

**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 transformrs
- 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  
AD-Studio

USB-Schnittstellenadapter  
Konfigurationssoftware



**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 mm <sup>2</sup> flex wire / 4 mm <sup>2</sup> 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 <sup>1)</sup>
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 Output	4 kV, 50 Hz (1 min.)

**Protection circuits**

Input	electrical surge protection
Power supply	protection against over-temperature, over-voltage and over-current
Analogue output	electrical surge protection

<sup>1)</sup> During checking, slight signal deviations are possible.

**Block and wiring diagram**

**Dimensions**

