SLOAN®
OPTIMA SYSTEMS

Sloan® Model OPTIMA®

Sensor Activated Flushometers

115/116 ES-S

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

Flush Cycle
☐ Models 115/116 ES-S Water Saver (3.5 gpf/13.2 Lpf)
☐ Models 115/116-1.6 ES-S Low Consumption (1.6 gpf/6.0 Lpf)

Variations

☐	TP	Trap Primer
☐	DFB	Dual Filtered Fixed Bypass Diaphragm
☐	YI	Two Wall Bumpers (for open front seat without cover)
☐	YJ	Split Ring Pipe Support
☐	YK	Solid Ring Pipe Support

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

- High Chloramine Resistant PERMEX™ Synthetic Rubber Diaphragm with Linear Filtered Bypass and Vortex Cleansing Action™
- OPTIMA® EL-1500-L Self-Adaptive Infrared Sensor with Indicator Light
- User friendly three (3) second Flush Delay
- 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 with Flush Connection
- Spud Coupling and Spud Flange for 1½" Top Spud
- Sweat Solder Adapter with Cover Tube and Cast Wall Flange
- High Copper, Low Zinc Brass Castings for Dezincification Resistance
- No External Volume Adjustment to Ensure Water Conservation
- Low Consumption Flush Accuracy
- Stop Seat and Vacuum Breaker 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, ANSI/ASME A112.19.2 and Military Specification V-29193. 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

Contractor-friendly Packaging
Installation time is reduced by packaging rough-in components and finishing components separately. In addition, all main valve components and subassemblies are factory assembled requiring less field assembly of the valve on the job site. Components are packaged as follows:

- Stops and Supply Kits, packaged separately — 6 per package
- Fully assembled Valve, packaged with complete Vacuum Breaker Assembly and Flange Kit — 2 per package

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

NOTE: Model 115/116 ES-S valves are designed for installations where the water supply is roughed in 24"/610 mm (Model 115 ES-S) and 27"/675 mm (Model 116 ES-S) above the top of the water closet. When installing the valve, the electrical box for the sensor must be installed as shown on the back page of this sheet. Failure to install this valve properly will result in user complaints.

For new installations Sloan recommends using the model 111 ES-S valve. Jurisdictions that require higher installation heights for manually operated valves typically allow sensor operated flushometers to be installed at the lower 111 ES-S rough-in height (consult local code requirements for verification).

® Certified

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 Sloan® Flushometer.

Warranty
3 year (limited)

Made in the U.S.A.

This space for Architect/Engineer approval

Job Name _____ Date _____

Model Specified _____ Quantity _____

Variations Specified _____

Customer/Wholesaler _____

Contractor _____

Architect _____

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ELECTRICAL SPECIFICATIONS

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

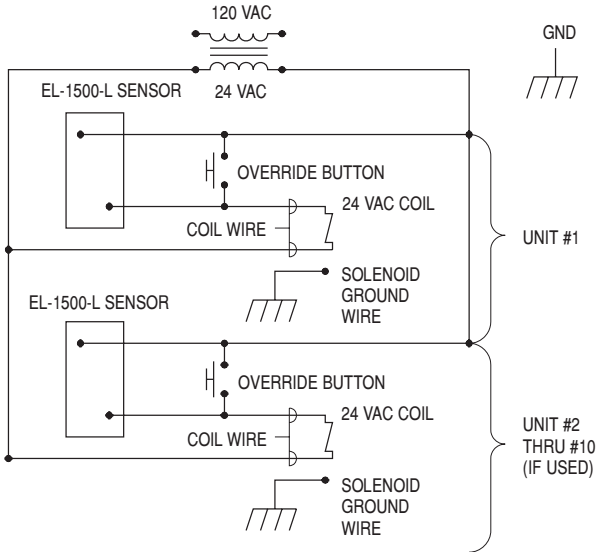
▶ OPTIMA Sensor Range
Nominal 22" - 42" (559 mm - 1067 mm)
Self-adaptive Window: ± 10" (254 mm)

▶ 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.

