SLOAN®
OPTIMA SYSTEMS

**Regal® XL Model**

**OPTIMA®**

Sensor Activated Flushometers

Buy American Act Compliant

# 110/111 XL ES-S

## Description
Exposed, Sensor Activated Regal® XL Model Water Closet Flushometer, for floor mounted or wall hung top spud bowls.

## Flush Cycle
☐ Model 110 XL ES-S Water Saver (3.5 gpf/13.2 Lpf)
☐ Model 111-1.6 XL ES-S Low Consumption (1.6 gpf/6.0 Lpf)

## Specifications
Quiet, Exposed, Diaphragm Type, Chrome Plated Closet Flushometer for either left or right hand supply with the following features:

- OPTIMA® EL-1500-L Self-Adaptive Infrared Sensor with Indicator Light
- Courtesy Flush™ Override Button
- Non-Hold-Open Integral Solenoid Operator
- Two (2) Chrome Plated Wall Cover Plates (for 2-gang Electrical Box) with Vandal Resistant Screws
- 1" I.P.S. Screwdriver Bak-Chek™ Angle Stop
- Vandal Resistant Stop Cap
- Adjustable Tailpiece
- Vacuum Breaker Flush Connection
- Spud Coupling and Flange for 1½" Top Spud
- High Copper, Low Zinc Brass Castings for Dezincification Resistance
- Low Consumption flush accuracy controlled by Para-Flo™ Technology
- Diaphragm, Stop Seat and Vacuum Breaker to be Molded from PERMEX™ Rubber Compound for Chloramine Resistance

Valve Body, Cover, Tailpiece and Control Stop shall be in conformance with ASTM Alloy Classification for Semi-Red Brass. Valve shall be in compliance with the applicable sections of ASSE 1037. Installation conforms to ADA requirements.

## Accessories
☐ EL-154 Transformer (120 VAC/24 VAC 50 VA)
☐ EL-342 Transformer (240 VAC/24 VAC 50 VA)
☐ EL-485-A Flushometer Electrical Box Positioning and Support Kit

See Accessories Section and OPTIMA Accessories Section of the Sloan catalog for details on these and other OPTIMA Flushometer variations.

## Automatic
Sloan OPTIMA® equipped Flushometers provide the ultimate in sanitary protection and automatic operation. There are no handles to trip or buttons to push. The Flushometer operates by means of an infrared sensor that adapts to its surrounding. Once the user enters the sensor's effective range and then steps away, the Flushometer Solenoid initiates the flushing cycle to flush the fixture.

## Hygienic
User makes no physical contact with the Flushometer surface except to initiate the Override Button when required. Helps control the spread of infectious diseases. Twenty-four Hour Sentinel Flush keeps fixture fresh during periods of nonuse.

## Economical
Automatic operation provides water usage savings over other flushing devices. Reduces maintenance and operation costs.

## Practical
Solid state electronic circuitry assures years of dependable, trouble-free operation. The operational components of the Flushometer are identical to a handle operated Regal® XL Flushometer.

## Warranty
3 year (limited)

UL® Listed  CSA® Certified  IAPMO® Listed by I.A.P.M.O.

This space for Architect/Engineer approval

Job Name _____ Date _____

Model Specified _____ Quantity _____

Variations Specified _____

Customer/Wholesaler _____

Contractor _____

Architect _____

# 110/111 XL ES-S

## Description
Exposed, Sensor Activated Regal® XL Model Water Closet Flushometer, for floor mounted or wall hung top spud bowls.

## Flush Cycle
☐ Model 110 XL ES-S Water Saver (3.5 gpf/13.2 Lpf)
☐ Model 111-1.6 XL ES-S Low Consumption (1.6 gpf/6.0 Lpf)

## ELECTRICAL SPECIFICATIONS

### Control Circuit
Solid State
24 VAC Input
24 VAC Output
8 Second Arming Delay
3 Second Flush Delay
24 Hour Sentinel Flush

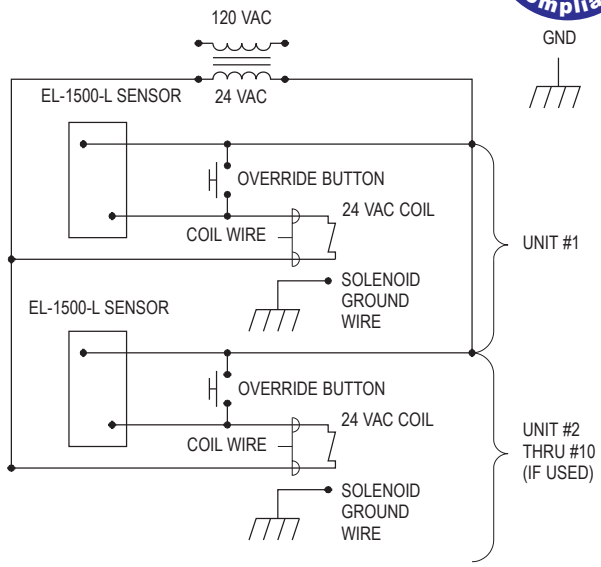
### OPTIMA Sensor Range
Nominal 22" - 42" (559 mm - 1067 mm)
Self-adaptive Window: ± 10" (254 mm)

### Solenoid Operator
24 VAC, 50/60 Hz

### Transformer
Sloan Part #EL-154
120 VAC, 50/60 Hz Primary
24 VAC, 50/60 Hz Secondary
Class II, UL Listed, 50 VA.

Sloan Part #EL-342
240 VAC, 50/60 Hz Primary
24 VAC, 50/60 Hz Secondary
Class II, UL Listed, 50 VA.

