

AC Current transducer AP-B10

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

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

General data

T_A	Ambient operating temperature	-20 .. +60 °C
T_s	Ambient storage temperature	-20 .. +85 °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	300 V
with IEC 61010-1 standards and following conditions :		
- Single insulation		
- Over voltage category CAT III		
- Pollution degree PD2		
- None uniform field		

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 μ 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

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.

Features

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

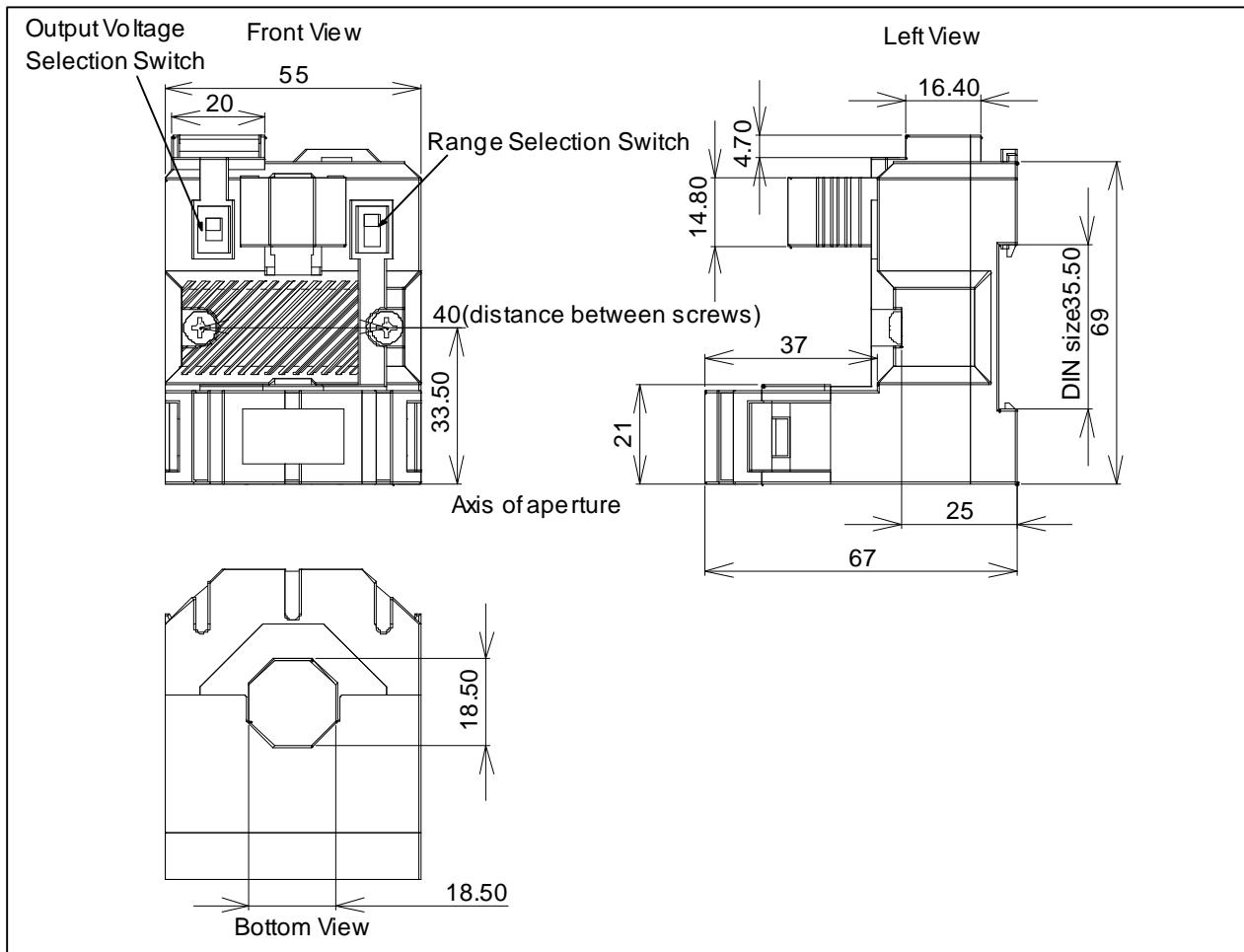
Advantages

- Large aperture for cable up to Ø18mm
- 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

