## **Field Wiring**

'AS' Cooling Towers

CONTROLLER: SAT-CP-F-RM-AD 10 Amp Alarm Contacts

Conductivity Sensor:	Cable to:	Located:
Tower 1 Conductivity	A+ & A-, E+ & E-	Door mounted circuit board
		Blue cable sleeve sensors

Cabling Notes: Extend conductivity sensor cables with 4 x AWG22 cable, shielded or unshielded & color coded black, white, red and green.

pH Sensor:	Cable to:	Located:
Tower 1 pH	C+ & C-	Door mounted circuit board
	Coax. Shield to C-	Green ground wire to backplate

Cabling Notes: Do not parallel pH cables & AC power cables.

If sensor cables are shortened, strip center conductor 'black' insulation from inner 'clear' insulation before terminating. Do not extend pH sensor cables.

Any mix of three contact head, turbine & paddlewheel sensors may be connected to the controller.

Water meters:	Cable to:	Located:
Tower Make-up	'O' input	Door mounted circuit board
Tower Bleed	'P' input	Door mounted circuit board
Closed Loop Make-up	'Q' input	Door mounted circuit board

Cabling Notes: Contact head meters wire to **O+** & **O-** through **Q+** & **Q-**. See manual Sections 3.3.5 & 4.3 for turbine & paddlewheel cabling.

Flowswitch:	Cable to:	Located:
Tower Recirculating	'U' input	Door mounted circuit board

Cabling Notes: Connect to U+ & U-. Dry contacts may be substituted for a flowswitch. Contacts must be closed to operate pumps and solenoids.

Chemical Pumps are usually plugged into the pump plug enclosure at the end of the flexible, blue conduit. If you wish to hard wire the bleed solenoid:

Bleed Solenoid:	Cable to:	Located:
Bleed Solenoid	Line to NO2	Door mounted circuit board
	Neutral to N2	

Cabling Notes: Cable solenoids with AWG18 to AWG14 cable, multiple stranded.

High ampacity alarm relay located on backplate. Dry, normally closed contacts rated 10A 120VAC

Alarm Power Relay:	Cable to:	Located:
10 Amp Contacts	Alarm1 to	Enclosure aluminum backplate
	Relay COM	
	Alarm2 to	
	Relay NC	

Cabling Notes: Connect alarm contacts using NEMA tab crimp connectors supplied on relay terminals.

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