

# 186 ES-S

# 186-1.0 ES-S

# 186-0.5 ES-S

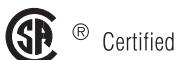
- ▶ **Description**  
Exposed, Sensor Operated, Regal Pro™ Model Urinal Flushometer, for ¾" top spud urinals.
- ▶ **Flush Cycle**
  - Model 186 ES-S Water Saver (1.5 gpf/5.7 Lpf)
  - Model 186-1.0 ES-S Low Consumption (1.0 gpf/3.8 Lpf)
  - Model 186-0.5 ES-S (0.5 gpf/1.9 Lpf)
- ▶ **Specifications**  
Quiet, Exposed, Diaphragm Type, Chrome Plated Urinal Flushometer for either left or right hand supply with the following features:
  - PERMEX™ Synthetic Rubber Diaphragm with Linear Filtered Bypass with Vortex Cleansing Action™
  - 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. Screwdriver Bak-Chek™ Angle Stop
  - Locking Vandal Resistant Stop Cap
  - Adjustable Tailpiece
  - Vacuum Breaker Flush Connection
  - Spud Coupling and Flange for ¾" Top Spud
  - Sweat Kit with Cast Set Screw Wall Flange
  - High Copper, Low Zinc Brass Castings for Dezincification Resistance
  - No External Volume Adjustment to Ensure Water Conservation
  - 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, ANSI/ASME A112.19.6 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-518-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. 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 Pro™ 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 \_\_\_\_\_

# 186 ES-S 186-1.0 ES-S 186-0.5 ES-S

## Description

Exposed, Sensor Operated, Regal Pro™ Model Urinal Flushometer, for 3/4" top spud urinals.

## Flush Cycle

- Model 186 ES-S Water Saver (1.5 gpf/5.7 Lpf)
- Model 186-1.0 ES-S Low Consumption (1.0 gpf/3.8 Lpf)
- Model 186-0.5 ES-S (0.5 gpf/1.9 Lpf)

## 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)

### Solenoid Operator

24 VAC, 50/60 Hz

### Transformer

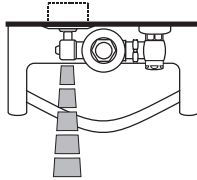
Sloan Part #EL-154  
120 VAC, 50/60 Hz Primary  
24 VAC, 50/60 Hz Secondary  
Class II, UL Listed, 50 VA.

### Sloan Part #EL-342

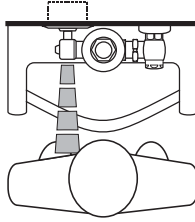
240 VAC, 50/60 Hz Primary  
24 VAC, 50/60 Hz Secondary  
Class II, UL Listed, 50 VA.

## OPERATION

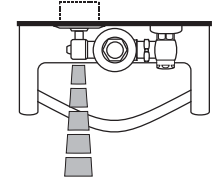
1. A continuous, invisible light beam is emitted from the OPTIMA Sensor.



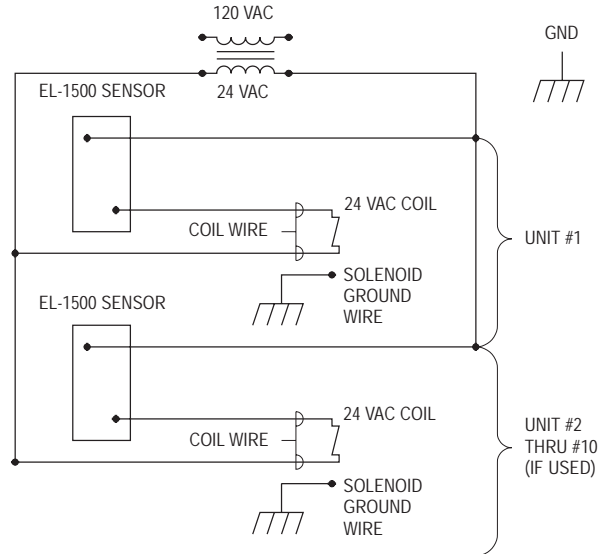
2. As the user enters the beam's effective range (15" to 30") the beam is reflected into the OPTIMA Scanner Window and transformed into a low voltage electrical circuit. Once activated, the Output Circuit continues in a "hold" mode for as long as the user remains within the effective range of the Sensor.



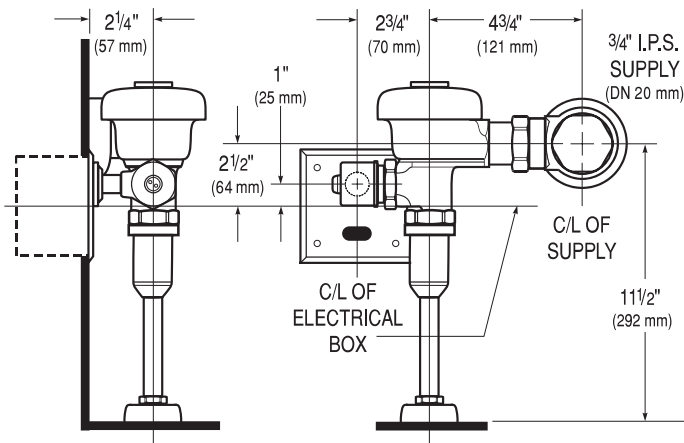
3. When the user steps away from the OPTIMA Sensor, the circuit immediately initiates an electrical "one-time" signal that operates the Solenoid. This initiates the flushing cycle to flush the fixture. The Circuit then automatically resets and is ready for the next user.



## WIRING DIAGRAM



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

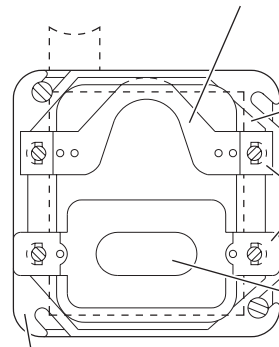


## ELECTRICAL BOX INSTALLATION

### SENSOR LOCATION AND POSITIONING IS CRITICAL

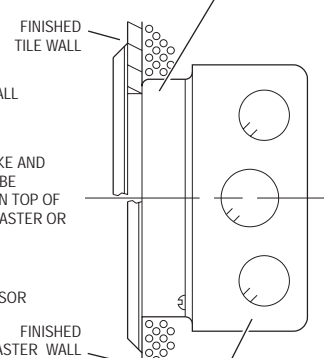
Failure to properly position the electrical boxes to the plumbing rough-in will result in improper installation and impair product performance. All tradesmen (plumbers, electricians, tile setters, etc.) involved with the installation of this product must coordinate their work to assure proper product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

EL-168-A YOKE ASSEMBLY (INSTALL WITH OFFSET PORTION IN DEVICE COVER)



NOTE: INSTALL PLASTER RING SO THAT SCREW HOLES ARE ON THE LEFT AND RIGHT SIDE OF BOX (VIEW WITH COVER REMOVED)

4" (102 mm) SQ. BOX DEVICE COVER (PLASTER RING) 3/4" (19 mm) HIGH - APPLETON ELECT. #8470 OR EQUAL (BY CONTRACTOR)



To ensure a perfect rough-in, Sloan recommends the use of the EL-518-A Flushometer Electrical Box Positioning and Support Kit. Specify and order the EL-518-A Kit separately. Consult factory for installation details.

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

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