

# Engineering Specification

Job Name \_\_\_\_\_

Contractor \_\_\_\_\_

Job Location \_\_\_\_\_

Approval \_\_\_\_\_

Engineer \_\_\_\_\_

Contractor's P.O. No. \_\_\_\_\_

Approval \_\_\_\_\_

Representative \_\_\_\_\_

## LEAD FREE\*

### LFUSG-CS

#### Under Sink Guardian® Mixing Valve With Cross Sense™ Technology

The Under Sink Guardian LFUSG-CS thermostatic mixing valve is designed for point-of-use water temperature control in safety-critical environments including hospitals, schools, and senior care facilities. Crafted for installation beneath sinks or counters, this compact mixing valve helps reduce the risk of accidental scalding to provide reliable protection for vulnerable users.

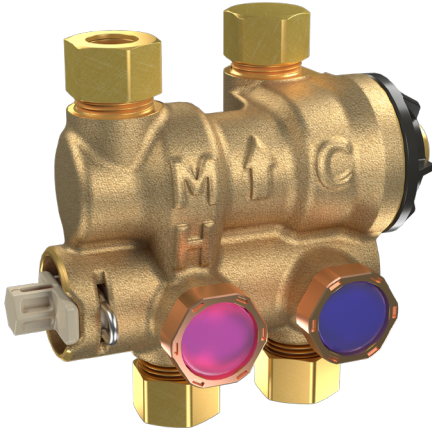
The valve ensures temperature regulation with minimal pressure loss. Inside, dual check valves and strainers are contained in a replaceable cartridge assembly, promoting straightforward maintenance and long-term system sustainability. Color-changing temperature indicators at the inlet points signal cross-connection anomalies.

#### Features

- Lead Free\* DZR Brass body construction
- Designed with customer input to ease maintenance, reduce downtime, and increase efficiency and operations
- Straightforward installation between the shutoff valves and the faucet
- Replaceable cartridge with built-in dual check valves and strainers (40 mesh stainless steel) to improve serviceability and sustainability
- Cross-flow detection at the hot and cold inlets
- Included cold water outlet cap for three-port application
- Buy American Act (BAA) compliant

#### Application

The unit is intended for under-sink installation to control the hot water temperature and minimize the occurrence of accidental scalding. The water temperature must be adjusted by the installer using a thermometer to measure the hot water temperature at the faucet outlet. Maximum temperature of 105°F (41°C) is recommended.



Normal flow



No flow



Hot cross-flow

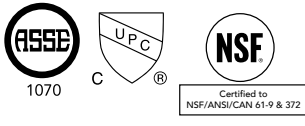


Improper installation

#### Specification

An under-sink thermostatic mixing valve shall be installed on the hot water supply to the fixture. The valve shall be ASSE Standard 1070 Listed and IAPMO cUPC Approved and control the temperature of the hot water. The valve shall have a Lead Free\* DZR Brass 4-port, "H" pattern body. And the Lead Free\* valve shall comply with state codes and standards, where applicable, requiring reduced lead content. The valve shall be serviceable in-line. The valve shall include a replaceable cartridge containing integral dual check valves and integral strainers for better serviceability and sustainability. The strainers shall use 40 mesh stainless steel to filter debris. The valve shall have a method of detecting cross flow at the hot and cold inlets. The valve shall be provided with 3/8" (10 mm) compression fittings. The valve shall be BAA compliant. The valve shall be Watts LFUSG-CS.

#### Agency Approval



Valve Only

This product meets the reduced Q test statistic criteria of 0.5 ppb for lead per Section 9.5.1.1 of NSF/ANSI/CAN 61.

#### NOTICE

This information is not intended to replace the full product installation and safety information available or the experience of a trained product installer. You are required to thoroughly read all installation instructions and product safety information before beginning the installation of this product.

\*The wetted surface of this product contacted by consumable water contains less than 0.25% of lead by weight.

Watts product specifications in U.S. customary units and metric are approximate and are provided for reference only. For precise measurements, please contact Watts Technical Service. Watts reserves the right to change or modify product design, construction, specifications, or materials without prior notice and without incurring any obligation to make such changes and modifications on Watts products previously or subsequently sold.



