



VISONIK®

DCS data and communication server

PLD10.ECO/DGL
PLD10.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

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 PLD10-series of the DCS data and communication server consists of two hardware types with scalable software licenses (via options).

Tower housing

PLD10.ECO/DGL

VISONIK server with USB dongle.

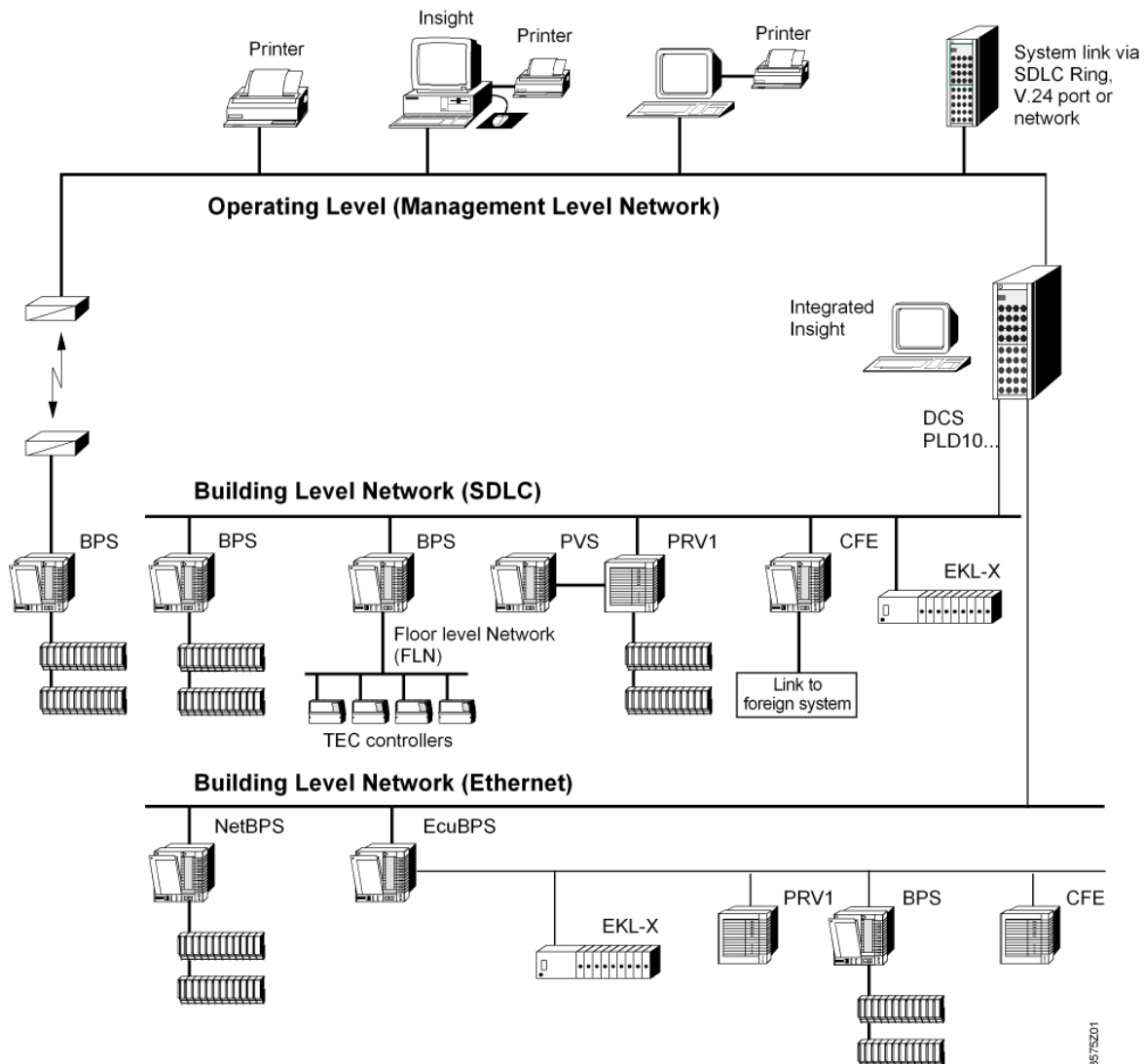
PLD10.ECO/PCM

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: PLD10.ECO/PCM	TOWER
Basic PC	
Caution: The computers are delivered without keyboard and monitor!	
– 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)	
– 6 USB interfaces 2.0 (2 x front side, 2 x rear side), 2 x internal	
– 2 LSI SATA SW-RAID, for HDDs with RAID1	
– 1 I/O ports PCIe (1x1)	
– 2 I/O ports PCI 32-bit / 33 MHz	
– 1 LSI SATA DVD-ROM etc.	
– 1 VGA graphics board	
– Processor / memory	1
AMD Athlon™ 64 X2 4000+ (2.1 GHz) / 1 GB DDR2 ECC 667	
– PC-M multi-function card with:	1
– Watchdog	
– Radio clock	
– Auto reset WD	
– Front control panel incl. cable set	
Network card on main disk	
Equipment for connection of BLN and terminal server	
Storage media:	
– 3.5" / 1.44 MB diskette drive	1
– DVD SuperMulti SATA 5.25/1.6 inch	1
– 160 GB hard disk, not hot-plug	1
Computer type: PLD10.ECO/DGL	TOWER
Basic PC	
Caution: The computers are delivered without keyboard and monitor!	
– 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)	
– 6 USB interfaces 2.0 (2 x front side, 2 x rear side), 2 x internal	
– 2 LSI SATA SW-RAID, for HDDs with RAID1	
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– 2 I/O ports PCI 32-bit / 33 MHz	
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– 1 VGA graphics board	
– Processor / memory	1
AMD Athlon™ 64 X2 4000+ (2.1 GHz) / 1 GB DDR2 ECC 667	
– USB dongle	1
Network card on main disk	
Equipment for connection of BLN and terminal server	
Storage media:	
– 3.5" / 1.44 MB diskette drive	1
– DVD SuperMulti 5.25/1.6 inch	1
– 160 GB hard disk, not hot-plug	1

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

	Computer type: PLD10.ECO/...	TOWER
– Windows XP Professional		•
– VISONIK software (functionality according to version and computer type)		•
– VISONIK DCS license for 6 process stations		•
– Adobe Acrobat, Nero, Acronis		•

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.

	Possible number for computer type	TOWER	Order number
PLD10.ECO/...			
– PCIe- graphics card , 128 MB, for higher performance		1	ALD10.G128/E
– USB analog modem		1	ALD10.ANALOG
– USB ISDN modem		1	ALD10.ISDN
– Audio card		1	ALD10.AUDIO
– Extended memory 1 GB		3	ALD10.ECO/MEM
– Uninterrupted power supply (UPS)		1	ALD.USV
