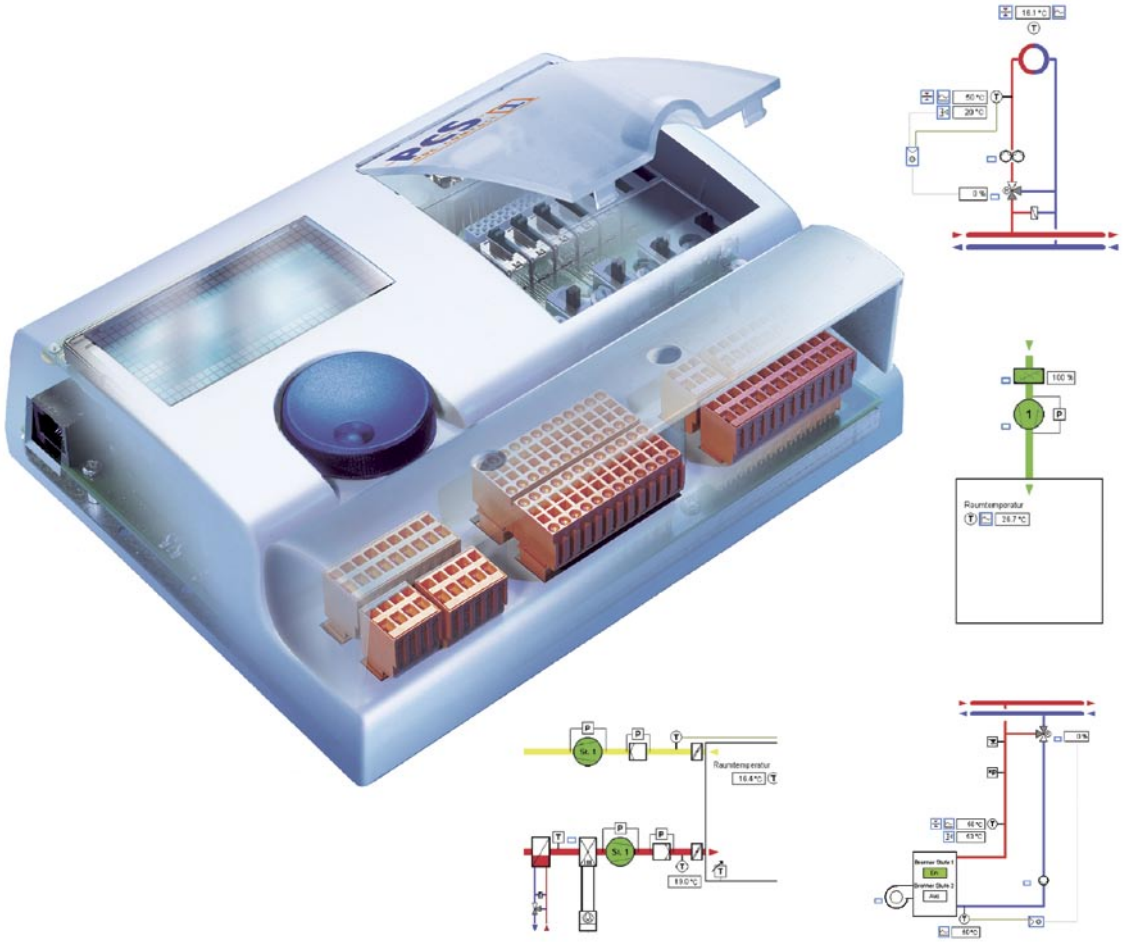
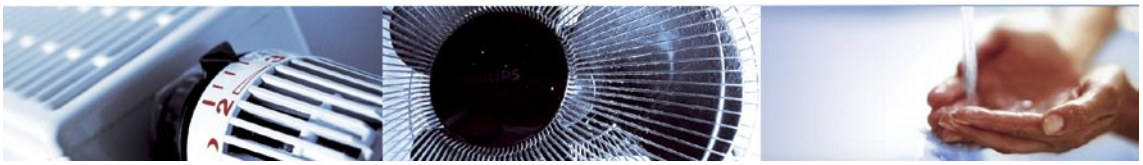
Applications Flyer





