Ordering Information

SIMEAS R / SIMEAS R-PMU

7KE6000 / 7KE6100

October 21, 2010

Description	Order No.
SIMEAS R (V3) **Central Unit with one Data Acquisition Unit (1)**	**7KE6000-0**☐ ☐ 4☐ - ☐☐☐☐
Housing / FLASH Mass Storage • Panel flush mounting, perforated housing & 512MB FLASH Mass Storage • Surface mounting & 512MB FLASH Mass Storage • 1/2 19" assembly, perforated housing & 512MB FLASH Mass Storage	D E F
Measurement at: • 16,7 Hz - network • 50 Hz - network • 60 Hz - network	C D E
Communication Port to a DAKON or evaluation PC • **Standard:** 1x Ethernet and 2x COM Ports	4
Terminals (2) • Standard • US Design	1 2
Voltage level for the binary inputs of the CPU board **and for the binary inputs of the DAU unit (3)** • 24 V DC All Binary Inputs + CPU Binary Input 1 • 48-60 V DC All Binary Inputs + CPU Binary Input 1 • 110-125 V DC All Binary Inputs + CPU Binary Input 1 • 220-250 V DC All Binary Inputs + CPU Binary Input 1 • 48-60 V DC All Binary Inputs - CPU Binary Input 1: 24 V DC • 110-125 V DC All Binary Inputs - CPU Binary Input 1: 24 V DC • 220-250 V DC All Binary Inputs - CPU Binary Input 1: 24 V DC	1 2 3 4 5 6 7
Data Acquisition Unit DAU • VDAU (8 U / 16 binary inputs) • CDAU (8 I / 16 binary inputs) • VCDAU (4 U / 4 I / 16 binary inputs) • BDAU (32 binary inputs) • DDAU 20 mA • DDAU 1 V • DDAU 10 V	A B C D F G H
Auxiliary Power • 24 V to 60 V DC without battery • 24 V to 60 V DC with battery • AC 50/60 Hz, 115/230 V or 110 V to 250 V DC without battery • AC 50/60 Hz, 115/230 V or 110 V to 250 V DC with battery	G H J K
Manual V3 delivery form printed • German • English • French • Spanish • Italian • Portuguese	1 2 3 4 5 7

Attention: Please check the notes (1) - (3) on page 4.

Description	Order No.
SIMEAS R - PMU (V4) **Central Unit with one Data Acquisition Unit (1)**	7KE6100-0 ☐ 　 ☐ 4 ☐ - ☐☐☐☐
Housing / FLASH Mass Storage	
• Panel flush mounting, perforated housing & 1GB FLASH Mass Storage	D
• Surface mounting & 1GB FLASH Mass Storage	E
• 1/2 19" assembly, perforated housing & 1GB FLASH Mass Storage	F
Measurement at:	
• 50 Hz - network	D
• 60 Hz - network	E
Communication Port to a DAKON or evaluation PC	
• **Standard:** 1x Ethernet and 2x COM Ports	4
Terminals (2)	
• Standard	1
• US Design	2
Voltage level for the binary inputs of the CPU board **and for the binary inputs of the DAU unit (3)**	
• 24 V DC　　　　All Binary Inputs + CPU Binary Input 1	1
• 48-60 V DC　　　All Binary Inputs + CPU Binary Input 1	2
• 110-125 V DC　　All Binary Inputs + CPU Binary Input 1	3
• 220-250 V DC　　All Binary Inputs + CPU Binary Input 1	4
• 48-60 V DC　　　All Binary Inputs - CPU Binary Input 1: 24 V DC	5
• 110-125 V DC　　All Binary Inputs - CPU Binary Input 1: 24 V DC	6
• 220-250 V DC　　All Binary Inputs - CPU Binary Input 1: 24 V DC	7
Data Acquisition Unit DAU	
• VDAU (8 U / 16 binary inputs)	A
• CDAU (8 I / 16 binary inputs)	B
• VCDAU (4 U / 4 I / 16 binary inputs)	C
• BDAU (32 binary inputs)	D
• DDAU 20 mA	F
• DDAU 1 V	G
• DDAU 10 V	H
Auxiliary Power	
• 24 V to 60 V DC without battery	G
• 24 V to 60 V DC with battery	H
• AC 50/60 Hz, 115/230 V or 110 V to 250 V DC without battery	J
• AC 50/60 Hz, 115/230 V or 110 V to 250 V DC with battery	K
Manual PMU (V4) delivery form printed	
• German	1
• English	2
• French	3
• Spanish	4
• Italian	5

Attention: Please check the notes (1) - (3) on page 4.

