

TECHNICAL CHARACTERISTICS OF THE CARTRIDGE:

Mixing angle: **300°**

Calibration hot supply temperature:
60-65°C / 140-149°F

Calibration cold supply temperature:
10-15°C / 50-59°F

Flow rate:
(3 bar / 45 psi, 38°C / 100°F, shower faucet)
20 l/min / 5.3 gpm without resistance

Temperature control:
Range **15-60°C / 60-140°F**
Accuracy **±1.78°C / ±3°F**

Cold water supply failure test:
0-5s max. **200cm³ / 0.05 US gallon**
5-35s max **300cm³ / 0.08 US gallon**

Endurance test:
EN 1111 whole cartridge
20 000 cycles
ASSE 1016 thermostatic element
80 000 cycles

- Non-rising stem.
- Advanced thermostatic wax element.
- 38-41°C / 100-106°F factory temperature calibration.
- Insulation of non-metallic body assures fastest response.
- Finest engineering polymers assure high strength, dimensional precision and resistance to liming.
- Simple single outlet design.

Operating range: 300 rotational degrees. Stops depending on the calibrated temperature and they must be provided on the mating housing by the faucet producer!

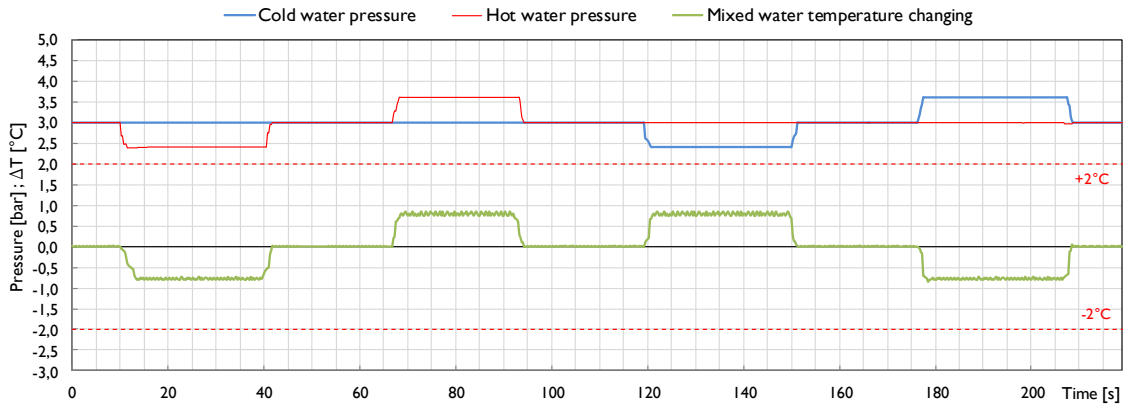
Examples for the rotational ranges to hot and cold water

Calibrated temperature [°C]	Rotational angular range from the calibrated point to the hot water direction [degree°] (anti-clockwise)	Rotational angular range from the calibrated point to the cold water direction [degree°] (clockwise)
40.5°C±1°C	100°	200°
38°C±1°C	140°	160°

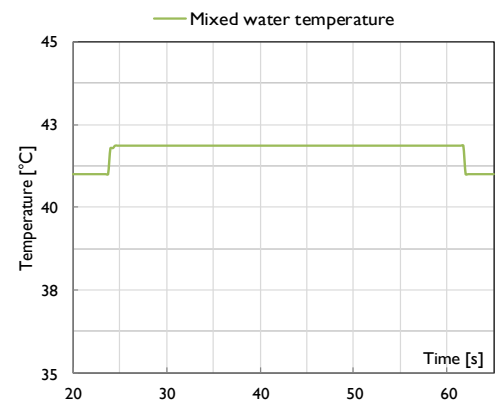
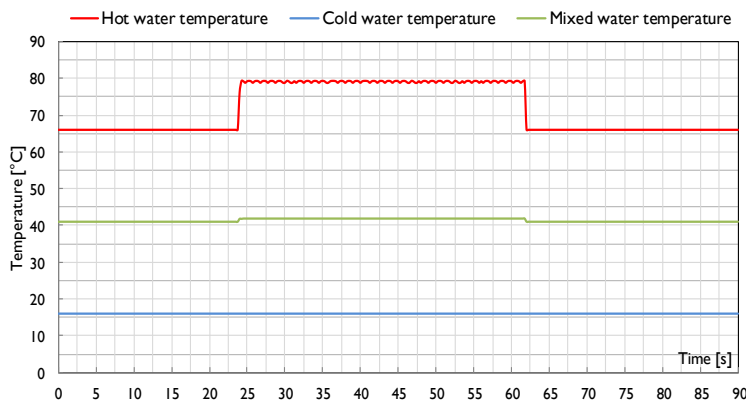


