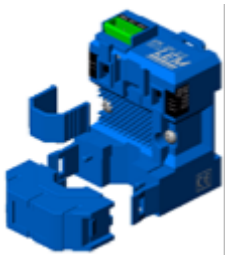
AC Current transducer AP-B420L

I_{PN} = 10 .. 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 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	**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	< 350	Ω
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°C (without offset)	< ±1	% of I_{PN}
ε_L	Linearity (0 .. ± I_{PN})	< ±0.5	% of I_{PN}
I_{OE}	Electrical offset current, T_A = 25°C	4	mA
I_{OT}	Thermal drift of I_{OE}	±1	µA/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	°C
T_S	Ambient storage temperature	-20 .. +85	°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

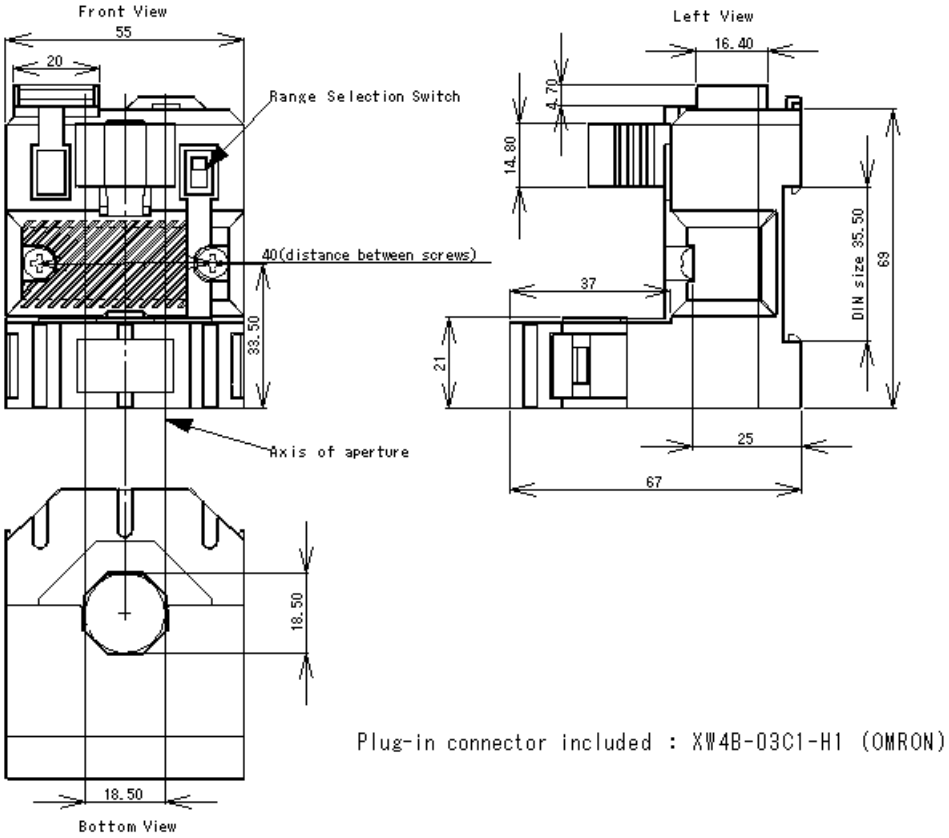
Advantages

- Large aperture for cable up to 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)-B420L (unit : mm, 1mm = 0.0394 inch)



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

Mechanical characteristics

- General tolerance ±1 mm
- Primary aperture ∅ 18.5 mm
- Panel mounting 2 holes ∅ 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 ∅