SIMEAS T
Digital Transducer

Fig. 13/32
SIMEAS T

Description

The SIMEAS T universal transducer allows measurement of all electrical quantities occurring in any network in a single unit. Especially in power plants and substations transducers are used for isolation of electrical signals and for further processing of measured values. Any desired measured value (current, voltage, active power, frequency, etc.) can be assigned to each of the 3 analog outputs, as well as any desired measuring range.

The output signal (e.g. -10 to 0 to 10 mA, ± 20 mA, 4 to 20 A, 0 to 10 V, etc.) can be freely parameterized for every output channel. The binary output can be used as a kWh meter to register the energy or as a limit monitor.

Input currents up to max. 10 A or input voltages up to 600 V with rated frequencies of 16 2/3, 50 or 60 Hz can be connected.

The SIMEAS T is available with an RS232 or an RS485 interface. The device can be installed for operation on an IEC 60870-5-103 bus.

The unit can be reparameterized with the SIMEAS T PAR software package.

- SIMEAS T PAR - Parameterization software
  SlMEAS T digital transducers with RS232 or RS485 interface can be parameterized or calibrated with the PC software SIMEAS T PAR. The measured quantities can be displayed online on the PC via a graphical meter or can be recorded and stored over a period of up to one week. The SIMEAS T PAR software enables the self-parameterization of the digital transducer according to the desired parameter setting.
- SIMEAS T EVAL - Evaluation software
  Using the SIMEAS T EVAL evaluation software, the previously stored values with SIMEAS T PAR can be edited, evaluated and printed in the form of a graphic or table.

Function overview

Application

- All measured values in any desired power supply system can be measured with one single unit, the SIMEAS T
- Any desired measured value (current voltage, active power, frequency, etc.) can be assigned to each of the 3 analog outputs, as well as any desired measuring range
- The output signal can be freely parameterized for every output
- The binary output can be used as a kWh meter to register the energy or as a limit monitor
- Input currents up to max. 10 A or input voltages up to 600 V with rated frequencies of 50, 60 or 16 $^2/_3$ Hz can be connected
- For connection to any power control system via IEC 60870-5-103 communication protocol

Features

- Smallest size
- CE mark
- EMC interference immunity
- Satisfies relevant international standards
- High quality, long life
- Electrical isolation with high test voltage
- High measuring accuracy
- Real r.m.s measurement
- Powerful output signal circuits
- One unit for all applications
- All data freely parameterizable
- High plant security and reliability

Communication interfaces

- RS232 or RS485 interface

Parameterization

for universal transducer with RS232/RS485 interface

Selection of measuring and metering quantities

Depending on the type of connection, the transducer generally calculates all measured or metered values marked with ●. Of these, any 3 measured variables ▼ can be connected to the 3 analog outputs and any measured parameter ■ to the limit monitor or for work metering to the binary output.

All measured values marked with ● are transmitted via the serial interface.

The following parameters can be defined with SIMEAS T PAR software (see page 13/27 for a description):

Basic parameter

Operating mode

- Direct connection without instrument transformer
- Single-phase AC
- Three-wire three-phase AC, balanced
- Three-wire three-phase AC, unbalanced
- Four-wire three-phase AC, balanced
- Four-wire three-phase AC, unbalanced

System frequency

- 50 Hz
- 60 Hz
- 16 ²/₃ Hz

Voltage inputs

- Without instrument transformer L - N in range 0 to 90 V
- Without instrument transformer L - N in range 0 to 180 V
- Without instrument transformer L - N in range 0 to 450 V
- With instrument transformer by indication in plain text: prim./sec. Example: 10 / 0.1 kV

Current inputs

- Without instrument transformer in range 0 to 2 A
- Without instrument transformer in range 0 to 4 A
- Without instrument transformer in range 0 to 10 A
- With instrument transformer by indication in plain text: prim./sec. Example: 100 / 1 A

Analog output 1

Measured variable

- Selecting measured variable from Table 13/2, e.g. total active power

Measuring range

- Entering primary measuring range with starting range / end range, e.g. -100 to +100 MW

Output signal

- Entering output signal with starting range / end range in range: -20 to + 20 mA or -10 to +10 V, or 4 to 20 mA

Output signal limit

- Entering output signal limit with lower range / upper range e.g. lower range + 4 mA / upper range + 22 mA

Characteristic

- Characteristic, linear
- With knee-point at measuring range / at output signal, e.g. knee-point at + 50 MW and + 2 mA

Analog outputs 2 and 3 like analog output 1

Binary output

- Unit in operation, signal upon transducer disturbance
- Limit signal
  Select the measured variable from Table 13/2.
  Specify the measurement range limit.
  Select whether a signal is issued on undershoot or overshoot, e.g. limit in the case of the measured variable “voltage”.
  Signal if the value is less than 9.9 kV
- Power metering
  Select the power variable from Table 13/2. Specify the power variable pulse rate, e.g. power variable: total active power reference;
  pulse rate 10 pulses/kWh.