STABILITY OF MIXED WATER TEMPERATURE WITH $\pm 20\%$ CHANGING SUPPLY PRESSURE

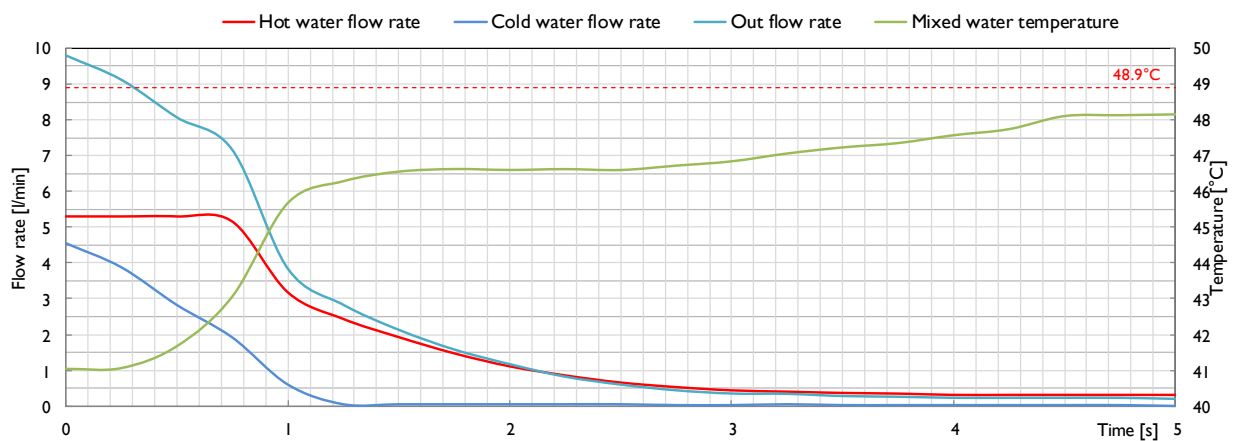
According to: ASSE 1016, ASME 112.18.1, CSAB 125.1.



STABILITY OF MIXED WATER TEMPERATURE WITH CHANGING HOT WATER TEMPERATURE



COLD WATER SUPPLY FAILURE

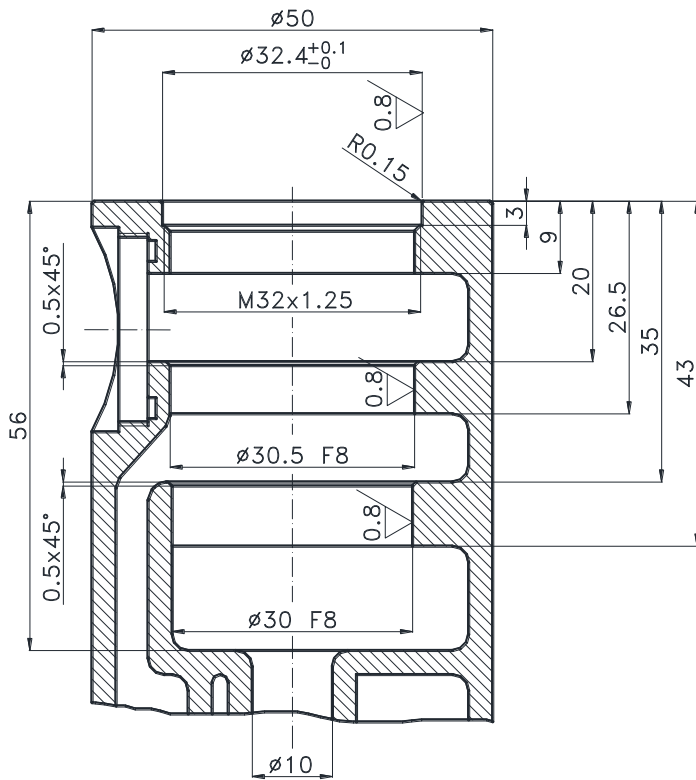
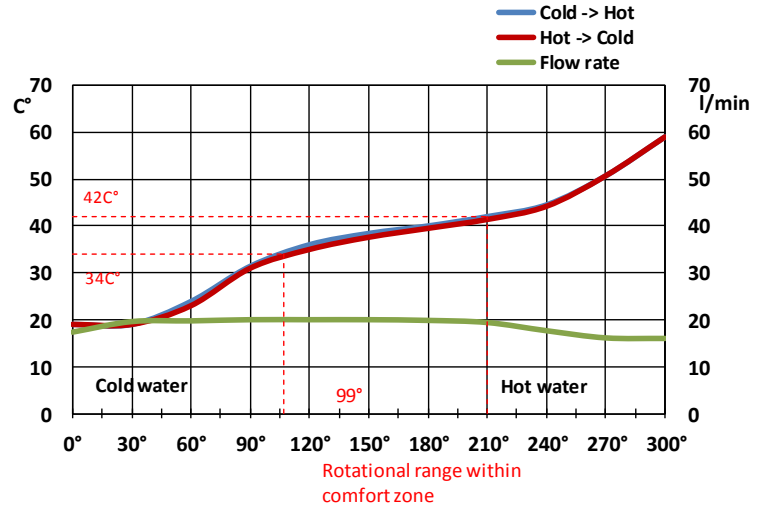


