

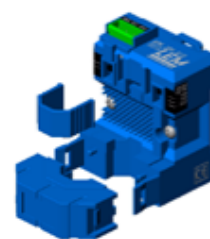
AC Current transducer AP-B10

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 .. 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

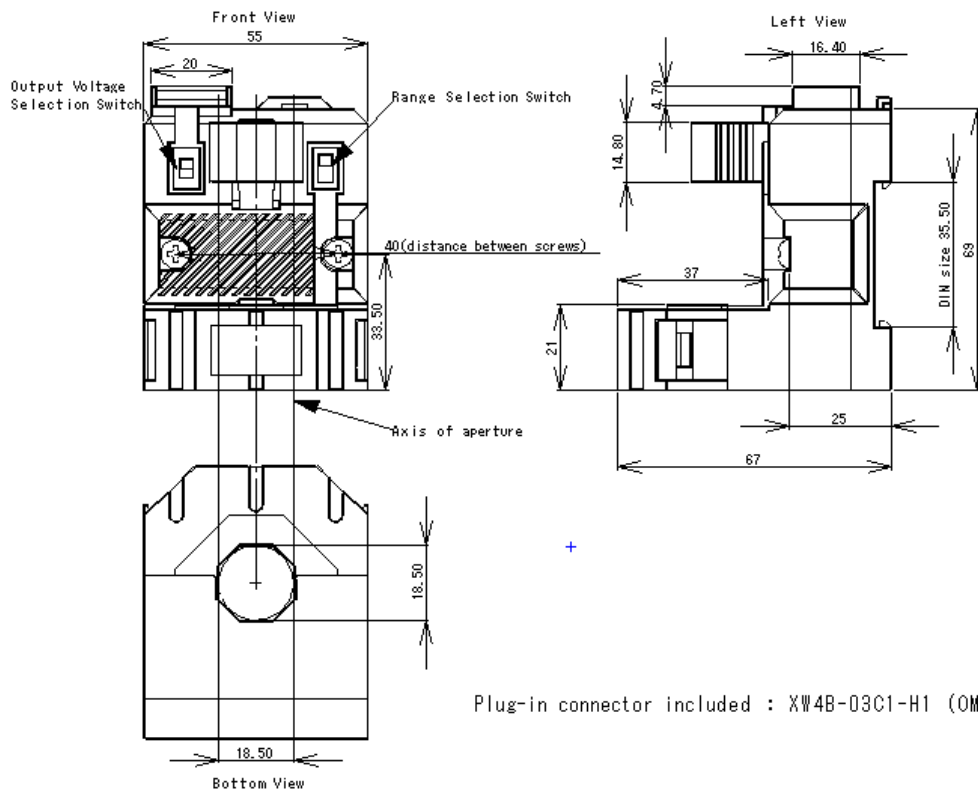
Advantages

- 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

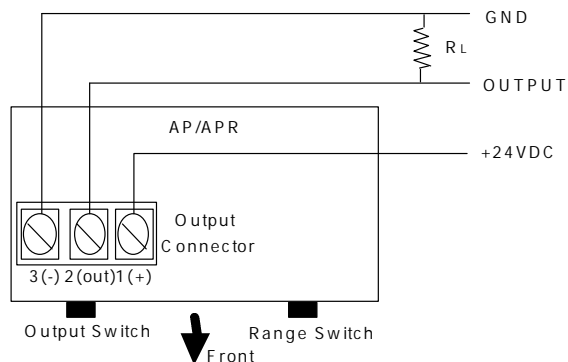
- General tolerance ± 1 mm
- Primary aperture $\varnothing 18.5$ mm
- Panel mounting 2 holes $\varnothing 4.0$ mm
- Distance between holes 40.0 mm

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.