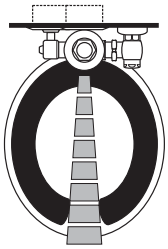
WIRING DIAGRAM



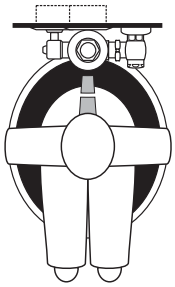
One Transformer serves up to ten (10) OPTIMA Closet/Urinal Flushometers. Specify number of transformers required accordingly.

OPERATION

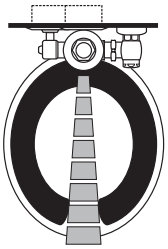
1. A continuous, invisible light beam is emitted from the OPTIMA Sensor.



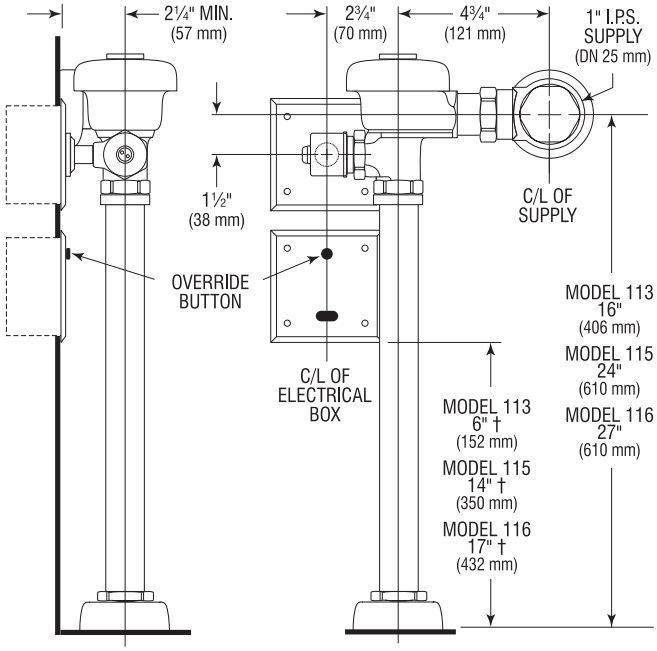
2. As the user enters the beam's effective range (22" to 42") the beam is reflected into the OPTIMA Scanner Window and transformed into a low voltage electrical circuit. Once activated, the Output Circuit continues in a "hold" mode for as long as the user remains within the effective range of the Sensor.



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.



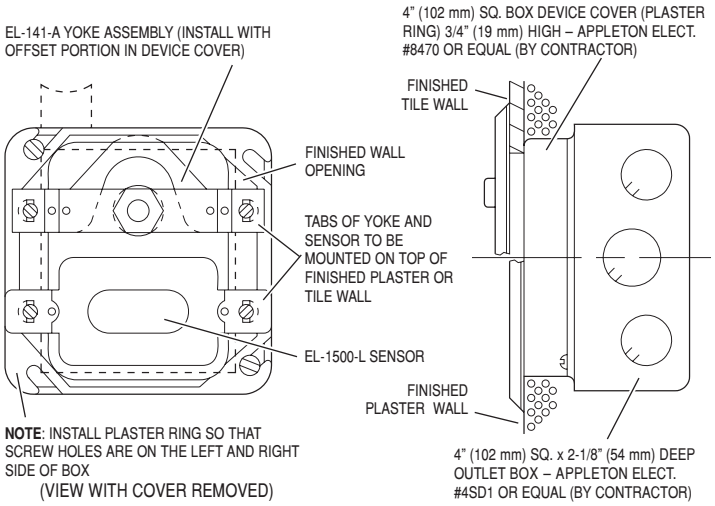
VALVE ROUGH-IN



† 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.



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

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