



8558P01  
PLD6.010...200



8558P02  
PLD6.../Rack

VISIONIK®

## DCS Data and Communication Server

## PLD6...

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**Data and Communication Servers (DCS) are used as central stations in building automation and control systems (BACS). The DCSs represent superposed system components that, by applying DDC technique, enable customer-specific solutions of all building automation and control tasks.**

### Use

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A DCS's scope of application comprises a multitude of tasks and functions in building automation and control systems such as:

- Communication with process stations on the subsystem level
- Real-time processing of acquired process data
- Continuous storage of selected process values (temperatures, setpoints, etc.)
- Monitoring of technical equipment
- Issuing of higher commands (e.g., peak demand limiting program, backup power and power restoration)
- Reporting of plant faults
- Issuing alarms for internal or external service organisations
- Issuing distinct clear text messages based on plant events
- Reactions triggered by different causes:
  - Time, date, process value changes, and hours of operation (maintenance)
- Simultaneous execution of multiple BACS tasks (multitasking)

- Clear presentation of process values, consumption volumes, efficiency as well as other operational and system information
- Operation of system-wide BACS functions via full-graphics MMIs
- Connection of link and third-party systems
- Operation of building automation and control systems via networks

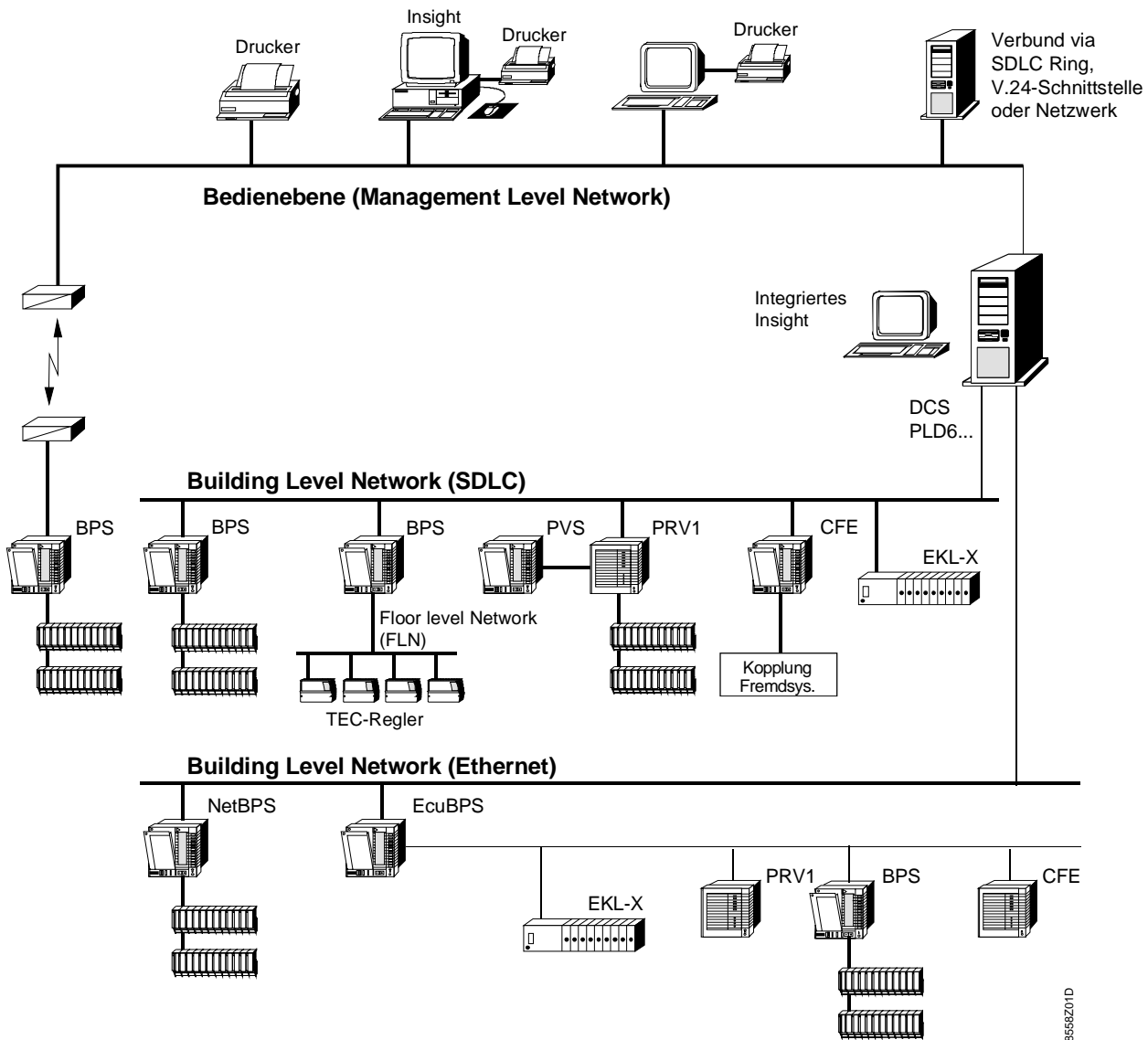
## Type summary

The PLD6 series of the DCS Data and Communication Server comes in several types:

L&S tower housing:	L&S 19" rack housing	
<b>PLD6.005</b>	<b>PLD6.005/Rack</b>	DCS for 5 subsystems
<b>PLD6.010</b>	<b>PLD6.010/Rack</b>	DCS for 10 subsystems
<b>PLD6.025</b>	<b>PLD6.025/Rack</b>	DCS for 25 subsystems
<b>PLD6.050</b>	<b>PLD6.050/Rack</b>	DCS for 50 subsystems
<b>PLD6.100</b>	<b>PLD6.100/Rack</b>	DCS for 100 subsystems
<b>PLD6.200</b>	<b>PLD6.200/Rack</b>	DCS for 200 subsystems

