PSK Series
Refrigeration Controllers
For Low and Medium Temperature Applications
Sporlan’s PSK Series electronic controllers manage low and medium temperature refrigeration units by controlling compressors, defrost, lights and fans.

There are several models to choose from starting with the PSK201 with simple logic and wiring (for base compressor and defrost control) to the PSK214 with multiple I/Os and evaporator fan management (for complex compressor, defrost and fan control).

A quick glance at the 3-1/2 digit display panel during operation shows the refrigerator status; which includes an alarm icon and temperature of the controlled space. Depending on the model, defrost control is handled by compressor stop or time/temperature based off of a real time clock.

The PSK Series is a perfect fit for refrigerated display cabinets and cold rooms.
PSK 201 / 221 / 231
- Single Relay Output
- Ideal for medium temperature applications, controlling compressor and off-cycle defrost (time or temperature terminated)
- Available in 8A-30A output (1/3HP - 2HP)
- Available with 1-2 inputs
- Energy-Save mode available on 221 / 231

PSK 203 / 223 / 233
- Three Relay Outputs
- Ideal for low temperature applications, controlling compressor, evaporator fan(s), and electric/hot gas defrost
- Available in 8A-30A output (1/3HP - 2HP)
- Available with 2-3 inputs
- Energy-Save mode available on 223 / 233

PSK 204 / 214
- Four Relay Outputs
- Offers entire system management by controlling compressor, evaporator fan(s), electric/hot gas defrost, and auxiliary (light, anti-sweat heater, etc.)
- HACCP compliant data logging
- Available with 3-4 inputs
- Real Time Clock (RTC) for added control

All models are UL and CE approved.

Easy to understand, color display icons quickly show system status and active temperature alarms

Easy to read, 3-1/2 digit display shows decimal value down to -99.9°C

IP65 Front Panel Protection

Built-in buzzer to alert new temperature alarms (available on most models)

Serial communications port for networking and easy setup with Programming Key (available on most models)

Small compact design offers multiple configuration options without using up excessive real estate.

Where temperature control, regulation, alarm or monitoring functions are essential.
Product Features

Temperature Probes
The PSK controllers are compatible with both NTC and PTC type temperature sensors. While the default is NTC, the PSK unit can be easily installed into an existing system using PTC sensors.

Configurable Input
The multipurpose input on select PSK models can be configured for an additional temperature probe (e.g.: condenser over-heat sensor), a door switch (a second door switch on the 204 and 214 models), or as a digital input. The digital input can be used to synchronize defrosts, activate energy saving mode, activate an alarm, or to turn the controller off.

Extractable Terminals
The plug-in terminal block is available on select PSK models and allows for quick, easy installation.

Configurable Relay Output
The PSK204 and PSK214 models offer an additional relay output, which is configurable for any of the following:
- General purpose, auxiliary output
- Cabinet light
- 2nd compressor
- External alarm
- Defrost synchronization
- Anti-sweat heater
- Door frame heater
- Evaporator Valve

Product Selection

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<tr>
<th>PSK Models</th>
<th>N5</th>
<th>N7</th>
<th>N5EXBS</th>
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Inputs

- NTC/PTC Temperature Sensor: 1 1 1 2 2 2 2 2
- Door Switch: – – – – 1 1 1 1
- Multipurpose: – 1 1 – – – 1 1

Relay Outputs

- Compressor: 16A 16A 30A 16A 8A 30A 16A 16A
- Evaporator Fan: – – – 8A 5A 5A 8A 8A
- Defrost Solenoid: – – – 8A 8A 8A 8A 8A
- Multipurpose: – – – – – – 8A 8A

Features

- IP65 Rated Front Panel: ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓
- Extractable Terminals: – ✓ ✓ – ✓ ✓ ✓ – ✓ ✓ ✓ ✓ ✓ ✓
- TTL Serial Communication Port: – ✓ ✓ – ✓ ✓ ✓ – ✓ ✓ ✓ ✓ ✓ ✓
- Built-In Alarm Buzzer: – ✓ ✓ – ✓ ✓ ✓ – ✓ ✓ ✓ ✓ ✓ ✓
- Energy Saving Mode: – ✓ ✓ – ✓ ✓ ✓ – ✓ ✓ ✓ ✓ ✓ ✓
- HACCP Data Logging: – – – – – – – ✓ ✓ ✓ ✓ ✓ ✓
- Real Time Clock (RTC): – – – – – – – ✓ ✓ ✓ ✓ ✓ ✓

Power

- 115 VAC, 50/60 Hz: N5 N5 N5 N5 N5 N5 – –
- 230 VAC, 50/60 Hz: N7 N7 N7 N7 N7 N7 – –
- 115-230 VAC, 50/60 Hz: – – – – – – N9 N9

Accessories

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<tr>
<th>Item</th>
<th>Part Number</th>
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<tbody>
<tr>
<td>NTC Temperature Probe with 5 ft. (1.5 m) cable</td>
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<td>NTC Temperature Probe with 10 ft. (3 m) cable</td>
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<td>PSK Programming Key</td>
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<td>PSKey Power Supply</td>
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<td>TTL to RS485 Adaptor</td>
<td>PSIF20TSX</td>
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</table>

Technical Specifications

Connections: Screw terminal block or extractable terminal block (power supply, inputs, outputs); 6-pin connector (serial communications port)

Sensor Probes: NTC or PTC (must be configured)

Sensor Range: -40 to 105°C (-40 to 220°F) for NTC; -50 to 150°C (-50 to 300°F) for PTC

Operating Temperature: 0 to 55°C (32 to 131°F)