Saia®PCS1.C6xx/C8xx

New benchmarks set by controller family

Controls Division

Main features of these controllers

- Wide range of different uses for one basic controller with two levels of equipment
- Tailor-made data point mix with the PCS1 family of compact controllers
- Integral or remote graphics display with single-knob control
- Integral manual control level
- PCS1.C6xx with 30 data points
- PCS1.C8xx with 44 data points
- Networkable – direct S-Bus connection
- Can be equipped with analogue / ISDN / GSM modem (GSM not available with Compact-Easy type)
- 1024 kBytes memory for history data

Applications in building automation

- Any chosen application – combinations possible
- Boiler / double boiler installations
- Heating group combinations
- Hot water tanks
- Complex ventilation control
- Air extracting equipment

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Smart solutions for comfort and safety

Application examples PCS1.C6xx

The application range for the PCS1 compact controller is very diverse. The following examples show users typical HEAVAC applications, where a PCS1.C6xx has been deployed.

Application example 1
- Ventilation system with 2 control sequences
- 2-stage ventilation
- Pre-heated return monitoring
- Room temperature/air extraction control
- Single-stage air extraction with valve function, thermostat and external requesting

Application example 2
- Ventilation system with 3 control sequences
- Rotational heat recovery
- Process monitoring of media
- Remote setpoint transmitter
- Room temperature/air extraction control
- 2-stage direct vaporizer control

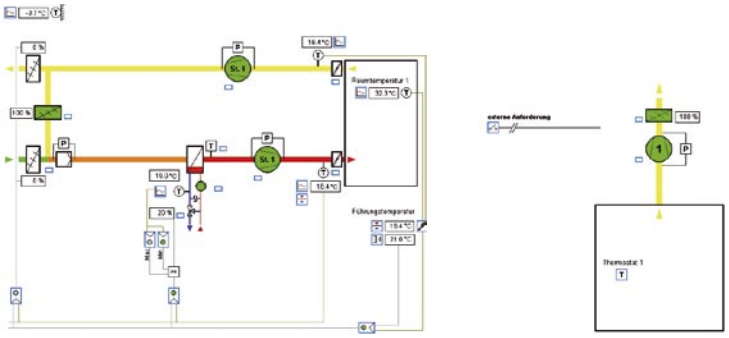
Application example 3
- 2-stage boiler controller
- Boiler return upkeep
- Emergency OFF function
- Pressure / water level monitoring
- Process / fault monitoring
- Heating group with room temperature monitoring
- Service water tank with 2 detectors
- Loading and circulation pumps

Application example 4
- 3 independent heating groups
- Extension of working hours
- Double pump (heating circuit 2)
- 3-point valve drive triggering
- Service water tank with 2 detectors
- Loading and circulation pumps

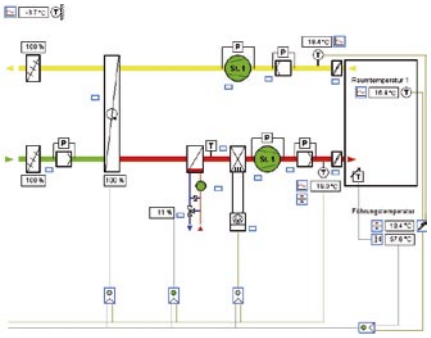
Special functions:
- Single or double pumps
- Individual time-switch program
- Display operation
- Integral manual switch function
- Modem – remote access
- Networkable

Available inputs/outputs PCS1.C6xx		Example 1	2	3	4
Digital inputs 24 VDC	6	6	6	6	6
Relay outputs 230 VAC	8	7	7	6	6
Digital inputs/outputs 24 VDC	4	3	4	2	0
Analogue inputs passive/active	6/2	5/0	5/2	5/2	6/2
Analogue outputs	4	2	3	2	2
Total	30	23	27	23	20
Number of free I/Os		7	3	7	10

