

# Control System Type ABS PCx

**SULZER**

The PCx is a technically very advanced and powerful control system. The system is scalable, flexible and modular.

The main difference between PCx and conventional PLC systems is the simplicity of installation and configuration. The PCx has extensive control functions and is fitted with communication (RS 232/485), alarm handling, log capability (digital and analogue), stand alone control and decision making system.

The system can both control the application and be configured on-line simultaneously. PCx can be configured using the AquaProg software either via fixed line or dial-up communication. The programming is very easy and time saving as all functions used for pumps, mixers, valve or cleaning device operation are predefined and can be linked and configured either on the operator panel or by the Windows configuration software AquaProg, with a screen similar to Windows® Explorer.

AquaProg also includes functions for reading actual signal status, read alarm list, reset alarms, up and download configuration etc.

## Features

- Controls up to 16 pumps
- Modular design
- Simple installation and configuration by predefined software modules
- Multiple communication possibilities

## Multiple communication possibilities

Handling different types of communication is one strength of PCx. The unit handles communication via fixed line, dial-up, radio, LAN etc. It can also handle for instance dial-up communication via one com port to the SCADA system and using com port 2 with multi drop communication to other units.

PCx is, as the name indicates, a central unit with built-in I/O and can be expanded with separate I/O units type PCxp. When fully expanded with PCx and 7 PCxp units, the system handles the following I/O:

- 128 digital in e.g. switches, contactors, actuators etc.
- 64 digital out e.g. for control of pumps, mixers, valves etc.
- 32 analogue in e.g. HSC level sensors, flow meters etc.
- 16 analogue out e.g. frequency converters etc.

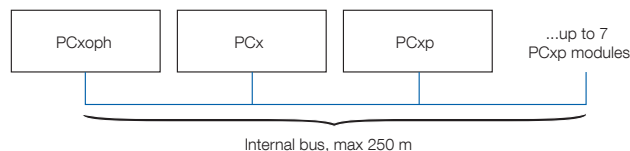
## Examples of functions in PCx

- Pump control
- Pump capacity and flow calculations
- Motor and valve control
- Alarm handling
- Log functions
- GSM/GPRS/SMS-handling
- PID-regulators
- Timers and counters
- Sequence control
- Data register cross reference file



## Technical specifications

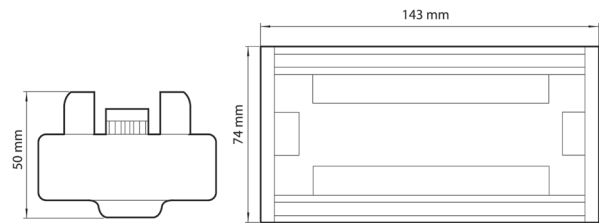
System	
Ambient operating temperature	-20 to +50 °C (-4 to +122 °F)
Ambient storage temperature	-30 to +80 °C (-22 to +176 °F)
Humidity	0-95 % RH non condensing
Supply	9-34 VDC (max 0.2 A at 24 VDC), battery back-up of memory and clock
Analogue logging	32 channels up to 99 days/channel
Digital logging	I/O and up to 4096 alarm events
Configuration	Via programming unit PCxop or from PC via AquaProg software
Protocols	Comli and ModBus
Program memory	Flashprom
Log and work memory	RAM, internal batt. back-up
RTC	Full data & time, internal batt. back-up



## Technical specifications

Central unit PCx and I/O-expansion PCxp	
Mounting	DIN-rail 35 mm
Degree of protection	IP 20
Housing material	Aluminium
Communication	RS 232/485 (115 200 baud)
Indication	LED-diodes
Analogue inputs	4
Signal	0/4-20 mA
Input resistance	50 ohm
Resolution	20 bits (0.025 $\mu$ A)
Analogue outputs	2
Signal	0/4-20 mA
Resolution	14 bits (1 $\mu$ A)
Max load	1000 ohm (at 24 VDC)
Digital inputs	16
Signal	9-34 VDC (max 3.3 mA at 34 VDC) galvanically isolated via optocoupler in one group
Indication	LED-diodes
Digital outputs	8
Signal	9-34 VDC (supply)
Load	1A/output, max 4 A/module
Indication	LED-diodes

PCx, PCxp:



Panel mounted operator panel PCxop and portable operator panel PCxoph	
I/O-module connection	CAN-bus, max 250 m cable
Display	20 characters/4 rows with backlight
Keyboard	16 keys for configuration and parameter setting
Status LEDs	4 system 16 user configurable

PCxop:

