

**CODE NUMBER**

3451501

**DESCRIPTION**

1.6 gpf, Rough Brass Finish, Fixture Connection Not Included, Single Flush, 2-10.75 L Dimension, Sensor-Operated with Modular Plug, Royal® Concealed Sensor Water Closet Flushometer.

**DETAILS**

- Flush Volume: 1.6 gpf (6.0 Lpf)
- Finish: Rough Brass (RB)
- Valve: Diaphragm
- Valve Body Material: Semi-red Brass
- Fixture Type: Water Closet
- Fixture Connection: Not Included
- Supply Pipe: 1" (25mm)
- L Dimension: 2" - 10 3/4" (51 - 273mm) (2-10-3/4-LDIM)

**FEATURES**

- PERMEX® Synthetic Rubber Diaphragm with Dual Filtered Fixed Bypass
- Vacuum Breaker
- 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
- 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" Female I.P.S. Union Outlet
- 1" I.P.S. Wheel Handle Bak-Chek® Angle Stop

**VIDEOS**

- ▶ [ESS Flushometer](#)



**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: 24 VAC Input/24 VAC Output/Solid State
- Flush Delay: 2-6s
- Sensor Range: 0" - 36" (0-914mm)
- 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**

- [Control Stop Repair and Maintenance Guide](#)
- [Flush Connections Flanges Repair and Maintenance Guide](#)
- [Tail Piece Repair and Maintenance Guide](#)
- [Concealed Flushometers Repair and Maintenance Guide](#)
- [Optima ESS Repair and Maintenance Guide](#)
- [Additional Downloads](#)

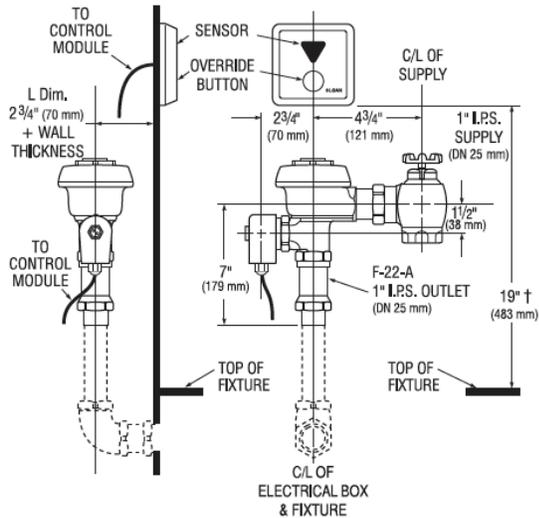
**NOTES**

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

Looking for other variations of the ROYAL 150 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**



**NOTE:** Flush Connection shown with dotted lines is not included.  
↑ Position of Sensor Box can be raised or lowered 1" (25 mm) if in conflict with Handicap Grab Bars.

**SENSOR INSTALLATION**

**SENSOR LOCATION AND POSITIONING IS CRITICAL**

Failure to properly position the sensor 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.

