



PLD7.Tower



PLD7.Rack

VISONIK®

DCS data and communication server

PLD7.Tower PLD7.Rack

Data and communication servers (DCS) are used as management stations in building automation and control (BACS). Being a higher system component, the DCS together with DDC technology allow for customized solutions covering all tasks to be carried out in building automation and control.

Use

The DCS field of use includes a large number of building automation and control tasks and functions such as:

- Communicating with process stations on the subsystem level.
- Real-time processing of recorded/acquired data.
- Continuous storage of selected process values (temperatures, set points, etc.).
- Monitoring of technical installations.
- Output of higher commands (e.g. peak load limiting and network restoration).
- Reporting plant faults.
- Alarming for internal or external service organizations.
- Sending clear text messages based on plant events.
- Triggering reactions based on different causes:
Time, date, and process value changes and operating hours (maintenance).
- Simultaneously executing multiple BAC tasks (multitasking).

- Presenting process values, consumption variables, degrees of efficiency, and further operational or system-related information by means of clear displays.

- Operating system-wide BAC functions via a fully graphical operator interface.
- Connecting linked and third party systems.
- Operating building automation and control systems via networks.

Type summary

The PLD7 series of DCS data and communication servers comes in two hardware types featuring scalable software licenses through selectable options.

Tower housing: 19" rack housing:
PLD7.TOWER **PLD7.RACK** DCS for 5 – 200 subsystems

Options:

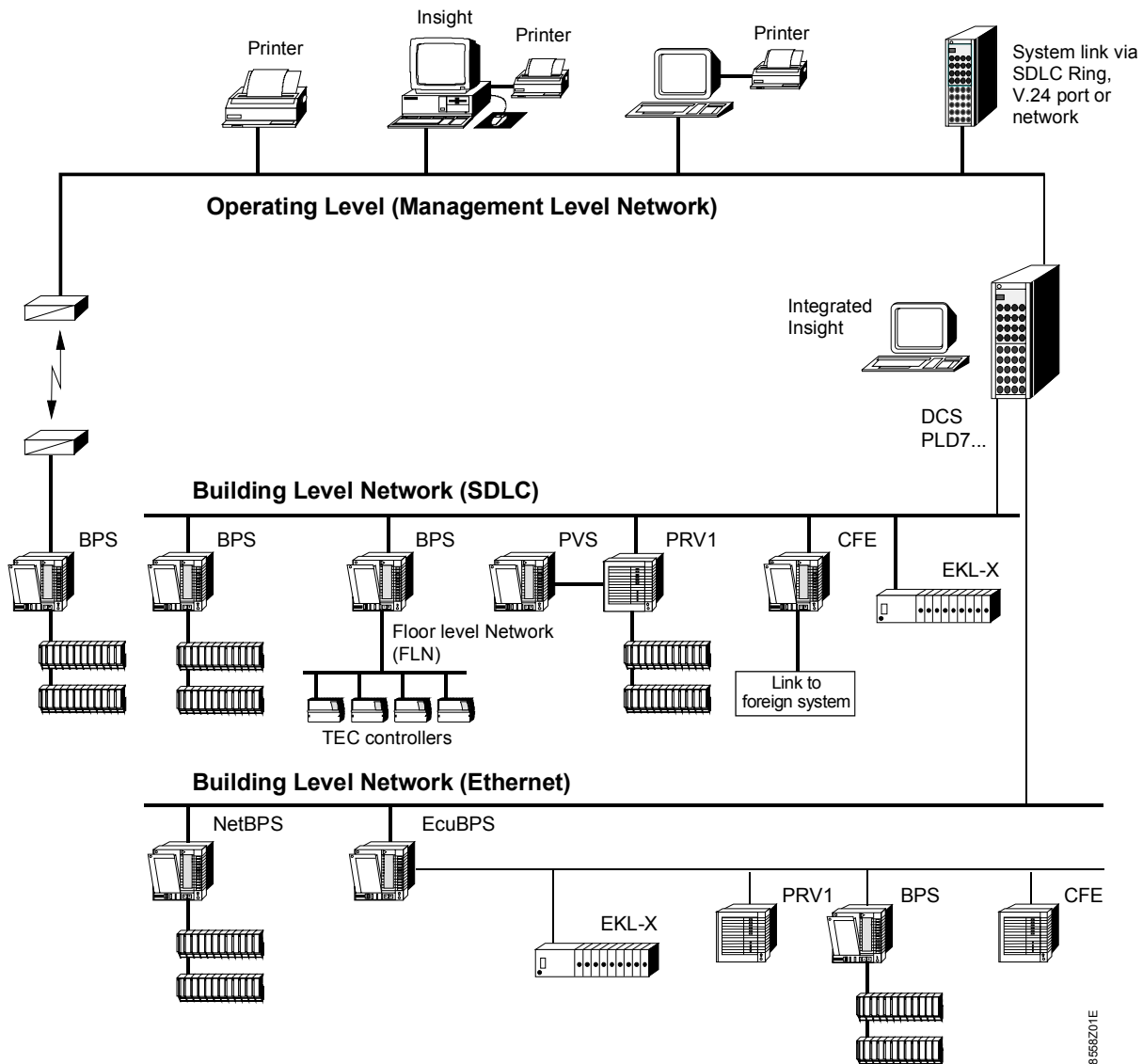
Number of subsystems: 5, 10, 15, 25, 50, 75, 100, 150, 200

