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Kelvin II Series

Valve Controllers



ENGINEERING YOUR SUCCESS.

Superheat Control

- True pressure / temperature stand-alone superheat controller via EEV control
- Remote access via Modbus or BACnet
- Pumpdown mode via dry contact input
- Manual valve positioning
- Energy efficient system operation through more accurate valve control

Subcool Control

- Controls liquid temperature using an EEV
- Provides secondary control of superheat for system protection
- Displays actual leaving liquid temperature, superheat, suction pressure, valve position, controller status, and alarms
- Pumpdown mode via dry contact input
- Manual valve positioning
- Remote access via Modbus

Temperature Control

- Temperature control via electric valve (ie: SDR)
- Increased operating limits (-50°F to +299°F)
- Remote access via Modbus
- Pumpdown mode via dry contact input
- Manual valve positioning
- Advanced algorithm with AUTO PID to optimize system performance
- Optional high temperature selection for discharge control (60°F to +299°F) with 98.6K temperature sensor
- Optional temperature delta control (maintains T1-T2)

Kelvin II Series

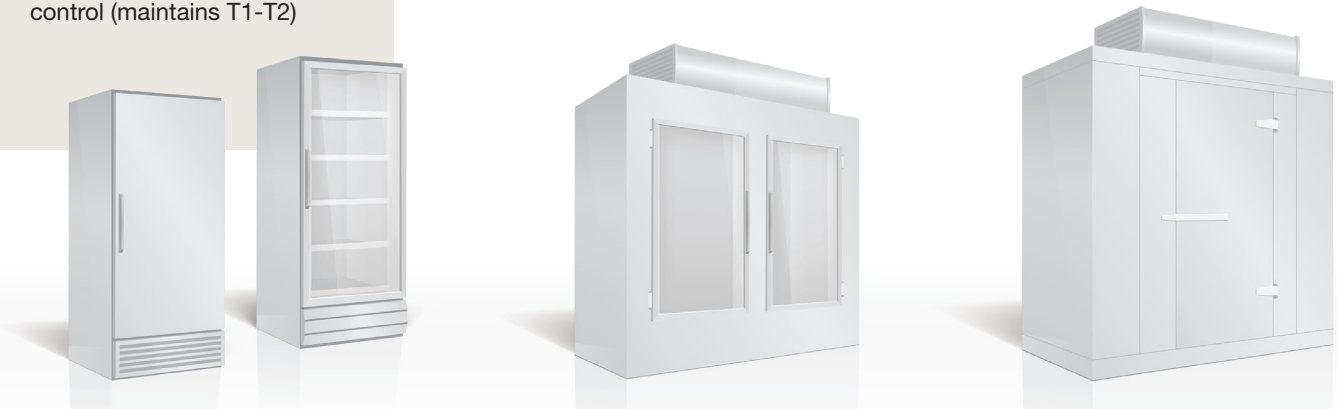
Valve Controllers



The Sporlan **Kelvin II Series** valve controllers provide unmatched control of electric valves for a variety of applications.

The superheat control provides **true pressure / temperature superheat control** via an EEV utilizing Sporlan's unique control algorithms, while the subcool control replaces mechanical subcooling that **combines liquid temperature control AND minimum superheat control**. The temperature and pressure controls allow precise **control of air temperature and pressure** using electric valves (SDR and CDS). Chiller and Secondary Fluid controls are also available.

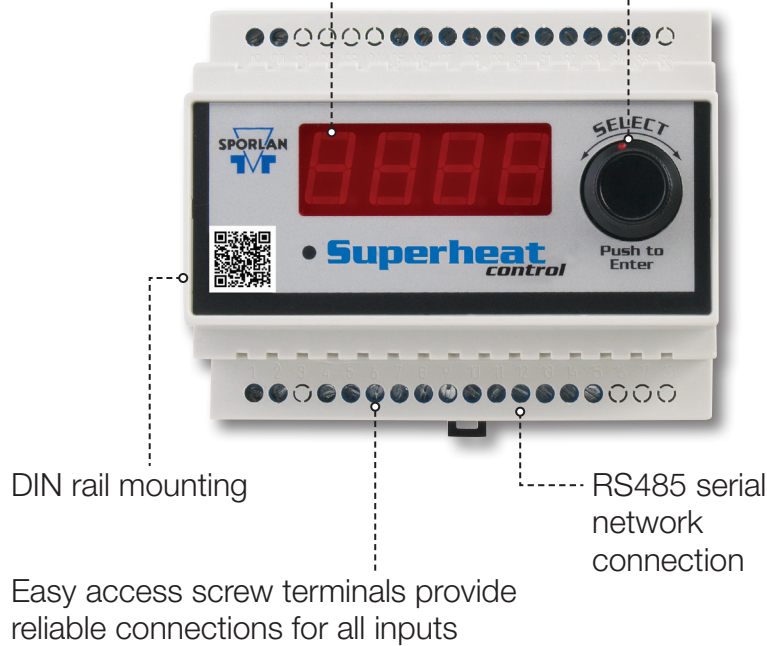
The Kelvin II controller line boasts **both integrated and remote display options, networking capability, Auto PID** and simple setup and operation.



