

AC Current transducer AKR-B420L

$I_{PN} = 2..200A$

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). Jumper selectable ranges and True RMS 4-20mA current output.



Electrical data

Primary Nominal Current I_{PN} (A.t.RMS)	Analogue Output Signal ¹⁾ I_{OUT} (mA)	Type	RoHS Date Code
2,5	4-20	AKR 5 B420L	JUNE 2006
10,20,50	4-20	AKR 50 B420L	planned
100,150,200	4-20	AKR 200 B420L	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	10-400	Hz

Accuracy - Dynamic performance data

X	Accuracy @ I_{PN} , $T_A=25^\circ C$	± 1	%
t_r	Response time @ 90% of I_{PN}	< 600	mS

General data

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

Note: ¹⁾ For 4-20mA output model, no saturation output up to 23 mA.

Selecting the transducer

VFD (Variable Frequency Drive) and SCR (Semi Conductor Rectifier) output waveforms are rough approximations of a sine wave. There are numerous spikes and dips in each cycle. AKR transducers use a mathematical algorithm called "True RMS," which integrates the actual waveform over time. True RMS is the only way to accurately measure distorted AC waveforms. *Select AKR transducers for nonlinear loads or in "noisy" power environments.*

LEM reserves the right to carry out modifications on its transducers, in order to improve them, without previous notice.

Features

- VFD and SCR waveforms current measurement
- True RMS responding
- Split core box
- Current output
- Loop powered transducers
- Panel mounting
- Jumper selectable ranges

