



Royal® Sensor Flushometer

ROYAL 140 ESS-1.6-RB-HW-24V

Product description

1.6 gpf, Rough Brass Finish, Fixture Connection Rear Spud, Single Flush, 13" -19.75" L Dimension, Electrical Override, Hardwired, Sensor-Operated, 24V, Royal® Concealed Sensor Hardwired Water Closet Flushometer.

Compliances & Certifications



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

Code 3451114

Finish



Downloads

- [Royal 152_195 ESS TMO Installation Instructions.pdf](#)
- [Royal ESS Concealed and Exposed Installation Instructions.pdf](#)
- [Control Stop Repair and Maintenance Guide.pdf](#)
- [Flush Connections Flanges Repair and Maintenance Guide.pdf](#)
- [Flushometer Pressure Gauges.pdf](#)
- [Flushometers Brochure.pdf](#)
- [Additional Downloads](#)

Videos

- [ESS Flushometer](#)

Details

- Flush Volume: 1.6 gpf (6.0 lpf)
- Finish: Rough Brass (RB)
- Power Type: Hardwired (HW)
- Valve: Diaphragm
- Valve Body Material: Semi-red Brass
- Fixture Type: Water Closet
- Fixture Connection: Rear Spud
- Rough-in Dimension: 14.5" (368mm)
- Spud Coupling: 1.5" (38mm)
- Supply Pipe: 1" (25mm)
- L Dimension: 13"-19.75" (330-502mm)
- Override: Electrical
- Voltage: 24V (24V)

Features

- Flush volumes start as low as 1.28 gpf/4.8 Lpf
- 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 140 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.

