**Danfoss KPU 19 Temperature and Pressure Controls** 



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# **Danfoss KPU 19 Temperature and Pressure Controls Instruction Manual**

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**KPU 19 Temperature and Pressure Controls** 



## **Specifications**

#### **KPU 19 Thermostats**

• Bulb type: Remote bulb

• Contact/Reset: -30 to 80 SPST/Auto

• Capillary tube length: 3.6 to 12.6 inches

• Maximum tube length at lowest bulb: 140 inches

## **KPU 60/70 Thermostats**

• Bulb type: Straight capillary tube

• Contact/Reset: -20 to 60 SPDT/Auto

• Capillary tube length: 80 inches

• Differential at lowest temp. setting: 10 to 40

• Differential at highest temp. setting: 2.5 to 13

## **KPU Pressure Switches**

• Pressure system: 6 to 108 in. Hg/psig

• Reset: Low Automatic SPDT

• Contact range: 10 to 60 psig

• Max. working pressure: 250 psig

## **KPU Dual Pressure Switches**

• Low-pressure side range: 6 to 108 in. Hg/psig

• High-pressure side range: 100 to 465 psig

• Reset: Automatic SPST (NO/NC)

• Max. working pressure (low/high side): 250/510 psig

KPU temperature and pressure controls are designed for easy installation and service. They feature bottom and rear knockouts, a differential adjustment dial, a tamper-resistant design, and a robust thermoplastic housing. Danfoss KPU temperature and pressure controls maintain precise set point values and are easy to set and adjust. Learn more about how to select the right Danfoss products for your needs at <a href="mailto:choose.danfoss.com">choose.danfoss.com</a>. Reliable temperature and pressure controls designed for flawless performance.

## Technical data and ordering

#### **KPU 19 Thermostats**

| KPU<br>Seri<br>es | Bulb ty<br>pe | Range<br>(°F) | Conta<br>ct/ Re<br>set | Capilla<br>ry tub<br>e lengt<br>h (in.) | at lowes<br>t temp.<br>setting | Maximum<br>bulb<br>temperatu<br>re (°F) | Competitor p art no.   | Danf<br>oss t<br>ype | Danfoss Code<br>No.   |
|-------------------|---------------|---------------|------------------------|---|--------------------------------|---|--|----------------------|-----------------------|
| KPU<br>19         |               | -30 to        | SPDT/<br>Auto          | 120                                     | 3.6 to 12<br>.6                | 140                                     | A19ABC-24C<br>A19ABC-37C<br>A19ABC-74C<br>A19AAC-4C A<br>19AAF-20C | KPU1                 | 060L2150 <sup>1</sup> |
| KPU<br>19         | Remote bulb   | -30 to        | SPST/<br>Auto          | 80                                      | 3.6 to 12<br>.6                | 140                                     | A19AAD-5C<br>A19ABA-40C<br>A19AAD-12C                              | KPU1                 | 060L2151 <sup>1</sup> |
| KPU 1             | 19<br>om bulb | -30 to        | SPDT/<br>Auto          | Room<br>sensor                          | 3.6 to 12<br>.6                | 140                                     | A19BBC-2C<br>A19BAB-3C A<br>19BAC-1C A1<br>9BAF-1C                 | KPU1                 | 060L2152              |

As 060L1250 is SPDT, 060L2150 can replace competitor parts crossed to both 060L2150 and 060L2151.

## **KPU 60/70 Thermostats**

|                      |               |               |                       | Capillar               | Di erentia                     | ıl                                   | Maximum<br>bulb      |                      |                     |
|----------------------|---------------|---------------|-----------------------|------------------------|--------------------------------|--------------------------------------|----------------------|----------------------|---------------------|
| Danf<br>oss T<br>ype | Bulb typ<br>e | Range<br>(°F) | Conta<br>ct/<br>Reset | y tube le<br>ngth (in. | at lowes<br>t temp.<br>setting | at the hig<br>hest tem<br>p. setting | temperatu<br>re (°F) | Competito r part no. | Danfoss<br>Code No. |

| KPU<br>61 | Remote air coil | -20 to       | SPDT/<br>Auto | 80              | 10 to 40  | 2.5 to 13 | 250 | O10-1408<br>O10-1409<br>O10-1473<br>O16-104 O<br>10-1410 | 060L5203 |
|-----------|-----------------|--------------|---------------|-----------------|-----------|-----------|-----|--|----------|
|           |                 |              |               |                 |           |           |     | O10-1072   |          |
| KPU<br>62 | Room se<br>nsor | –20 to<br>60 | SPDT/<br>Auto | Room se<br>nsor | 10 to 40  | 2.5 to 13 | 250 | O10-1418<br>O16-594                                      | 060L5206 |
|           |                 |              |               |                 |           |           |     | O60-101  |          |
| KPU<br>73 | Remote bulb     | -15 to<br>60 | SPDT/<br>Auto | 80              | 6.5 to 32 | 5 to 50   | 175 | O60-100 O<br>60-120                                      | 060L5208 |