Parameterization

Type of connection		Single-phase AC	Three-wire balanced	Three-wire unbalanced	Four-wire balanced	Four-wire unbalanced	Measuring units
Measured variables							
Voltage	U_{L1-N}	▼■●			▼■●	▼■●	V, kV
Voltage	U_{L2-N}					▼■●	V, kV
Voltage	U_{L3-N}					▼■●	V, kV
Voltage	U_{L1-L2}		▼■●	▼■●		▼■●	V, kV
Voltage	U_{L2-L3}		▼■●	▼■●		▼■●	V, kV
Voltage	U_{L3-L1}		▼■●	▼■●		▼■●	V, kV
Voltage	U_{E-N}					▼■●	V, kV
Current	I_{L1}	▼■●	▼■●	▼■●	▼■●	▼■●	A, kA
Current	I_{L2}			▼■●		▼■●	A, kA
Current	I_{L3}			▼■●		▼■●	A, kA
Current	I_{L0}					▼■●	A, kA
Frequency	f_{L1}	▼■●	▼■●	▼■●	▼■●	▼■●	Hz
Phase angle	φ	▼ ●	▼ ●	▼ ●	▼ ●	▼ ●	°
Active power	P_{total}	▼■●	▼■●	▼■●	▼■●	▼■●	W, kW, MW
Active power	P_{L1}					▼■●	W, kW, MW
Active power	P_{L2}					▼■●	W, kW, MW
Active power	P_{L3}					▼■●	W, kW, MW
Reactive power	Q_{total}	▼■●	▼■●	▼■●	▼■●	▼■●	var, kvar, Mvar
Reactive power	Q_{L1}					▼■●	var, kvar, Mvar
Reactive power	Q_{L2}					▼■●	var, kvar, Mvar
Reactive power	Q_{L3}					▼■●	var, kvar, Mvar
Power factor cos	φ_{total}	▼■●	▼■●	▼■●	▼■●	▼■●	–
Power factor cos	φ_{L1}					▼■●	–
Power factor cos	φ_{L2}					▼■●	–
Power factor cos	φ_{L3}					▼■●	–
Apparent power	S_{total}	▼■●	▼■●	▼■●	▼■●	▼■●	VA, kVA, MVA
Power variables							
Active power, consumption	kWh_{total}	■●	■●	■●	■●	■●	kWh/pulse
Active power, consumption	kWh_{L1}					■●	kWh/pulse
Active power, consumption	kWh_{L2}					■●	kWh/pulse
Active power, consumption	kWh_{L3}					■●	kWh/pulse
Active power, delivered	kWh_{total}	■●	■●	■●	■●	■●	kWh/pulse
Active power, delivered	kWh_{L1}					■●	kWh/pulse
Active power, delivered	kWh_{L2}					■●	kWh/pulse
Active power, delivered	kWh_{L3}					■●	kWh/pulse
Reactive power, consumption	$kvarh_{total}$	■●	■●	■●	■●	■●	kvar/pulse
Reactive power, consumption	$kvarh_{L1}$					■●	kvar/pulse
Reactive power, consumption	$kvarh_{L2}$					■●	kvar/pulse
Reactive power, consumption	$kvarh_{L3}$					■●	kvar/pulse
Reactive power, delivered	$kvarh_{total}$	■●	■●	■●	■●	■●	kvar/pulse
Reactive power, delivered	$kvarh_{L1}$					■●	kvar/pulse
Reactive power, delivered	$kvarh_{L2}$					■●	kvar/pulse
Reactive power, delivered	$kvarh_{L3}$					■●	kvar/pulse
Apparent power	$kVAh_{total}$	■●	■●	■●	■●	■●	kVA/pulse

Table 13/2

▼ Measured variables that can be connected to analog outputs.

■ Measured variables that can be connected to limit monitor or with power metering as metered value to binary output.

● Measured variables or metered values that can all be transmitted via serial RS232 or RS485 interface and indicated or logged, for example on a PC or notebook with SIMEAS T PAR software.

Transfer of measured values

for universal transducer with RS232 and RS485 interfaces

The metering points registered by the transducer and passed on with the ASDU depend on the chosen mode of operation. These are listed in the adjacent table. The list conforms to DIN 19244 and VDEW

Data transfer by means of IEC 60870-5-103 file transfer

The contents of the file transfer telegrams conforming to IEC 60870 are completely transparent to the user. All existing measured values can be integrated. It is then left to the respective user program to extract the required data.

