Royal® Model OPTIMA® Sensor Activated Flushometers 152-1.6 ES-SM

▶ Code Number
3451645

▶ Description
Concealed, Sensor Activated Crown® Model Water Closet Flushometer, for wall hung back spud bowls. Valve cannot be converted to exceed a low consumption flush.

▶ Flush Cycle
1.6 gpf/6.0Lpf

▶ Specifications
- PERMEX® Synthetic Rubber Diaphragm with Dual Filtered Fixed Bypass
- Quiet, Concealed, Rough Brass Closet Flushometer for either left or right hand supply with the following features:
- Chrome Plated Exposed Flushometer Parts
- Non-Hold-Open Integral Solenoid Operator, Fixed Metering Bypass and No External Volume Adjustment to Ensure Water Conservation
- Stop Seat and Vacuum Breaker molded from PERMEX® Rubber Compound for Chloramine Resistance
- High Back Pressure Vacuum Breaker Flush Connection and Spud Coupling for 1 1/2" Concealed Back Spud
- OPTIMA® EL-461 Water Resistant (NEMA 4) Infrared Sensor with Indicator Light and 36-Inch Cord with Modular Plug
- User friendly adjustable 2 to 6 second Flush Delay
- Water-Resistant (NEMA 4) Courtesy Flush® Override Button
- Non-Hold-Open Integral Solenoid Operator with 15-Foot Cord and Modular Plug
- Chrome Plated, Surface Mount Sensor Enclosure with Wall Gasket
- 1" I.P.S. Wheel Handle Bak-Chek® Angle Stop
- Flush accuracy controlled by CID® technology

Valve Body, Cover, Tailpiece and Control Stop shall be in conformance with ASTM Alloy Classification for Red Brass. Valve shall be in compliance to the applicable sections of ASSE 1037 and ANSI/ASME 112.19.2.

▶ Accessories (Sold Separately)
See Accessories Section and OPTIMA® Accessories Section of the Sloan catalog for details on these and other OPTIMA® Flushometer variations.

▶ Control Circuit
Solid State

▶ Automatic Operation
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.

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

▶ Easy Installation
The Surface Mount Sensor eliminates the need of an electrical junction box mounted in the wall. The Solenoid and Sensor easily plug into a Control Module eliminating improper wiring.

▶ Water Resistant
Potted sensor, override button and enclosure with gasket provide water resistance of a NEMA 4 rating.

▶ 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.

▶ Practical
Solid state electronic circuitry assures years of dependable, troublefree operation. The operational components of the Flushometer are identical to a handle activated Royal® Flushometer, proven by over 100 years of experience.

▶ Compliance & Certifications

This space for Architect/Engineer Approval

SLOAN 10500 SEYMOUR AVE. ● FRANKLIN PARK, ● IL. 60131
Ph: 1-800-9-VALVE-9 or 1-847-671-4300 ● Fax: 1-800-447-8329 or 1-847-671-4380 ● http://www.sloan.com

8 Second Arming Delay

24 VAC Input

24 VAC Output

Adjustable 2 to 6 Second Flush Delay (Factory set at 4 Seconds)

► Solenoid Operator

24 VAC, 50/60 Hz

► Sensor Range

Adjustable Detection Range from 0 to 36 Inches (Factory set at 30 Inches) Vertically Angled 10° Down from Horizontal

► Transformers

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.

► L Dimension

Specify the "L" Dimension for the proper length of the Handle Assembly and Flush Connection. The "L" Dimension is equal to the Wall Thickness (to the nearest whole inch) plus 2¾" (70 mm).

► Made in the U.S.A.

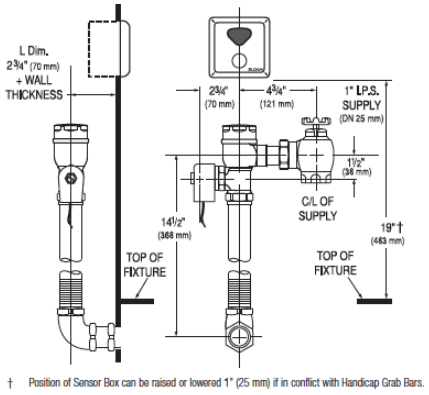
► OPERATION

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

2. As the user enters the beam's effective range, 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 "onetime" 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.

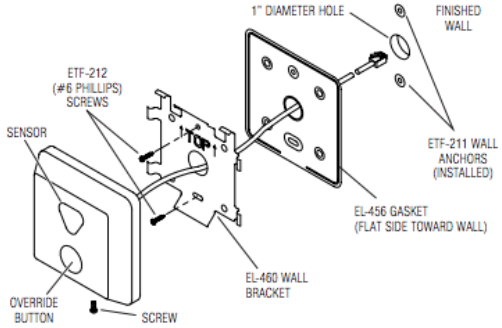
► ROUGH-IN



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

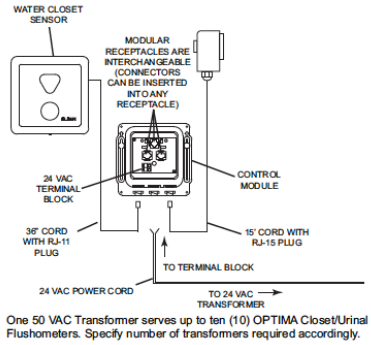
NOTE: Flush Connection shown with dotted lines is not included.

► ELECTRICAL BOX INSTALLATION



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.

► WIRING DIAGRAM



One 50 VAC Transformer serves up to ten (10) OPTIMA Closet/Urinal Flushometers. Specify number of transformers required accordingly.

One 50 VA Transformer serves up to ten (10) OPTIMA Closet/Urinal Flushometers. Specify number of transformers required accordingly.