April 2025 / **Bulletin 100-50-5**

SPORLAN

Kelvin II Series

Valve Controllers

Parker

ENGINEERING YOUR SUCCESS.

Kelvin II Series

Valve Controllers

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 though 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)

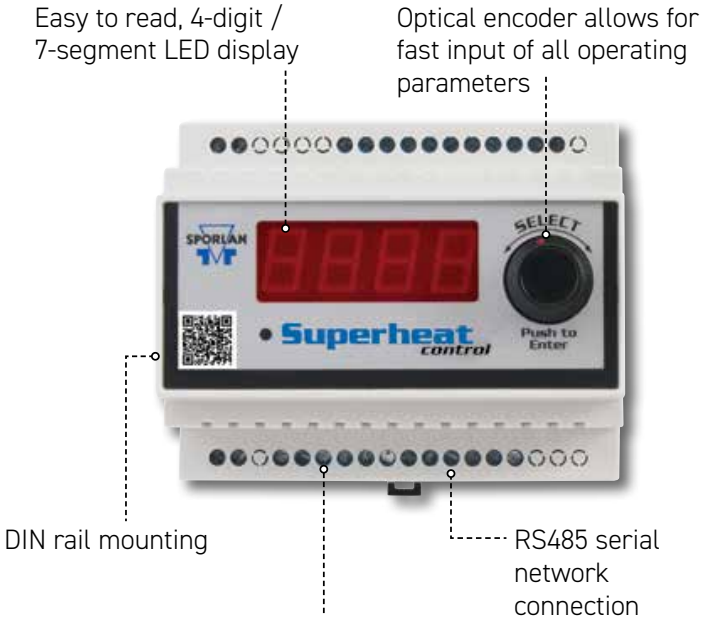
The Sporlan **Kelvin II Series** valve controllers provide unmatched control of electric valves for a variety of applications.

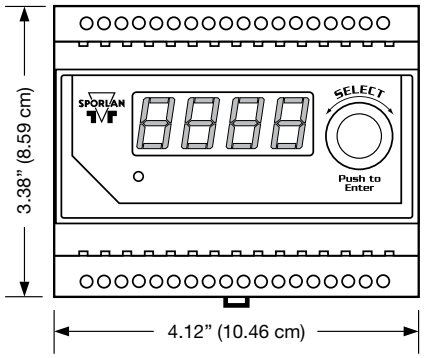
The superheat control provides **true pressure / temperature superheat control** via an EEV utilizing Sporlan's unique control algorithms, while the subcool control replaces mechanical sub-cooling that **combines liquid temperature control AND minimum superheat control.** The temperature and pressure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

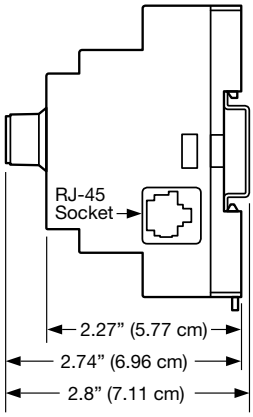
The Kelvin II controller line boasts **both integrated and remote display options, networking capability, Auto PID** and simple setup and operation.

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

Tel: +45 63 12 83 00 | Email: ps@hymatik.com | www.hymatik.com | Hvidkaervej 27a, DK-5250 Odense SV, Denmark







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.

e 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 953553
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	SFV
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	✓	✓	✓	✓	✓	✓	✓

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

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	230545	Surface sensor - not used with well
3K Air Sensor	230546	Air Sensor - not used with well
10K Sensor - Blue wire	230076	Not used with well
10K Sensor - Orange wire	230072	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-SD	992572	0-150 psis transducer (all other refrigerants)
PSPT0300SVSP-SD	992574	0-300 psis transducer (R410A)
PSPT0500SVSP-SD	952576	0-500 psis transducer (R744)
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 tool for testing EEV performance.
Kelvin II Secondary Fluid Control Remote Display	953554	Remote display Secondary Fluid Control.
Kelvin II Remote Display	952568	Remote display for Kelvin II controls, excluding Secondary Fluid control; needed for Superheat control without display setup.

* See specific product bulletin for options.
** Select one per controller based on system requirements.

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Parker Hannifin Corporation
Sporlan Division
206 Lange Drive • Washington, MO 63090 USA
phone 636 239 1111 • fax 636 239 9130
www.sporlan.com