	ASDU 140 standard with up to 16 measured values					ASDU 9 with 9 measured values	ASDU 140 with 9 measured values
No.[1]	Single-phase Netw.	3-wire unbal-anced	3-wire balanced	4-wire unbal-anced	4-wire balanced	4-wire unbalanced	4-wire unbalanced
1	I_{L1}	I_{L1}	I_{L1}	I_{L1}	I_{L1}	I_{L1}	P_{L1-N}
2	U_{L1-N}	I_{L3}	f	I_{L2}	U_{L1-N}	I_{L2}	P_{L2-N}
3	f	f	U_{L1-L2}	I_{L3}	f	I_{L3}	P_{L3-N}
4	$\cos\varphi$	U_{L1-L2}	U_{L2-L3}	U_{L1-N}	$\cos\varphi$	U_{L1-N}	Q_{L1-N}
5	φ	U_{L2-L3}	U_{L3-L1}	U_{L2-N}	φ	U_{L2-N}	Q_{L2-N}
6	S	U_{L3-L1}	$\cos\varphi$	U_{L3-N}	S	U_{L3-N}	Q_{L3-N}
7	P	$\cos\varphi$	φ	U_0	P	P	$\cos\varphi_{L1-N}$
8	Q	φ	S	f	Q	Q	$\cos\varphi_{L2-N}$
9	–	S	P	U_{L1-L2}	–	f	$\cos\varphi_{L3-N}$
10	–	P	Q	U_{L2-L3}	–		
11	–	Q	–	U_{L3-L1}	–		
12	–	–	–	$\cos\varphi$	–		
13	–	–	–	φ	–		
14	–	–	–	S	–		
15	–	–	–	P	–		
16	–	–	–	Q	–		

1) No. corresponds to the metering point in the telegram
Dimensions of measured quantities: V, A, Hz, W, Var, VA

Bus link

RS232 and RS485 SIMEAS T transducer with interface acc. to IEC 60870-5-103

In terms of their design, method of connection and technical data, the transducers with an RS485 interface are identical to the standard units with an RS232 interface. Instead of the RS232 interface, however, an interface conforming to EAI RS485 is installed for operation on an IEC 60870-5-103 bus. Thus, the transducers are bus-compatible and, as shown in the examples, can be networked.

Bus operation does not have an influence on the output of analog measured quantities via the analog outputs. The units are parameterized with the SIMEAS T PAR software.

Connection example 1
User programs for SIMATIC for linking transducers with an RS485 interface

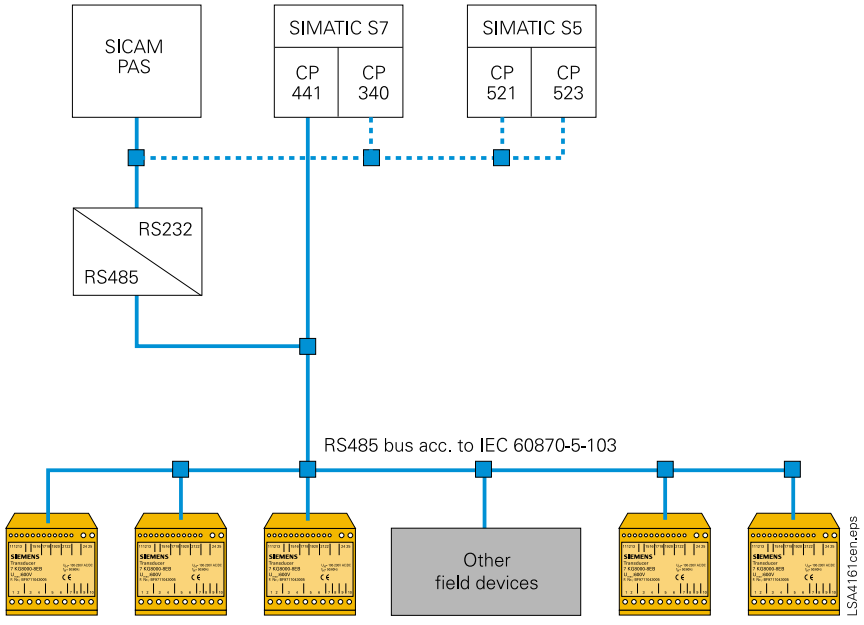

Fig. 13/33 Connection example 1

Bus link

for universal transducer with RS485 interface

Connection example 2

Connection to a PC with the SIMEAS T PAR software

Using the SIMEAS T PAR software, transducers can be called up on the bus and their measured values can be selected on the graphical meters, displayed and recorded.