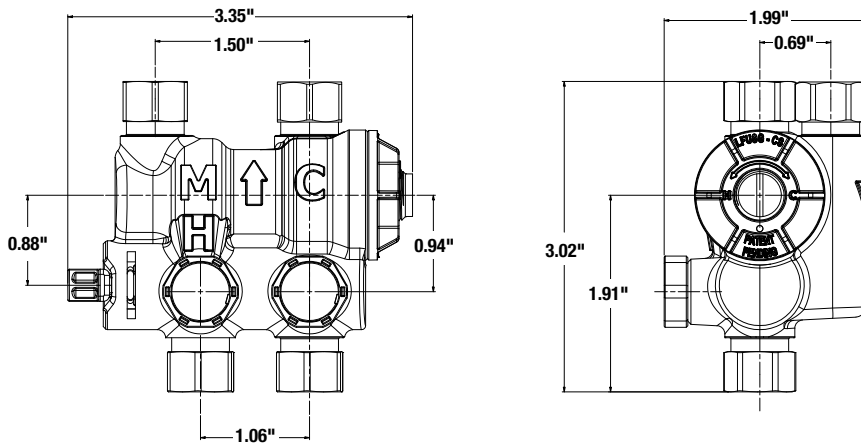
## Materials

<b>Body</b>	Lead free* DZR Brass
<b>O-rings/seals</b>	Internally lubricated EPDM
<b>Spring</b>	Stainless steel
<b>Piston</b>	Internally lubricated PPO
<b>Thermostat</b>	Copper/stainless steel
<b>Bonnet</b>	PPS
<b>Cartridge</b>	PPS
<b>Checks</b>	POM/EPDM
<b>Strainers</b>	Stainless steel/EPDM

## Weight

1.1 lb

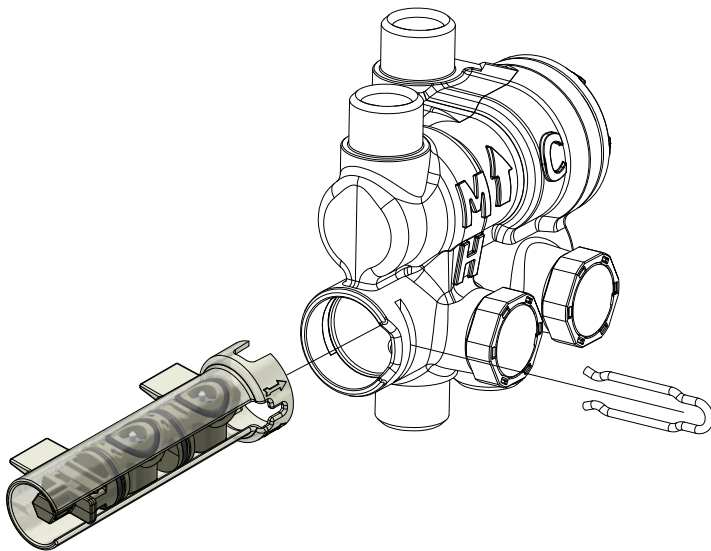
## Dimensions



## Pressure – Temperature

<b>Minimum supply pressure</b>	30 psi (207 kPa)
<b>Connection type</b>	3/8" compression
<b>Hot inlet temperature</b>	120°F–180°F (49°C–82°C)
<b>Cold inlet temperature</b>	39°F–80°F (3.8°C–27°C)
<b>Minimum inlet temperature differential</b>	5°F (2.8°C)
<b>Temperature range</b>	80°F–120°F (27°C–49°C)
<b>Maximum pressure</b>	150 psi (10.3 bar)
<b>Minimum flow</b>	0.25 gpm (1.0 l/m)
<b>Maximum pressure differential between hot and cold water supplies</b>	20% (Max 20 psi)

## Replaceable Cartridge



The spring clip is removed for cartridge replacement. The cartridge is shipped in a sleeve that doubles as an installation tool, ensuring proper insertion and seating within the valve body.

