

# Regal<sup>®</sup> OPTIMA<sup>®</sup>

Sensor Operated Flushometers



# Description

Exposed, Sensor Operated Regal\* Model Urinal Flushometer, for  $\ensuremath{\mathscr{V}}$  are 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:

- OPTIMA<sup>®</sup> 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
- Vandal Resistant Stop Cap
- Adjustable Tailpiece
- Vacuum Breaker Flush Connection
- Spud Coupling and Flange for 3/4" Top Spud
- High Copper, Low Zinc Brass Castings for Dezincification Resistance
- Low Consumption flush accuracy controlled by Para-Flo<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.

#### Variations

 □ YB
 Sweat Solder Adapter Kit with Stamped Flange

 □ YBYC
 Sweat Solder Adapter Kit with Cast Wall Flange w/Set Screw

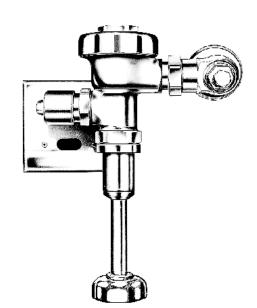
#### Accessories

- □ 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.

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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 Regal<sup>®</sup> Flushometer.

#### Warranty

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



#### Description

Exposed, Sensor Operated Regal® 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

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

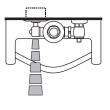
#### **OPERATION**

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

2¼"

(57 mm)

G



23/4"

(70 mm)

C/L OF

ELECTRICAL

BOX

1"

(25 mm)

21/2"

(64 mm)

43/4"

(121 mm)

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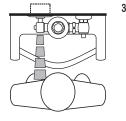
C/L OF

SUPPLY

- Solenoid Operator 24 VAC, 50/60 Hz
- 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.

> 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.



WIRING DIAGRAM

EL-1500 SENSOR

EL-1500 SENSOR

120 VAC

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24 VAC

COIL WIRE

COIL WIRE

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One Transformer serves up to ten (10) OPTIMA Closet/Urinal

Flushometers. Specify number of transformers required accordingly.

24 VAC COIL

SOLENOID

24 VAC COIL

SOLENOID

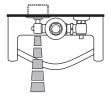
GROUND

WIRE

GROUND

WIRF

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.



GND

777

UNIT #1

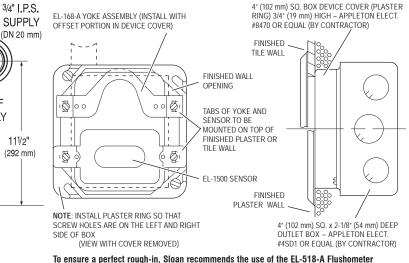
UNIT #2

THRU #10

(IF USED)

#### **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.



Electrical Box Positioning and Support Kit. Specify and order the EL-518-A Kit separately. Consult factory for installation details.

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