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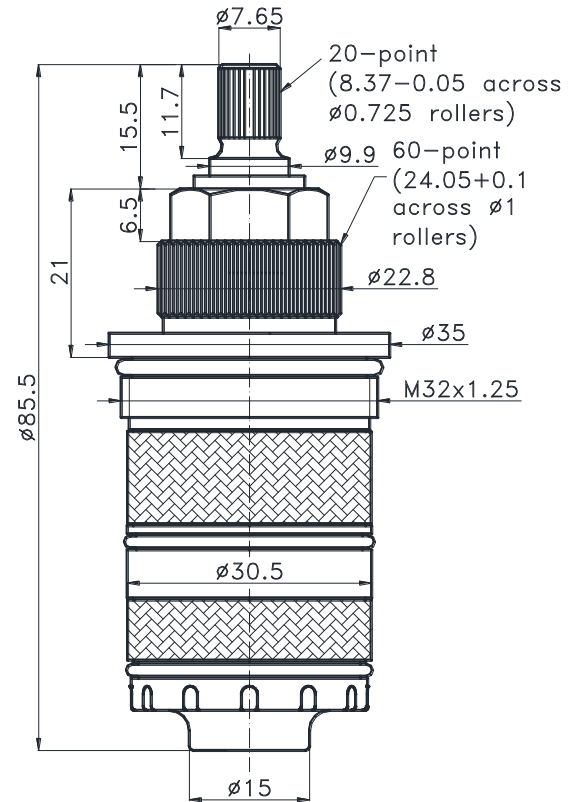
CARTRIDGE

FLOW RATE & HYSTERESIS CURVES

Shower faucet, without resistance, Water pressure: 3 bar



Body



Cartridge

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Flow rate:
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22 l/min / 5.8 gpm without resistance

Temperatur control:
Range **15-60°C / 60-140°F**
Accuracy **±1.78°C / ±3°F**

Pressure test:
Pneumatic: **6 bar / 87 psi**
Hydraulic: **35 bar / 500 psi**

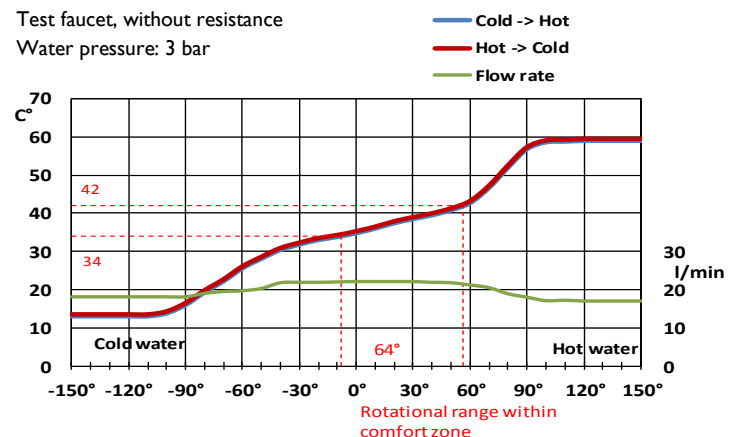
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- Smaller size means less brass to house it — better for use in „non-shower” products, such as faucets.
- Fastest-acting thermostatic wax element (proprietary Kerox compound).
- Flow rate 5.8 gpm at 45 psi
- Non-rising stem.
- Assembles into body using separate mounting nut.
- 38°C / 100°F factory temperature calibration (marked on cartridge) — alternate set point of 40,5° C / 105°F available.
- 300 degree total rotational travel.
- Symmetrical operating range from calibration point (150 rotational degrees in either direction).
- Hot limit option via external component (not included).
- Complete valve shut-off in the event of cold water failure.