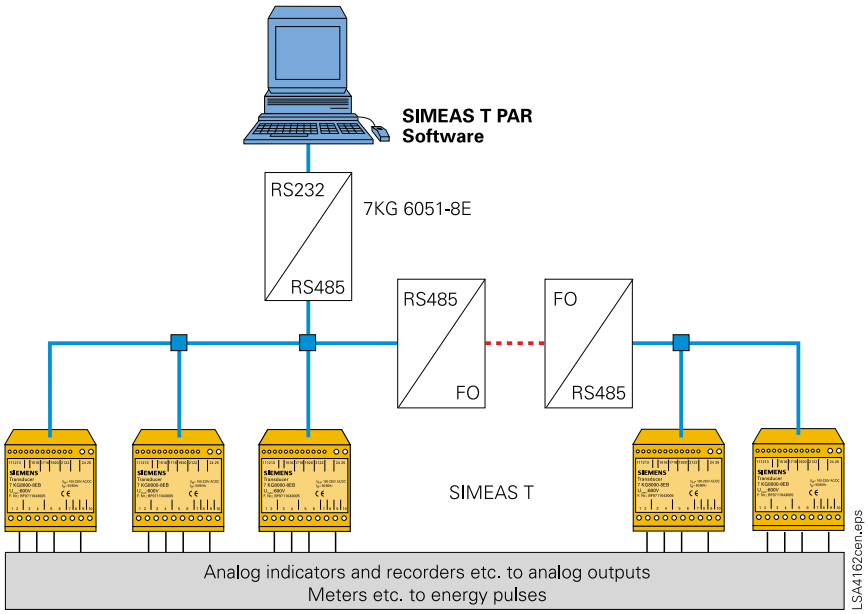

Fig. 13/34 Connection example 2

Parameterization

for universal transducer with RS485 interface

The transducers do not contain any mechanical setting controls. This is why the units must be adjusted for their tasks using a PC or a notebook, the SIMEAS T PAR software and the RS232/RS485 converter prior to use on the bus. To this end, the transducer must be connected to auxiliary power and the RS232/RS485 converter by means of the included plug-in power supply unit.

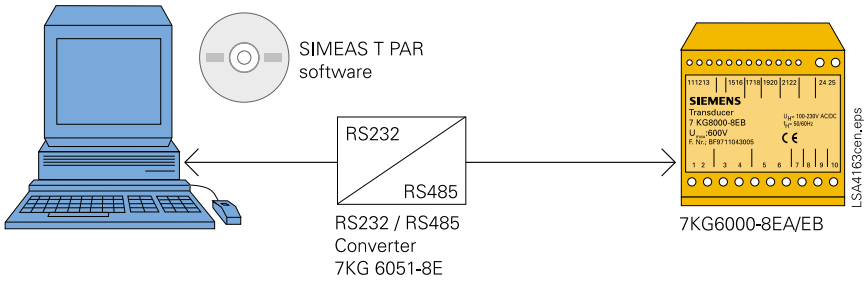

Fig. 13/35

The following are parameterized:

Bus address:	1 to 254
Baud rate:	2400, 4800, 9600 or 19200 bits/s
Basic parameters:	mains type, mains frequency, instrument transformer data
Bus mode:	acc. to IEC 60870-5-103, with 9 or 16 measured values
Analog outputs:	same as standard units (if required)
Binary output:	same as standard units (if required)

Design

for universal transducer with RS232/RS485 interface

Connection examples SIMEAS T connected to a network

The input circuits shown are only examples. Connection without current and voltage transformers is also possible up to the maximum current and voltage values. Voltage transformers can also be connected in a star or V connection.

Inputs or outputs that are not needed for measurement are not connected.

In the case of 3-channel current transducers, for example, only the 3 current inputs need to be connected; in the case of 3-channel voltage transducers, only the voltage inputs need to be connected and, for frequency, for example, only the voltage inputs L_1-N need to be connected. The unit can only be connected to one network or feeder.