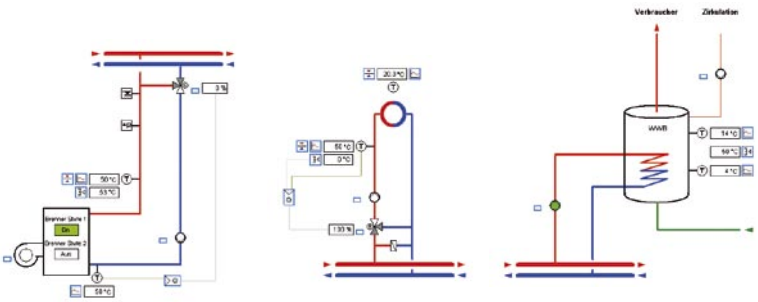
Application example 1



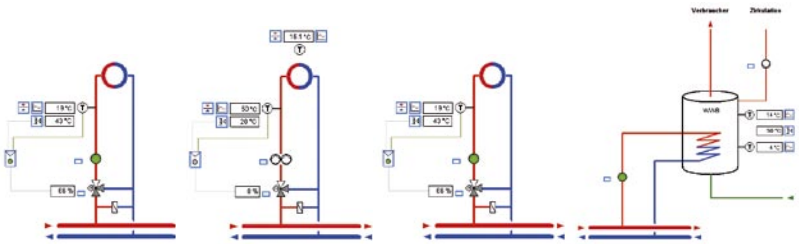
Application example 2



Application example 3



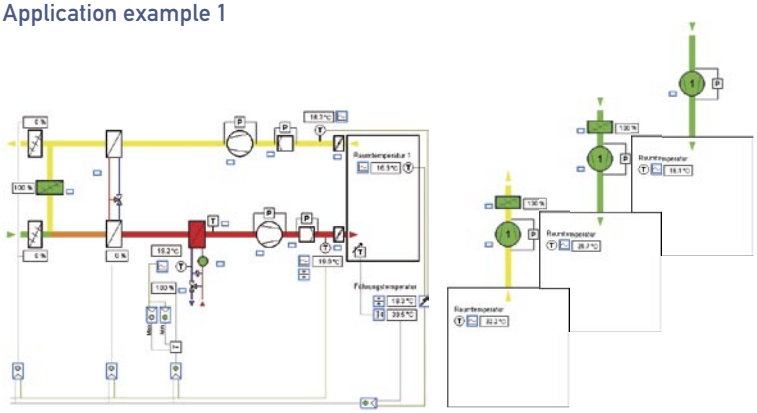
Application example 4



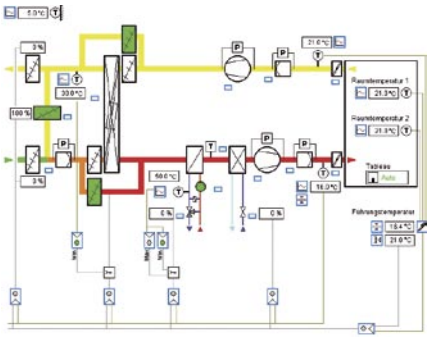
Application examples PCS1.C8xx

The application range for the PCS1 compact controller is very diverse. The following examples show users typical HEAVAC applications, where a PCS1.C8xx has been deployed.

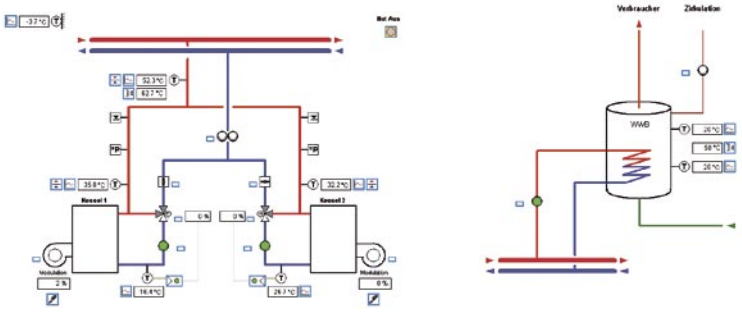
Application example 1



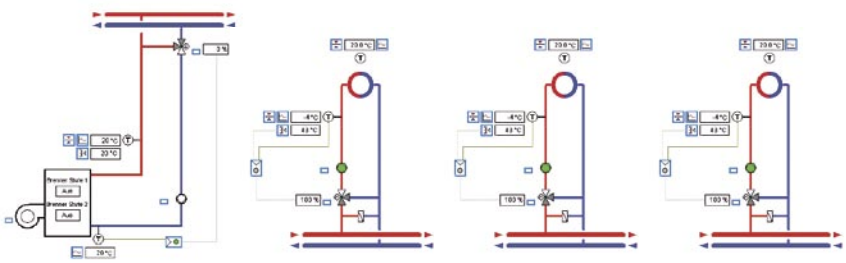
Application example 2



Application example 3



Application example 4



Application example 1
- Ventilation system with 4 control sequences
- 2-stage ventilation
- Remote setpoint transmitter
- Room temperature/air extraction control
- Single-stage air extraction with valve function
- Single-stage aeration with valve function
- Single-stage aeration