Explanations to the notes on page 2 and 3:

(1)
Digital Disturbance Recorder (DFR) with one slot for a Data Acquisition Unit (DAU), ½-19" rack.
The basic unit has two RS-232 ports (COM-S and COM-1), one Ethernet and one printer port. Only two communication ports can be supported in parallel.

(2)
Housing for surface mounting is not available with US terminals

(3)
This MLFB position defines the input voltage level of the binary inputs of the Central Processor Unit (CPU) board and the binary inputs of the DAU unit. Please note that the binary input No. 1 of the CPU unit is reserved for external time synchronization.

> For the device 7KE6000-0** or 7KE6100-0** the voltage level of this input must be 24 V DC, if you connect this input to the synchronization unit **7KE6000-8HA**** or together with a GPS receiver **7XV5664-0AA00** via FO to the Sync-Transceiver **7KE6000-8AK/L**.

> Example: SIMEAS R will be installed in a substation with 110 V DC voltage battery system and GPS time synchronization (= Hopf Receiver + Sync-Box). In this case, this (MLFB position 13) must be "**6**".

> Attention: The 24 V DC input has the range of 24-60 V DC.

Description	Order No.
SIMEAS R (V3) **Central Unit with one to four Data Acquisition Unit(s) (1)**	**7KE6000-1**☐ ☐ **4**☐ - ☐☐☐☐
Housing / FLASH Mass Storage • Panel flush mounting, perforated housing & 512MB FLASH Mass Storage • Surface mounting & 512MB FLASH Mass Storage **(2)** • 19" assembly, perforated housing & 512MB FLASH Mass Storage	 D E F
Measuring at: • 16,7 Hz - network • 50 Hz - network • 60 Hz - network	 C D E
Communication Port to a DAKON or evaluation PC • **Standard:** 1x Ethernet and 2x COM Ports	 4
Terminals (3) • Standard • US Design (not possible with surface mounting housing)	 1 2
Voltage level for the binary inputs of the CPU board **and for the binary inputs of the DAU units for a standard unit (4)** • 24 V DC All Binary Inputs + CPU Binary Input 1 • 48-60 V DC All Binary Inputs + CPU Binary Input 1 • 110-125 V DC All Binary Inputs + CPU Binary Input 1 • 220-250 V DC All Binary Inputs + CPU Binary Input 1 • 48-60 V DC All Binary Inputs - CPU Binary Input 1: 24 V DC • 110-125 V DC All Binary Inputs - CPU Binary Input 1: 24 V DC • 220-250 V DC All Binary Inputs - CPU Binary Input 1: 24 V DC	 1 2 3 4 5 6 7
Standard unit with pre-defined Data Acquisition Units • 2 VCDAU units (8 U / 8 I / 32 binary inputs) • 4 VCDAU units (16 U / 16 I / 64 binary inputs) • 1 VCDAU unit (4 U / 4 I / 16 binary inputs) and 3 CDAU units (24 I / 48 binary inputs) **Unit with free configuration of the Data Acquisition Units (5)**	 A B C D
Auxiliary Power • 24 V to 60 V DC without battery • 24 V to 60 V DC with battery • AC 50/60 Hz, 115/230 V or 110 V to 250 V DC without battery • AC 50/60 Hz, 115/230 V or 110 V to 250 V DC with battery	 G H J K
Manual V3 delivery form printed • German • English • French • Spanish • Italian • Portuguese	 1 2 3 4 5 7

Attention: Please check the notes (1) - (5) on page 7.