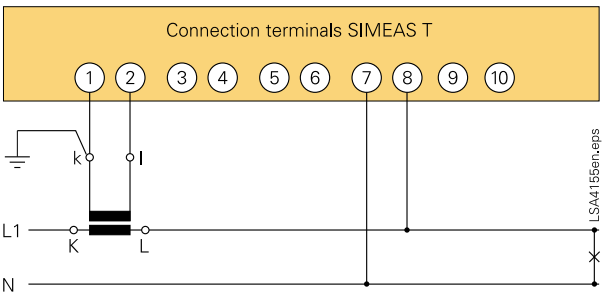

Fig. 13/36
Single-phase AC current

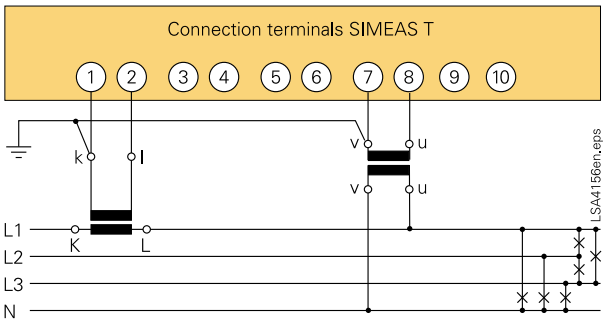

Fig. 13/37
Four-wire three-phase, balanced

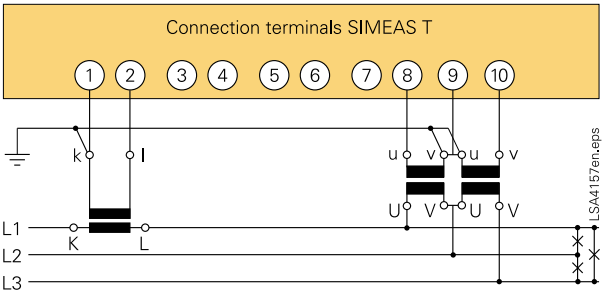

Fig. 13/38
Three-wire three-phase, balanced

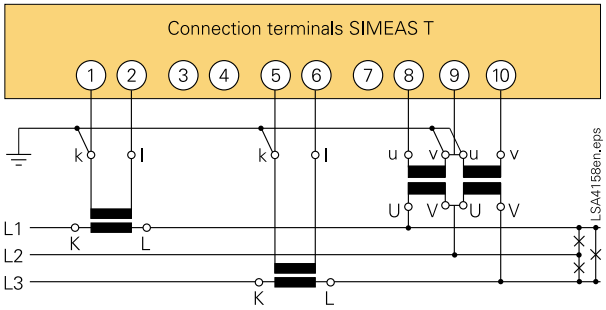

Fig. 13/39
Three-wire three-phase, unbalanced

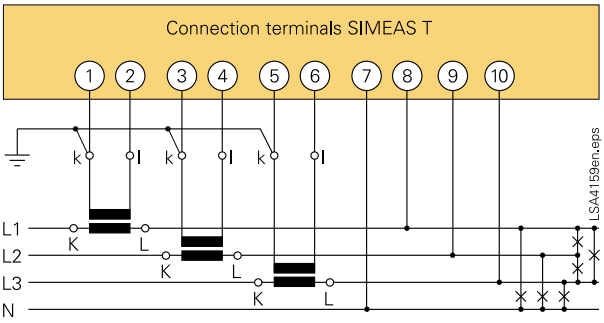

Fig. 13/40
Four-wire three-phase, unbalanced
(high-voltage network)

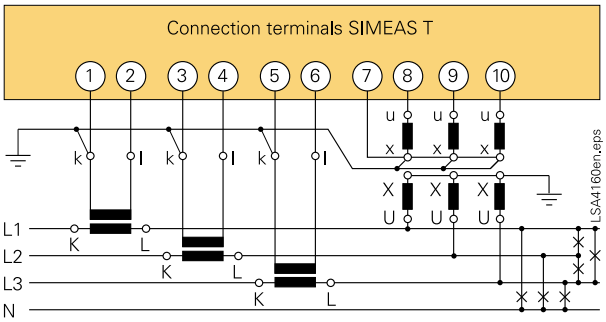

Fig. 13/41
Four-wire three-phase,
unbalanced (low-voltage network)

Technical data

for universal transducer with RS232/RS485 interface

Input	
For connection to AC voltage systems only	
Maximum rated mains voltage	Y 230 /Δ 400 V and Δ 500 V
Permissible control range	U_E = 600 V; I_E = 10 A
Rated frequency f_{EN}	50 Hz, 60 Hz, 16 2/3 Hz
Frequency range f_E	50/60 Hz ± 5 Hz
Waveform	sinusoidal or distorted up to the 32nd harmonic
AC input current I_E	
Rated input current I_{EN}	Min. 1 A, max. 5 A
Input range I_E	0 to 10 A
Power consumption per current path	0.01 VA at I_E = 1 A 0.05 VA at I_E = 5 A 0.1 VA at I_E = 10 A
Continuous overload capacity	12 A
Surge withstand capability	200 A for 1 s
Input AC voltage V_E	
Rated voltage V_{EN}	Max. 500 V Δ Max. 288 V Y and single-phase
Power consumption per line V_{L-N}	0.02 VA at $V_E = 100\ V/\sqrt{3}$ 0.33 VA at V_E = 230 V
Continuous overload capacity	V_{L-L} = 600 V
Surge withstand capability	$V_{L-L} \leq 850$ V / 5 surges 1 s at intervals of 5 s
Analog outputs	
Electrically isolated	Bipolar DC current or DC voltage, short-circuit-proof and idling resistant
Rated output current I_{AN}	20 mA
Rated control range	0 to I_{AN}
Permissible control range	± 1.2 I_{AN}
No-load voltage V_{AL}	≤ 25 V
Rated load R_{BIN}	7.5 V/I_{AN}
Operating load R_B	0 to 15 V/I_{AN}
Rated output voltage V_{AN}	10 V
Rated control range	0 to V_{AN}
Permissible control range	± 1.2 V_{AN}
Short-circuit current	≤ 50 mA
Rated load R_{BIN}	V_{AN} / 2.5 mA
Load current	≤ 20 mA
Residual ripple I_{PP}	≤ 0.5 % PP of I_{AN}
Setting time t_{99}	≤ 0.3 s[1)]
Binary output	
Contact-free via optocoupler	
Permissible voltage	± 100 V DC or 100 V AC
Permissible current	150 mA continuously 500 mA for 100 ms
Internal resistance	≤ 10 Ω
Permissible operating frequency	≤ 10 Hz
Hysteresis at	2 % of int. range limit
Energy pulse range	256 to 7200 pulses/h
Pulse width	App. 100 ms

