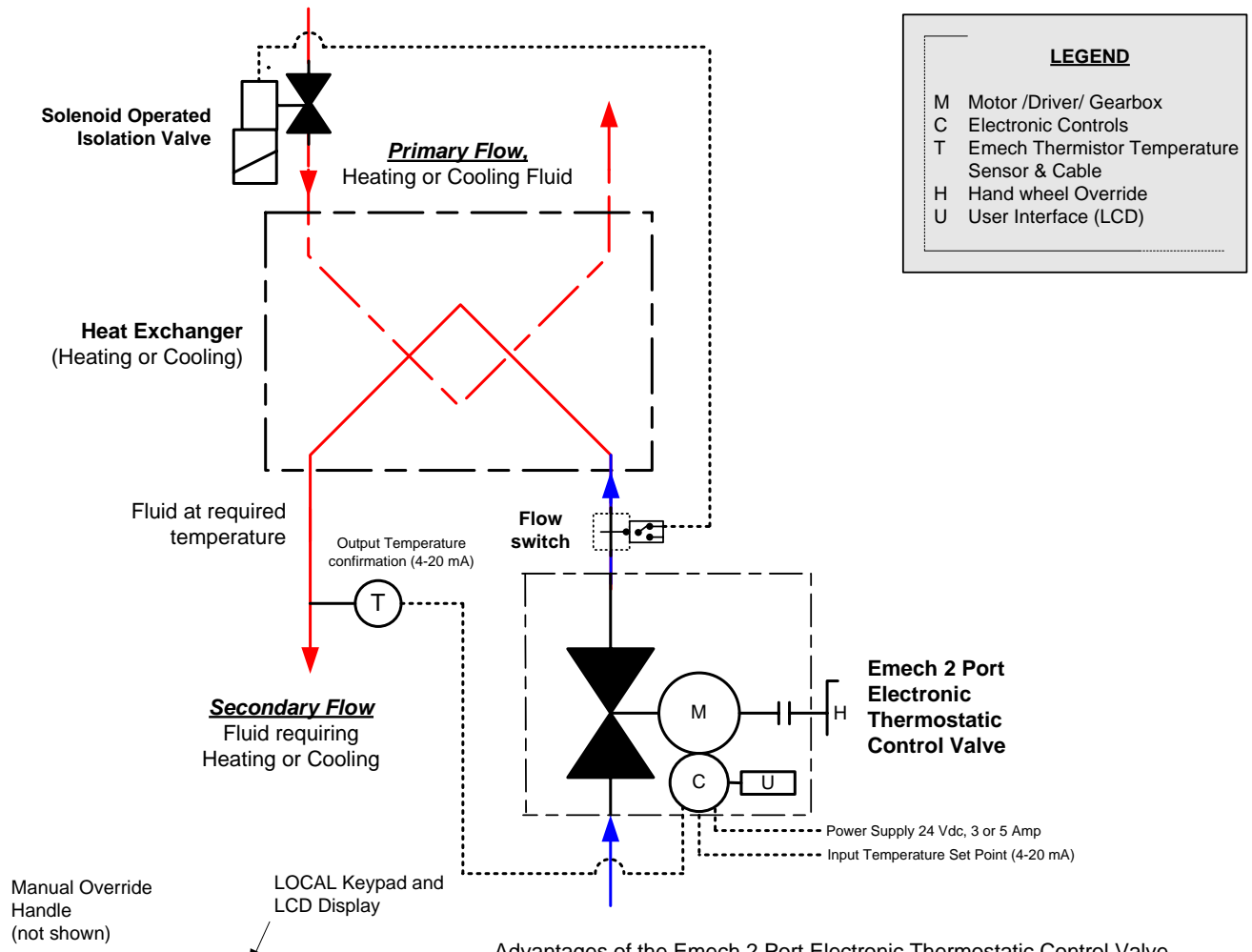


APPLICATION NOTE 8:

Model F2 2-Port Valve, and G1 Electronic Actuator.

Emech Thermostatic Application Utilizing a Heat Exchanger



LEGEND	
M	Motor /Driver/ Gearbox
C	Electronic Controls
T	Emech Thermistor Temperature Sensor & Cable
H	Hand wheel Override
U	User Interface (LCD)



Advantages of the Emech 2 Port Electronic Thermostatic Control Valve

1. The Temperature Sensor 'T', is located at the heat exchanger outlet. The fast acting sensor measures any error in output temperature.
2. If the Primary side flow or temperature is reduced, the Emech controller automatically **ALTERS the flow through the heat exchanger** to achieve the desired outlet temperature. i.e. set point is achieved regardless of variation in the heat transfer availability.
3. The result is **OPTIMIZED control REGARDLESS** of variable pressure differentials and step change disturbances.
4. The isolation valve **automatically isolates** the heating/cooling fluid when the secondary flow demand is zero. This prevents undesirable boiling or freezing of the fluid in the heat exchanger.
5. This application is typically used where operating conditions are relatively stable.
6. The Emech solution can operate as a '**stand-alone**' control valve. The set point can be entered at the LOCAL Keypad.
7. The Emech Controller is a fully integrated unit. Only a power supply and an optional 4-20mA set point signal is required.
8. The Emech solution includes full P.I.D. control configuration. An RS232 connection enables the actuator to be tuned to suit the installation.
9. The Emech valve uses ceramic 'hard-seal' disc technology for long life sealing integrity, and low torque operation.

Disclaimer:

This diagram is for general discussion purposes only. It is NOT intended as a design document. The actual operation and equipment selection is the responsibility of the plant owner. The information is solely intended to provide a general understanding of the subject matter and to assist Emech's customers and potential customers to assess whether they require further information. Emech does not guarantee or warrant the accuracy, completeness or currency of any information provided.

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