

## Royal<sup>®</sup> OPTIMA<sup>®</sup> Model

## Sensor Operated Flushometers



#### Description

Concealed, Sensor Operated Royal® Model Urinal Flushometer, for 3/4" back spud urinals.

#### Flush Cycle

□ Model 195 ES-S Water Saver (1.5 gpf/5.7 Lpf) □ Model 195-1.0 ES-S Low Consumption (1.0 gpf/3.8 Lpf) □ Model 195-0.5 ES-S (0.5 gpf/1.9 Lpf)

#### Specifications

Quiet, Concealed, Diaphragm Type, Rough Brass Urinal Flushometer for either left or right hand supply with the following features:

- PERMEX™ Synthetic Rubber Diaphragm with Dual Filtered Fixed Bypass
- OPTIMA® EL-1500 Self-Adaptive Infrared Sensor with Indicator Light
- Non-Hold-Open Integral Solenoid Operator
- Chrome Plated Wall Cover Plate (for 2-gang Electrical Box) with Vandal Resistant Screws
- ¾" I.P.S. Wheel Handle Bak-Chek<sup>™</sup> Angle Stop
- Adjustable Tailpiece
- High Back Pressure Vacuum Breaker Flush Connection and Spud Coupling for <sup>3</sup>/<sub>4</sub>" Concealed Back Spud
- Sweat Solder Adapter
- High Copper, Low Zinc Brass Castings for Dezincification Resistance
- Non-Hold-Open Integral Solenoid Operator, Fixed Metering Bypass and No External Volume Adjustment to Ensure Water Conservation
- Flush Accuracy Controlled by CID<sup>™</sup> 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, ANSI/ASME A112.19.6 and Military Specification V-29193. Installation conforms to ADA requirements.

#### L Dimension

Specify the "L" Dimension for the proper length of the Flush Connection. The "L" Dimension is equal to the Wall Thickness (to nearest whole inch) plus 234".

#### Accessories

□ EL-154 Transformer (120 VAC/24 VAC, 50 VA) □ EL-342 Transformer (240 VAC/24 VAC, 50 VA)

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

$(U_{L})^{\mathbb{R}}$ Listed	(R) Certified	B Listed by I.A.P.M.O.	F
This space for Architect/Engineer approval			
Job Name		Date	
Model Specified		Quantity	
Variations Specified			
Customer/Wholesaler _			
Contractor			
Architect			



### 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. 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 Royal<sup>®</sup> Flushometer, proven by 90 years of experience.

- Warranty
- 3 year (limited)
- Made in the U.S.A



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#### ELECTRICAL SPECIFICATIONS

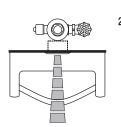
Control Circuit

Solid State 24 VAC Input 24 VAC Output 8 Second Arming Delay 24 Hour Sentinel Flush

 OPTIMA Sensor Range Nominal 15" - 30" (381 mm -762 mm) Self-adaptive Window ± 8" (203 mm)

#### OPERATION

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



2. As the user enters the beam's effective range (15" to 30") 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.

Solenoid Operator

24 VAC, 50/60 Hz

Sloan Part #EL-154

Sloan Part #EL-342

120 VAC, 50/60 Hz Primary

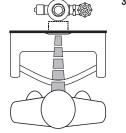
Class II, UL Listed, 50 VA.

240 VAC, 50/60 Hz Primary 24 VAC, 50/60 Hz Secondary

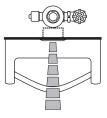
Class II, UL Listed, 50 VA.

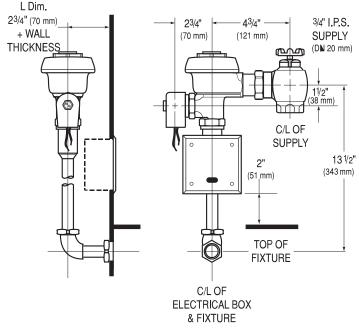
24 VAC, 50/60 Hz Secondary

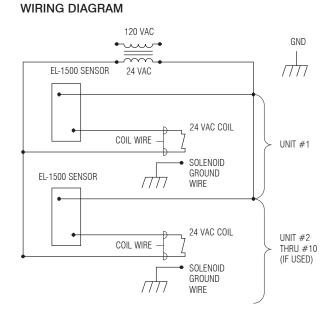
Transformer



3. When the user steps away from the OPTIMA Sensor, the circuit immediately 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.







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

# 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

SENSOR LOCATION AND POSITIONING IS CRITICAL

**ELECTRICAL BOX INSTALLATION** 

product installation. 4" (102 mm) SQ. BOX DEVICE COVER (PLASTER RING) 3/4" (19 mm) HIGH — APPLETON ELECT. EL-168-A YOKE ASSEMBLY (INSTALL WITH OFFSET PORTION IN DEVICE COVER) #8470 OR EQUAL (BY CONTRACTOR) FINISHED TILE WALL FINISHED WALL  $\langle \rangle$ OPENING Ø Ø 0 0 00 TABS OF YOKE AND SENSOR TO BE MOUNTED ON TOP OF FINISHED PLASTER OR TILE WALL Ŵ Ø FI-1500 SENSOR FINISHED PLASTER WALL NOTE: INSTALL PLASTER BING SO THAT SCREW HOLES ARE ON THE LEFT AND RIGHT SIDE OF BOX 4" (102 mm) SQ. x 2-1/8" (54 mm) DEEP (VIEW WITH COVER REMOVED) OUTLET BOX — APPLETON ELECT. #4SD1 OR EQUAL (BY CONTRACTOR)

installation of this product must coordinate their work to assure proper

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