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Description	Order No.
SIMEAS R - PMU (V4) **Central Unit with one to four Data Acquisition Unit(s) (1)**	7KE6100-1 ☐ ☐ 4 ☐ - ☐☐☐☐

Housing / FLASH Mass Storage
- Panel flush mounting, perforated housing & 1GB FLASH Mass Storage — **D**
- Surface mounting & 1GB FLASH Mass Storage **(2)** — **E**
- 19" assembly, perforated housing & 1GB FLASH Mass Storage — **F**

Measuring at:
- 50 Hz - network — **D**
- 60 Hz - network — **E**

Communication Port to a DAKON or evaluation PC
- **Standard:** 1x Ethernet and 2x COM Ports — **4**

Terminals (3)
- Standard — **1**
- US Design (not possible with surface mounting housing) — **2**

**Voltage level for the binary inputs of the CPU board
and for the binary inputs of the DAU units for a standard unit (4)**
- 24 V DC   All Binary Inputs + CPU Binary Input 1 — **1**
- 48-60 V DC   All Binary Inputs + CPU Binary Input 1 — **2**
- 110-125 V DC   All Binary Inputs + CPU Binary Input 1 — **3**
- 220-250 V DC   All Binary Inputs + CPU Binary Input 1 — **4**
- 48-60 V DC   All Binary Inputs - CPU Binary Input 1: 24V DC — **5**
- 110-125 V DC   All Binary Inputs - CPU Binary Input 1: 24V DC — **6**
- 220-250 V DC   All Binary Inputs - CPU Binary Input 1: 24V DC — **7**

Standard unit with pre-defined Data Acquisition Units
- 2 VCDAU units (8 U / 8 I / 32 binary inputs) — **A**
- 4 VCDAU units (16 U / 16 I / 64 binary inputs) — **B**
- 1 VCDAU unit (4 U / 4 I / 16 binary inputs)
and 3 CDAU units (24 I / 48 binary inputs) — **C**

Unit with free configuration of the Data Acquisition Units (5) — **D**

Auxiliary Power
- 24 V to 60 V DC without battery — **G**
- 24 V to 60 V DC with battery — **H**
- AC 50/60 Hz, 115/230 V or 110 V to 250 V DC without battery — **J**
- AC 50/60 Hz, 115/230 V or 110 V to 250 V DC with battery — **K**

Manual PMU (V4)
delivery form printed
- German — **1**
- English — **2**
- French — **3**
- Spanish — **4**
- Italian — **5**

Attention: Please check the notes (1) - (5) on page 7.

Explanations to the notes on page 5 and 6:

(1)
Digital Disturbance Recorder (DFR) with four slots for Data Acquisition Units (DAU), 19" rack. The basic unit has two RS-232 ports (COM-S and COM-1), one Ethernet and one printer port. Only two communication ports can be supported in parallel.

(2)
For the surface mounting housing, the number of the possible measurement channels must be clarified in the factory.

(3)
Housing for surface mounting is not available with US terminals

(4)
Following considerations are required for the definition of this MLFB position:

You want to order a standard unit with pre defined DAU boards (MLFB position 14 = "A", "B" or "C"). This MLFB position defines the input voltage level of the binary inputs of the Central Processor Unit (CPU) board and the binary inputs of the DAU units. Please note that the binary input No. 1 of the CPU unit is reserved for external time synchronization.

This MLFB position defines the input voltage level of the binary inputs of the Central Processor Unit (CPU) board and the binary inputs of the DAU unit. Please note that the binary input No. 1 of the CPU unit is reserved for external time synchronization.

For the device 7KE6000-1** or 7KE6100-1** the voltage level of this input must be 24 V DC, if you connect this input to the synchronization unit **7KE6000-8HA*** or together with a GPS receiver **7XV5664-0AA00** via FO to the Sync-Transceiver **7KE6000-8AK/L**.

Example: SIMEAS R will be installed in a substation with 110 V DC voltage battery system and GPS time synchronization (= Hopf Receiver + Sync-Box). In this case, this (MLFB position 13) must be "**6**".

Attention: The 24 V DC input has the range of 24-60 V DC.

You want to order a unit with free configuration of the DAU boards (MLFB position 14= "D"):
This MLFB position defines the input voltage level of the binary inputs of the Central Processor Unit (CPU) board. The input voltage level of the Data Acquisition Units (DAUs) is later defined separately with the ordering code of the DAU boards

Example: A SIMEAS R with free configuration of the DAU boards (MLFB position 14= "D") is for a voltage level of 220 V DC projected. With the selection "**7**" of this MLFB position, the input voltage level of the 1. binary input of the Central Processor Unit (CPU) board is fixed to 24 V DC and the voltage level of the further binary inputs of the CPU are fixed to 220-250 V DC.

