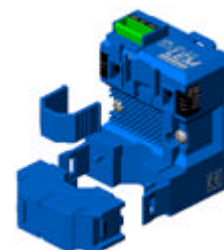


AC Current transducer APR-B10

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



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



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 | APR 50 B10 |
| 50,75,100 | 0-5V or 0-10V | APR 100 B10 |
| 100,150,200 | 0-5V or 0-10V | APR 200 B10 |
| 200,300,400 | 0-5V or 0-10V | APR 400 B10 |
| R_L | Load resistance | $\geq 10 \text{ k}\Omega$ |
| 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) | < ± 1 % of I_{PN} |
| e_L | Linearity (0 .. $\pm I_{PN}$) | < ± 0.5 % of I_{PN} |
| V_{OE} | Electrical offset voltage, $T_A = 25^\circ\text{C}$ | < ± 0.5 % of I_{PN} |
| V_{OT} | Thermal drift of V_{OE} | $\pm 1 \text{ mV/K}$ |
| TC_{eG} | Thermal drift of the gain (% of reading) | $\pm 0.1 \text{ %/K}$ |
| t_r | Response time @ 90% of I_p | < 400 ms |
| f | Frequency bandwidth ($\pm 1\%$) | 30 .. 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 |
| d_{Cp} | Creepage distance | 5.5 mm |
| d_{Cl} | 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

- VFD and SCR waveforms current measurement
- True 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

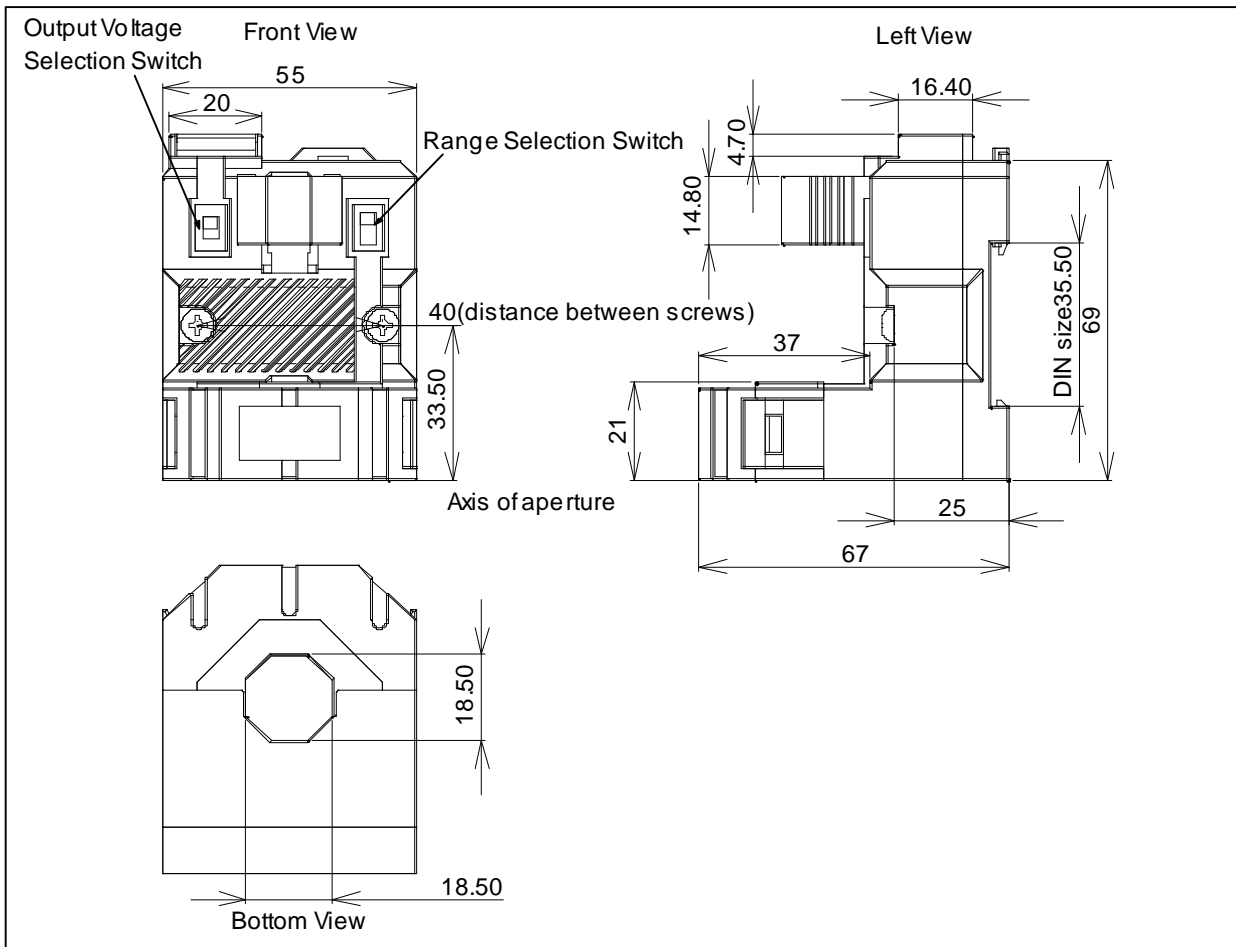
Applications

- VFD Controlled Loads:
VFD output indicates how the motor and attached load are operating.
- SCR Controlled Loads:
Accurate measurement of phase angle fired or burst fired (time proportioned) SCRs. Current measurement gives faster response than temperature measurement.
- Switching Power Supplies and Electronic Ballasts:
True RMS sensing is the most accurate way to measure power supply or ballast input power.

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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.

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

