

**CODE NUMBER**

3450002

**DESCRIPTION**

1.6 gpf, Polished Brass Finish, Fixture Connection Top Spud, Single Flush, Electrical Override, Hardwired, Sensor-Operated, Royal® Exposed Sensor Hardwired Water Closet Flushometer.

**DETAILS**

- Flush Volume: 1.6 gpf (6.0 Lpf)
- Finish: Polished Brass (PB)
- Power Type: Hardwired (HW)
- Valve: Diaphragm
- Valve Body Material: Semi-red Brass
- Fixture Type: Water Closet
- Fixture Connection: Top Spud
- Rough-In Dimension: 11 1/2" (292mm)
- Spud Coupling: 1 1/2" (38mm)
- Supply Pipe: 1" (25mm)
- Override: Electrical (OR)

**FEATURES**

- PERMEX® Synthetic Rubber Diaphragm with Dual Filtered Fixed Bypass
- Handle Packing, Main Seat, Stop Seat and Vacuum Breaker Molded from PERMEX® Rubber Compound for Chloramine resistance
- User friendly three (3) second Flush Delay
- Sweat Solder Adapter w/Cover Tube and Cast Wall Flange w/Set Screw
- OPTIMA® EL-1500 Self-Adaptive Infrared Sensor with Indicator Light
- Die Cast Sensor Plate with no visible Fasteners (for 2-gang Electrical Box)
- High Back Pressure Vacuum Breaker Flush Connection with One-Piece Bottom Hex Coupling Nut, Spud Coupling and Flange for 11/2" Top Spud
- Non-Hold-Open Integral Solenoid Operator, Fixed Metering Bypass and No External Volume Adjustment to Ensure Water Conservation
- Courtesy Flush® Override Button
- 1" I.P.S. Screwdriver Bak-Chek® Angle Stop with Free Spinning Vandal Resistant Stop Cap

**VIDEOS**

- ▶ ESS Flushometer
- ▶ PVD Special Finishes

**COMPLIANCES & CERTIFICATIONS**

(ADA Compliant, cUPC Certified, BAA Compliant, UL Certified)

**RECOMMENDED SPECIFICATION**

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.

**ELECTRICAL SPECIFICATIONS**

- Arming Delay: 16 seconds
- Control Circuit: Solid State/24 VAC Input/24 VAC Output
- Flush Delay: 3s
- Self-Adaptive Window:  $\pm 10$
- Sensor Range: 22"-42" (559-1,067mm)
- Solenoid Operator: 24 VAC
- Transformers (specify separately):
  - 0345154
  - 0345999

**VALVE OPERATING PRESSURE (FLOWING)**

15-80 PSI (103-552 kPa). Specific fixtures may require greater minimum flowing pressure - consult manufacturer requirements.

**DOWNLOADS**

- Royal ESS 110/111 Electrical Box Installation Instructions
- Royal ESS Concealed and Exposed Installation Instructions
- Royal ESS TMO Installation Instructions
- Royal 110/111/180/186 ESS TMO (Spanish) Installation Instructions
- Control Stop Repair and Maintenance Guide
- Flush Connections Flanges Repair and Maintenance Guide
- Tail Piece Repair and Maintenance Guide
- Optima ESS Repair and Maintenance Guide
- Optima TMO Repair and Maintenance Guide
- Additional Downloads

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## NOTES

All information contained within this document subject to change without notice.

Looking for other variations of the ROYAL 111 ESS product?  
[View the general spec sheet with all options.](#)

Find a compatible urinal for this flushometer.  
Find a compatible water closet for this flushometer.

## ROUGH-IN