(5)
If you want to order a unit with free configuration of the DAU boards (MLFB position 14 = "D"), following further steps are required:

→ Please define at first the Voltage level for the binary inputs of the CPU board
(MLFB position 13 → please see also **(4)**) and than the ordering code **7KE6000-4*** for which DAU slots the rack must be prepared, for example the assembly of the adequate terminals according to the DAU boards. With this step, following definitions are also required:
a) If a defined DAU position must also be equipped with a DAU board, then please order the according DAU board using the ordering code **7KE6000-2***
b) Or, the according slot will be equipped with a blind plate
c) Or, a defined DAU slot will only be prepared for a DAU, without ordering the specific DAU. For example, you already have a DAU or you will order the DAU some time later)

Attention: A SIMEAS R must be equipped from left to right.

Description		Order No.
SIMEAS R		
		7KE6000 - 4 ☐ ☐ 6 6 - 6 ☐ ☐ 0
Preparation of the housing CU32/64		
for the selected Data Acquisition Units		
Slot 1		
VCDAU	to be equipped in the factory, please specify and order the unit 7KE6000-2*	J
CDAU	to be equipped in the factory, please specify and order the unit 7KE6000-2*	K
VDAU	to be equipped in the factory, please specify and order the unit 7KE6000-2*	L
BDAU	to be equipped in the factory, please specify and order the unit 7KE6000-2*	M
DDAU	to be equipped in the factory, please specify and order the unit 7KE6000-2*	N
	not prepared / plate only	P
VCDAU	prepared for a VCDAU for future use	Q
CDAU	prepared for a CDAU for future use	R
VDAU	prepared for a VDAU for future use	S
BDAU	prepared for a BDAU for future use	T
DDAU	prepared for a DDAU for future use	U
Slot 2		
VCDAU	to be equipped in the factory, please specify and order the unit 7KE6000-2*	A
CDAU	to be equipped in the factory, please specify and order the unit 7KE6000-2*	B
VDAU	to be equipped in the factory, please specify and order the unit 7KE6000-2*	C
BDAU	to be equipped in the factory, please specify and order the unit 7KE6000-2*	D
DDAU	to be equipped in the factory, please specify and order the unit 7KE6000-2*	E
	not prepared / plate only	F
VCDAU	prepared for a VCDAU for future use	G
CDAU	prepared for a CDAU for future use	H
VDAU	prepared for a VDAU for future use	J
BDAU	prepared for a BDAU for future use	K
DDAU	prepared for a DDAU for future use	L
		6
		6
		6
Slot 3		
VCDAU	to be equipped in the factory, please specify and order the unit 7KE6000-2*	A
CDAU	to be equipped in the factory, please specify and order the unit 7KE6000-2*	B
VDAU	to be equipped in the factory, please specify and order the unit 7KE6000-2*	C
BDAU	to be equipped in the factory, please specify and order the unit 7KE6000-2*	D
DDAU	to be equipped in the factory, please specify and order the unit 7KE6000-2*	E
	not prepared / plate only	F
VCDAU	prepared for a VCDAU for future use	G
CDAU	prepared for a CDAU for future use	H
VDAU	prepared for a VDAU for future use	J
BDAU	prepared for a BDAU for future use	K
DDAU	prepared for a DDAU for future use	L
Slot 4		
VCDAU	to be equipped in the factory, please specify and order the unit 7KE6000-2*	A
CDAU	to be equipped in the factory, please specify and order the unit 7KE6000-2*	B
VDAU	to be equipped in the factory, please specify and order the unit 7KE6000-2*	C
BDAU	to be equipped in the factory, please specify and order the unit 7KE6000-2*	D
DDAU	to be equipped in the factory, please specify and order the unit 7KE6000-2*	E
	not prepared / plate only	F
VCDAU	prepared for a VCDAU for future use	G
CDAU	prepared for a CDAU for future use	H
VDAU	prepared for a VDAU for future use	J
BDAU	prepared for a BDAU for future use	K
DDAU	prepared for a DDAU for future use	L
		0

Also available for 7KE6000-1 and 7KE6100-1

Please use this table only for the free configuration of the DAU units. The configuration data is required for the definition of the location of the DAU units and the population of the rack with adequate terminals. The population of the rack with DAU units must be from left to right.

