



SPORLAN
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Kelvin II Series

Valve Controllers



ENGINEERING YOUR SUCCESS.



Kelvin II Series

Valve Controllers

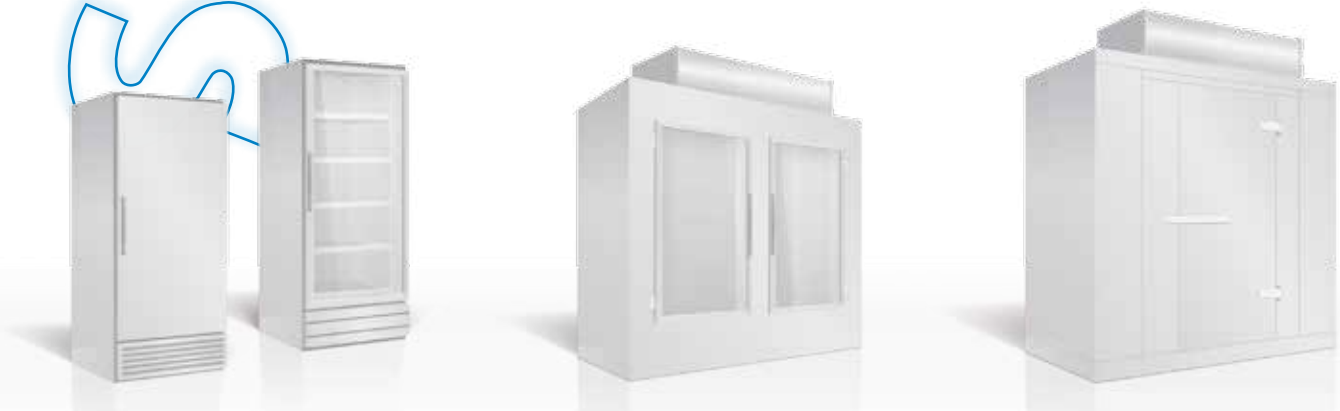
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The Sporlan **Kelvin II Series** valve controllers provide unmatched control of electric valves for a variety of applications.

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).

The Kelvin II controller line boasts **both integrated and remote display options, Modbus®** (via RS485) networking, **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

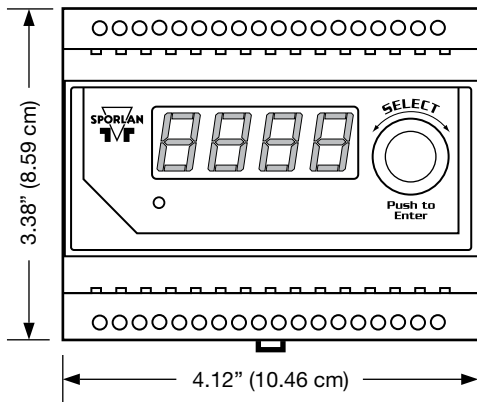
Optical encoder allows for fast input of all operating parameters



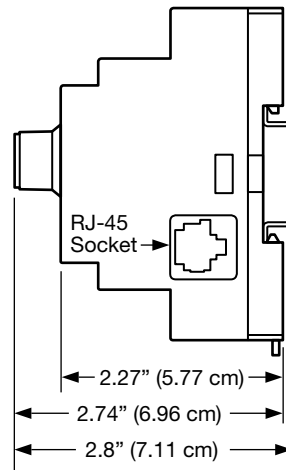
DIN rail mounting

RS485 serial network connection and full Modbus compatibility

Easy access screw terminals provide reliable connections for all inputs



Small and simple design makes installation and setup easy and fast



Superheat Control

- True pressure / temperature stand-alone superheat controller via EEV control
- Remote access via Modbus
- 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)

Pressure Control

- Controls electric evaporator regulator valve (CDS) or hot gas bypass valve (SDR) to regulate system pressure
- Remote access via Modbus
- 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)

All models are UL approved.



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

Product Features

Superheat Control

- One dial for setting all parameters
- Optional room temperature control
- 4-digit / 7-segment LED display ("sd" model)
- OEM version available without display ("s" model)
- Optional remote display unit
- Optional display networking for 2-valve control
- Evaporator outlet temperature input
- Room temperature input
- One pressure input
- One digital input (for external switch or relay)
- One auxiliary temperature input

Subcool Control

- One dial for setting all parameters
- One EEV control (bipolar step motor)
- 4-digit / 7-segment LED display
- Optional controller networking for remote access
- Evaporator outlet temperature input
- Liquid outlet temperature input
- Pressure input
- One digital input (for external switch or relay)
- One auxiliary temperature input

Temperature Control

- One dial for setting all parameters
- One Electric Valve control (bipolar stepmotor)
- 4-digit / 7-segment LED display
- Optional controller networking for remote access
- Two temperature inputs
- One digital input (for external switch or relay)
- One auxiliary temperature input
- One auxiliary pressure input

Pressure Control

- One dial for setting all parameters
- One Electric Valve control (bipolar stepmotor)
- 4-digit / 7-segment LED display
- Optional controller networking for remote access
- One pressure input
- One temperature input for high temperature cut-out
- One digital input (for external switch or relay)
- Two auxiliary temperature inputs

Product Selection

| | 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 |
| ✓ standard | | | | | |
| Key Features | | | | | |
| Display | - | ✓ | ✓ | ✓ | ✓ |
| Temperature Sensor (type) | 3K | 3K | 3K | 3K | 3K |
| Temperature Sensor (#) | 4 | 4 | 4 | 4 | 4 |
| Pressure Transducer | 1 | 1 | 1 | 1 | 1 |
| Valves Controlled (type) | EEV | | | SDR / CDS | |
| Valves Controlled (#) | 1 | 1 | 1 | 1 | 1 |
| Communication | ✓ | ✓ | ✓ | ✓ | ✓ |
| Power | 24VAC/DC | | | | |
| UL | ✓ | ✓ | ✓ | ✓ | ✓ |
| Typical Applications | | | | | |
| Commercial HVAC - Evaporator | ✓ | ✓ | - | - | - |
| Refrigerated Display Cases | ✓ | ✓ | - | - | - |
| Cold Rooms / Environmental Chambers | ✓ | ✓ | - | - | - |
| Primary Chillers | - | - | ✓ | - | - |
| 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 | | |
| 3K Sensor - Brass | 952551 | Not used with well |
| 3K Well Sensor Kit | 805102 | Sensor with well |
| 98.6K Sensor | 952565 | High temperature sensor |
| Parker Sporlan Pressure Transducers* | | |
| PSPT0500SVSP-S | 952576 | 0-500 psis transducer (R744) |
| PSPT0300SVSP-S | 952574 | 0-300 psis transducer (R410A) |
| PSPT0150SVSP-S | 952572 | 0-150 psis transducer (all other refrigerants) |
| Transducer Cables | | |
| PSPT000000CP50 | 953100 | 5 meter cable |
| PSPT000000CP20 | 953192 | 2 meter cable |
| Troubleshooting Accessories | | |
| SMA-12 | 953276 | Handheld digital instrument for testing EEV performance. |

*Select one per controller based on refrigerant.



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