

**CODE NUMBER**

3452473

**DESCRIPTION**

1.0 gpf, Polished Chrome Finish, Top Spud, Single Flush, Hardwired, Sensor-Operated, Royal® Exposed Sensor Hardwired Urinal Flushometer.

**DETAILS**

- Flush Volume: 1.0 gpf (3.8 Lpf)
- Finish: Polished Chrome (CP)
- Power Type: Hardwired (HW)
- Valve: Diaphragm
- Valve Body Material: Semi-red Brass
- Fixture Type: Urinal
- Fixture Connection: Top Spud
- Rough-In Dimension: 11 1/2" (292mm)
- Spud Coupling: 1 1/4" (32mm)
- Supply Pipe: 1" (25mm)

**FEATURES**

- PERMEX® Synthetic Rubber Diaphragm with Dual Filtered Fixed Bypass
- 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



Variation Not Shown: 1.5" Flush Connection

**COMPLIANCES & CERTIFICATIONS**

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

**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: 8 seconds
- Control Circuit: Solid State/24 VAC Input/24 VAC Output
- Self-Adaptive Window:  $\pm 8$
- Sensor Range: 15"-30" (381-762mm)
- Solenoid Operator: 24 VAC
- Transformers:
  - 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 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
- Additional Downloads

## NOTES

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

Looking for other variations of the ROYAL 180 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

