



VISONIK®

## DCS data and communication server

PLD9.ECO/DGL

PLD9.ECO/PCM

**Data and communication servers (DCS) are used as management station in building automation and control (BAC). With DDC technology, the DCSs as superposed system components allow for customer-specific solutions of all building automation and control tasks.**

### Use

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The DCS's application range comprises a large number of building automation and control tasks such as:

- Process station communication at the subsystem level.
- Processing of acquired process data in real time.
- Continuous storage of selected process values (temperatures, setpoints. etc.).
- Monitoring of technical installations.
- Output of higher commands (e.g. peak load control, emergency power and network restoration).
- Logging of plant faults.
- Alarming of internal and external service organizations.
- Sending clear text messages based on technical plant events.
- Triggering reactions based on various causes:  
Time, date, process value changes and operating hours (maintenance).
- Simultaneous execution of various BAC tasks (multitasking).

- Presentation of process values, consumption variables, efficiency degrees and further operational and technical system information in transparent displays.
- Operation of system-wide BAC functions via graphical user interfaces.
- Connection of linked and third-party systems.
- Operation of building automation and control systems via networks.

## Type summary

The PLD9-series of the DCS data and communication server consists of two hardware types with scalable software licenses (via options).

Tower housing

**PLD9.ECO/DGL**

**PLD9.ECO/PCM**

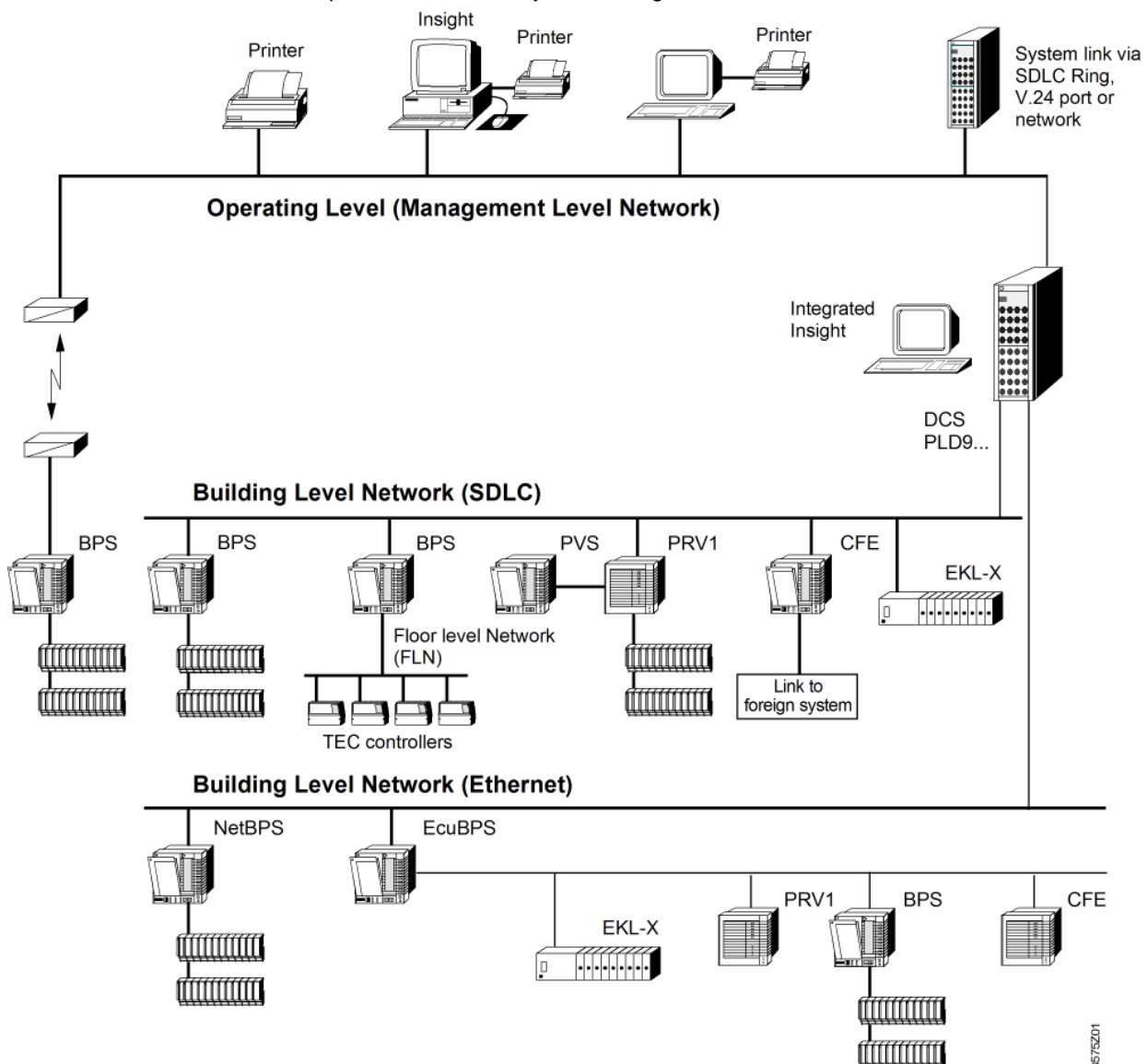
VISONIK server with USB dongle.