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Description	Order No.
SIMEAS R	
Data Acquisition Units for free assembly or as spare part	**7KE6000 - 2** ☐☐☐☐
Also available for 7KE6000-0; 7KE6100-0; 7KE6000-1 and 7KE6100-1	
VDAU (8 U/ 16 binary inputs)	**A**
CDAU (8I/16 binary inputs)	**B**
VCDAU (4U/4I/16 binary inputs)	**C**
BDAU (32 binary inputs)	**D**
Signal voltages of the binary inputs	
DC 24 V	**A**
DC 48-60 V	**B**
DC 110-125 V	**C**
DC 220-250 V	**D**
Terminals	
Standard; only necessary for spare part DAU	**1**
US - Design; only necessary for spare part DAU	**2**
without terminals (the central unit is already equipped or ordered with terminals)	**3**
Network Frequency	
No Frequency Information for BDAU	**0**
16,7 Hz **(not for 7KE6100-0 and 7KE6100-1)**	**1**
50 Hz	**2**
60 Hz	**3**

Description	Order No.
SIMEAS R	
Data Acquisition Units for free assembly or as spare part	**7KE6000 - 2 E** ☐☐☐
Also available for 7KE6000-0; 7KE6100-0; 7KE6000-1 and 7KE6100-1	
DDAU (8DC/16 binary inputs)	**E**
Terminals	
Standard; only necessary for spare part DAU	**A**
US - Design; only necessary for spare part DAU	**B**
without terminals (the central unit is already equipped or ordered with terminals)	**C**
Analogue Channels	
20 mA	**1**
1 V	**2**
10 V	**3**
Signal voltages for binary inputs	
24 V DC	**1**
48-60 V DC	**2**
110-125 V DC	**3**
220-250 V DC	**4**

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Description	Order No.
SIMEAS R - Spare Parts	
FLASH Memory for CPU-486 with Firmware 21.xx (Delivery with the recent version of the Firmware 21.xx) • PCMCIA Flash Memory and Firmware **21.xx** with Standard Parameterization Further Information on our WEB-Site: **www.simeas.com** **21. xx: Recent Version of the Firmware 21.xx**	**7KE6000-3 H A**
FLASH Memory for CPU-486 with Firmware 23.xx (Delivery with the recent version of the Firmware 23.xx) • PCMCIA Flash Memory with installed Firmware **23.xx and** additional features **"Recording of Flicker und Voltage Sags"** with Standard Parameterization Valid only for Units with RAM-Memory of 32MB Further Information on our WEB-Site: **www.simeas.com** **23.xx: Recent Version of the Firmware 23.xx**	**7KE6000-3 H B**

Description	Order No.
SIMEAS R - Spare Parts	
512 MB FLASH Mass Storage for ELAN CPU + Firmware 30.xx • **IDE FLASH Mass Storage** and Firmware **30.xx** with Standard Parameterization	**7KE6000-3 H C 1**
Spare FLASH Mass Storage 1024 MB for ELAN CPU with Firmware 40.xx (PMU) • **IDE FLASH Mass Storage** and Firmware **40.xx** with Standard Parameterization	**7KE6100-3 H C 3**

Description	Order No.
SIMEAS R (V3) - Spare parts	

Central Processor Unit (ELAN-CPU)   7KE6000-2 L ☐   1

Signal Voltage Level for CPU Binary Inputs

• 24 V DC	All Binary Inputs + CPU Binary Input 1	A	
• 48-60 V DC	All Binary Inputs + CPU Binary Input 1	B	
• 110-125 V DC	All Binary Inputs + CPU Binary Input 1	C	
• 220-250 V DC	All Binary Inputs + CPU Binary Input 1	D	
• 48-60 V DC	All Binary Inputs - CPU Binary Input 1: 24 V DC	E	
• 110-125 V DC	All Binary Inputs - CPU Binary Input 1: 24 V DC	F	
• 220-250 V DC	All Binary Inputs - CPU Binary Input 1: 24 V DC	G	

Note:
For connecting a synchronization unit 7KE6000-8HA**,
the Binary input 1 of CPU has to be dimensioned for 24 V DC.
24 V DC-Input necessary for connection to Sync-Transceiver.
24 V DC-Input is able to handle 24-60 V DC.

FLASH Mass Storage and Firmware
• with **512MB IDE FLASH Mass Storage**   1
and actual Firmware with Standard Parameterization

Description	Order No.
SIMEAS R - PMU (V4) - Spare parts	

Central Processor Unit (ELAN-CPU)   7KE6100-2 L ☐   1

Signal Voltage Level for CPU Binary Inputs

• 24 V DC	All Binary Inputs + CPU Binary Input 1	A	
• 48-60 V DC	All Binary Inputs + CPU Binary Input 1	B	
• 110-125 V DC	All Binary Inputs + CPU Binary Input 1	C	
• 220-250 V DC	All Binary Inputs + CPU Binary Input 1	D	
• 48-60 V DC	All Binary Inputs - CPU Binary Input 1: 24 V DC	E	
• 110-125 V DC	All Binary Inputs - CPU Binary Input 1: 24 V DC	F	
• 220-250 V DC	All Binary Inputs - CPU Binary Input 1: 24 V DC	G	

Note:
For connecting a synchronization unit 7KE6000-8HA**,
the Binary input 1 of CPU has to be dimensioned for 24 V DC.
24 V DC-Input necessary for connection to Sync-Transceiver.
24 V DC-Input is able to handle 24-60 V DC.

Flash Mass Storage and Firmware
• with **1GB IDE Flash Mass Storage**   1
and actual Firmware with Standard Parameterization

Description	Order No.
SIMEAS R - Spare Parts	
Power Supply	7KE6000-2 G ☐
	│
• 24 V to 60 V DC without battery	G
• 24 V to 60 V DC with battery	H
• AC 50/60 Hz, 115/230 V or 110 V to 250 V DC without battery	J
• AC 50/60 Hz, 115/230 V or 110 V to 250 V DC with battery	K
Modems	7XV5820- ☐ AA00
	│
• Analog Modem external (Desktop device)	1
• Digital Modem ISDN external (Desktop device)	2
• Analog Modem external (DIN-rail-mounting device)	5
• Digital Modem ISDN external (DIN-rail-mounting device)	6

Description	Order No.
DAKON PQS (SIMATIC IPC847C)	**7KE6020-0CC00**
PENTIUM Core i7-610E (2C/4T, 2,53 GHz, 4 MB Cache)	
4 GB DDR3 1066 SDRAM (2x 2 GB), DIMM, Dual Channel	
RAID1, 2x 500 GB HDD SATA (Removable & Mirrored Hard Disk, Hot-swap)	
DVD +/- RW	
Graphics onboard (Intel® BD82QM57 integrated in chipset)	
1x DVI-I Port or (optional) VGA Port via Adapter	
2x PS/2 Ports	
1x Parallel Port (LPT)	
2x Serial Ports (COM1 and COM2 onboard)	
7x USB 2.0 Ports (4x Rear, 2x Front and 1x Internal)	
2x Ethernet Ports (RJ45, 10/100/1000 Mbit/s)	
8x Expansions Slots (7x PCI, 1x PCIe x16)	
Temperature & Fan Monitoring, Watchdog	
Industrial Power Supply 110/230V AC, 50/60 Hz	
European Power Connector according IEC-60320-C14	
Pre-installed and activated operating system	
WINDOWS 7 Ultimate Multi Language, 32 bit (EN, GER, FR, IT, SP)	
All-metal 19" housing (4HU) for mechanical robustness and EM compatibility	
Attention:	
SICAM PQS is not included and must be ordered separately.	
DAKON PQS is only available with AC Power Supply	

Description	Order No.
DAKON XP (SIMATIC Rack PC) PENTIUM Core 2 Duo E4300 (1,8 GHz, 800 MHz FSB, 2MB L2 Cache) 512 MB DDR2 667 SDRAM (1 x 512 MB), expandable to 4 Gbyte RAID1, 2 x 250 GB SATA HDD (Removable & Mirrored Hard Disk, Hot-swap) 1,44 Mbyte FDD DVD±RW Graphics onboard on PCI Express bus (Intel® GMA950 integrated in chipset) 2 x Ethernet Ports (RJ45, 10/100/1000 Mbit/s) 10 x Serial Ports (COM1 and COM2 onboard and COM3-COM10 already extended) 1 x Parallel Port (LPT) 1 x VGA Port 8 x USB 2.0 Ports (4x Rear, 2x Front and 2x Internal) 2 x PS/2 Ports Temperature & Fan Monitoring Industrial Power Supply 110/230 V AC, 50/60 Hz European Power Connector Pre-installed and activated operating system WINDOWS XP Professional Multi Language (EN, DE, FR, IT, SP), SP2 All-metal 19" housing (4HU) for mechanical robustness and EM compatibility **<u>Attention:</u>** **OSCOP P is not included and must be ordered separately.** **DAKON XP is only available with AC Power Supply**	**7KE6020-0BB00**
USB Alarm Box Monitoring Unit for DAKON XP with USB connection, own Watchdog and 7 Alarm contacts **<u>Attention:</u>** **Only in combination with OSCOP P.** **No support together with DAKON PQS and SICAM PQS.**	**7KE6020-1AA00**