## System configuration

Example of a VISONIK system configuration:



## Basichardware

The following hardware components are pre-installed upon delivery of the Data and Communication Server:

**We reserve the right to make changes to computer configurations.**

	Required number for the PLD6....	005	010	025	050	100	200	Order number
<b>Basic PC</b>								
<b>Note:</b> The computers are delivered without keyboard and monitor!								
– <b>L&amp;S housing</b> (tower or 19" rack)		1	1	1	1	1	1	---
– <b>Mouse</b>		1	1	1	1	1	1	---
– <b>CPU motherboard</b> (supports ISA, PCI bus and network)		1	1	1	1	1	1	ALD6.MB568
– <b>Pentium processor/memory</b> (SDRAM)		1						
600 MHz / 128 MB			1					
600 MHz / 128 MB								
667 MHz / 128 MB				1				
667 MHz / 256 MB					1			
733 MHz / 256 MB						1		
800 MHz / 256 MB							1	
– <b>PC-M multifunction card</b> with:		1	1	1	1	1	1	ALD6.M/Kit
- Watchdog								
- Radio clock								
- Auto reset								
- 2 parallel interfaces								
- 8 serial interfaces								
- Front control panel incl. cabling								
– <b>32 MB PC-G graphics card</b> , 1024x768 pixels for screen display		1	1	1	1	1	1	ALD6.G1024
– Creative Labs PCI 128 bit resolution <b>sound card</b>				1	1	1	1	ALD6.SB128
– <b>Network card</b> INTEL 82559 for Ethernet		1	1	1	1	1	1	ALD6.NET
<b>Equipment to connect BLNs:</b>								
– <b>PC-S SDLC/FSK card</b> to operate SDLC rings incl.:			1	1	1	1	1	ALD6.S6/Kit
- Connecting cable to the SDLC plug panel								
- SDLC plug panel 6x25 D-Sub								
– <b>Connecting units</b> to the SDLC rings (number per ring; not included; must be ordered separately)			1	1	1	1	1	LVR2.4321
<b>Storage media:</b>								
– <b>Diskette drive</b> 3.5", 1.44 MB		1	1	1	1	1	1	
– <b>CD ROM drive</b> 5.25", 40-speed		1	1	1	1	1	1	
– <b>MO drive</b> (exchangeable optical drive) 1.3 GB, for upgrades and data storage/backup incl. 3 disks				1	1	1	1	ALD6.MO
– <b>Hard drive</b> 9.1 GB (Ultra2wide)		1	1	1	1			ALD6.F
– <b>Hard drive</b> 9.1 GB (Ultra2wide), SCA						2	3	ALD6.F/SCA
– <b>SCSI card</b> Adaptec 19160 160 MB/s (LVD 68-pin)		1	1	1	1			
– <b>SCSI card</b> AHA2904 (Narrow 50-pin)						1	1	ALD6.S2904
– <b>RAID controller</b> GDT 6118 RS with 32 MB						1	1	ALD6.RAID