VISONIK server with PC-M kit.

Option 1:	Number of process stations	6, 10, 15, 25, 50, 75, 100, 150, 200
Option 4:	VISONIK DCS version	V24
Option 6:	R-server	Redundant server operation

## System configuration

Example for a VISONIK system configuration.



The data and communication server is delivered with the following hardware components:

**We reserve the right to make changes to the basic hardware configuration.**

Computer type: PLD9.ECO/PCM	TOWER	Order number
<b>Basic PC</b>		
<b>Caution: The computers are delivered without keyboard and monitor!</b>		
– Tower housing	1	
– Mouse	1	
– CPU hard drive supporting	1	
– 1 mouse (PS/2)		
– 1 keyboard (PS/2)		
– 1 LAN network, 10/100/1000 Mbit		
– 1 COM port V.24 (9-pin)		
– 1 Centronics parallel interface (25-pin)		
– 6 USB interfaces 2.0 (4 x rear)		
– 1 LSI SATA SW-RAID, for HDDs with RAID1		
– 3 I/O ports PCI-E (1x1; 1 x 4; 1x8)		
– 4 I/O ports PCI 32-bit / 33 MHz		
– 1 Fast IDE ATA 100 port; 2 channels for DVD-ROM etc.		
– 1 VGA graphics board		
– Processor / memory	1	
– Intel Pentium 4 630 (3.0 GHz) / 2 x 512 MB memory (SDRAM)		
– PC-M multi-function card with:	1	ALD9.M/KIT
– Watchdog		
– Radio clock		
– Auto reset WD		
– Front control panel incl. cable set		
– PCI audio card	1	
<b>Network card on main disk</b>		
<b>Equipment for connection of BLN and terminal server</b>		
<b>Storage media:</b>		
– 3.5" / 1.44 MB diskette drive	1	
– DVD-DUAL/DL 5.25" drive, 40/24/40x 16x/16 8x4 4/2.4 ATAPI	1	
– 80 GB hard disk, not hot-plug	1	ALD9.ECO/F

Computer type: PLD9.ECO/DGL	TOWER	Order number
<b>Basic PC</b>		
<b>Caution: The computers are delivered without keyboard and monitor!</b>		
– Tower housing	1	
– Mouse	1	
– CPU hard drive supporting	1	
– 1 mouse (PS/2)		
– 1 keyboard (PS/2)		
– 1 LAN network, 10/100/1000 Mbit		
– 1 COM port V.24 (9-pin)		
– 1 Centronics parallel interface (25-pin)		
– 6 USB interfaces 2.0 (4 x rear)		
– 1 LSI SATA SW-RAID, for HDDs with RAID1		
– 3 I/O ports PCI-E (1x1; 1 x 4;1x8)		
– 4 I/O ports PCI 32-bit / 33 MHz		
– 1 Fast IDE ATA 100 port; 2 channels for DVD-ROM etc.		
– 1 VGA graphics board		
– Processor / memory	1	
– Intel Pentium 4 630 (3.0 GHz) / 2 x 512 MB memory (SDRAM)		
– USB dongle	1	
– PCI audio card	1	
<b>Network card on main disk</b>		
<b>Equipment for connection of BLN and terminal server</b>		
<b>Storage media:</b>		
– 3.5" / 1.44 MB diskette drive	1	
– DVD-DUAL/DL 5.25" drive, 40/24/40x 16x/16 8x4 4/2.4 ATAPI	1	
– 80 GB hard disk, not hot-plug	1	ALD9.ECO/F

## Basic software

The data and communication server is delivered with the following preinstalled software:

	Computer type: PLD9.ECO/...	TOWER
– Windows XP Professional		x
– VISONIK software (functionality according to version and computer type)		x
– VISONIK DCS license for 6 process stations		x
– VT100 emulator to connect terminals in a window to \$T1		x
– Norton Ghost 2003		x

