

Danfoss KP 17B Pressure Switch



Danfoss KP 17B Pressure Switch Installation Guide

[Home](#) » [Danfoss](#) » Danfoss KP 17B Pressure Switch Installation Guide 

Contents

- [1 Danfoss KP 17B Pressure Switch](#)
- [2 Product Information](#)
- [3 Product Usage Instructions](#)
- [4 Frequently Asked Questions](#)
- [5 Installation guide](#)
- [6 Wiring](#)
- [7 Electrical rating](#)
- [8 IMPORTANT NOTICE](#)
- [9 Disclaimer](#)
- [10 Documents / Resources](#)
 - [10.1 References](#)



Danfoss KP 17B Pressure Switch



Product Information

Product Specifications:

- **Model Numbers:** KP 17B, KP 17W, KP 17WB
- **Refrigerants:** R22, R134a, R404A, R407A, R407C, R407F, R422B, R422D, R448A, R449A, R452A, R507A, R513A, selected A2L refrigerants (R455A, R454C, R1234yf)
- **Temperature Range:** -25°C to 65°C
- **Pressure Range:** 17 bar / 245 psig to 32 bar / 464 psig
- **Enclosure:** IP30 (EN 60529), IP44 (EN 60529)
- **Voltage:** 400 V AC, 220 V DC
- **Electrical Ratings:** AC 1: 16 A, AC 3: 16 A, AC 15: 10 A

Product Usage Instructions

Safety Requirements:

1. KP pressure switches should only be used in systems complying with specific safety standards for refrigerant charge limits and ignition sources.
2. Prevent overloading the switches; if damaged, stop the system and replace the switch.
3. Ensure electrostatic discharge protection and proper grounding for electrical leakage protection.
4. Only trained personnel should handle flammable refrigerant systems.
5. Regularly check the functionality of the KP switch.

Installation Guidelines:

1. Install the KP pressure switches in areas with a low risk of mechanical damage.
2. Consider corrosion protection when using in corrosive environments.

3. Avoid placing cables near sharp edges; use stress relief to prevent pulling forces on terminals.
4. Dampen pressure pulsations to prevent bellows failure.
5. Avoid installation in high-vibration areas.

Frequently Asked Questions

Q: What refrigerants are compatible with the KP pressure switches?

A: The switches are compatible with a range of refrigerants including R22, R134a, R404A, and selected A2L refrigerants like R455A and R1234yf.

Q: What are the voltage requirements for the KP switches?

A: The switches operate at 400 V AC and 220 V DC.

Q: How often should the functionality of the KP switch be checked?

A: It is recommended to regularly check the function of the KP switch to ensure proper operation.