Interface	
	RS232 (V. 24) or RS485 acc. to IEC 60870-5-103
Baud rate	2400, 4800, 9600, 19200 Baud adjustable by software Basic standard IEC 60688
Electrically isolated connection	To analog output 1
Auxiliary voltage	Acc. to EN 50082-2
Variant 1: Rated output voltage V_{auxN} Voltage range V_{aux}	 24 to 60 V DC ± 20 % of the rated range
Variant 2: Rated input voltage V_{auxN} Voltage range V_{aux} Voltage range V_{aux} Power consumption	 100 to 230 V AC, 47-63 Hz ± 10 % of the rated range or 110 to 250 V DC ± 20 % of the rated range 1.5 - 3 W depending on the output wiring
Errors and influences	Acc. to IEC 60688
	Relative error information with ± sign
Errors in case of reference conditions	Referred to I_{AN} or V_{AN}
Current, voltage	≤ 0.2 %
Active, reactive, apparent power	≤ 0.3 %
Phase angle	≤ 0.5 %
Power factor	≤ 1 % (measured as from >1% of the internal apparent power)
Frequency	≤ 3 mHz ± 0.2 % of the output range (measured in L1 as from 20 % of the internal voltage range)
Energy	≤ 0.2 %
Reference conditions	
Input current I_E	I_{EN} ± 1 %
Input voltage V_E	V_{EN} ± 1 %
Frequency f_E	f_{EN} ± 1 %
Sinusoidal waveform	Harmonic distortion ≤ 5 %
Load R_B	R_{BIN} ± 1 %
Ambient temperature T_{amb}	23 °C ± 1 °C
Auxiliary voltage V_{aux}	V_{auxN}
Warm-up time	≤ 15 min
Extraneous fields	None
Influences	Referred to A_N
of the input voltage of V_{EN} up to 1.2 V_{EN}	≤ 0.2 %
of the input current of I_{EN} up to 1.2 I_{EN}	≤ 0,2 %
of the auxiliary voltage of 0.8 to 1.2 V_{auxN}	≤ 0.1 %
of the ambient temperature	≤ 0.2 % / 10 K
of the frequency (45 to 65 Hz)	≤ 0.03 % / Hz
of harmonics (up to 32nd harmonic)	≤ 0.02 % per 10 % harmonic distortion
of the load	≤ 0.1 % in the event of a load change for 0 Ω to 15 V/ I_{AN}
heating up	≤ 0.3 %

1) Applicable to measured frequency for Δf/Δt ≤ 8 Hz/s.

Technical data

for universal transducer with RS232/RS485 interface

Electrical tests	
Basic standard	IEC 60688
Insulation tests Type tests	Acc. to DIN EN 61010-1
Inputs (currents with respect to one another and to voltages)	3.7 kV, 50 Hz, sine 6.8 kV surge voltage: 1.2/50 µs, R_i = 500 Ω
Inputs to outputs Interface and auxiliary power	5.5 kV, 50 Hz, sine 10.2 kV surge voltage: 1.2/50 µs, R_i = 500 Ω
Auxiliary power to outputs and interface	3.7 kV , 50 Hz , sine 6.8 kV surge voltage: 1.2/50 µs, R_i = 500 Ω
Outputs and interface with respect to one another, and analog output 1 connected to the interface with electrical isolation	700 V DC
Ambient temperature Operating temperature range (depending on measured voltage, output load and method of installation)	Acc. to IEC 60688 -10 °C to + 50 °C e.g. in the case of input voltage 3x100 V and sum of the continuously applied output loads of ≤ 40 mA
Storage temperature range	- 40 °C to + 85 °C
Climatic application class	EN 60721-3-3 temperature 3K8H Humidity 3K5
Fire resistance class	V0
Safety	to DIN EN 61010-1
Surge voltage category	III
Fouling factor	2
Electromagnetic compatibility	
Interference emission	Acc. to DIN EN 50081-1 and IEC/CISPR 22
Radio interference field strength	Acc. to DIN EN 55022 Cl. B
Interference immunity	Acc. to EN 50082-2 and IEC / EN 61000-4
Interference immunity electromagnetic fields 10 V/m	Acc. to IEC 801-3
Static discharge electricity ESD 8 kV	Acc. to IEC 801-2
Fast transients, asym. burst 2 kV with cap. link	Acc. to IEC 801-4
Unit design	
Dimensions	See part 17
Degree of protection Housing Terminals	Acc. to DIN VDE 0470 T 1 / IEC 60529 IP 40 IP 20
Connection Current inputs Voltage inputs Outputs/interface	By screw terminals 4 mm^2 2.5 mm^2 2.5 mm^2
Weight	Approx. 0.65 kg

