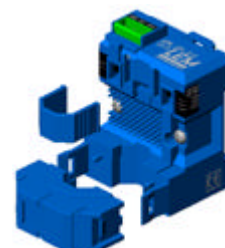


AC Current transducer AP-B420L

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.



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



Electrical data

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

R_L	Load resistance (See the graph "Load Resistance vs. Supply Voltage")	< 350 Ω
V_C	Supply voltage (loop powered)	+12 .. 24 V DC
	Limitation of output current	< 25 mA
	Overloaded input current	no limitation

Accuracy-Dynamic performance data

X	Accuracy @ I_{PN} , $T_A = 25^\circ\text{C}$ (without offset)	< ± 1 % of I_{PN}
e_L	Linearity ($0 \dots \pm I_{PN}$)	< ± 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}	± 1 $\mu\text{A/K}$
TCE_G	Thermal drift of the gain (% of reading)	± 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
dCl	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 μs	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
- 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

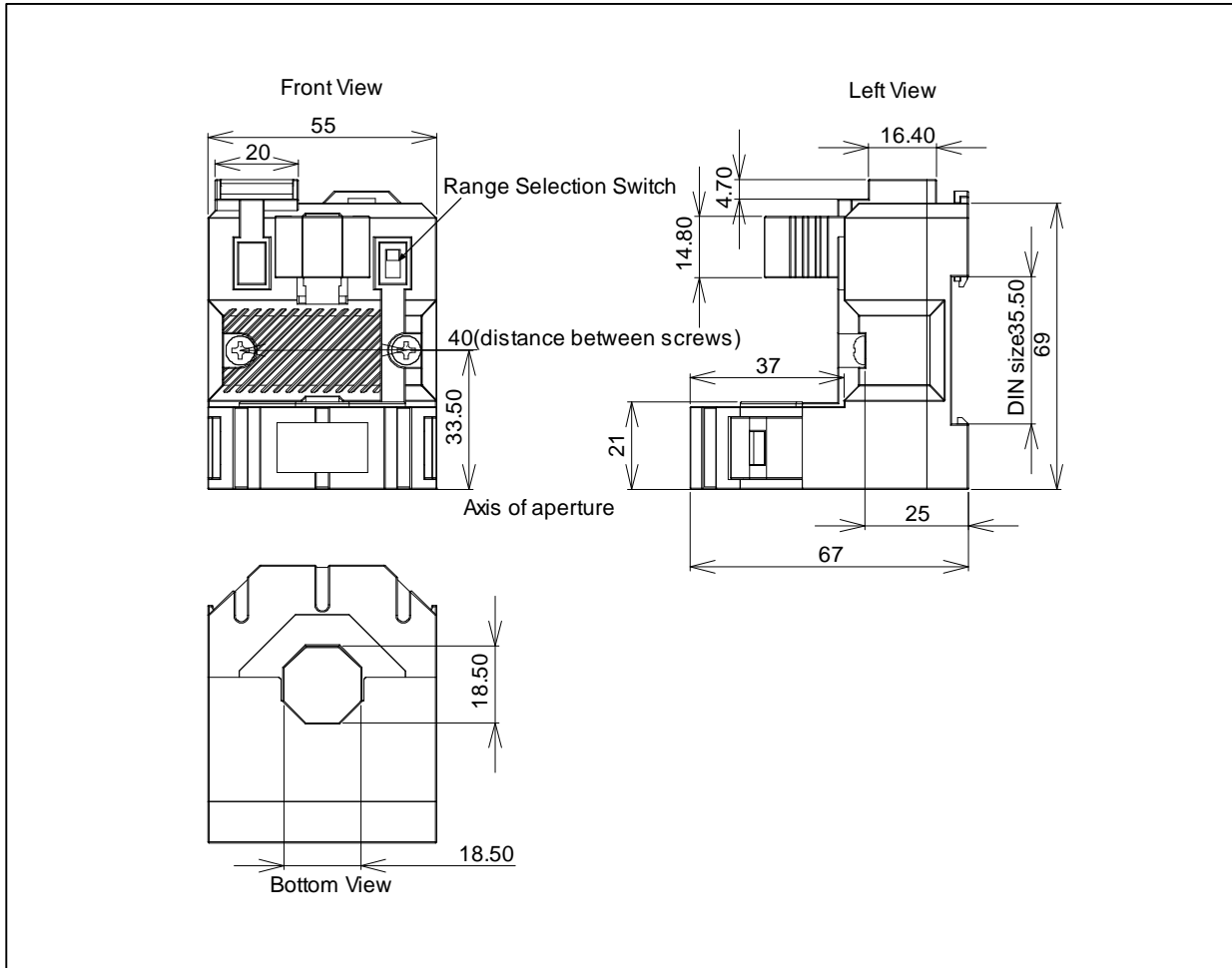
- Automation systems
Analog current reading for remote monitoring (e.g. motor) and software alarms.
- Panelmeters
Simple connection displays power consumption.

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)-B420L

(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

