Power Measurement

Power Measurement Transducer

AD-LU 10 GT

Description

The digital power measuring transducer AD-LU 10 GT measures all quantities of the power-network (current, voltage, energy, harmonics, phase angle, active power, reactive power, apparent power ...) and converts these measuring values onto one freely scalable analogue output (20 mA). In addition, the device also has a transistor output for S0 pulses or for reporting limit values. The unit is therefore optimal suitable for integration in energy management systems. One phase ore balanced 3- or 4-wire systems can be measured. The AD-LU 10 GT is supplied via its measuring voltage L1. The current measuring is carried out via the bar-type transformer mounted on the front. For measuring of high voltages or high currents, external transformers can be connected in series at any time. The AD-LU 10 GT can be read out and parameterised via the integral interface with the aid of the available AD-Studio. An LED at the front signals the operating condition. The compact type of construction and the high performance ability with simultaneous low energy consumption allows usage in almost any application.

Application

Typical usage in industrial plant, machines or energy management systems for balancing and determination of energy distribution.

Attention: This is a Class A product according to EN 55011. Additional EMC actions may be necessary when used in small businesses or in residential areas.



Specific characteristics

- compact design
- · current measurement via clamp on current transfomrers
- · supplied via its measuring voltage L1
- current output (mA)
- S0- or Limit-Output
- · monitoring all variables of the three-phase network
- parameterization via AD-Studio

Business data

Order number

Power measurement transducer AD-LU 10 GT AD-LU 10 GT

Accessory (optional)

VarioPass3 USB-Schnittstellenadapter AD-Studio Konfigurationssoftware

Power Measurement

Power Measurement Transducer

AD-LU 10 GT

Technical specifications

Input current

Measuring ranges 0 ... 1 A AC; 0 ... 5 A AC;

0 ... 20 A AC

Max. conductor diameter 4,8 mm
Max. measurable harmonic 40

Input voltage

Measuring range 80 ... 253 V AC Input resistance > 900 kOhm

Output current

Output range 0/4 ... 20 mA
Max. load 400 Ohm
Resolution 11 Bit
Residual ripple 25 µAss

Transistor output

Max. switching load 30 V DC, 20 mA Pulse length min ... max 50 ms ... 10000 ms

Supply

Voltage range AC 80 ... 253 V AC, 50/60 Hz (see

voltage-inputs)

Nominal voltage AC 230 V AC Power consumption max. 4 VA

Transfer behavior - in reference to the current value

Basic accuracy < 0,5 % (class 0.5)

Temperature influence 80 ppm/K Response time < 0.5 s

Housing

Dimensions (WxHxD) 35,5x90x70 mm

Type of protection IP 20
Connection method screw clamp

Terminals, wire cross section 2,5 mm² flex wire / 4 mm² one wire

Bolting torque terminals 0,6 Nm Skinning length 6 mm Weight ~ 150 g

Manner of fastening 35 mm DIN rail 35mm

Environmental conditions

Ambient temperature -10 ... 50 °C

Storage and transport -10 ... 70 °C (no condensation)

EMC

Product family standard EN 61326-1 1)

Emitted interference EN 55011, CISPR11 Cl. A, Gr. 1

Electrical safety requirements

Product family standard EN 61010-1

Overvoltage category II
Pollution degree 2

Safety measurement EN 61010-2-030

Measurement category CAT II

Galvanic isolation, test voltages

Grid side to analoge output 4 kV, 50 Hz (1 min.) Power Supply to Transistor 4 kV, 50 Hz (1 min.)

Output

Protection circuits

Input electrical surge protection

Power supply protection against over-temperature,

over-voltage and over-current

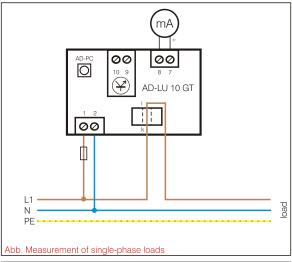
Analogue output electrical surge protection

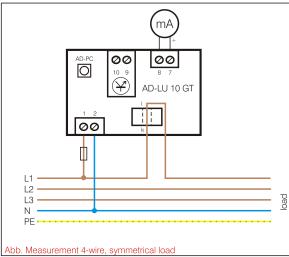
 $^{^{\}rm 1)}$ During checking, slight signal deviations are possible.

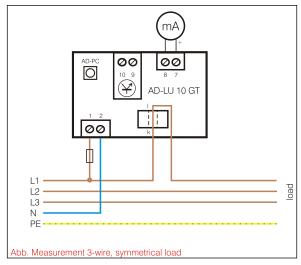
Power Measurement Transducer

AD-LU 10 GT

Block and wiring diagram







Dimensions

