

Technical data / hardware details

Performance feature/ Specification	DAKspro 200 based on DAKS-200 hardware	DAKspro 300 based on DAKS-300 hardware	DAKspro 400 based on DAKS-400 hardware	DAKspro as vDAKS
Housing/ Dimensions	19" hardware (1U) for rack mounting	19" hardware (3U) for rack mounting or as a tabletop unit	19" hardware (2U) for rack mounting or as a tabletop unit	Now also available as VMware without specific hardware features.
Basic server features	<ul style="list-style-type: none"> ▪ Robust process computer architecture in low-power design ("Green IT") ▪ Extensive server self-monitoring incl. fault messages ▪ Very high availability with MTBF values of over 400,000 hours ▪ No failure-prone rotating components (no hard disks, no fans) <p>For DAKspro 200/300 differently/additionally:</p> <ul style="list-style-type: none"> ▪ Pluggable memory card for short repair times (MTTR) <p>For DAKspro 300 differently/additionally:</p> <ul style="list-style-type: none"> ▪ In conjunction with ISDN interfaces and SMS modem: emergency operation possible in the event of data network failure <p>For DAKspro 400 differently/additionally:</p> <ul style="list-style-type: none"> ▪ Highest possible functional security through extensive server self-monitoring incl. processor-independent error message ▪ Highest possible data security due to 'Industrial Grade' SSD hard drive ▪ Meets even the highest security requirements through extended hardware support: <ul style="list-style-type: none"> – Certificates are stored encrypted within the processor – Processor supports 'Secure Boot', i.e. only a signed "U-Boot" can be loaded. – The signed "U-Boot" only loads a signed operating system – The signed operating system only loads signed applications – Access to the SSD hard disk is password protected – AES256 encryption of the data on the SSD hard drive ▪ No data loss in case of hardware defect due to replaceable SSD for short repair times 			
Operating system(s)	Dual-processor system: <ul style="list-style-type: none"> ▪ Core 1 with Linux™ operating system ▪ Core 2 with µClinix™ operating system 	Multiprocessor system: <ul style="list-style-type: none"> ▪ Main computer with Linux™ operating system 	Multicore processor system <ul style="list-style-type: none"> ▪ 64bit Arm Cortex with Linux™ operating system 	
Ethernet LAN ports	2x 10/100BASE-T	2x 10/100/1000BASE-T (GbE) with channel bonding		
ESPA-X based LAN data interfaces <i>optionally unencrypted or TLS encrypted</i>	Up to 5x in total, e.g. to connect: <ul style="list-style-type: none"> ▪ the Mail-to-Phone server ▪ DAKS-Satellite peripheral devices, each with 1 ESPA4.4.4 serial interface, 16 digital inputs and 8+1 digital outputs 	Up to 60x in total, e.g. to connect: <ul style="list-style-type: none"> ▪ the Mail-to-Phone server ▪ DAKS-Satellite peripheral devices, each with 1 ESPA4.4.4 serial interface, 16 digital inputs and 8+1 digital outputs 		
LAN data interface to DAKS Mobile Clients	<ul style="list-style-type: none"> ▪ Support for up to 3,000 DAKS Mobile Clients (DMC) ▪ Connection to the clients via a proxy server (usually in the DMZ) 			

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Other LAN data interfaces and protocols	<ul style="list-style-type: none"> ▪ TR500 to a host system (UDP-based, unencrypted) ▪ xLink-100e to a host system (TCP-based, unencrypted) ▪ SNMP to an SNMP manager ▪ TNPP to external paging systems ▪ SMPP to external UMTS gateways ▪ UCP or SMPP to a Short Message Service Center (SMSC) ▪ Raw / Port 9001 to system printer ▪ VCON protocol to the VCON service terminal for configurations, downloads and traces ▪ Virtual serial interface with RegEx functionality (TCP socket) 			Now also available as VMware without specific hardware features.
Serial ports <i>galvanically isolated</i>	2x (on the device): RS232 or RS422	Up to 8x (via SIO-41 module x2): RS232, RS422 or RS485	4x (on the device): RS232, RS422 or RS485	
Supported serial data interfaces	<ul style="list-style-type: none"> ▪ ESPA 4.4.4, optionally with callback functionality ▪ TAP, optionally with callback functionality ▪ VIT1, FT11 ▪ DUST3964R for Simatic S5 ▪ SIGMASYS coupling via SM port ▪ Modem (analog, ISDN or radio) 			
USB host ports <i>e.g. for contact I/O, system printer, radio modem</i>	2x (on the device)	2x (via SDU-42 module)	2x (on the device)	
Digital inputs <i>for process activations and status changeovers</i>	Up to 32/64 (monitored/ non-monitored) via IOG-03A gateway (USB)	<ul style="list-style-type: none"> ▪ Up to 32 (monitored) via DIO-41 module (x2) ▪ Up to 32/64 (monitored/ non-monitored) via IOG-03A gateway (USB) 	Up to 32/64 (monitored/non- monitored), either via IOG-03A gateway (USB) or via IOG-11A gateway (RS485)	
Digital outputs <i>for process, system, fault or last-error messages</i>	<ul style="list-style-type: none"> ▪ Up to 16 via IOG-03 gateway (USB) ▪ 1 special relay output (on the device) 	<ul style="list-style-type: none"> ▪ Up to 16+2 via DIO-41 module (x2) ▪ Up to 16 via IOG-03 gateway (USB) ▪ 1 special relay output via SDU-42 module 	<ul style="list-style-type: none"> ▪ Up to 16 via IOG-03A gateway (USB) or via IOG-11A gateway (RS485) ▪ 1 special relay output (on the device) 	
MARS-I interface	–	–	1x (on the device)	
Audio-I/O (AF) ports on the server	–	Up to 8 IN and 8 OUT via AIO-41 module (x2), e.g. for: <ul style="list-style-type: none"> ▪ playback of external audio sources ▪ recording conferences ▪ direct control of PA systems 	–	
Audio-I/O via DAKS-AudioConnect	Registered to the PBX	Registered to the PBX or directly to DAKSpro		
DCF77 (radio clock) synchronization* <i>*signal only receivable within Europe</i>	Optional, via DCF77 port on the device	Optional, via DCF77 port on the SDU-42 module	Optional, via DCF77 port on the device	
Power supply	<ul style="list-style-type: none"> ▪ Two simultaneously (redundantly) usable built-in power supply units: <ul style="list-style-type: none"> – PSU 1 from 115/230 VAC – PSU 2 from 24/48 VDC ▪ Optional power supply from 2x 115/230 VAC via external professional AC/DC converter 	<ul style="list-style-type: none"> ▪ Optionally from 115/230 VAC or from 48 VDC (= worldwide usability) ▪ Optional redundant power supply from two PSUs (AC/AC, DC/DC or AC/DC) 		