SIMEAS T PAR

Parameterization software

Description

By means of the SIMEAS T PAR software, SIMEAS T transducers with an RS232 or an RS485 interface can be parameterized or calibrated swiftly and easily. Measured quantities can be displayed on the PC online via a graphical meter or can be recorded and stored over a period of up to one week.

Generally, all the transducers are already calibrated and factory set when delivered.

Recalibration of the transducers is normally only necessary after repairs or in the event of readjustment.

Features

- Extremely simple and straightforward operation
- Storage of parameterization data under a user-defined name even without the transducer
- Parameters are sent to transducers even after installation on the site
- A parameterization list with the specific connection diagram of the transducer can be printed
- A self-adhesive data plate can be printed and fixed to the transducer, including a possibility of entering three lines of text containing the name and location etc.

Parameterization

Parameterization serves to set the transducer to the required measured quantities, measuring ranges and output signals etc. Users are able to parameterize the transducer themselves in only a few steps.

Communication

Communication with the transducer is achieved by means of a connecting cable (optionally available) connected via the interface that is available on every PC or laptop. For units with an RS232 interface, use the connecting cable 7KG6051-8BA or, for units featuring an RS485 interface, use the converter 7KG6051-8Ex. Three mutually independent program sections can be called up.

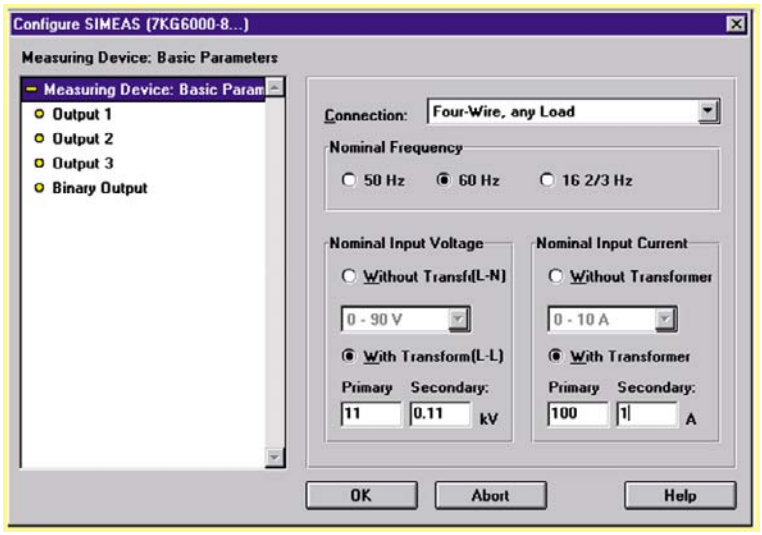

Fig. 13/42
Parameterization of the basic parameters

Fig. 13/43
Example: measured value display with 3 measured quantities

Reading out data

With graphical instruments, all measured quantities calculated in the transducer and power quantities can be displayed online on a PC or laptop, and either in analog or digital form.

To improve the resolution of the graphics, users can freely choose the number of instruments on the screen and can freely assign the measured quantity and measuring range.

These are selected and assigned independently of the unit's analog outputs.

Displayed measured values can be stored, printed or recorded for the SIMEAS T EVAL evaluation software.

SIMEAS T EVAL

Evaluation software

Description

With a PC or a notebook and the SIMEAS T PAR software installed on it, up to 25 measured quantities can be displayed and recorded online with the SIMEAS T digital transducer. A maximum of one week can be recorded. Every second, one complete set of measured values is recorded with time information. The complete recording can then be saved under a chosen name.

Using the SIMEAS T EVAL evaluation software, the stored values can be edited, evaluated and printed in the form of a graphic or a table.

Features

- Automatic diagram marking
- Graphic or tabular representation
- Sampling frequency: 1 s
- A measured value from the table can be dragged to the graphic by simply right-clicking on it
- Add your own text to graphics
- Select measured quantities and the measuring range
- Easy zooming with automatic adaption of the diagram captions on the X and Y axes
- Up to 8 cursors can be set or moved anywhere
- Tabular online display of the chosen cursor positions with values and times
- Characteristics can be placed over one another for improved analysis
- The sequence of displayed measured quantities can be selected and modified
- The complete recording or edited graphic can be printed, including a possibility of selecting the number of curves on each sheet
- The table can be printed with measured values and times pertaining to the cursor positions.

