ENGINEERING
TOMORROW

Installation guide

Electric expansion valve

Types AKV 10P, AKV 10PS

068R9824

Refrigerants :
R1233zd, R1234yf, R1234ze, R1270, R134a, R22, R23, R290, R32, R404A, R407A, R407C, R407F, R407H, R410A, R422B, R422D, R438A, R444B, R448A, R449A, R449B, R450A, R452A, R452B, R454A, R454B, R454C, R455A, R463A, R507, R513A, R513B, R515A, R515B, R516A, R600, R600a, R744

⚠Safety notes for flammable refrigerants (R454C, R454A, R1234ze, R1270, R290, R32, R444B, R452B, R454B, R600, R600a, R455A, R516A, R1234yf):

1. This product is validated in accordance to ATEX, EN 378, ISO 5149, ASHRAE 15, IEC 60335-2-x or equivalent standards.
2. Ignition risk is evaluated in accordance to ISO 5149 and IEC 60335.
3. See safety note below.

⚠Safety notes:

1. The product can be applied on systems with R454C, R454A, R1234ze, R1270, R290, R32, R444B, R452B, R454B, R600, R600a, R455A, R516A, R1234yf as the working fluid.
2. For countries where safety standards are not an indispensable part of the safety system Danfoss recommend the installer to get a third party approval of the system containing flammable refrigerant.
3. Note, please follow specific selection criteria stated in the datasheet for these particular refrigerants.
4. The valve must only be used in closed circuit refrigeration system, where no oxygen is present acc. EN 378, ISO 5149, ASHRAE 15 or IEC 60335-2-x or equivalent standards.

Max. working pressure :
PS: 90 barg / 1305 psig

Max. test pressure:
PT: 135 barg / 1958 psig

Evaporating temperature:
$t_{min.}$ -60 °C / -76 °F (on outlet side of valve)
$t_{max.}$ 60 °C / 140 °F

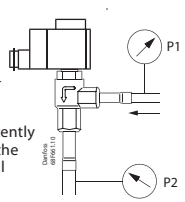
Continuous operation temperature
COT: 60 °C / 140 °F

Max. abnormal pressure
MAP: 90 bar / 1305 psig

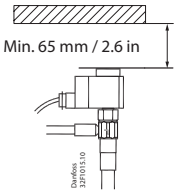
Ambient temperature range:
$t_{min.}$ -50 °C / - 58 °F
$t_{max.}$ 80 °C / 176 °F (coil dependent)

Max. operating pressure differential:
MOPD , P1- P2 : (coil dependent)
AKV 10P0 - AKV 10P6 = 35 bar / 505 psi
AKV 10P7 - AKV 10P8 = 18bar / 260 psi
AKV 10PS4 - AKV 10PS8 = 35 bar / 505 psi

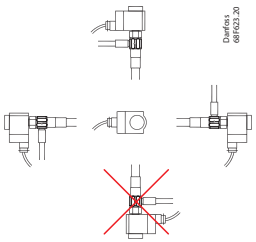
Note:
If operated consistently at or near MOPD, the service interval will decrease.



Mounting height

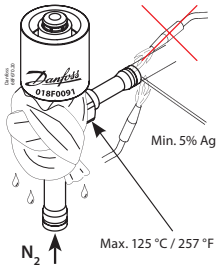


Mounting orientation

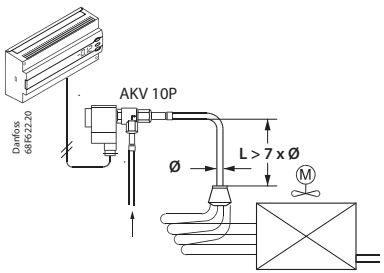


Brazing

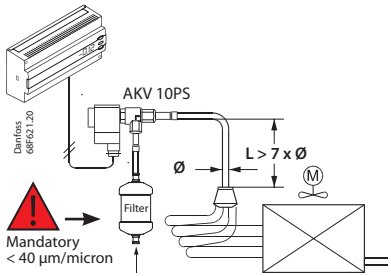
Permanent magnet coil code no.
018F0091



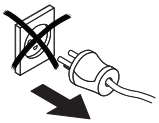
Tube length / dimensions **AKV 10P0 - AKVP8**



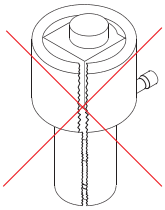
Tube length / dimensions **AKV 10PS4 - AKV 10PS8**



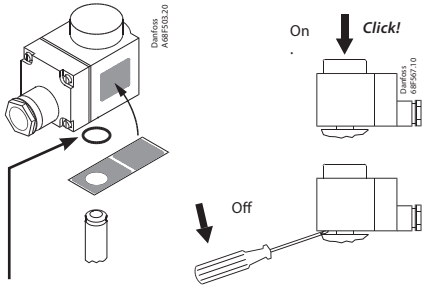
Always disconnect power from the coil when dismounted from the valve. The coil may be damaged and there is risk of injuries and burns.



Do not insulate the coil as it will overheat and burn out!

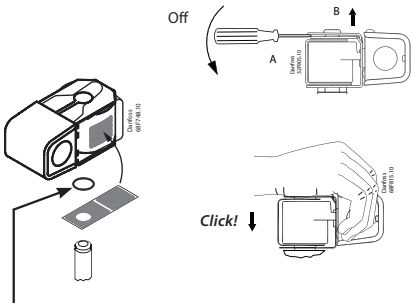


Mounting and Dismounting of standard coil



O-ring mandatory.

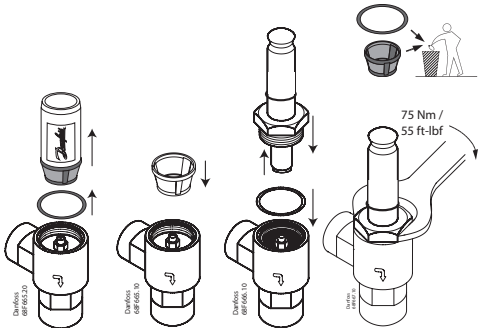
Mounting and Dismounting of UL coil



Recommended to reduce vibrations, not required for sealing.

Service

AKV 10P0 - AKV 10P8



AKV 10PS4 - AKV 10PS8

