

## IPS Controller 9100

## SUBMITTAL

JOB: _____	REPRESENTATIVE: _____
ENGINEER: _____	ORDER NO: _____ DATE: _____
CONTRACTOR: _____	SUBMITTED BY: _____ DATE: _____
	APPROVED BY: _____ DATE: _____

SYSTEM LAYOUT / CONFIGURATION	
Number of pumps being controlled	_____ (Specify 1 to 6)
Number of remote Differential Pressure signals (zones)	_____ (Specify 1 to 18)

IPS CONTROLLER 9100 VARIANT			
	Input Zone Capability	Output Pump Control Capability	Select Standby or Parallel Operation of Pumps (VFDs)
IPS Controller 9101	up to 6 Zones	up to 6 pumps	<input type="checkbox"/> IPS9101 Standby <input type="checkbox"/> IPS9101 Parallel
IPS Controller 9102	up to 12 Zones	up to 6 pumps	<input type="checkbox"/> IPS9102 Standby <input type="checkbox"/> IPS9102 Parallel
IPS Controller 9103	up to 18 Zones	up to 6 pumps	<input type="checkbox"/> IPS9103 Standby <input type="checkbox"/> IPS9103 Parallel



### STANDARD FUNCTIONALITY and CONSTRUCTION

- A large-sized (10.4") touchscreen operator interface
- On-screen menu driven operator interface
- Manual or automatic system control (H-O-A selection)
- Remote or local start/stop mode of operation
- Field and factory password security
- Alarm and event logging of 2000 events
- Data trending with display screen
- PID control loop, adjustable
- UL Listed and CSA Approved
- Internal circuit breaker protection
- Automatic or manual pump alternation
- End-of-curve pump run out protection
- Best Efficiency Point (BEP) staging
- Wire-to-water efficiency monitoring and staging
- 3 standard alarms: (1) drive, motor overload or pump failure, (2) system fault, (3) zone signal fault
- Separate operating status display of pump status, pump speed(s) and drive status
- Digital inputs for pump differential pressure switches
- Output for remote alarm/horn signal
- Input for silencer of remote alarm/horn
- Separate input screen for DP, flow, temperature and kW sensors
- Separate input screens for differential pressure sensor setpoint and operating range (psi or feet)
- Logic outputs for VFD automatic by-pass control
- Separate status screen of remote zone signals, zone faults, zone setpoint, and active control zone
- Embedded logic to prevent hunting, pump flow surge and motor overloading
- Multi-color schematic active display of mechanical room hydronic circuit indicating operating status
- Manual control screen for fixed speed, by-pass or selected variable speed settings
- Secure front cabinet door with lock and key
- Diagnostic test of CPU, RAM and Flash memory

### DIMENSIONS and WEIGHTS

Model	Width	Height	Depth	Weight
IPS Controller 9101	24 (610)	24 (610)	8 (203)	95 (43)
IPS Controller 9102				105 (48)
IPS Controller 9103	24 (610)	36 (914)	8 (203)	115 (52)

Note: Dimensions are in inches (mm). Weights are in lbs. (kg).

### POWER SUPPLY

Volts	Frequency	Phase
<input type="checkbox"/> 115 Vac	60 Hz	single
<input type="checkbox"/> 230 Vac		
<input type="checkbox"/> 240 Vac	50 Hz	

### ENCLOSURE DETAILS

- NEMA 1
- NEMA 2
- NEMA 4
- NEMA 12
- EEMAC 2

### OPTIONS and ACCESSORIES

- A serial communications port for communication with a Building Automation System (standard communication options included with basic system are Modbus, LonWorks, Trend, Johnson Controls Metasys N2 and pLAN)
- Serial communications port to receive full information from the variable speed drives (VFD's) (Modbus)
- Optional communications gateways for BACnet and Webgate (TCP/IP)
- Armstrong shall enter the project specific field enter parameters
- Telephone communications modem and port
- Flash memory card expandable to 6 MB

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