Installation guide

Pressure switch
KP 15, KP 17W, KP 17B, KP 25

Refrigerants:
R22, R134a, R404A, R407A, R407C, R407F, R422B, R422D,
R448A, R449A, R450A, R452A, R507A, R513A

For complete list of approved refrigerants, go to http://products.danfoss.com/all-products/

Ambient temperatures / Mounting requirements
\( t_1 \) min.: -40 °F (-40 °C)
-13 °F (-25 °C) (PED approved products)
\( t_1 \) max.: 149 °F (65 °C)

Test pressure \( (P_{test}) \)
- \( P_{test} \) max. 510 psig (35 bar \( p_u \))
- \( P_{test} \) max. 285 psig (20 bar \( p_u \))

CAUTION:
Do not install these controls on ammonia systems.

Enclosure

CAUTION:
The mounting panel must be plane to avoid damage of control.

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Connections

Assembly

CAUTION: Disconnect power supply before wiring connections are made or service to avoid possible electrical shock or damage to equipment. Do never touch live parts with your fingers or with any tool.

Wiring
All wiring should conform to the National Electrical Code and local regulations.

SPDT
Controls with low pressure (LP) signal

Terminal block

CAUTION: Use terminal screws furnished in the contact block. Use tightening torque 20 lb. in (2.3 Nm). Use copper wire only.

Low pressure (LP) side:
A-C close on LP rise
A-C open on LP drop

High pressure (HP) side:
A-C open on HP rise
A-C close on HP drop

LP signal option:
A-B close on LP drop

See label for current wiring inside cover.

Controls with low pressure (LP) and high pressure (HP) signal

Terminal block

CAUTION: Use terminal screws furnished in the contact block. Use tightening torque 20 lb. in (2.3 Nm). Use copper wire only.

Low pressure (LP) side:
A-C close on LP rise
A-C open on LP drop

High pressure (HP) side:
A-C open on HP rise
A-C close on HP drop

LP signal option:
A-B close on LP drop

HP signal option:
A-D close on HP rise

See label for current wiring inside cover.

Contact load ratings

<table>
<thead>
<tr>
<th>Voltage</th>
<th>Load (FLA)</th>
<th>Pilot duty (LRA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>120 V AC</td>
<td>16</td>
<td>96</td>
</tr>
<tr>
<td>240 V AC</td>
<td>8</td>
<td>48</td>
</tr>
<tr>
<td>240 V DC</td>
<td>12</td>
<td></td>
</tr>
</tbody>
</table>

Function

LP signal

LP+HP signal

Note:
= Load
= Signal option
= Bellows movement on pressure rise
= Bellows movement on pressure drop

CAUTION: Use terminal screws furnished in the contact block. Use tightening torque 20 lb. in (2.3 Nm). Use copper wire only.
Manual tripping
(Electrical contacts/wiring test)

LP side

- Trip: use FINGERS ONLY! (Do NOT use screwdriver)

HP side

- Use screwdriver only

Note:
On controls with LP and/or HP man. reset, push corresponding LP and/or HP man. reset knob during tripping.

Manual reset

- To resume control operation after safety cut-out, push man. reset knob as indicated.

Note:
LP man. reset is possible only after system pressure has risen above cut-in value.
HP man. reset is possible only after system pressure has dropped below cut-out value.

Convertible reset

- Insert a screwdriver into the slot on the lock disc and turn it to desired reset configuration. Do not turn the screw on the lock disc as it may damage the convertible reset mechanism.

Note:
Do not select automatic reset if safety of the system requires manual reset.

Note:
Selected reset configuration may be protected against unauthorized actions applying a seal.

Reset options

<table>
<thead>
<tr>
<th></th>
<th>LP man.</th>
<th>LP auto.</th>
<th>LP auto.</th>
<th>LP man.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>HP man.</td>
<td>HP auto.</td>
<td>HP auto.</td>
<td>HP man.</td>
</tr>
</tbody>
</table>

Adjustment spindle(s) location

- Use screwdriver only

KP 15
A. MAN./MAN. RESET
- LP man. reset knob
- HP range cut-out
- HP fixed diff. 58psi (4bar)
- LP range cut-in
- 10psi (0.7bar)

KP 15, KP 17B
B. AUTO/MAN. RESET
- HP man. reset knob
- HP range cut-out
- HP fixed diff. 58psi (4bar)
- LP range cut-in
- 10psi (0.7bar)

KP 15, KP 17W, KP 25
C. AUTO./AUTO. RESET
- HP range cut-out
- 58psi (4bar)
Note:
Remove lockplate before adjustment.
Replace lockplate after adjustment (if desired).