



Royal® Sensor Flushometer

ROYAL 111 ESS TMO-1.6-GR-TMO-HW-24V

Product description

1.6 gpf, Graphite Finish, Fixture Connection Top Spud, Single Flush, 1" Control Stop, True Mechanical Override, Hardwired, Sensor-Operated, 24V, Royal® Exposed Sensor Hardwired Water Closet Flushometer.

Compliances & Certifications



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

Code 3450084

Finish



Graphite (GR)

Downloads

- [Royal ESS TMO Installation Instructions.pdf](#)
- [ROYAL ESS Water Closet Sensor and Wall Plate.pdf](#)
- [Flush Connections Flanges Repair and Maintenance Guide.pdf](#)
- [Control Stop Repair and Maintenance Guide.pdf](#)
- [Optima ESS TMO Exposed Repair and Maintenance Guide.pdf](#)
- [Royal 110_111_180_186 ESS TMO \(Spanish\) Installation Instructions.pdf](#)
- [Additional Downloads](#)

Videos

- [ESS Flushometer](#)

Details

- Flush Volume: 1.6 gpf (6.0 lpf)
- Finish: Graphite (GR)
- 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: True Mechanical (TMO)
- Control Stop: 1"
- Voltage: 24V (24V)

Features

- Water conservation is aided by the non-hold-open override push button, 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. Valve Body, Cover, Tailpiece and Control Stop shall have a PVD Graphite finish.

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 TMO product?

[View the general spec sheet with all options.](#)

[Find a compatible urinal](#) for this flushometer.

[Find a compatible water closet](#) for this flushometer.