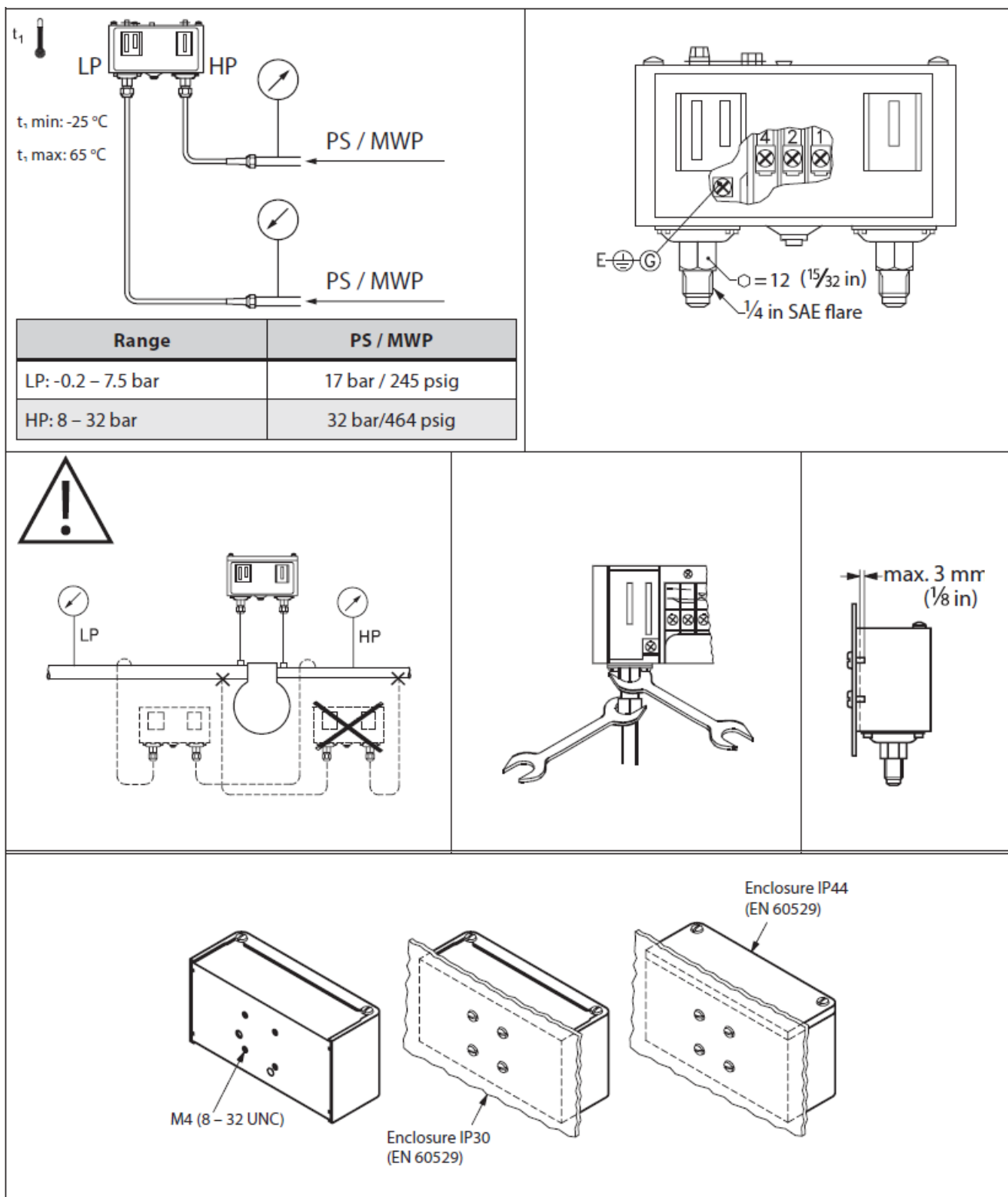
Installation guide

Pressure switch

KP 17B, KP 17W and KP 17WB

Refrigerants:

R22, R134a, R404A, R407A, R407C, R407F, R422B, R422D, R448A, R449A, R452A, R507A, R513A and selected A2L refrigerants(R455A, R454C, R1234yf).



CAUTION:

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

Wiring

AC 1: 16 A	400 V a.c.	DC 13 12 W 220 V
AC 3: 16 A		
AC 15: 10 A		

Use copper wire only

Tightening torque 20 lb. in. (2.3 Nm)

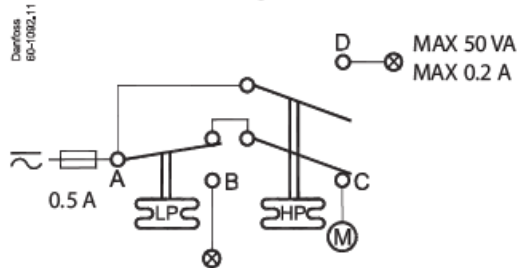
When used acc. to UL regulations



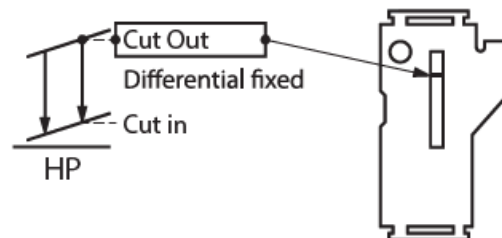
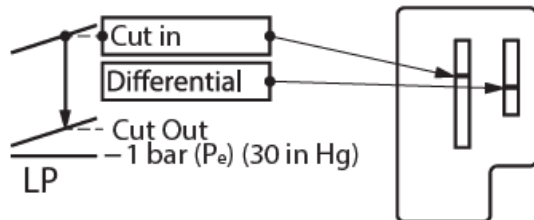
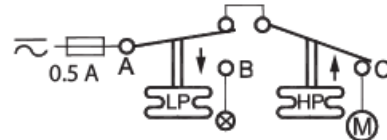
Listed refrigeration
controller 61B5

Voltage		FL	LR	Resist. load	Pilot duty
AC	DC	A	A		
240	—	8	48	8 A	3A
120	—	16	96	16 A	
—	240	—	—	—	12 W

