Secondary Fluid Valve and Controller
For Secondary Fluid Refrigeration

Eliminate the hurdles to broader implementation of secondary glycol refrigeration systems with the Sporlan Secondary Fluid Control package.

Laboratory and field installations have demonstrated case temperature stability within 0.5 degree of set point, and reductions in compressor cycling by up to 60%. Regulating glycol mass flow to meet the unique needs of each case results in an overall reduction in glycol pump speed and energy consumption.

By pairing a fully modulating stepper motor valve with advanced adaptive algorithms, we can achieve consistent flat line control and eliminate the headaches associated with system commissioning. Just set your case temperature, and walk away.

Sporlan Secondary Fluid Control Comparison

![Graph comparing case temperature stability between Sporlan Secondary Fluid Control and a solenoid/balancing valve. The graph shows a consistent flat line control for the Sporlan system, while the solenoid/balancing valve shows significant fluctuations.](image-url)
**Valve Specifications**
- Bipolar Hybrid Stepper Motor
- 2500 Steps, 200 Steps/Second
- Voltage: 12VDC (-5% +10%)
- Current: 185 mA / winding
- Operating Temperature:
  - 0°F to 140°F (18°C to 60°C)
- MRP: 300 psig (20.7 bar)
- ODF Connections Available:
  - 5/8", 7/8", 1-1/8", 1-3/8"
- Removable M12 Cable
- 20' Standard, 10' Available
- Approved for Propylene Glycol and Water
- Flow Coefficients:
  - \( C_v = 12 \), \( K_v = 10.3 \)

**Controller Specifications**
- Support for all standard defrost schemes
  - (off time, warm fluid, electric)
- Advanced pull down algorithm

**Electrical**
- Supply Voltage: 20-26 VAC, 50/60 Hz, 40VA or 22-26.6 VCD; Class II
- Analog Inputs:
  - 3x Temperature Sensors 3k\( \Omega \)
  - Digital Display: LED – Red, 7 segment, 4 digit
- Indicators: LED – Red, Power
- User Interface: Optical Encoder
- Data Interface: RS-485, Modbus®

**Mechanical**
- Operating Temperature: -40°F to 158°F
  - (-40°C to 70°C)
- Humidity: 0-95% (Non-condensing)
- Enclosure: PC – Light Gray
- Wiring: Screw Terminal
- Mounting: DIN RAIL – EN 50 022

**Compliance**
- Environmental: RoHS, WEEE
- Safety: UL/CUL (Recognized per 873), FCC (Class A, part 15), C-tick

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