Product Specification

Job Name _____ Contractor _____

Job Location _____ Approval _____

Engineer _____ Contractor's P.O. No. _____

Approval _____ Representative _____

Series P-450S

ESP™ Hydropanel™ II Infrared Sensor System

Description

The Powers ESP (Electronic Sensor Plumbing) Hydropanel™ II Infrared Shower System combines the convenience of modular shrouding with the benefits of solid state electronic water control. The Hydropanel™ II stainless steel shrouding provides a concealed shower system where in-wall piping does not exist or may not be practical. The ESP Infrared Shower System relies on infrared technology to sense the presence of a user and deliver tempered water to the shower with completely hands free operation.

When the unit is powered, the ESP sensor emits an invisible infrared beam into the shower area. When a bather enters the field of this beam, a signal is transmitted to a solenoid valve, which opens and sends water to the showerhead. The shower will operate as long as the bather stands in front of the sensor, for the pre-set shower run time.

The ESP Hydropanel™ II is ideal for new or retrofit applications in schools, health clubs, correctional facilities, remodeled buildings—anywhere space, hygiene and water conservation are concerns. Tempered water can be supplied to the ESP Hydropanel units with an LFe480 mixing valve for single use or an LFLM495 mixing valve for multiple showers.

Figure 1
ESP Hydropanel™ II Infrared Sensor Shower System

Benefits

Modular Design:

The Hydropanel™ II is a single unit shower system, with the stainless steel shrouding that covers and protects the exposed piping. Installation requires minimal hardware: just mount the brackets, connect the supply water to the pre-piped solenoid, and hang the shrouding.

Water Conservation:

With electronic sensor plumbing control, water runs only when actually needed. The shower automatically turns on when a bather steps in front of the Infrared sensor, and automatically shuts off at the pre-set run time, or when the bather moves out of the distance of the Infrared sensor.

Reduced Maintenance:

Traditional metering valves are prone to maintenance and mechanical failure due to component wear, lime build-up and vandalism. Electronic Sensor Plumbing systems are much more reliable, with proven solenoid valves, solid state electronics and vandal resistant sensor assemblies.

Components

The ESP Hydropanel™ II Shower System Series 450-5100 consists of stainless steel Hydropanel™ II shrouding, ESP Infrared Shower System, showerhead, piping, and soapdish. The ESP Infrared System consists of an Infrared shower, control box, wiring, solenoid valve and optional 24V AC transformer.

Operation

The ESP Hydropanel™ II Infrared Shower System includes an infrared sensor assembly, solenoid valve and premounted piping. The shrouding removes with just three screws, for easy access to the preassembled piping. All electronic components use modular plug-type connectors for easy installation and maintenance. Refer to Figure 2 for a diagram of the ESP Hydropanel™ II Infrared Shower System components.

The ESP infrared sensor is mounted behind the front face of the vandal resistant Hydropanel™ shrouding. On the back of the sensor are two field adjustable potentiometers, for easy adjustment of infrared field sensibility (from 1" to 28") (25.4 X 711mm) and maximum shower run time 1 minute 30 seconds to 2 hours 30 minutes..

The sensor emits an invisible infrared beam into the shower area. A bather approaches the shower sensor within the sensitivity distance reflects the beam back to the sensor. An LED on the sensor lens lights to show sensor activation, and the sensor transmits a signal to the modular junction box.

Special Features

- Commercial grade non-metallic solenoid valve is slow closing to prevent water hammer, has a straight through flow path for wider flow range, and has manual override.
- Safe low-voltage electronic system uses simple modular plug-type connections (vs. hard wiring).
- Sensor features a unique LED on lens to indicate sensor activation and simplify troubleshooting.
- Two easily set potentiometers allow adjustment to sensor sensitivity (1" to 28") and maximum run time 1 minute 30 seconds to 2 hours and 30 minutes.
- Vandal resistant (fixed) and swivel showerheads available.
- Box Transformer to power one ESP shower system ESP System.
- Optional Modular Shrouding provides easy to install, stainless steel shrouding to cover all room piping. See form ES-P-450SH for details on Hydropanel™ II modular shrouding.