## Basic software

The following software is pre-installed and ready for operation upon delivery of the Data and Communication Server:

	Computer types PLD6....	005	010 to 050	100 and 200)
– <b>Windows NT 4.0 Workstation</b>		x	X	x
– <b>VISONIK Software</b> (Functions according to version and computer type (see table below))		x	X	x
– <b>VISONIK INSIGHT</b>		x		
– <b>VT100 emulation</b> for connecting terminals in a window to \$T1		x	X	x

## Options

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

**We reserve the right to make changes to optional PC hardware components.**

	Possible number for the PLD6...	005	010	025	050	100	200	Order number
– VISONIK INSIGHT on PLD			1	1	1			PPV08.010 ... 050
– 128 MB add. Memory	1	1	1					ALD6.MEM128
– Creative Labs PCI 128 bit sound card	1							ALD6.SB128
– Uninterruptible power supply (UPS) APC SU-700	1	1	1	1	1	1	1	ALD6.USV
<b>Equipment to connect BLNs:</b>								
– SDLC/FSK Kit to operate SDLC rings incl.: - PC-S card - Connecting cable to the SDLC plug panel - SDLC plug panel 6x25 D-sub	1							ALD6.S6/Kit
– Connecting units to the SDLC rings (number per ring; not included; must be ordered separately)	1							LVR2.4321
– Connecting cables to the terminal units (length 6m or 12 m, number per ring; must be ordered separately)	1	2	3	4	5	6	6	LVR1.4401-E
	1	2	3	4	5	6	6	LVR1.4402-E
<b>Equipment for additional interfaces:</b>								
– Terminal server (8 V.24 interfaces), incl. - Power supply cable 230 V - 8 V.24 connecting cables - 1 V.24 configuration cable - 1 12-m-long network connecting cable crossed	1	1	1	1	1	1	1	ALD6.TS8
– Terminal server (16 V.24 interfaces), incl. - Power supply cable 230 V - 16 V.24 connecting cables - 1 V.24 configuration cable - 1 12-m-long network connecting cable crossed	1	1	1	1	1	1	1	ALD6.TS16
<b>Storage media:</b>								
– MO drive (exchangeable optical drive) 1.3 GB, Fujitsu for upgrade and data storage/backup, incl. - 3 disks 1.3 GB	1							ALD6.MO
– Tape streamer Sony DAT SDII 7000 incl. - Installation kit - 3 tapes	1	1	1	1	1	1	1	ALD6.TAPE
– RAID kit incl. - RAID controller GDT 6118 RS - 32 MB memory - 1 hard drive 9.1 GB (Ultra2wide), SCA - Kingston exchangeable frame DE300i – SWC160/B with 3 disk inserts	1	1	1	1				ALD6.RAID/Kit

## Performance of the computer types

The table below provides an overview of computer performance that cannot directly be derived from the above summary of components and accessories. Additionally, the table contains some very important VISONIK system values. Options are contained in parentheses.

