

# AC Current transducer AK-C420L

$I_{PN} = 2 \dots 200 \text{ A}$

Transducer for the electronic measurement AC sinusoidal waveforms current, with galvanic isolation between the primary (High power) and the secondary circuits (Electronic circuit). Jumper selectable ranges and 4-20mA current output.



## Electrical data

| Primary Nominal Current<br>$I_{PN}$ (A.t.RMS) | Analogue Output Signal <sup>1)</sup><br>$I_{OUT}$ (mA) | Type                     | RoHS<br>Date Code |
|---|--|--------------------------|-------------------|
| 2, 5  | 4-20   | <b>AK 5 C420L</b>        | MAY 2006          |
| 10, 20, 50                                    | 4-20   | <b>AK 50 C420L</b>       | MAY 2006          |
| 100, 150, 200                                 | 4-20   | <b>AK 200 C420L</b>      | planned           |
| $V_c$   | Supply voltage (Loop powered)                          | 24                       | V DC              |
| $R_L$   | Load resistance  | see power supply diagram |                   |
| $V_b$   | Rated voltage (CAT III, PD2)                           | 150                      | V AC              |
| $V_d$   | RMS Isolation voltage test, 50 Hz, 1mn                 | 3                        | kV AC             |
| $f$   | Frequency bandwidth                                    | 20-100                   | Hz                |

## Features

- AC sinusoidal Measurement
- Average responding
- Current output
- Loop powered transducers
- Panel mounting
- Accurate
- Jumper selectable ranges

## Advantages

- Large aperture
- High isolation between primary and secondary circuits
- Easy to mount

## Accuracy - Dynamic performance data

|       |  |         |    |
|-------|--|---------|----|
| X     | Accuracy @ $I_{PN}$ , $T_A=25^\circ\text{C}$ | $\pm 1$ | %  |
| $t_r$ | Response time @ 90% of $I_{PN}$              | < 300   | ms |

## General data

|       |  |             |                  |
|-------|--|-------------|------------------|
| $T_A$ | Ambient operating temperature (0-95% RH) | -20..+50    | $^\circ\text{C}$ |
| $T_S$ | Ambient storage temperature              | -20..+85    | $^\circ\text{C}$ |
| m     | Mass                                     | 120         | g                |
|       | Safety                                   | IEC 61010-1 |                  |
|       | EMC                                      | EN 61326    |                  |

**Note:** <sup>1)</sup> For 4-20mA output model, no saturation output up to 25 mA.

## Applications

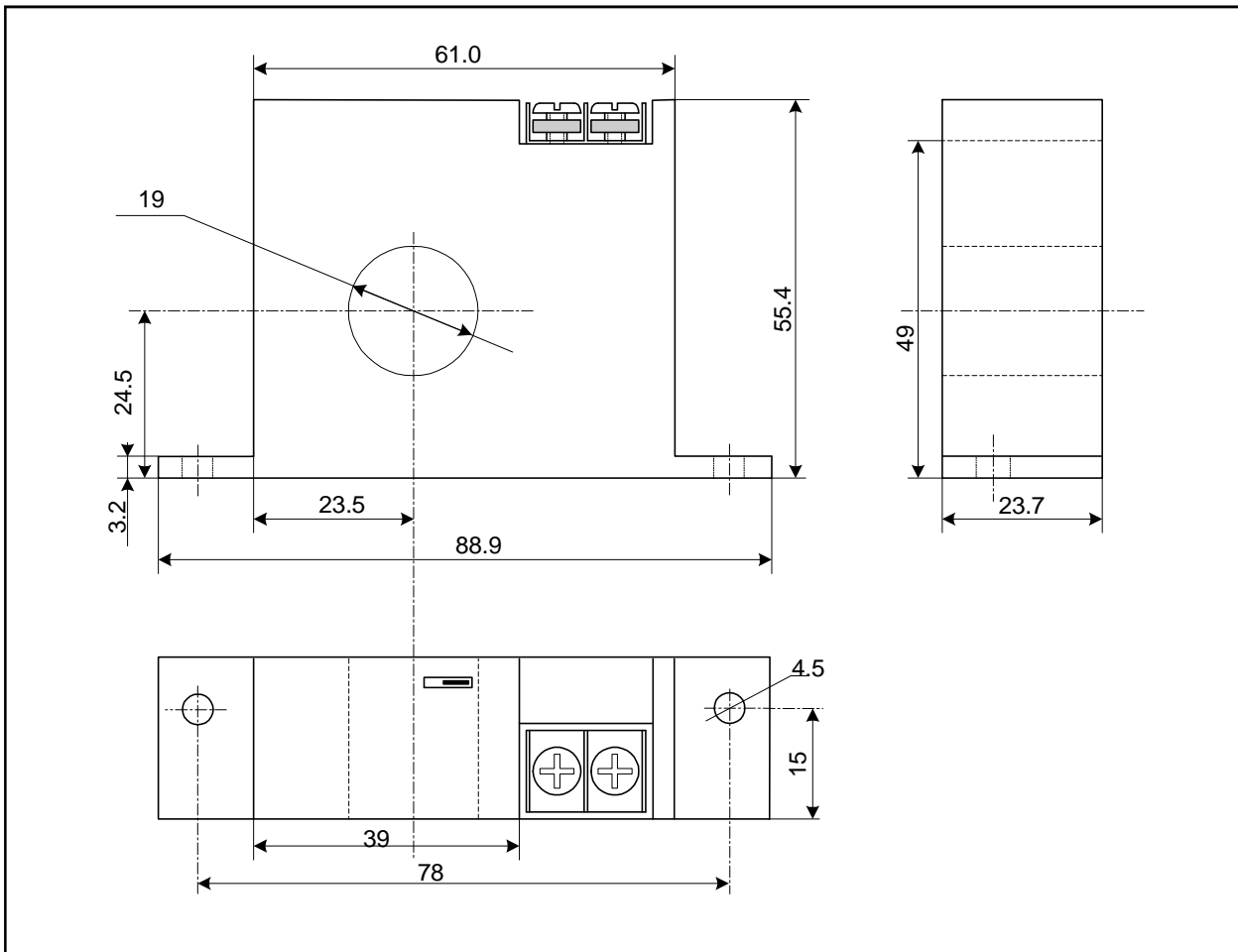
- Automation systems  
Analog current reading for remote monitoring (e.g. motor).
- Data loggers  
Self-powered transducer does not drain data logger batteries.
- Panel meters  
Simple connection displays power consumption.

## Options on request

- DIN mounting

## Dimensions AK-C420L

(unit : mm, 1mm = 0.0394 inch)



### Mechanical characteristics

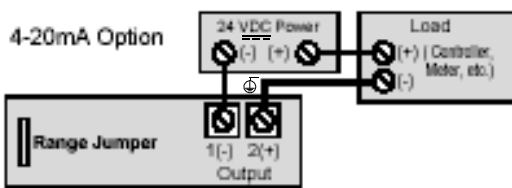
- General tolerance  $\pm 1$  mm
- Primary aperture 19 mm
- Panel mounting 2 holes  $\varnothing 4.5$ mm  
Distance between holes 78 mm

### Remark

- Temperature of the primary conductor should not exceed 60°C.

### Connections

- 2 x UNC8 Cylindric Head



- Notes:
- Captive screw terminals.
  - 12-22 AWG solid or stranded.
  - Observe polarity.

### Power Supply diagram