The Kelvin II line of controllers is the perfect solution for installations that require precis

Easy to read, 4-digit /
7-segment LED display

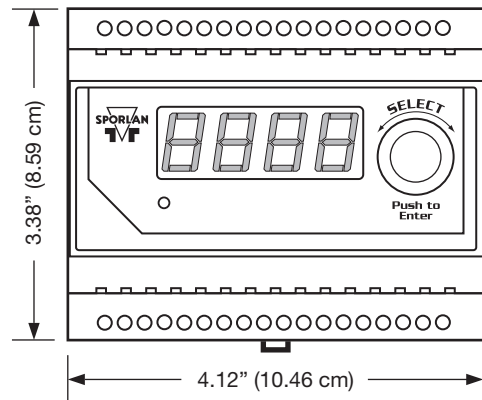
Optical encoder allows for
fast input of all operating
parameters



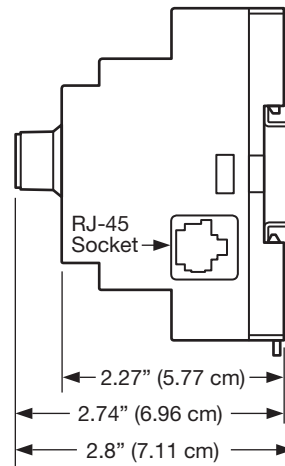
DIN rail mounting

RS485 serial
network
connection

Easy access screw terminals provide
reliable connections for all inputs



Small and simple design makes
installation and setup easy and fast



Pressure Control

- Controls electric evaporator regulator valve (CDS) or hot gas bypass valve (SDR) to regulate system pressure
- Remote access via Modbus or BACnet
- Pumpdown mode via dry contact input
- Manual valve positioning
- Advanced algorithm with AUTO PID to optimize system performance
- Head pressure control to replace mechanical A8 and A9 valves
- Supports inlet or outlet regulator (ie: A80E)

Chiller Control

- Controls EEV on most compact chillers
- Remote access via Modbus or BACnet
- Provides liquid temperature and superheat (P-T) control for common refrigerants
- Pumpdown mode via dry contact input
- Allows manual valve positioning

Secondary Fluid Control

- Controls Sporlan SFV stepper valve on medium temperature secondary fluid
- Remote access via Modbus
- Provides optimum efficiency, using liquid in, liquid out, and discharge air temperatures
- Allows manual valve positioning



All models are UL approved.



and automatic control of temperatures and pressures in a wide variety of applications.

Product Selection

✓ standard

	Kelvin II Product Line						
	Superheat-s Item Number 952569	Superheat-sd Item Number 952567	Subcool Item Number 952570	Temperature Item Number 953462	Pressure Item Number 953474	Chiller Item Number 953463	Secondary Fluid Item Number 953464
Key Features							
Display	-	✓	✓	✓	✓	✓	✓
Temperature Sensor (type)	NTC	NTC	NTC	NTC	NTC	NTC	NTC
Temperature Sensor (#)	4	4	4	3	3	4	3
Pressure Transducer	1	1	1	1	1	1	1
Valves Controlled (type)	EEV			SDR / CDS		EEV	SVF
Valves Controlled (#)	1	1	1	1	1	1	1
Communication (M: Modbus, B: BACnet)	M/B	M/B	M	M	M/B	M/B	M
Power	24VAC/DC						
UL	✓	✓	✓	✓	✓	✓	✓
Typical Applications							
Commercial HVAC - Evaporator	✓	✓	-	-	-	-	-
Refrigerated Display Cases	✓	✓	-	-	-	-	-
Cold Rooms / Environmental Chambers	✓	✓	-	-	-	-	-
Primary Chillers	-	-	✓	-	-	-	-
Compact Chillers	-	-	-	-	-	✓	-
Secondary Fluid (Glycol)	-	-	-	-	-	-	✓
Commercial HVAC - Heat Reclaim	-	-	-	✓	-	-	-
Compressor Discharge Temperature Control	-	-	-	✓	-	-	-
Supermarket							
- Rack Subcooling	-	-	✓	-	-	-	-
- Case Discharge Air	-	-	-	✓	-	-	-
- Case Low Side Pressure Control	-	-	-	-	✓	-	-
- High Side Head Pressure Control	-	-	-	-	✓	-	-
- Case / Lineup Liquid Pressure Control	-	-	-	-	✓	-	-
Commercial HVAC - Head Pressure Control	-	-	-	-	✓	-	-
Specialty Applications	✓	✓	✓	✓	✓	✓	✓

Accessories

Item Description	Item Number	Notes
Parker Sporlan Temperature Probes*		
2K Sensor	952662	Surface sensor
2K Sensor / Well Assembly	952795	Sensor and well assembly
3K Sensor - Brass	952551	Not used with well
10K Sensor - Blue wire	230076	Not used with well
10K Sensor - Orange wire	230072	Not used with well
10K Sensor - Red wire	230078	Not used with well
10K Sensor - Green wire	230073	Not used with well
10K Sensor - Yellow wire	230075	Not used with well
98.6K Sensor	952565	High temperature sensor not used with well
Parker Sporlan Pressure Transducers**		
PSPT0150SVSP-S	952572	0-150 psis transducer (all other refrigerants)
PSPT0300SVSP-S	952574	0-300 psis transducer (R410A)
PSPT0500SVSP-S	952576	0-500 psis transducer (R744)
PSPT0652SVSP-S	952579	0-652 psis transducer
Transducer Cables		
PSPT000000CP50	953100	5 meter cable
PSPT000000CP20	953192	2 meter cable
Miscellaneous		
Power Supply	953444	Input: 100-240 VAC; Output: 24 VDC, 60W
SMA-12	953276	Handheld digital instrument for testing EEV performance.

* See specific product bulletin for options.

** Select one per controller based on system requirements.

Learn More



**Superheat
Control**

Bulletin 100-50-5.1



**Subcool
Control**

Bulletin 100-50-5.2



**Temperature
Control**

Bulletin 100-50-5.3



**Pressure
Control**

Bulletin 100-50-5.5



**Chiller
Control**

Bulletin 100-50-5.6



**Secondary
Fluid**

Bulletin 100-50-5.4rd



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