	Computer type PLD6....	005	010	025	050	100	200
<b>Basic features:</b>							
– Upgradeable to higher PLD types		yes	yes	yes	yes	yes	
– Watchdog		yes	yes	yes	yes	yes	yes
– RAID (Redundant Array of Independent Disks)		(yes)	(yes)	(yes)	yes	yes	yes
<b>Interfaces:</b>							
– Parallel interfaces		2	2	2	2	2	2
– Serial interfaces	Standard	10	10	10	10	10	10
	Maximum	(18)	(18)	(18)	(18)	(18)	(18)
<b>Operation:</b>							
– Total number of terminals, printers and modems	Standard	10	10	10	10	10	10
	Maximum*	(15)	(15)	(15)	(15)	(15)	(15)
– Integrated VISONIK INSIGHT		yes	(yes)	(yes)	(yes)		
– Maximum number of INSIGHTS**		1	2	3	4	4	4
– Maximum number of dial modems		1	2	2	4	4	6
– Number of operator languages		1 (3)	1 (3)	1 (3)	1 (3)	1 (3)	1 (3)
– Number of access levels		5	5	5	5	5	5
– Maximum number of simultaneous users		2	2	5	5	10	15
<b>System sizes:</b>							
– Maximum number of SDLC ring connections		(1) (6)	2 (6)	3 (6)	4 (6)	5 (6)	6
– Maximum number of process stations (EKL-X, PRV1, BPS, CFE ) on BLN or via modem		5	10	25	50	100	200
– Addressing (alphanumeric user addresses), number of characters		26	26	26	26	26	26
<b>Link system:</b>							
– Number of VISONIK computers in a link system		20	20	20	20	20	20
– Alarm printers for messages from the various systems available for every system		yes	yes	yes	yes	yes	yes

\* The maximum number of 15 message channels or 18 terminal channels per DCS can not be exceeded. The numbers shown are recommendations.

\*\* Recommended maximum number of INSIGHTS (integrated or on separate PCs). The maximum number of actualisation channels for pictures, trends, Ctrl V is 600.

We reserve the right to make changes to computer configurations.

## Documentation

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

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

For information on the DCS Data and Communication Server, refer to the following handbook:

DCS documentation	CM2L8558en
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## Technical data

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If not mentioned specifically, the following technical data are valid for all computer types.

Power supply	Voltage:	230 V / 110 V
	PLD6.005 ... 200	
	Protection:	10 A
	PLD5.005 ... 200	
	Frequency:	50Hz / 60 Hz
	Power supply:	
	PLD5.005 ... 200	3.5 A / 7 A max. 275 W
Dimensions	H x W x D in cm, without plug	
	PLD5.010 ... 200 PLD5.005 ... 200/Rack	56 x 18 (Socket 28) x 45 16.5 x 44 x 43 (without front panel)
Weight	PLD5.005 ... 200	25 kg
Ambient conditions	Operating temperatures:	5 ... 35 °C
	Storage temperatures:	-40...70 °C
	Relative humidity:	15...80 % (non-condensing)
	Humidity fluctuations:	5 % rel. humidity per hour
BLN data transfer	System bus protocol:	SDLC/FSK
V.24 data transfer	Transfer speeds for terminals, INSIGHTs, printers, and modems	according to requirements
Network data transfer	Transfer protocol	TCP/IP, NetBIOS via TCP/IP
	Networks	Ethernet
	Transmission speed	10/100 Mbit/s
	Chip	INTEL 82559
<b>CE</b> conformity	EMC directive:	89/336/EEC
	Low voltage guideline:	73/23/EEC
Electromagnetic compatibility	Emissions:	EN 50081-1
	Immunity:	EN 50082-1
Product standard:	Safety of information technology equipment, including electrical business equipment	EN 60950