

# Royal® Model OPTIMA® Sensor Activated Flushometers 180 DFB ES-S

## ▶ Code Number

3452447

## ▶ Description

Exposed, Sensor Activated Royal® Model Urinal Flushometer for top spud urinals.

# ▶ Specifications

- PERMEX® Synthetic Rubber Diaphragm with Dual Filtered Fixed Bypass
- Quiet, Exposed, Diaphragm Type, Chrome Plated Urinal Flushometer with the following features:
- Sweat Solder Adapter w/Cover Tube and Cast Wall Flange w/Set Screw
- OPTIMA® EL-1500 Self-Adaptive Infrared Sensor with Indicator Light
- 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 with One-Piece Bottom Hex Coupling Nut, Spud Coupling and Flange for 1 1/4" Top Spud"
- 1"I.P.S. Screwdriver Bak-Chek® Angle Stop with Vandal Resistant Stop Cap
- Flush accuracy controlled by CID® technology

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 and ANSI/ASME 112.19.2.



# ► 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





► Control Circuit

Solid State

• 8 Second Arming Delay

24 VAC Input

24 VAC Output

▶ Solenoid Operator

This space for Architect/Engineer Approval



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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.

# ▶ Sensor Range

Nominal 15"-30" (381 mm-762 mm), adjustable  $\pm$  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



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