

DESIGN ENVELOPE IPC 9511 | TECHNICAL OVERVIEW

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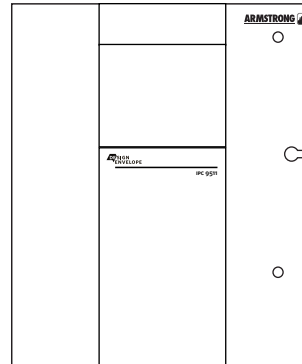
AIR COOLED CHILLED WATER PLANT CONTROL SYSTEM

The Armstrong IPC 9511 is a pre-programmed control system, designed for the automation of an air cooled variable primary chiller plant. The IPC 9511 sequences the chillers and optimizes the pump operation for better efficiency of your chiller plant. The control system is fully field configurable through on-board set up screens. This plant automation solution can also be seamlessly integrated with the reporting and remote read-write capabilities of any building management system.

The IPC 9511 is capable of automating a chiller plant with up to five air cooled chillers and five variable speed primary pumps in a number of configurations.

The IPC 9511 offers three options for determining the buildings cooling requirements:

- Parallel Sensorless™ for headered Design Envelope pumps
- or remote Zone differential Pressure (dP) sensors (up to 5 zones)
- or remote Zone temperature sensors (up to 5 zones)
- or local plant dP sensor with simulated quadratic control curve



STAND ALONE
(OPTIONAL WITH VFD AND RACK ASSEMBLY)
POWER SUPPLY: 100V-240V AC / 50-60 HZ

IPC 9511 FEATURE MATRIX:

MODEL	SCREEN	ENCLOSURE	OPERATING FOR	AVAILABLE FOR	
IPC9511	10" HMI PLC screen and web-based access screens	<ul style="list-style-type: none"> • NEMA 12 • NEMA 3R • NEMA 4 • IP54 • IP55 	Air Cooled Chiller	Quantity	<ul style="list-style-type: none"> • 1 to 5 (identical sizes)
				Serial interface or hardwired	<ul style="list-style-type: none"> • Modbus RTU • Bacnet MS/TP • Bacnet IP • Lonworks • Hardwired 0-10V • Hardwired 4-20 mA
			Pumps	Quantity	• 1 to 5 (identical sizes)
				Configuration	• Headered or dedicated
				Type	<ul style="list-style-type: none"> • Single • DualArm • Twin
			BAS	Communication (standard)	• Serial Modbus with the VFDs
Serial communication protocol (optional)	<ul style="list-style-type: none"> • Modbus RTU • Bacnet MS/TP • Bacnet IP • Lonworks 				

IPC 9511 CAPABILITY:

APPLICATION		CONTROL OPTIONS		
Variable primary system	Building cooling demand logic	Sensorless™ with Design Envelope pumps	With field adjustable set-point reset based on the most open valve position (as per ASHRAE 90.1).	
		Or Zone dP sensor		
		Or Local plant dP sensor		
		Or Zone return temperature sensor		
	Chilled water plant data points	Plant supply and return temperature		
		Chilled water plant flow		
		Chiller power (kW electric)		
		Bypass valve control to continue operation at very low load		
	HMI easy display	Plant overview with a multi-color schematic active display of mechanical room hydronic circuit indicating operating status. <ul style="list-style-type: none"> ▪ Multi-language ▪ Zone set up ▪ Pump configuration ▪ Alarm history and event review ▪ Zones, pumps and event status ▪ Hand-Off-Auto control 		
	Variable primary + Variable secondary system	Secondary pump pony panel available	<ul style="list-style-type: none"> ▪ IPS 3000 ▪ IPS 4000 ▪ Parallel Sensorless™ pump control ▪ Building side flow signals or building supply temperature signal on secondary circuit 	

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