Description	Order No.
Time Synchronization Unit (1) In a housing with snap-on attachment for 35 mm top-hat rail according to DIN EN 500 022 with connection cable for SIMEAS R and DAKON PC, and if need to be BNC cable for connection to an GPS Receiver **Receiver / Decoder module for Time Synchronization**	**7KE6000-8HA** ☐ ☐
• Decoder for DCF77 signal To connect to a GPS receiver with DCF77 output signal (For example to a HOPF 6875 GPS Receiver); or for terrestrial antenna <u>This is the best choice for all applications **worldwide**</u>!	**2**
• Decoder for Meinberg or ZERA signal • Decoder for Patek-Philip signal • Decoder for IRIG B signal (e.g. of GPS receiver) **(2)** • Decoder for telenorma signal • Decoder for demodulated IRIG B signal, TTL level • Decoder for demodulated DCF77 signal, Open Collector Connection **Connection via serial port 1** (Connection via terminals 11,12,13) **Auxiliary power** • 24-60 V DC • 110-250 V DC or 115-230 V AC 50/60 Hz	**3** **4** **5** **6** **7** **8** **1** **2**
(1) The control input 1 of CPU of SIMEAS R has to be **dimensioned for 24 V DC to connect a time synchronization unit** **7KE6000-8HA. While ordering the Central unit 7KE6000-xxxx-Zxxx,** **please make sure that Z=1,5,6 OR 7, depending on the control** **voltage for the binary inputs** **(2) The IRIG B signal has the following disadvantages:** • **the year is not indicated** • **there is no switchover from summer to winter time** • **there is no relative time (not orientated towards time zones)**	

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Description	Order No.
GPS-time synchronization unit with GPS-antenna and 25 m antenna cable Time-Receiver with 2 optical outputs (programmable) ST-plugs for 62,5 / 125 µm multi-mode fibre. Output: IRIG-B or DCF77 time telegram auxiliary voltage 24-48 V DC (for other auxiliary voltage ranges 7XV5810-0BA00 is required)	**7XV56 64-0 A A00**
Indirect lighting protection For GPS-time unit 7XV5664-0*** with 2x BNC-connectors for cable RG58/U	**7XV56 64-0 L A00**
DC-AC/DC converter Input: 24-250 V DC, 115/230 V AC Output: DC 24 V	**7XV58 10-0 B A00**

Description	Ordering No.
RuggedSwitch RSG2100 **Managed Switch** **12x 10BaseFL Ports with <u>ST-connector</u>** **2x 10/100BaseFT Ports with RJ45-connector (Uplink function)** **2x 100BaseFX Ports** **Power Supply** 24V DC 48V DC 88-300 V DC / 85-264 V AC **FO Option for the 2x 100BaseFX Ports** 1310 nm, Multi Mode, 2 km with ST-connector 1310 nm, Single Mode, 20 km with LC-connector	7KE6000-8AP ☐ 0 - ☐ A B 0 1 2 0 1

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Description	Order No.
Components for Ethernet Communication	
• **SIMEAS HUB (DC 24-60 V)**	**7KE6000-8AD**
• **SIMEAS HUB (DC/AC 110-230 V ; 45-65 Hz)**	**7KE6000-8AE**
• **Ethernet Transceiver 24 V DC (18-36 V DC) with ST-connector** RuggedMC - RMC - Ethernet Media Converter	**7KE6000-8AF**
• **Ethernet Transceiver 88-300 V DC or 85-264 V AC with ST-connector** RuggedMC - RMC - Ethernet Media Converter	**7KE6000-8AG**
Components for Time Synchronization	
• **SIMEAS Sync-Fibre Optic Multiplexer (DC 24-60 V)**	**7KE6000-8AH**
• **SIMEAS Sync-Fibre Optic Multiplexer (DC/AC 110-230 V ; 45-65 Hz)**	**7KE6000-8AJ**
• **Sync-Transceiver (DC 24-60 V) with ST-connector**	**7KE6000-8AK**
• **Sync-Transceiver (DC/AC 110-230 V ; 45-65 Hz) with ST-connector**	**7KE6000-8AL**