Advantages

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

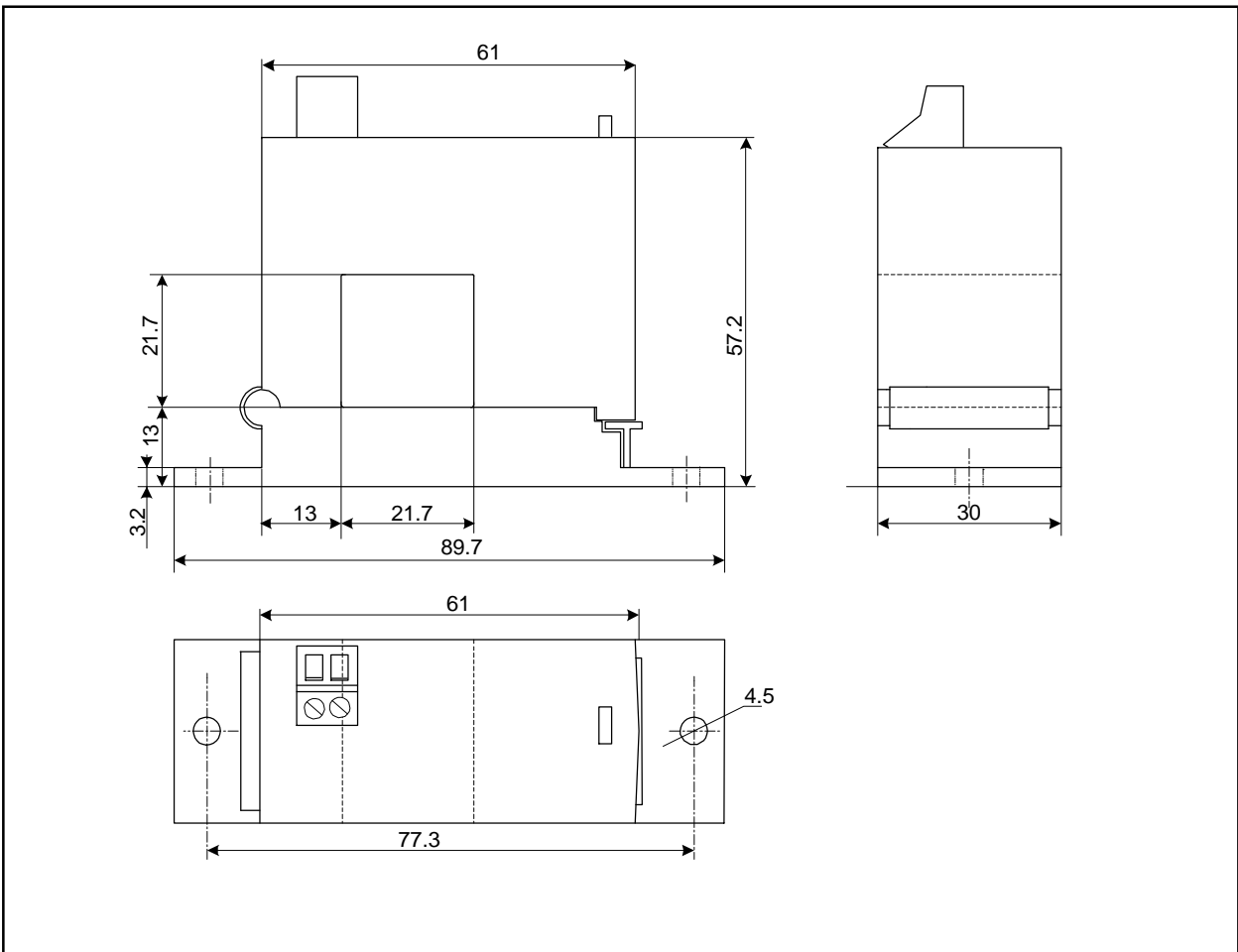
Applications

- 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.
- Switching Power Supplies and Electronic Ballasts: True RMS sensing is the most accurate way to measure power supply or ballast input power.

Options on request

- DIN mounting

Dimensions AKR-B420L (unit : mm, 1mm = 0.0394 inch)

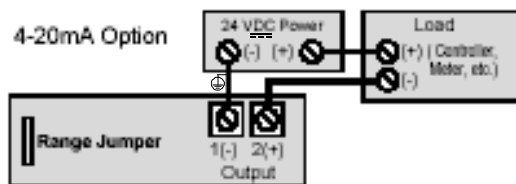


Mechanical characteristics

- General tolerance ± 1 mm
- Primary aperture 21.7 mm sq.
- Panel mounting 2 holes $\varnothing 4.5$ mm
- Distance between holes 77.3 mm

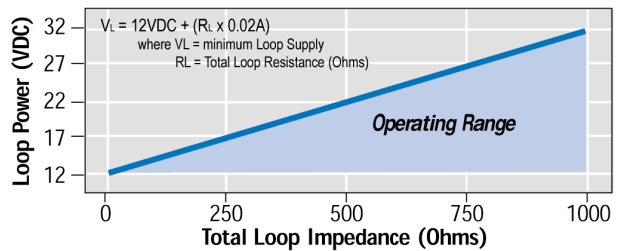
Connections

- 2 x UNC8 Cylindric Head



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

Power Supply diagram



Remark

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

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Lem manufacturer](#):

Other Similar products are found below :

[FHS 40-P KIT 4-1P](#) [FHS 40-P KIT 7-1P](#) [AT5B420L](#) [DHR 400 C10](#) [ATO-60-B225-D10](#) [IT 405-S](#) [ULTRASTAB](#) [HAS50-S/SP50](#) [CASR15-NP](#) [LA125-P](#) [RT 500](#) [FHS 40-P KIT 9-1P](#) [LF 205-S](#) [DVL 500](#) [DVL 750](#) [DVL 1000-UI](#) [AT100B10](#) [DIN RAIL ADAPTER ATO-D10](#) [DIN RAIL ADAPTER ATO-D16](#) [HO 200-/SP30](#) [AT150B420L](#) [DHR 100 C420](#) [HAIS 150-P](#) [AT 10 B10](#) [HO 150-/SP30](#) [DVL 1500-UI](#) [APR 50 B10](#) [DVL 750-UI](#) [HO 40-NP-0100](#) [CASR6-NP](#) [LAH100-P](#) [DHAB S/118](#) [LF205-S](#) [HO 250-/SP30](#) [LF 210-S](#) [hat800-s](#) [HAT400-S](#) [ART-B22-D070](#) [HO 50-S/SP33-1106](#) [RT 2000](#) [HX 03-P/SP2](#) [HTFS 400-P/SP2](#) [AP 50 B10](#) [DVL 2000](#) [HO 60-NP](#) [AP 50 B420L](#) [DVL 1500](#) [CAS25-NP](#) [DHR 200 C420](#) [HO 180-P](#) [HY 25-P](#)