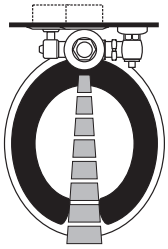
## WIRING DIAGRAM



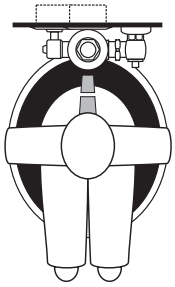

One Transformer serves up to ten (10) OPTIMA Closet/Urinal Flushometers. Specify number of transformers required accordingly.

## OPERATION

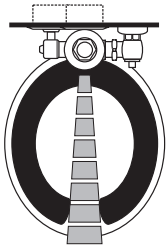
1. A continuous, invisible light beam is emitted from the OPTIMA Sensor.



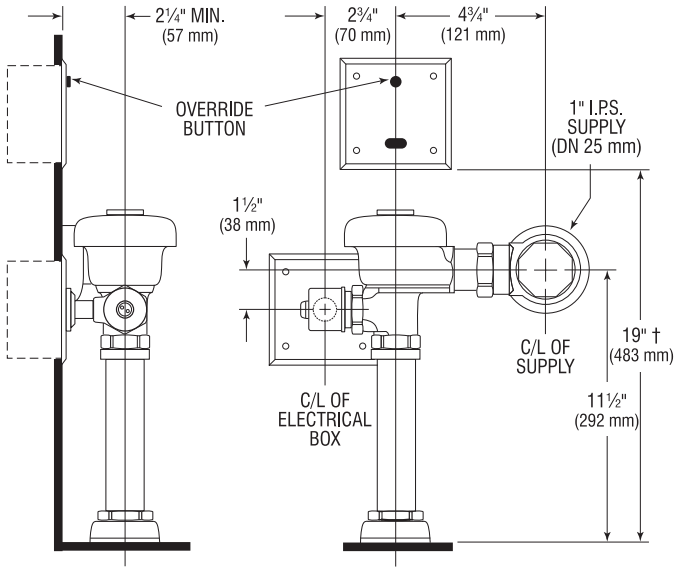
2. As the user enters the beam's effective range (22" to 42") the beam is reflected into the OPTIMA Scanner Window and transformed into a low voltage electrical circuit. Once activated, the Output Circuit continues in a "hold" mode for as long as the user remains within the effective range of the Sensor.



3. When the user steps away from the OPTIMA Sensor, the circuit waits 3 seconds (to prevent false flushing) then initiates an electrical "one-time" signal that operates the Solenoid. This initiates the flushing cycle to flush the fixture. The Circuit then automatically resets and is ready for the next user.



## ROUGH-IN

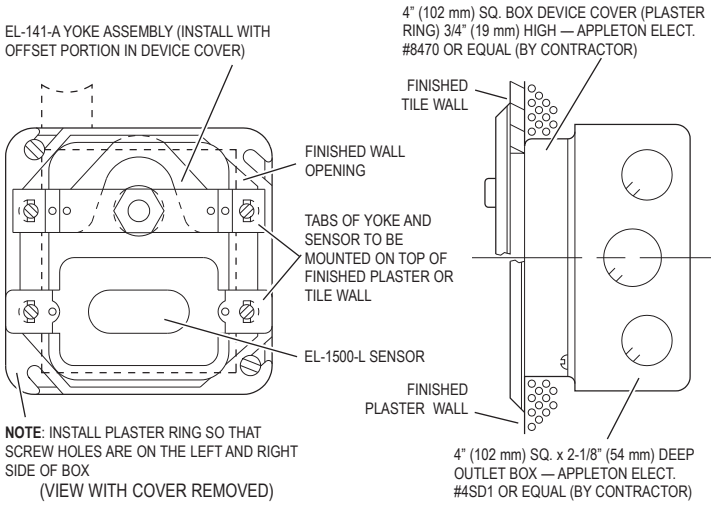



† Position of Sensor Box can be raised or lowered 1" (25 mm) if in conflict with Handicap Grab Bars.

## ELECTRICAL BOX INSTALLATION

***SENSOR LOCATION AND POSITIONING IS CRITICAL***

Failure to properly position the electrical boxes to the plumbing rough-in will result in improper installation and impair product performance. All tradesmen (plumbers, electricians, tile setters, etc.) involved with the installation of this product must coordinate their work to assure proper product installation. Installation Template furnished with Flushometer.




**To ensure a perfect rough-in, Sloan recommends the use of the EL-485-A Flushometer Electrical Box Positioning and Support Kit. Specify and order the EL 485-A Kit separately. Consult factory for installation details.**


**SLOAN VALVE COMPANY • 10500 SEYMOUR AVENUE • FRANKLIN PARK, IL 60131**

Phone: 1-800-9-VALVE-9 or 1-847-671-4300 • Fax: 1-800-447-8329 or 1-847-671-4380 • http://www.sloanvalve.com