Equipment for connection of BLNs			
– SDLC/FSK kit to operate 6 SDLC rings incl.: - PC-S card - Connection cable to SDLC plug panel - SDLC plug panel 6x25 D-sub		1	ALD10.S6/KIT
– 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
Equipment for additional interfaces:			
– Terminal server (2 x V.24 interfaces) , incl. - 1 power supply (230 VAC / 12 VDC) - 2 adapter cables CBL-RJ45M9-150		6	ALD.TS2
– Terminal server (4 x V.24 interfaces) , incl. - 1 power supply (230 VAC / 12 VDC)		4	ALD.TS4
– Terminal server (8 x V.24 interfaces) , incl. - 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		2	ALD.TS8
– Terminal server (16 x V.24 interfaces) , incl. - 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		1	ALD.TS16
– Parallel card		1	ALD10.ECO/PAR
Storage media:			
– RDX* drive for upgrades and data backup, incl. 1 media 80 GB		1	ALD10.RDX
– DAT* drive DDS-5 incl. mounting kit, 3 tapes		1	ALD10.DAT
– HD 160 GB for upgrade to SW-RAID1		1	ALD10.ECO/F

*) Usable only with PLD10.ECO/DGL

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: PLD10.ECO/...	TOWER
Basic feature:	
– Upgradeability to higher PLD types and options	Yes
– Watchdog, reset, radio clock, control panel **	Yes
– SW-RAID1 (redundant array of independent disks)	Yes
Interfaces:	
– USB plugs	6
- Serial interfaces	Standard
- Terminal server 2 x V.24 interfaces (RS232)	1
- Terminal server 4 x V.24 interfaces (RS232)	3
- Terminal server 8 x V.24 interfaces (RS232)	5
- Terminal server 16 x V.24 interfaces (RS232)	9
	Maximum
	17
Operation:	
- Total number of terminals, printers and modems	Standard
	Maximum *
	2
	(15)
– Maximum number of dial modems	6
– Operating system languages	1 (3)
– Number of access levels	5
– Maximum number of concurrent users	15
System variables:	
– 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
Linked system:	
– Number of VISONIK computers within linked system	20
– Alarm printer for messages from various systems possible in each system	Yes
Security	
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 PLD10.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

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

Power supply	Mains supply	
	PLD10.ECO/...	200-240 V
	Mains frequency	50- 60 Hz
	Max. rated current:	
	PLD10.ECO/...	100 V – 240 V / 1.5 A – 0.6 A
	Active power	150 W
Dimensions	H x W x D in mm, no plug	390 x 203 x 386
Weight	PLD10.ECO/...	~ 12 kg
Ambient conditions	Operating temperature	10 ... 35°C (IEC 721)
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	Nvidia MCP51
CE conformity	EMC directive	89/336/EEC (EMC)
	Low voltage guideline	72/23 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.