Power Measurement

Power Measurement Transducer

AD-LU 410 GA

Description

Especially in power plant operations but also in many other switchgear areas, active power for the optimization and control of processes must be continuously measured. The power converter AD-LU 410 GA is always adapted to the individual case by means of plant-specific adaptations. The nominal voltage, the power to be measured and the desired output signal are required by the customer. The exact power values are available as standard signal for further processing.

Application

Measurement of the active power in switchgear, power plants, voltage distributions and transformation into an analog standard signal.



Specific characteristics

- Plug and play installation due to customer-specific production
- Fast response time due to analog multipliers
- Measurement of active power in 3- and 4-wire grids
- Measurement of symmetrical or asymmetrical load
- Measurement of active power fed back into the grid
- Analog output also bipolar possible
- Separate auxiliary voltage with wide range power supply

Business data

Order number

AD-LU 410 GA	Input, Output customized

Required customer data

Connection method	3-wire or 4-wire
Nominal voltage	Phase/Delta [V]
Voltage Transformers	Primary/secondary voltage [V/V]
Current Transformers	Primary/secondary current [A/A]
Type of load	symmetric or unsymmetric load
Measuring range	Begin ... End [kW]
Output signal	Current or voltage
Output range	Begin ... End [V, mA]

Information

Downloads

Order Help	en-lu410help.pdf
Safety instructions	ad-safety-instructions.pdf

Technical specifications

Voltage inputs

Rated frequency	50/60 Hz
Nominal Voltage Phase/Delta	230/400 V AC
Max. Voltage Phase/Delta	300/520 V AC
Current consumption per phase	0,5 mA AC
Permanent Overload	120% of nominal voltage
Peak load	600 V AC, 1s

Current inputs

Rated current I1, I2, I3	0 ... 1 A AC, 0 ... 5 A AC
Peak load	100 A AC, 1s
Continuous load	6 A AC
Permanent Overload	120% of nominal current
Input resistance per phase	~20 mOhm

Output

Type	Current or voltage, to be specified when ordering

Output current

Max. burden	500 Ohm
Maximum output range	-22 ... 22 mA (500 Ohm)

Output voltage

Min. burden	10 kOhm
Maximum output range	-12 ... 12 V (10kOhm)

Accuracy

Accuracy class	0,5
Temperature influence	~60 ppm/K
Frequency influence	200 ppm/Hz (40 ... 60 Hz)
Response time	~800 ms (0 ... 90 %)

Supply

DC	20 ... 253 V DC, 1,5 W
AC	50 ... 253 V AC, 3 VA

Housing

Protection class connection	IP20
Type of protection housing	IP40
Connection method	screw clamp
Cross section fine wire	2,5 mm^2
Cross section one wire	4 mm^2
Max. torque of terminals	0,8 Nm
Mounting	DIN rail mounting
Weight	~ 450 g

Environmental conditions

Operating temperature	-10 ... 60 °C
Storage, transport	-25 ... 80 °C

Electromagnetic compatibility

Product family standard	EN 61326-1
Emission	EN 55011, CISPR11 Cl. B, Gr. 1

During an interference effect slight signal deviations are possible.

SALES & ADVICE

GRUBATEC MESS- UND REGELTECHNIK

MANUFACTURER

ADAMCZEWSKI Elektronische Messtechnik

Grubatec AG · Wölferstrasse 5 · CH-4414 Füllinsdorf

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Subject to technical changes and printing errors.

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Technical specifications

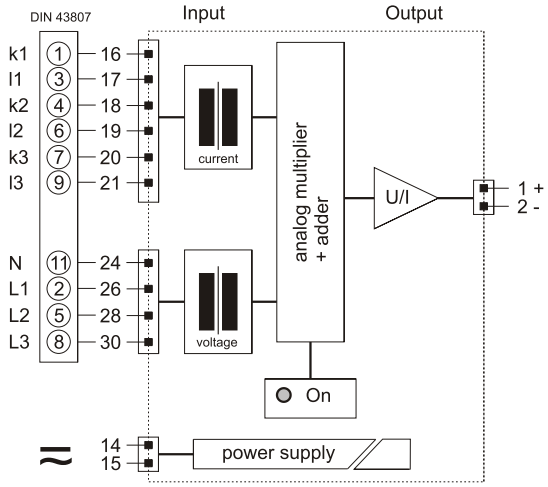
Electrical safety requirements

Overvoltage category	III
Measurement category	CAT III
Pollution degree	2
Test voltage input/output	5 kV RMS, 1 Min.
Testvoltage output/supply	4 kV RMS, 1 Min.

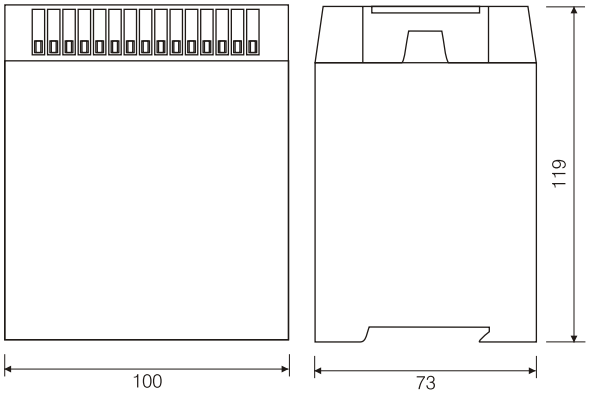
Product standards

Product family standard	EN 60688

Block and wiring diagram

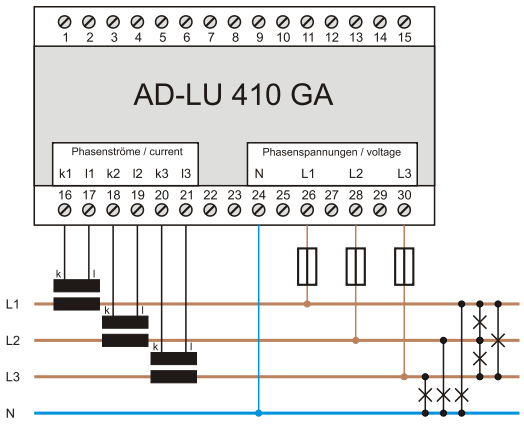


Dimensions

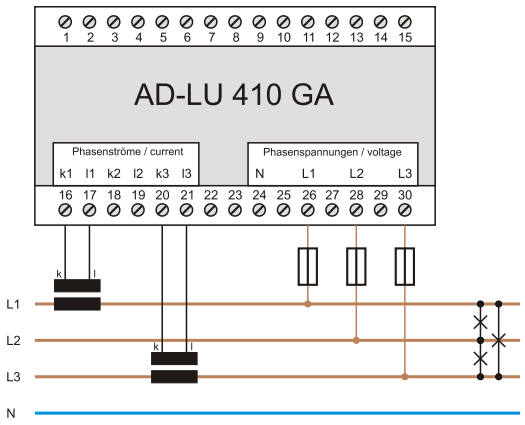


Circuit examples

3 Phasen, 4 Leiter, ungleiche Last
3 phases, 4 wire, unbalanced load



3 Phasen, 3 Leiter, ungleiche Last
3 phases, 3 wire, unbalanced load



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