



Variations Not Shown: Less Stop & Vacuum Breaker

## Royal® Sensor Flushometer

ROYAL 111 ESS-1.6-L/STOP-CP-HW-XYV-24V

### Product description

1.6 gpf, Polished Chrome Finish, Fixture Connection Top Spud, Single Flush, Less Control Stop, Electrical Override, Hardwired, Sensor-Operated, Less Vacuum Breaker, 24V, Royal® Exposed Sensor Hardwired Water Closet Flushometer.

### Compliances & Certifications



(ADA Compliant\*, BAA Compliant, IAPMO, UL Certified (US), cUPC Certified)

### Code 3450013

#### Finish

 Polished Chrome (CP)

#### Downloads

- [Royal ESS Concealed and Exposed Installation Instructions.pdf](#)
- [Control Stop Repair and Maintenance Guide.pdf](#)
- [Flush Connections Flanges Repair and Maintenance Guide.pdf](#)
- [Special Finishes Brochure.pdf](#)
- [Retrofits Brochure.pdf](#)
- [Additional Downloads](#)

#### Videos

- [ESS Flushometer](#)

## Details

- Flush Volume: 1.6 gpf (6.0 lpf)
- Finish: Polished Chrome (CP)
- Power Type: Hardwired (HW)
- Valve: Diaphragm
- Valve Body Material: Semi-red Brass
- Fixture Type: Water Closet
- Fixture Connection: Top Spud
- Rough-in Dimension: 11.5" (292mm)
- Spud Coupling: 1.5" (38mm)
- Supply Pipe: 1" (25mm)
- Override: Electrical
- Control Stop: Less (L/STOP)
- Vacuum Breaker: Less (XYV)
- Voltage: 24V (24V)

## Features

- Water conservation is aided by the ADA-compliant, non-hold-open handle, which prevents toilet from exceeding intended flush volume
- Flush accuracy is controlled by CID™ technology, also enhancing water efficiency
- Integrity of the product is maintained with the vandal-resistant stop cap
- Durability is facilitated with high copper, low zinc brass castings for dezincification resistance
- Adjustable tailpiece
- PERMEX® Synthetic Rubber Diaphragm with Dual Filtered Fixed Bypass
- Valve body, Cover, Tailpiece and Control Stop shall be in compliance with ASTM Alloy Classification for Semi-Red Brass
- Valve shall be in compliance to the applicable sections of ASSE 1037

## Recommended specifications

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: 3 seconds
- Sensor Range: 22"-42" (559 - 1067mm)
- Self-Adaptive Window: ±10"
- Solenoid Operator: 24 VAC
- Transformers (Specify Separately):
  - EL-154/0345154
  - EL-342/0345999

## Valve Operating Pressure (Flowing)

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

## Warranty

[View Warranty Information](#)

## Notes

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

\*Compliant with ADA accessibility requirements when installed according to ADA standards.

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.