## Options

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

**We reserve the right to make changes to the basic hardware configuration.**

PLD9.ECO/...	Possible number for computer type	TOWER	Order number
– PCI- graphics card, 64 MB, for higher performance		1	ALD9.ECO/G64
– Analog PCI modem		1	ALD9.ANALOG
– ISDN PCI modem		1	ALD9.ISDN
– Uninterrupted power supply (UPS)		1	ALD.USV
<b>Equipment for connection of BLNs</b>			
– SDLC/FSK kit to operate 6 SDLC rings incl.:		1	ALD9.S6/KIT
- PC-S card			LVR1.4401-E
- Connection cable to SDLC plug panel			
- SDLC plug panel 6x25 D-sub			
– Connection units to the SDLC rings (number) per ring; not part of delivery		6	LVR2.4321
– Connection cable to connection units (length 6m or 12 m, number per Ring; not part of the delivery)		6	LVR1.4401-E
		6	LVR1.4402-E
<b>Equipment for additional interfaces:</b>			
– Terminal server (2 x V.24 interfaces), incl.		6	ALD.TS2
- 1 power supply (230 VAC / 12 VDC)			
- 2 adapter cables CBL-RJ45M9-150			
– Terminal server (4 x V.24 interfaces), incl.		4	ALD.TS4
- 1 power supply (230 VAC / 12 VDC)			
– Terminal server (8 x V.24 interfaces), incl.		2	ALD.TS8
- 1 mains cable (230 VAC)			
- 4 adapter cables 1.5m, type CBL-RJ45M25-150			
- 4 adapter cables 1.5m, type CBL-RJ45M9-150			
- 1 RJ45 loopback test plug			
- 2 mounting brackets for 19"			
- 4 rubber bases			
– Terminal server (16 x V.24 interfaces), incl.		1	ALD.TS16
- 1 mains cable (230 VAC)			
- 8 adapter cables 1.5m, type CBL-RJ45M25-150			
- 8 adapter cables 1.5m, type CBL-RJ45M9-150			
- 1 RJ45 loopback test plug			
- 2 mounting brackets for 19"			
- 4 rubber bases			
<b>Storage media:</b>			
– MO drive (exchangeable, magneto-optical drive) 2.3 GB, Fujitsu for upgrades and data backup, incl.		1	ALD9.MO
- 3 disks at 2.3 GB			
– DAT drive DDS-4 incl.		1	ALD9.DAT
- mounting kit			
- 3 tapes			
- SCSI controller			
– 80 GB hard drive to upgrade to SW-RAID1		1	ALD9.ECO/F

## Computer type performance features

Below is a list of the performance features not obvious from the above composition of components and accessories. Furthermore, a few important VISONIK system variables are listed. Options are printed in parentheses.

Computer type: PLD9.ECO/...	TOWER
<b>Basic feature:</b>	
– Upgradeability to higher PLD types and options	Yes
– Watchdog, reset, radio clock, control panel **	Yes
– SW-RAID1 (redundant array of independent disks)	Yes
<b>Interfaces:</b>	
– Parallel interfaces	1
– USB plugs	6
– Serial interfaces	Standard 1
- Terminal server 2 x V.24 interfaces (RS232)	3
- Terminal server 4 x V.24 interfaces (RS232)	5
- Terminal server 8 x V.24 interfaces (RS232)	9
- Terminal server 16 x V.24 interfaces (RS232)	Maximum 17
<b>Operation:</b>	
- Total number of terminals, printers and modems	Standard 2 Maximum * (15)
– Maximum number of dial modems	6
– Operating system languages	1 (3)
– Number of access levels	5
– Maximum number of concurrent users	15
<b>System variables:</b>	
– Maximum number of connections for SDLC rings	6
– Maximum number of process stations (EKL-X, PRV1, PRV2, BPS1, CFE ) on BLN (SDLC, Ethernet) or via modem	200
– Addressing (alphanumeric user address), number of characters	26
<b>Linked system:</b>	
– Number of VISONIK computers within linked system	20
– Alarm printer for messages from various systems possible in each system	Yes
<b>Security</b>	
VISONIK computer as R-server; redundant operation of VISONIK server possible as an option via network	Yes

\* The maximum number of 15 messaging channels or 18 terminal channels respectively per DCS cannot be exceeded. The indicated standard characters represent a recommendation.

\*\* Only in connection with PLD9.ECO/PCM

We reserve the right to make changes to the computer configuration.

## Documentation

See the following data sheets for information on VISONIK subsystems:

BPS process station	CM2N8302
Building process station BPS/NetBPS	CM2N8306
CFE controller, PLC1.00	CM2N8941
EcuBPS	CM2N8307

## Technical data

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If not mentioned specifically, the following information applies to all computer types.

Power supply	Mains supply	
	PLD9.ECO/...	100-240 V
	Mains frequency	50- 60 Hz
	Max. rated current:	
	PLD9.ECO/...	100 V – 240 V / 7.5 A – 3.5 A
	Active power	240 W
Dimensions	H x W x D in cm, no plug	385 x 205 x 505
Weight	PLD9.ECO/...	15-19 kg (acc. to configuration)
	1 disk	550 gram
Ambient conditions	Operating temperature	10 ... 35°C (IEC 721)
	Relative humidity	15...80 % (non-condensing)
	Change of humidity	< 5 % r. h. per hour
BLN data transmission	System bus protocol	SDLC/FSK
V.24 data transmission	Transmission rates for terminals, INSIGHTs, printers and modems	As per specifications
Network data transmission	Transmission protocol	TCP/IP, NetBIOS via TCP/IP
	Networks	Ethernet
	Rate of transmission	10/100/1000 Mbps
	Chip	Broadcom 5751
CE conformity	EMC directive	89/336/EEC (EMC)
	Low voltage guideline	73/23 EEC (LVD)
Electromagnetic compatibility	Emissions	EN 55022 class B; EN 55024
	Immunity	EN 61000-3-2 / -3
Product standard	Safety of information technology equipment	IEC 60950 / EN 60950
		UL 60950 3rd. Ed.
		CAN/CSA-C22.2 No. 60950 3rd. Ed.