

SECONDARY TEMPERATURE CONTROL (FTA SYSTEM)



FTA VALVE & COIL ASSEMBLY



WATERS FTA VALVE is used for secondary close temperature control of high purity samples. The valve can be attached to a heat transfer coil which is immersed in a subchilled bath, or it can be mounted on to a new or existing sample cooler to enhance the cooler's performance. The FTA valve is able to react to changes in both the sample temperature and the sample flow rate automatically. Other forms of temperature control such as secondary coolers and isothermal baths work on the approach temperature principle which requires readjustment by the system user as conditions change.

HOW IT WORKS

The FTA valve control capsule consists of a thermal sensing element and spring/plug assembly which work together to maintain the sample outlet temperature at the setpoint. The element senses the valve chamber temperature and allows enough cooled and uncooled sample to enter to satisfy the set position. A simple wrench adjustment to the set screw can be used to recalibrate the valve or change it to a new setpoint.

FEATURES

- AUTOMATIC:** Requires minimal attention and maintenance.
- ACCURACY:** Maintains sample temperature to within 1°F of the setpoint over listed sample control ranges. Eliminates "hot spots" in bath since liquid is subcooled. A local temperature indicator is optionally available for easy valve set up.
- INDEPENDENT:** Each valve can be individually set for the same or different output temperature in order to satisfy grab sample and analysis requirements.
- HIGH PURITY:** All sample wetted parts are stainless steel.
- LONG LIFE:** The FTA valve will operate over the life of the sample panel with little or no maintenance. Normal valve movement reduces crude build-up.
- VERSATILE:** The FTA, coil and bath provide the complete assembly. When coupled to a secondary sample cooler, the FTA valve can be used to improve the cooler's performance. In climates with year-round cooling water temperatures of less than 60°F, the use of the FTA valve eliminates the need for a chiller.
- COMPACT:** The FTA System takes up less space than other methods, thereby allowing it to be located in otherwise unused areas of the sample panel. Not only does this result in more accessibility to the FTA System, but frees up space in the conditioning and analytical areas for maintenance and calibration.
- RETROFIT CAPABILITIES:** The FTA System can be applied as an add-on to panels not originally supplied with secondary temperature control. The small footprint skid can be located within or adjacent to the existing panel structure.

SPECIFICATIONS

DESIGN PRESSURE	SAMPLE CONTROL RANGES		MOUNTING	CONNECTIONS	
	INLET TEMP.	FLOW RATE		INLET	OUTLET
200 PSI	90-150°F	150-1500 CCM	VERTICAL IN-LINE	1/4" OR 3/8"	1/4" OR 3/8"

HOW TO ORDER

Model WA070433: valve only, 3/8" NPT connections

Model WA070523: valve and coil assembly, 3/8" tube connections

Model WA070524: valve, coil and temperature gauge assembly, 3/8" tube connections

Model WA070525: valve and temperature gauge assembly, 1/4" tube connections

Model WA070526: valve, coil and temperature gauge assembly, 1/4" tube connections

MODELS WA070524 WA070526

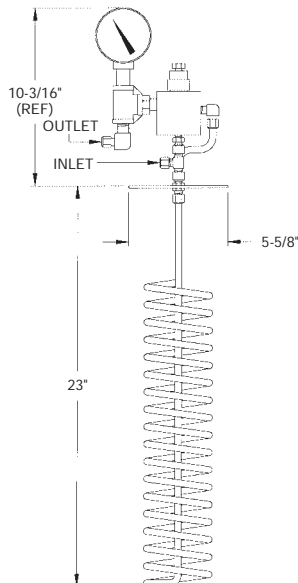
Wetted Materials: 316SS

Gauge: 0-200° F
0-90° C

Mounting Plate:
Materials – 304SS
Dimensions –
5-5/8" x 6-3/4"

Inlet:
1/4" or 3/8" Tube
Connections

Outlet:
1/4" or 3/8" Tube
Connections



MODEL WA070525

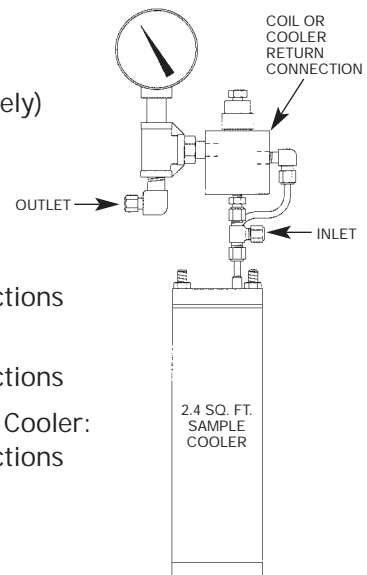
(cooler sold separately)

Sample Inlet:
1/4" Tube
Connections

Sample Outlet:
1/4" Tube Connections

To Coil or Cooler:
1/4" Tube Connections

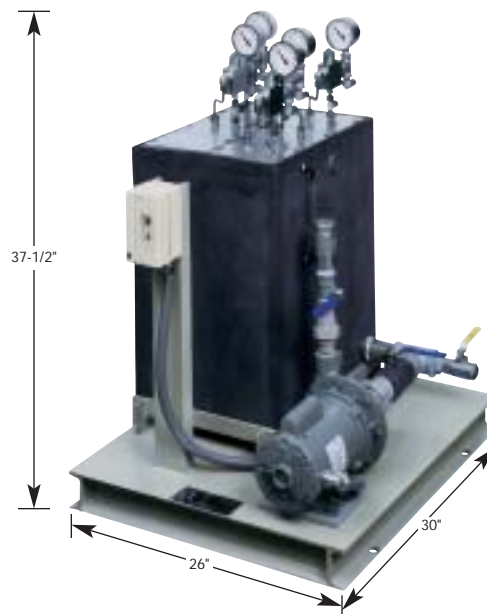
Return from Coil or Cooler:
1/4" Tube Connections



RETROFIT SKID

INCLUDES:

- FTA Bath – 304SS Insulated
- FTA Valve/Coil Assembly (Gauge Optional)
- Recirculation Pump – 1/2 HP, 120/1/60 with 1-1/4" Inlet and 1" Outlet Connections
- Channel Base with ANSI 61 Gray Enamel Finish
- Pump Controls and Breaker
- Level Control (Optional)
- Chiller (Optional)
- Requires only sample line and chilled water field connections.



The Waters Equipment expertise goes beyond Secondary Temperature Control. We also design and manufacture:
Total Plant Water and Steam Analysis • Sample Coolers • Sample Conditioning Modules
Pressure Reducers • Refillable Resin Cartridges • Condenser Samplers



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