NOTICE

The information contained herein is not intended to replace the full product installation and safety information available or the experience of a trained product installer. You are required to thoroughly read all installation instructions and product safety information before beginning the installation of this product.

POWERS™
A WATTS Brand

Specification

Hydropanel: Brushed 304 SS. Dimensions are 31 1/8" H x 7 1/2" W x 4 1/4"D (791 x 191 x 108mm). See figure 3 for complete dimensions.

Showerhead: Fixed or Swivel, 2.5 gpm (9.5 lpm) maximum flow.

Sensor: Polyurethane Housing with two adjustable potentiometers for sensor sensitivity and maximum shower run time.

Sensor Range: Factory preset to 18" (457mm); field adjustable from 1" to 28" (25 X 711mm).

Cable Length: Sensor to Modular Junction Box: 24" (610mm), with modular plug connector for easy installation into junction box. Maximum cable extension (optional) 1000 feet (305m).

Modular Junction Box: Plastic with Plug in Connections for sensor and solenoid valve; 2 1/4" x 2" (57 x 51mm).

Control Circuit: Solid State 21 to 28 VAC. Shower time factory preset to maximum time of 15 minutes; field adjustable from 1 minute 30 seconds to 2 hours and 30 minutes.

Transformer: Box Type. UL listed and CSA Certified Class 2 Transformers. Primary 120V 60 Hz, Secondary 24 VAC. Powers one solenoid valve.

Solenoid Valve, Brass: 24 VAC, 60 Hz, 1/2" (15mm) NPT inlet/outlet connections. Maximum operating pressure 125 psig. Maximum fluid temperature: 180°F

Typical Specification

Shower unit shrouding shall be 304 SS material, with pre-mounted, (vandal resistant) (swivel) 2.5 gpm (9.5 lpm) flow restrictor showerhead and soapdish. Shrouding shall be pre-assembled and pre-piped for easy installation to supply lines.

Shower control shall be electronic and operate on 24 VAC. Shower shall be activated by a infrared sensor which responds to the presence of a bather in a shower and allows "hands free" activation. Shower must shut off when bather moves beyond sensor sensitivity range, or at the pre-set run time. Sensor shall be waterproof and feature both sensor sensitivity adjustment from 1" to 28" (25 X 711mm), and maximum shower time adjustment of 1 minute 30 seconds to 2 hours and 30 minutes. Sensor assembly shall also feature an LED through the sensor lens to indicate sensor activation. Modular junction box must feature modular plug receptacles for shower and sensor connection. Shower system shall include a slow closing commercial grade (non-metallic) (brass) solenoid valve. All sensor and solenoid electrical connections must be accomplished using modular plug type connectors. Transformer shall be Class 2 type UL and CSA listed, operate on 120VAC, 60Hz and 24 VAC secondary coil. The transformer will power one solenoid valve.

Optional shrouding extensions shall be of 304 stainless steel, modular and compatible with shower unit housing.

Ordering Information

ADA compliant

450 – □ – 0 0 – □ □ – □ □ – □ □

Sensor — **Order Code**

Infrared 1

Transformer (Order separately-See below)

None 00

Control Box

None 00

Showerhead

Fixed Head 03
Swivel Head 04
Deluxe Hand Shower (141-163) 06
Standard Hand Shower (141-827) 08
Fixed Head, Standard Hand Shower and Diverter 10
Fixed Head, Deluxe Hand Shower and Diverter 12

Soap Dish

With Soapdish ..... WD
Less Soapdish ..... LD

Transformer (Powers 1 solenoid valve)

☐ Box (444-119)

ENGINEERING APPROVAL

Project: _____
Contractor: _____
Architect/Engineer: _____

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Tel: (800) 669-5430 • Fax: (847) 229-0526 • PowersControls.com
Tel: (905) 332-4090 • Fax: (905) 332-7068 • PowersControls.ca
Tel: (52) 81-1001-8600 • Fax: (52) 81-8000-7091 • PowersControls.com