HYSTERESIS CURVES

Test faucet, without resistance
Water pressure: 3 bar



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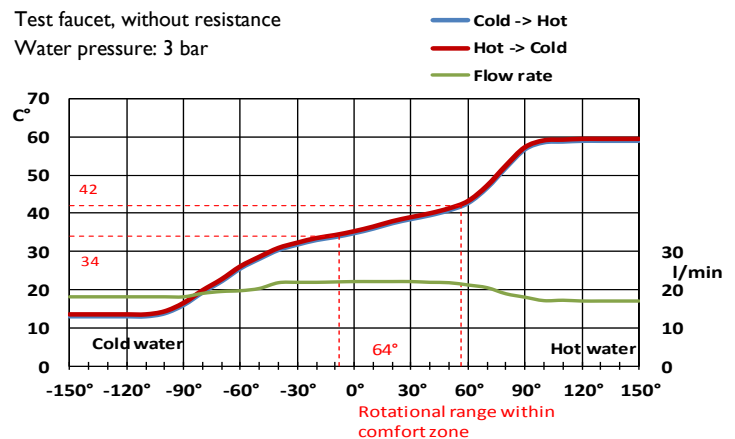
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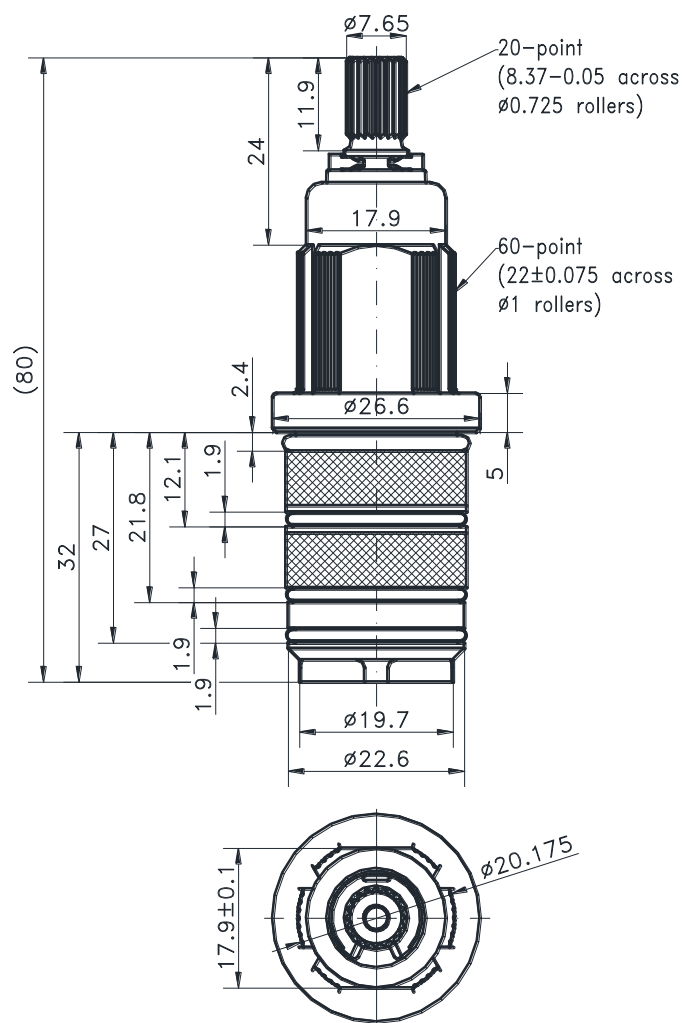
HYSTERESIS CURVES

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TE mini V CARTRIDGE

Cartridge



Faucet