Fig. 13/44
When a cursor is moved by the mouse, the measured values and times in the table are adapted automatically

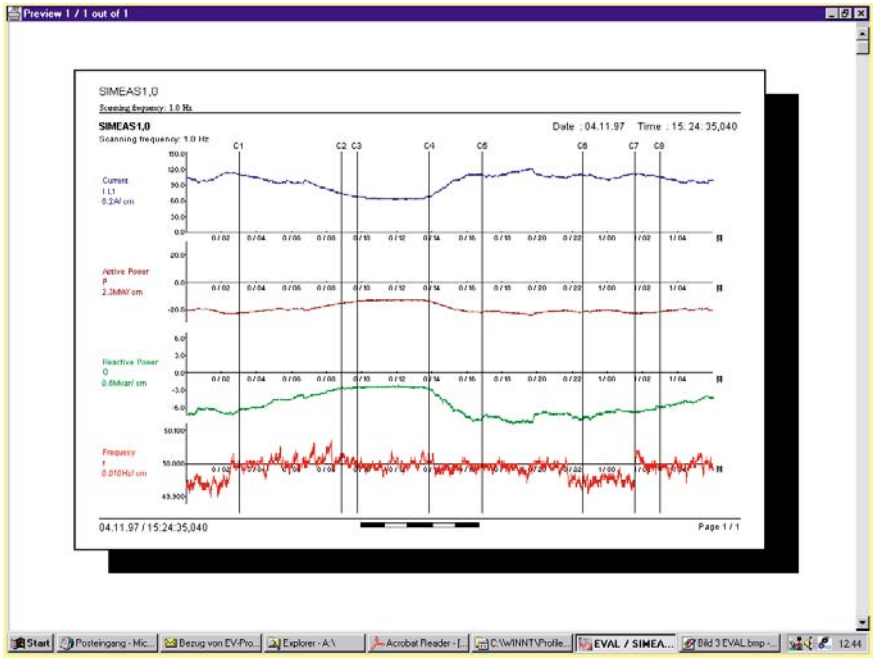

Fig. 13/45
Printout view

Selection and ordering data

Description	Order No.
SIMEAS T	*7KG6000 -4A☐*
Universal transducer for electrical quantities in power systems, with –1 up to +1 mA_{DC} output, with RS232 interface for self-parameterization via SIMEAS T PAR Windows software	
Auxiliary power	
24 to 60 V DC	*A*
110 to 230 V AC/DC	*B*
SIMEAS T	*7KG6000-8A☐*
Universal transducer for electrical quantities in power systems, with –20 up to +20 mA_{DC} output, with RS232 interface for self-parameterization via SIMEAS T PAR Windows software	
Auxiliary power	
24 to 60 V DC	*A*
110 to 230 V AC/DC	*B*
SIMEAS T	*7KG6000-8E☐*
Universal transducer for electrical quantities in power systems, with –20 up to +20 mA_{DC} output, with RS485 interface for IEC 60870-5-103 protocol, for self-parameterization via SIMEAS T PAR Windows software	
Auxiliary power	
24 to 60 V DC	*A*
100 to 230 V AC/DC	*B*

Software

SIMEAS T PAR parameterization software
For parameterization of the universal transducer SIMEAS T with Windows XP
Languages:
English, German, French, Spanish, Italian — *7KG6050-8AA*

SIMEAS T EVAL evaluation software with SIMEAS T PAR
Graphical evaluation program for the universal transducer SIMEAS T,
consisting of SIMEAS T EVAL on floppy disk and SIMEAS T PAR on CD.
Languages can be chosen during installation:
English, German, French, Spanish, Italian — *7KG6050-8CA*

Accessories

RS232/RS485 converter
Required for parameterization of the universal transducer with RS485 interface,
plug-in power supply unit

V_{aux} 230 V AC; 50 Hz	*7XV5700-0CB00*
V_{aux} 110 V AC; 60 Hz	*7XV5700-1CB00*

RS232 connecting cable for SIMEAS T
Cable with a 9-pin connector, connecting PC or laptop
and SIMEAS T universal transducer, galvanically separated,
no auxiliary power supply needed, cable required for parameterization — *7KG6051-8BA*

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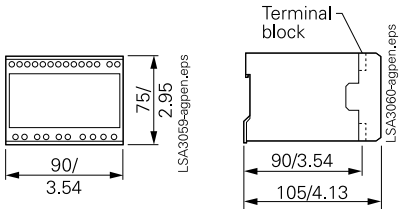
Dimension drawings in mm / inch



Front view

Side view

7KG6000 SIMEAS T

Fig. 17/52