Description	Order No.
Communication cable COM1 to external modem Modem side 25-pole / pin, 10 m long	**7KE6000-8AC**
Communication cable COM1 to Personal Computer	**7KE6000-8B ☐**
• COM1 or COM2 - PC, 10 m long	**A**
• COM1 or COM2 - PC, 5 m long	**B**
Printer cable, Centronics 3 m long for SIMEAS R or PC printer	**7KE6000-8DA**

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Description	Order No.
Ethernet Patch Cable **with double shield (SFTP)** **LAN Connector on both sides** **SIMEAS R <----> HUB** **HUB <----> PC**	
Length 0,5 m	**7KE6000-8G D 0 0 - 0 A A 5**
Length 1,0 m	**7KE6000-8G D 0 0 - 1 A A 0**
Length 2,0 m	**7KE6000-8G D 0 0 - 2 A A 0**
Length 3,0 m	**7KE6000-8G D 0 0 - 3 A A 0**
Length 5,0 m	**7KE6000-8G D 0 0 - 5 A A 0**
Length 10,0 m	**7KE6000-8G D 0 1 - 0 A A 0**
Length 15,0 m	**7KE6000-8G D 0 1 - 5 A A 0**
Length 20,0 m	**7KE6000-8G D 0 2 - 0 A A 0**
Ethernet Patch Cable, Crossover connection **with double shield (SFTP)** **LAN Connector on both sides** **HUB <----> HUB** **SIMEAS R <----> PC**	
Length 0,5 m	**7KE6000-8G E 0 0 - 0 A A 5**
Length 1,0 m	**7KE6000-8G E 0 0 - 1 A A 0**
Length 2,0 m	**7KE6000-8G E 0 0 - 2 A A 0**
Length 3,0 m	**7KE6000-8G E 0 0 - 3 A A 0**
Length 5,0 m	**7KE6000-8G E 0 0 - 5 A A 0**
Length 10,0 m	**7KE6000-8G E 0 1 - 0 A A 0**
Length 15,0 m	**7KE6000-8G E 0 1 - 5 A A 0**
Length 20,0 m	**7KE6000-8G E 0 2 - 0 A A 0**

Description	Order No.								
Connection Cable for Current Inputs	**7KE6000-8G**	A	0	0	-	0			
8-wire flexible cable 2,5 mm2 for 4 Current channels							|	|	|
Without Cable preparation							A	|	|
With end sleeves on one side							B	|	|
With end sleeves on both sides							C	|	|
Without wire identification								A	|
With wire identification								B	|
Cable Length in m (X=2…8, 9=Special Length)									X
Attention: Shortest Length 2 m									
Connection Cable for Voltage Inputs	**7KE6000-8G**	B	0	0	-	0			
8-wire flexible cable 0,75 mm2 for 4 Voltage channels							|	|	|
Without Cable preparation							A	|	|
With end sleeves on one side							B	|	|
With end sleeves on both sides							C	|	|
Without wire identification								A	|
With wire identification								B	|
Cable Length in m (X=2…8, 9=Special Length)									X
Attention: Shortest Length 2 m									
Connection Cable for Binary Inputs	**7KE6000-8G**	C	0	0	-	0			
32-wire flexible cable 0,25 mm2 for binary channels							|	|	|
Without Cable preparation							A	|	|
With end sleeves on one side							B	|	|
With end sleeves on both sides							C	|	|
Without wire identification								A	|
With wire identification								B	|
Cable Length in m (X=2…8, 9=Special Length)									X
Attention: Shortest Length 2 m									

Description	Order No.
Manual	
For the Firmware Version 30.xx	
delivery form printed	
• German	**E50417-B1000-C209-A4**
• English	**E50417-B1076-C209-A2**
• French	**E50417-B1077-C209-A1**
• Spanish	**E50417-B1078-C209-A1**
• Italian	**E50417-B1072-C209-A1**
• Portuguese	**E50417-B1079-C209-A1**
For the Firmware Version 40.xx (PMU)	
delivery form printed	
• German	**E50417-B1000-C360-A2**
• English	**E50417-B1076-C360-A2**
• French	**E50417-B1077-C360-A3**
• Spanish	**E50417-B1078-C360-A3**
• Italian	**E50417-B1072-C360-A3**
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Fax: +49 180 524 2471	