Number of Insight Operator stations (licences)

R-server (Redundant server operation)

System configuration

Example for a VISONIK system configuration:



Basic hardware equipment

The following hardware components are preinstalled on the DCS on delivery:

We reserve the right to change the basic PC hardware equipment.

Required number of PLD7... computer types	Tower and Rack	Order no.
Basic PC		
Caution: The computers are delivered without keyboard and monitor!		
– Housing (tower or 19" rack)	1	
– Mouse	1	
CPU main board supports AGP graphic bus, PCI bus	1	ALD7.MB-FSC
– 1 mouse (PS/2)		
– 1 keyboard (PS/2)		
– 1 LAN network, fast IDE controller		
– 2 COM interfaces V.24 (9-pin)		
– 1 Centronics parallel interface (25-pin)		
– 4 USB ports (2 x external; 2 x internal)		
– Pentium processor / memory (SDRAM) 1.8 GHz / 512 MB memory	1	
– PC-M multi-function board with:	1	ALD7.M/KIT
– Watchdog		
– Radio clock		
– Auto reset		
– Front control panel incl. cable set		
– PC-G AGP graphic card , 16 MB, 1024x768 pixels for monitor	1	ALD7.G1600/16
– Creative Labs SB PCI 128 bit resolution sound card	1	ALD7.AUDIO
– Network card contained in main board	1	
Storage media:		
– Disk drive 3.5", 1.44 MB	1	
– CD-RW drive 5.25", 24x12x40 IDE	1	ALD7.CDRW
– Hot plug hard drive 36 GB (Ultra2wide)	1	ALD7.F
– RAID controller Mylex U160 SCSI int. / ext. 16 MB	1	ALD7.RAID

Basic software equipment

The following software programs are preinstalled on the DCS on delivery:

- **Windows 2000 Professional operating system** Has to be ordered. Order Number: ALD7.W2KP/XX
XX stays for the language code, e.g. EN for english.
- **VISONIK software PPE1.005** (functionality according to the table below)
- **VISONIK INSIGHT PPV08.005**
- **VT100 emulator to connect a terminal in a window to \$T1.**

Options

The following software programs and hardware components can be installed in addition to the basic equipment.

We reserve the right to change the optional PC hardware equipment.

	Possible Number	Order no.
— VISONIK INSIGHT on PLD	1	PPV08.010 ... 200
— PC-G AGP graphic card , 64 MB, 1024x768 pixels for sophisticated requirements	1	ALD7.G1600/64
— Uninterrupted power supply (UPS) A1000 1kVA	1	ALD7.USV
Equipment to connect BLNs		
— SDLC/FSK kit to operate SDLC rings incl. - PC-S board - Connection cable to SDLC plug panel - SDLC 6x25 D-sub plug panel	1	ALD7.S6/KIT LVR1.4401-E
— Connection units to the SDLC rings (number per ring; not part of the delivery scope).	6	LVR2.4321
— Connection cable to the connection units (6 or 12 m long; not part of the delivery scope).	6	LVR1.4401-E
	6	LVR1.4402-E
Equipment for additional interfaces:		
— Terminal server (4 x V.24 interfaces) , incl. - 230 V network cable - 1 V.24 configuration cable - 1 network cable 12 m crossed	4	ALD7.TS4
— Terminal server (8 x V.24 interfaces) , incl. - 230 V network cable - 8 V.24 connection cables - 1 V.24 configuration cables - 1 network cable 12 m crossed	2	ALD7.TS8
— Terminal server (16 x V.24 interfaces) , incl. - 230 V network cable - 16 V.24 connection cables - 1 V.24 configuration cables - 1 network cable 12 m crossed	1	ALD7.TS16
Storage media:		
— MO drive (exchangeable optical drive) 2.3 GB, Fujitsu for upgrading and data backup incl. - 3 disks 2,3 GB	1	ALD7.MO
— Tape streamer Sony DAT SDII 7000 incl. - Installation kit - 3 tapes	1	ALD7.TAPE
— Hot plug hard drive 36 GB (Ultra2wide) for upgrade to		
— RAID1	2	ALD7.F
— RAID5	3	ALD7.F

