

EV1640 Compression Thermostatic Mixing Valve

For scald-safe temperature control of hot water outlets



Overview

The Compression Thermostatic Mixing Valve is used to blend hot and cold water to provide a constant, safely controlled and scald-safe outlet temperature in dwellings.

Essco mixing valves are ideal for reducing temperatures in any application where hot water at 60°C may accidentally scald and cause serious burns. Used in showers, basins, and baths, they ensure washing safety in schools, sports centers, factories, prisons and many other venues.

Features and Benefits

- Scald-safe to ensure full automatic shut off in the event of a cold-water failure
- 15mm and 22mm connections
- Standard model available in T pattern
- Valves specifically designed and manufactured to BS EN 1111
- Regulation 4 compliant with WRAS approval for use in potable water systems



Technical Specification

Specification	
Medium	Domestic hot water systems
Maximum working pressure	PN10
Working temperature range	0 – 60°C
Installation	Vertical or horizontal, in flow direction
Connections	Compression
Max. differential pressure	3 bar hot water, 0.5 bar cold water
Inlet temperature range	Hot supply 52 – 65°C Cold supply 5 – 20°C
Factory setting	38°C
Temperature setting range	30-46°C
Minimum hot to mix temperature	10°C
Maximum media temperature	65°C
Temperature stability	± 2°C
Supply pressure imbalance dynamic*	1:1
Minimum Flow Rate	4 l/m
Max. percentage of glycol	
Strainer size	40 mesh

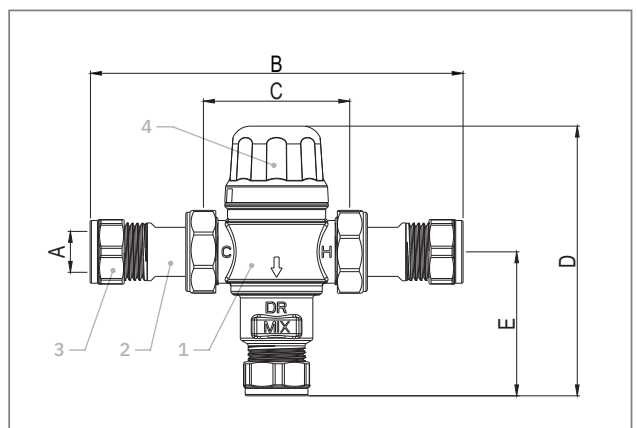
* If the supply pressure imbalance dynamic between hot and cold water were 6:1, the valve still controls but the mixed water temperature could be between -6°C and +3°C than setpoint.

Product Codes

Product Code	Size	Weight (kg)
EV1640-C15	15mm	
EV1640-C22	22mm	

Dimensions

Dimensions		
Size	15mm	22mm
A	15	22
B	137	161
C	55	55
D	99	99
E	53	53



Materials

Description	Material	Grade
1 Valve body	DZR brass	CZ132
2 Check valve housing	DZR brass	CZ132
3 Compression nut	Brass	CZ122
4 Cap	Plastic	PC / ABS

Technical Details

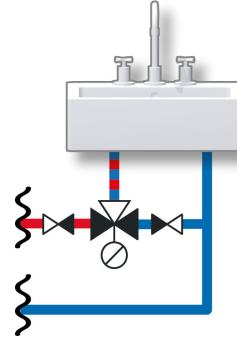
Compression Thermostatic Mixing Valve



Designations of Use

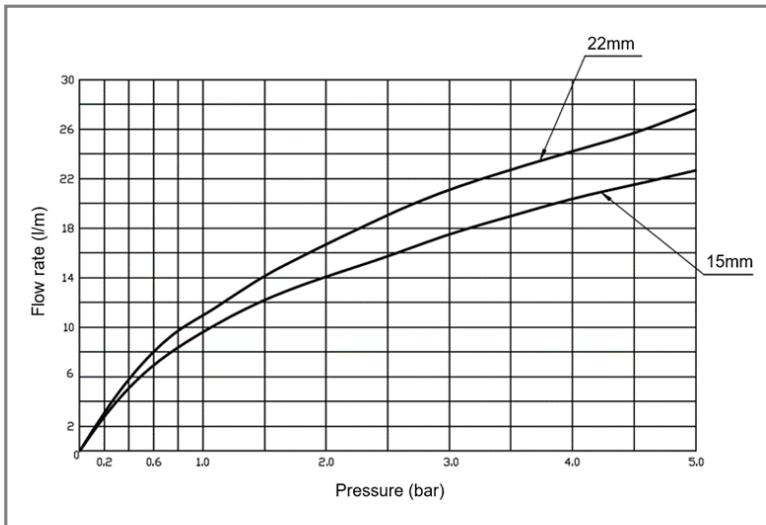
Designation of Use	High Pressure	Low Pressure
Bidet (B)	HP-B	LP-B
Shower (S)	HP-S	LP-S
Washbasin (W)	HP-W	LP-W
Tub (T) fill at 44°C	HP-T44	LP-T44
Tub (T) fill at 46°C	HP-T46	LP-T46
Diverter Tub/shower (D) Tub fill at 44°C or 46°C Shower at 41°C max	HP-D44 HP-D46	LP-D44 LP-D46

Typical Installation



Pressure Drops

Pressure Drops		
Size	15mm	22mm
Kv (m ³ /h)		



Graph and tests based on: 15°C cold water limit, 57°C hot inlet, and 41°C mixed water outlet. Also based on 1:1 hot to cold water pressures < 3 bar.