Application example 2
- Ventilation system with 4 control sequences
- Heat recovery function with plate exchanger
- Process monitoring of media
- Remote setpoint transmitter
- Room temperature/air extraction control
- Board switch: Auto – 0 – 1

Application example 3
- Double boiler system with sequential control
- Double pump in main flow pipe
- Independent return upkeep
- Modulated burner control
- Emergency OFF function
- Service water tank with 2 detectors
- Loading and circulation pumps

Application example 4
- 2-stage boiler controller
- Flow-pipe temperature control
- Boiler return upkeep
- 3 independent heating groups
- Room temperature turn-on for heating groups.

Special functions:
- Single or double pumps
- Individual time-switch program
- Display operation
- Integral manual switch function
- Modem – remote access
- Networkable

Available inputs/outputs PCS1.C8xx		Example			
		1	2	3	4
Digital inputs 24 VDC	12	10	12	16	9
Relay outputs 230 VAC	8	8	7	8	6
Digital inputs/outputs 24 VDC	4	3	1	0	0
Analogue inputs passive/active	12/4	9	8	8	9
Analogue outputs	4	3	4	4	4
Total	44	33	32	36	28
Number of free I/Os		11	12	8	16

Operational arguments

The demands on compact controllers vary enormously, depending on application and customer requirements.

PCS1.C6xx and PCS1.C8xx compact controllers have hardware that allows specific adaptation to every requirement of building automation and customer preference. They achieve this either as fully user programmable controllers, or equipped with "Easy-Suite", the configuration software supplied free-of-charge.

The benefits that result are flexibility, lower stock maintenance costs, and reduced product diversification.

Devices and system operation

Devices from the PCS1 series of compact controllers are available with or without an integral graphics display and/or manual switch. Customers operate the devices exclusively using tried and tested single-knob control.

Device selection

Base unit	PCD7.F1xx	Modem	Software	Mechanical options
PCS1.C...	0 = without	0 = without	0 = PG5	0 = without terminal cover
	A = ..F110	1 = analogue	A = Easy	1 = with terminal cover
	B = ..F120	2 = ISDN		2 = without terminal cover, wall mounting
	D = ..F150*	3 = GSM*		3 = with terminal cover, wall mounting
	E = ..F180*			

A - Macro version = Compact-Easy (inc. software «Easy-Suite»)

	Base units with 30 data points
PCS1.C620	with graphics display and manual/emergency control
PCS1.C621	with graphics display
PCS1.C622	with manual/emergency control
PCS1.C623	without display, without manual/emergency control
	Base units with 44 data points
PCS1.C820	with graphics display and manual/emergency control
PCS1.C821	with graphics display
PCS1.C822	with manual/emergency control
PCS1.C823	without display, without manual/emergency control
	Base units with 44 data points and LonWorks®-Anschaltung
PCS1.C880*	with graphics display and manual/emergency control
PCS1.C881*	with graphics display
PCS1.C882*	with manual/emergency control
PCS1.C883*	without display, without manual/emergency control
	Accessories (spare parts requirement)
4'405'4941'0	Set of spring terminals, 8 parts
4'111'4927'0	Terminal cover
4'109'4849'0	Set for wall mounting
PCD7.D230	External graphics terminal
PCD7.D230 Easy	External graphics terminal (only with Compact-Easy version)
PCD7.K423	Screened interface connection cable, length 2.5 m: between terminal (D-type, 9 pole) and RS232 interface with RTS/CTS of PCS1 or PCD (wire ends free)
PCD8.K111	Connecting cable configuration tool
	Modem modules (for exchange)
4'636'6683'0	analogue
4'636'6684'0	ISDN-TA
4'636'6749'0	GSM*

* not with Compact-Easy version

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