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Power consumption	<ul style="list-style-type: none"> With AC power supply: approx. 25 watts With DC power supply: approx. 20 watts 	Depending on expansion: typically around 30 watts	Maximum 33 watts	Now also available as VMware without specific hardware features.
Voice processing	<ul style="list-style-type: none"> Channel-specific announcement recording, audible tone and DTMF generation Variable uni- and bidirectional voice interconnections incl. conferences (without hardware limitation on the number of conferences and conference participants) Direct recording and playback of composed announcements, each consisting of up to 16 partial announcements 			
Voice memory	1 hour	2 hours		
Voice communication	5 to 30 parallel channels	5 to 480 parallel channels	5 to 500 parallel channels	
	–	ISDN trunking (S_{0r} , S_{2M}) with QSIG or CorNet-NQ D-channel protocol and channel-specific inband DTMF detection	–	
	VoIP trunking with SIP or SIP-Q signaling, unencrypted or encrypted (SRTP; SIP over TLS, SDES)	VoIP trunking with SIP or SIP-Q signaling, unencrypted or up to 60-channel encrypted (SRTP; SIP over TLS, SDES)	VoIP trunking with SIP or SIP-Q signaling, unencrypted or up to 500-channel encrypted (SRTP; SIP over TLS, SDES)	
	<ul style="list-style-type: none"> Voice communication with a VoIP sub-system (e.g. a call system in a hospital) Registrar and switch for SIP phones or DAKS-AudioConnect devices registered directly to DAKSpro Support for geo-separation and OpenScape Voice/Branch configurations Codec: 64 kbit/s G.711 A-law or μ-law 			
Special telephony features with Unify OpenScape 4000 using CorNet-NQ or SIP-Q <i>special features in connection with other TC systems on request</i>	<ul style="list-style-type: none"> Variable ringing of the dialed phones: <ul style="list-style-type: none"> normal call signaling urgent call signaling (typical application: calls from external) alarm call signaling (“emergency call”) In case of busy subscribers: <ul style="list-style-type: none"> intrusion or emergency intrusion with prior neutral announcement forced disconnect of ongoing calls call waiting In case of busy connecting paths: <ul style="list-style-type: none"> automatic release emergency intrusion with prior neutral announcement Ignore call forwarding or redirection, e.g. to prevent voice mail activation Ignore call pickup groups Direct reaching of the boss in a boss-secretary setup Break through a Do Not Disturb (DND) In conjunction with HFA telephones (wired or DECT): <ul style="list-style-type: none"> multiline alphanumeric display outputs (2-line display and scrolling option) Dialogs with operator guidance in the telephone display Support of keypad function (instead of inband DTMF) Connecting path optimization (“path replacement”) Multi-Level Precedence and Preemption (MLPP) Locating DECT subscribers (querying base station field strength) 			

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SMS dispatch	<ul style="list-style-type: none"> Via GSM-SMS radio modem (connection via USB or serial) Via TCP/IP with UCP or SMPP protocol via Short Message Service Center (SMSC) or UMTS gateway 			Now also available as VMware without specific hardware features.
System printer interface	Spooled; optionally connected via LAN or USB; printer protocol: Generic Printer Interface			
Supported languages	German, English, French (user interfaces, output texts and announcements)			
Operating temperature	+5°C to +35°C (+41°F to +95°F)			
Storage temperature	-20°C to +70°C (-4°F to +158°F)			
Rel. humidity	5% to 80% (non-condensing)			
Certifications	UL, FCC and CE		FCC and CE	
National approvals <i>country codes acc. to ISO 3166</i>	<ul style="list-style-type: none"> All EU countries: AT, BE, BG, CY, CZ, DE, DK, EE, ES, FI, FR, GR, HR, HU, IE, IT, LT, LU, LV, MT, NL, PL, PT, RO, SE, SI, SK Countries outside the EU: AU, CA, CH, GB, IN, MY, NZ, SG, TH, TR, US 		<ul style="list-style-type: none"> All EU countries: AT, BE, BG, CY, CZ, DE, DK, EE, ES, FI, FR, GR, HR, HU, IE, IT, LT, LU, LV, MT, NL, PL, PT, RO, SE, SI, SK Countries outside the EU: AU, CA, CH, CO, GB, HK, ID, ME, MK, MY, NZ, PA, PH, RS, SG*, TR, US <p><i>*only available as an industrial product in Singapore</i></p>	

Further Information

For additional information on DAKSpro V9.10, please refer to our product info flyer on DAKSpro and its applications, the flyer 'DAKSpro V9.10 Innovations', and our website.

Note: Upgrades of older DAKSpro systems are always performed based on the price list items in effect at the time of the upgrade.



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