_{OE}$	$\pm 1$	$\mu\text{A/K}$
$T_{ce_G}$	Thermal drift of the gain (% of reading)	$\pm 0.1$	%/K
$t_r$	Response time @ 90% of $I_p$	< 500	ms
$f$	Frequency bandwidth (-3 dB)	10 .. 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
- Loop powered 4-20mA current output
- DIN mounting & Panel mounting
- Eliminates insertion loss
- Switch selectable ranges

## Advantages

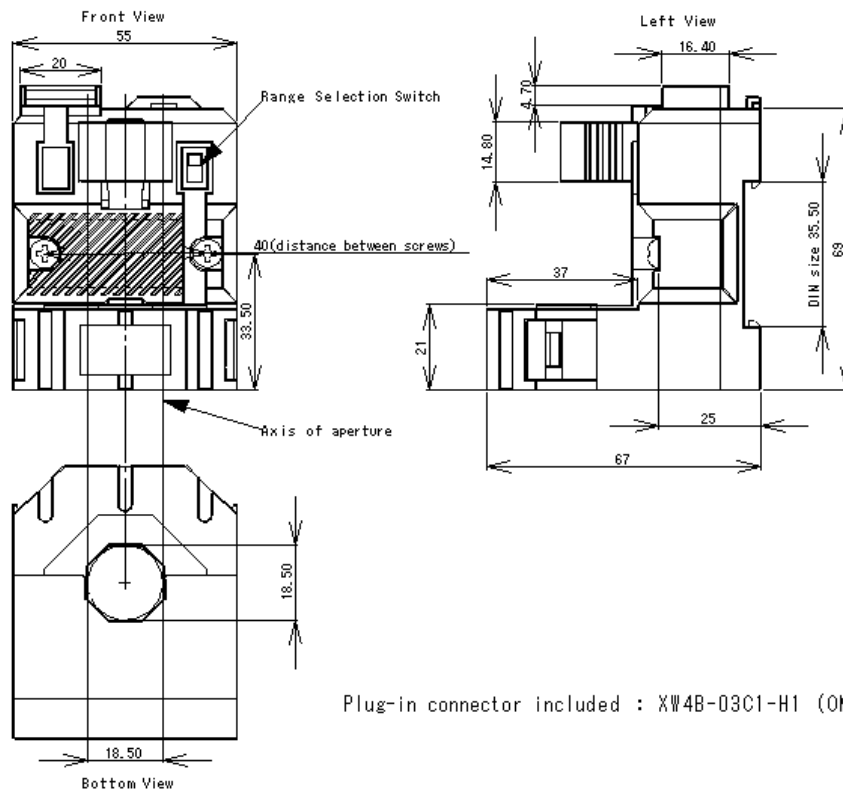
- Large aperture for cable up to  $\varnothing 18\text{mm}$
- High isolation between primary and secondary circuits
- Easy to mount

## Applications

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

## Dimensions AP(R)-B420L

(unit : mm, 1mm = 0.0394 inch)



Plug-in connector included : XW4B-03C1-H1 (OMRON)

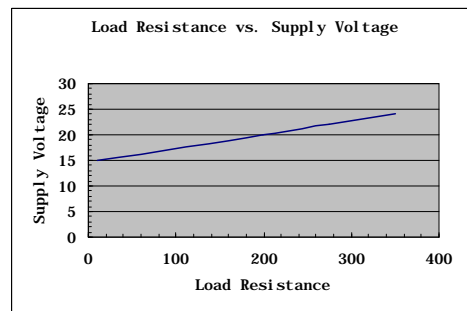
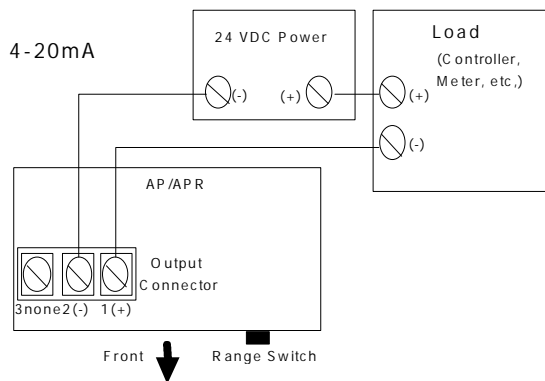
### Mechanical characteristics

- 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  $\varnothing$



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