LP+HP signal

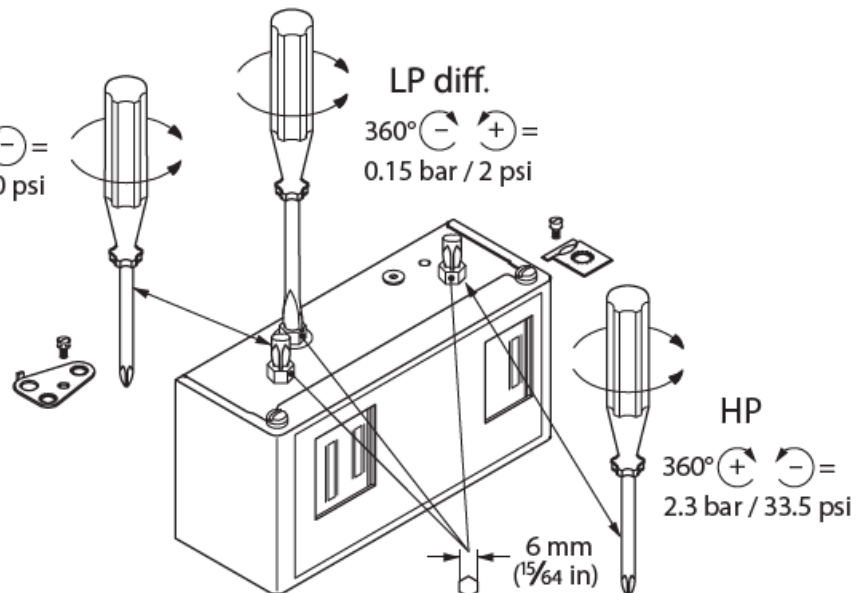


SPDT+LP signal



LP
360° (+) (-) =
0.7 bar / 10 psi

LP diff.
360° (-) (+) =
0.15 bar / 2 psi



CAUTION:

Only for selected A2L refrigerants: R455A, R454C, R1234yf.

Electrical rating

- **AC-3:** 16 A/250 V AC
- **AC-15:** 10 A/250 V AC

Voltage	Current Range	Power factor (cos phi)	Frequency
250V AC	≤ 4.0 A	PF ≥ 0,400	50Hz/60Hz
250V AC	> 4.0 to 6.0 A	PF ≥ 0,594	50Hz/60Hz
250V AC	> 6.0 to 16,0 A	PF ≥ 0,780	50Hz/60Hz

IMPORTANT NOTICE

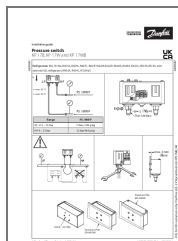
Safety requirements

1. KP pressure switches shall only be employed in the units/systems that comply with the requirements for charge limits and requirements for avoiding ignition sources of IEC 60335-2-24, IEC 60335-2-40, IEC 60335-2-89, ISO 5149, EN378-1 or equivalent.
2. Applying the overload on the KPs must be prevented. If by any chance it was damaged, the system/unit shall be stopped and KP shall be replaced as necessary.
3. Electrostatic discharge protection and Electrical leakage protection shall be surely implemented by grounding or other measures.
4. Only trained personnel are authorized to handle flammable refrigerant systems and may do the installation, maintenance and exchange of the switch by using appropriate tools.
5. It is recommended to regularly check the function of the KP switch.
6. KP pressure switches must be installed in an area with a low risk of mechanical damage.
7. Corrosion protection of KP pressure switches must be taken into account when used in a corrosive environment.
8. Cables shall not be in contact with sharp edges. The cables shall be connected with adequate stress relief to prevent pulling forces can be carried through the cable to the terminal.
9. In the event of pressure pulsation in the system, where the switch is connected, these must be effectively dumped to prevent failure of the bellows. The cycle frequency of the KP switch shall be kept as low as possible.
10. The KP switches shall not be installed in places where a high level of vibration is present.

Disclaimer

- The user is responsible for ensuring that third parties also comply with this Notice, e.g. in case the KP switches are supplied to third parties, and e.g. that all installation guides are available with the KP switches during installation. It is required that all conditions of this guide are met and secured when using KP pressure switches.
- Danfoss shall not be responsible for any kind of direct and indirect or consequential damage or loss, including, but not limited to, loss of property, production, loss of profit, human injury arising out of the explosion or fire caused by the flammable nature of refrigerant.

Documents / Resources



[Danfoss KP 17B Pressure Switch](#) [pdf] Installation Guide
KP 17B Pressure Switch, KP 17B, Pressure Switch, Switch

References

- [User Manual](#)

[Manuals+](#), [Privacy Policy](#)

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