

#### Code Number

3451692

#### Description

Concealed, Sensor Activated Royal® Model Water Closet Flushometer with True Mechanical Override, for wall hung or floor mounted top spud bowls.

# ► Flush Cycle

1.28 gpf/4.8 Lpf

#### Specifications

Quiet, Concealed, Diaphragm Type, Rough Brass Closet Flushometer with the following features:

- PERMEX® Synthetic Rubber Diaphragm with Dual Filtered Fixed Bypass
- Trap Primer
- Chrome Plated Exposed Flushometer Parts
- Handle Packing, Main Seat, Stop Seat and Vacuum Breaker Molded from PERMEX® Rubber Compound for Chloramine resistance
- User friendly three (3) second Flush Delay
- OPTIMA® EL-1500 Self-Adaptive Infrared Sensor with Indicator Light
- "Walk By" Delay of Eight (8) Seconds Prevents Unintentional Flushes
- 13 1/2" x 13 1/2" Wall Box with Stainless Steel Access Panel and Vandal Resistant Screws
- Die Cast Sensor Plate with no visible Fasteners (for 2-gang Electrical Box)
- Non-Hold-Open Integral Solenoid Operator, Fixed Metering Bypass and No External Volume Adjustment to Ensure Water Conservation
- Courtesy Flush® Non-Hold-Open True Mechanical Override
- Hydraulic Metal Push Button Assembly for True Mechanical
  Override
- High Back Pressure Vacuum Breaker Flush Connection with Hex Coupling Nut, Spud Coupling, and Flanges for 1½" Exposed Top Spud
- 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)

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

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

#### Fixtures

Consult factory for matching Sloan brand fixture options.



# 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.

# ► 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.

#### 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, 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







# **Royal® Optima® Flushometers ROYAL 153-1.28 ES-S TMO**

# ELECTRICAL SPECIFICATIONS

# Control Circuit

- Solid State
- 8 Second Arming Delay
- 3 Second Flush Delay
- 24 VAC Input
- 24 VAC Output

#### Sensor Range

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

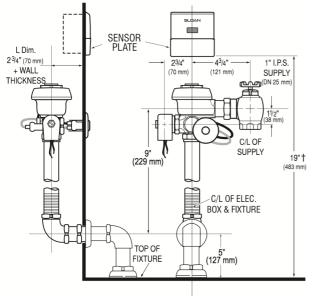
#### Solenoid Operator

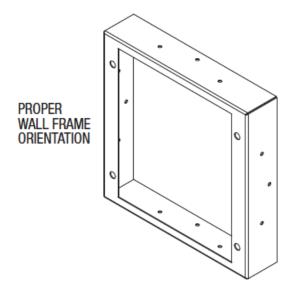
• 24 VAC, 50/60 Hz

#### 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.

#### ► ROUGH-IN





#### ► OPERATION

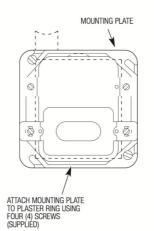
1. A continuous, invisible light beam is emitted from the OPTIMA® Sensor.

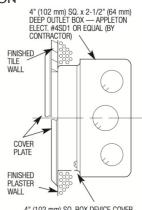


2. As the user enters the beam's effective range (22" to 42") the beam is reflected into the OPTIMA® Scanner Window and transformed into a low voltage electrical circuit. Once activated, the Output Circuit continues in a "hold" mode for as long as the user remains within the effective range of the Sensor.

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.

# ELECTRICAL BOX INSTALLATION





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

► WIRING DIAGRAM



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