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#### **KPU Pressure Switches**

|                      | s Ty Pressu | I Reset       |                        | Range<br>(in. Hg/<br>psig) | Differe<br>ntial (p<br>sig) | Max. w<br>orking<br>pressu<br>re (psi<br>g) | Compet itor part no.1 | Danfoss Code No. |  |  |
|----------------------|-------------|---------------|------------------------|----------------------------|-----------------------------|---|-----------------------|------------------|--|--|
| Danfo<br>ss Ty<br>pe |             |               | Conta<br>ct sys<br>tem |                            |                             |   |                       | 1⁄4 in. M flare  | 36 in. capillary<br>tubes with ¼ in.<br>flare nuts |  |
|                      |             |               |                        |                            | ı                           | '   |                       |                  |  |  |
|                      |             |               |                        |                            |                             |   | O10-140<br>2          |                  |  |  |
| KPU 2                | Low         | Autom<br>atic | SPST<br>(NO)           | 6 to 73                    | 6 to 30                     | 250   | P70AB-<br>12C         | 060-5237         | 060-5235   |  |
|                      |             |               |                        |                            |                             |   | P170AB-<br>12C        |                  |  |  |
|                      | I           | I             | I                      | I                          | I                           | 1   | I                     | I                | I  |  |
| KPU1                 | Low         | Manual        | SPDT                   | 28 to 1                    | 10.2                        | 250   |                       | 060-5232         | 060-5234   |  |

|                         |      |               |      |               |               |     | O16-108         |          |          |
|-------------------------|------|---------------|------|---------------|---------------|-----|-----------------|----------|----------|
| KPU 6<br>W <sup>2</sup> | High | Autom<br>atic | SPDT | 100 to<br>600 | 58 to 1<br>45 | 675 | P170CA<br>-400C | 060-5243 | 060-5245 |
|                         |      |               |      |               |               |     | P70CA-<br>3C    |          |          |

## **KPU Dual Pressure Switches**

|   | Low-pressure si de side     |                             |                 | ressure Reset              |                              |                            |                                       |  |                                 | Danfoss Cod<br>e No. |   |
|---|-----------------------------|-----------------------------|-----------------|----------------------------|------------------------------|----------------------------|---------------------------------------|--|---------------------------------|----------------------|---|
| Danfos<br>s Type                        | Range (<br>in. Hg/p<br>sig) | Differe<br>ntial (<br>psig) | Range<br>(psig) | Differ<br>ential<br>(psig) | Low-pr<br>essure<br>side     | High-p<br>ressur<br>e side | Cont<br>act s<br>yste<br>m (L<br>P/HP | Max. wo<br>rking pr<br>essure (<br>low/hig<br>h side) (<br>psig) | Comp<br>etitor<br>part n<br>o.1 | ¼ in.<br>M flar<br>e | 36 in. capill ary tu bes w ith  ¼ flar e nuts |
| KPU 15                                  | KPU 15 6 to 108             |                             |                 |                            | Automat<br>ic                | Automa<br>tic              | SPS<br>T                              | 250/510  | O12-1<br>549                    | 060-5<br>247         | 060-5<br>248                                  |
| 10 to 60                                | 100 t                       | o 465                       |                 |                            |                              |                            | (NO/<br>NC)                           |  | P170L<br>B-1C                   |                      |   |
| KPU 1                                   | 6 to 108                    | 10 to 6                     | 100 to          |                            | Automat                      | Manual                     | SPS<br>T                              | 250/510  | P70LB<br>-1C                    | 060-5                | 060-5   |
| 5B                                      | 0 10 100                    | 0                           | 465             | 60                         | ic                           | iviariuai                  | (NO/<br>NC)                           | 250/510  | P70M<br>A-1C                    | 249                  | 250   |
|   |                             |                             |                 |                            |                              |                            |                                       |  | O12-4<br>834                    |                      |   |
| KPU 16B 6 to 108<br>10 to 60 100 to 600 |                             |                             |                 |                            | Converti<br>ble <sup>3</sup> | Convert ible <sup>3</sup>  | SPD<br>T/<br>SPS<br>T (N<br>O)        | 250/675  | P170L<br>B-1C<br>P70LB<br>-1C   | 060-5<br>253         | 060-5<br>254                                  |
|   |                             |                             |                 |                            |                              |                            |                                       |  | P70M<br>A-1C                    |                      |   |

- 1. Competitor part no. equipped with a capillary tube for all but P170LB-1C which has connections.
- 2. KPU 6 and the high-pressure side of KPU 16 are designed with fail-safe double bellows.
- 3. Convertible reset controls can be adjusted for either automatic or manual reset. Adjust the reset setting to match the product being replaced.

All controls are supplied with universal mounting brackets and mounting screws. Ambient temperature: –40 °F to +122 °F (175 °F for maximum 2 hours). KPUs 1, 2, 6, and 16 are suitable for all HFC refrigerants, including R-410A.

|                            | 120/240 VAC              |
|----------------------------|--------------------------|
| Alternating Current        |                          |
| Motor Full Load Amps (FLA) | 24                       |
| Locked Rotor Amps (LRA)    | 144                      |
| Direct Current             | 240 V DC: 12W pilot duty |

## **Spare Parts and Accessories**

For the complete portfolio of KPU products, scan the QR code to access the Quick Select Guide.

| Description  | Type(s) applied to     | Danfoss Code No. |
|--|------------------------|------------------|
| Capillary tube;<br>39 in. with ¼ in. flare coupling nuts on each end | KPU with ¼ in. M flare | 060-017166       |

#### Installation

- 1. Ensure the power source is switched off before installation.
- 2. Locate a suitable position for the temperature and pressure controls.
- 3. Follow the provided guidelines for wiring and connections.

# **Setting and Adjusting**

- 1. Use the differential adjustment dial to set the desired temperature or pressure values.
- 2. Make sure the controls are securely fastened in place after adjustment.

# Maintenance

- 1. Regularly check for any signs of wear or damage on the controls.
- 2. Clean the controls as needed to ensure proper functioning.

# **Documents / Resources**



<u>Danfoss KPU 19 Temperature and Pressure Controls</u> [pdf] Instruction Manual KPU 19 Temperature and Pressure Controls, KPU 19, Temperature and Pressure Controls, Pressure Controls, Controls

## References

• User Manual

#### Manuals+, Privacy Policy

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