Computer performance features

Below is a list of performance features not visible from the above list of components and accessories. Furthermore, the list contains a few important VISONIK system variables. Options are provided in brackets.

	PLD7 computers	Tower and Rack
Basic features:		
– Upgrade ability to bigger PLDs and options		Yes
– Watchdog		Yes
– RAID1 or 5 (redundant array of independent disks)		Yes
Interfaces:		
– Parallel interfaces		1
– USB ports external		2
– Serial ports	Standard	2
- Terminal server 4 x V.24 interfaces (RS232)		6
- Terminal server 8 x V.24 interfaces (RS232)		10
- Terminal server 16 x V.24 interfaces (RS232)	Maximum	18
Operation:		
– Total number of terminals, printers, and modems	Standard Maximum	2 (15)
– Integrated "VISONIK INSIGHT"		No
– Maximum number of INSIGHTs**		4
– Maximum number of dial modems		6
– Number of operator languages		1 (3)
– Number of access levels		5
– Maximum number of simultaneous users		15
System variables:		
– Maximum number of connections for SDLC rings		6
– Maximum number of process stations (EKL-X, PRV1, BPS, CFE) on BLN, via modem and Ethernet		200
– Addressing (alphanumerical user addresses), number of characters		26
Linked system:		
– VISONIK computer as part of linked system, number		20
– Alarm printer for messages from different systems possible in every system		Yes
Security:		
– VISONIK computer as R-server allowing for optional redundant VISONIK server operation via networks		Yes

* The maximum number of 15 signaling channels or 18 terminal channels per DCS cannot be exceeded. The indicated standard numbers merely represent a recommendation.

** Recommended maximum number of INSIGHTS (integrated or on separate PCs). The maximum number of update channels for images, trends, Ctrl-V is 1400.

We reserve the right to change the PC configuration.

Documentation

Refer to the following data sheets for information on VISONIK INSIGHT and VISONIK subsystems:


VISONIK INSIGHT, Version 8	CM2N8570en
Controller, PRV1...	CM2N8341e
Building Process Station, BPS/NetBPS	CM2N8305en
CFE Controller, PLC1.00	CM2N8941e
EcuBPS	CM2N8307en

Refer to the following manual for information on the DCS:

DCS documentation	CM2L8559en
-------------------	------------

Technical data

If not mentioned otherwise, the following data apply to all computer types.

Power supply	Mains voltage PLD7.tower and rack	230 V / 110 V (200 – 240 / 100 – 127)
	Fusing PLD7.tower and rack	10 A
	Mains frequency:	50/60 Hz
	Power consumption: PLD7.tower and rack	3.5 A / 7 A++ max. 275 W
Dimensions	H x W x D in cm, no plug PLD7.tower	444 x 205 x 605
	PLD7.rack	5 units (U)
	PLD7.rack (installation depth)	560 (no plug)
Weight	PLD7.tower and rack	21 kg
	1 hot plug disk	710 Gr.
Ambient conditions	Operating temperature:	10 ... 35 °C (as per IEC 721)
	Relative humidity:	15...80% (non-condensing)
	Change of humidity:	< 5% r. h. per hour
BLN data transmission	System bus protocol:	SDLC/FSK
Data transmission V.24	Transmission speeds for terminals, INSIGHTs, printers, modems	as specified
Network data transmission	Transfer protocol Networks	TCP/IP, NetBIOS on TCP/IP Ethernet
	Transmission speed	10/100 Mbps
	Chip	INTEL 82559
 Conformity	EMC directive Low voltage directive:	89/336/EEC 73/23/EEC (Product safety)
Electromagnetic compatibility	Emissions:	EN 55 022 class A; EN 55 024
	Immunity:	EN 61000-3-2 and EN 61000-3-3
Product standards	Safety of information technology equipment	IEC 950 / EN 60950 UL 1950, CSA 22,2 No. 950