

ENGINEERING
TOMORROW



May 2025 | Danfoss Climate Solutions for cooling

TECH INSIDER



Introduction

Danfoss Tech Insider keeps you updated with the latest news on the cooling and industrial products portfolios from Danfoss Climate Solutions. The content is intended to give a quick overview of core technical news and updates in our product portfolio, including links to relevant documentation and more information.

Danfoss Tech Insider is sent out, on a monthly basis, to ensure you are always up to date with the latest innovations and changes made to Danfoss products and solutions.

We hope you will enjoy reading Danfoss Tech Insider!

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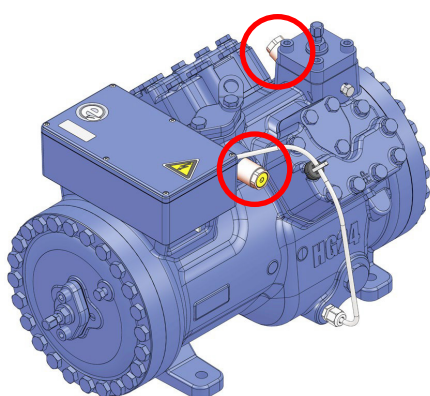
Removal of the Decompression Valve on BOCK® Transcritical CO₂ T and Subcritical CO₂ LT Compressors

The low-pressure (LP) decompression (pressure relief) valve on all transcritical BOCK® CO₂ compressors, furthermore the low-pressure (LP) and the high-pressure (HP) decompression valves on all subcritical LT (for high standstill pressures) BOCK® CO₂ compressors are technical and according to the normative not mandatory, for this reason they will be removed.

Additional without pressure relief valves the potential for a leak or malfunction is minimized. The machining on the housing will remain and will be closed by a plug.

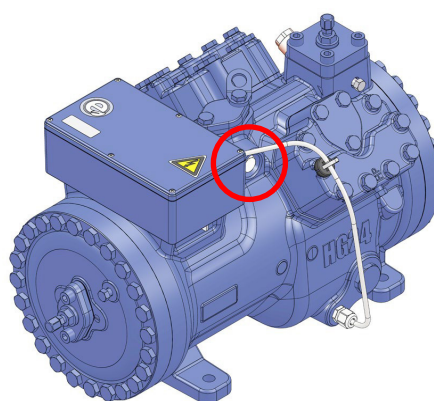
All compressors which are ordered from 5th May 2025 with regular delivery time will be affected by this adaptation. The decompression valve will be further available as a spare part and as well as an accessory for new compressors.

Example of the change on a HGX24 CO₂ T:



Old version

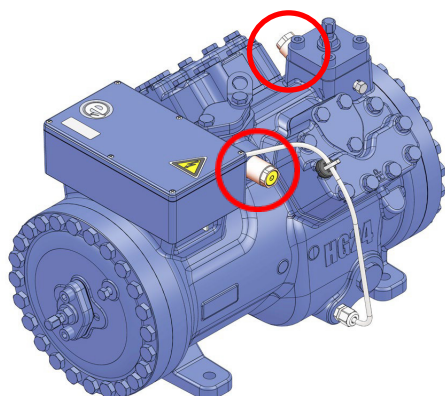
With pressure relief valves on LP & HP



NEW version

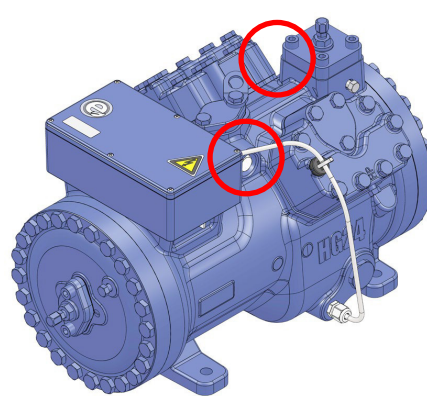
Without pressure relief valve on LP

Example of the change on a HGX24 CO₂ LT:



Old version

With pressure relief valves on LP & HP



NEW version

Without pressure relief valve on LP & HP

Affected products

CO₂ BOCK compressors of the following product ranges and derivatives:

| All Transcritical CO ₂ Compressors (HG CO ₂ T) and Subcritical CO ₂ Compressors for Higher Standstill Pressures | | | | |
|--|-------------------------------------|--------------------------------|--------------------------------|---------------------------------|
| HGX12 CO ₂ T + LT | HGX24 (P) CO ₂ T + LT | HGX34 (P) CO ₂ T | HGX46 (P) CO ₂ T | HGX56 CO ₂ T + LT |
| UL-HGX12 CO ₂ T + LT | UL-HGX24 (P) CO ₂ T + LT | UL-HGX34 (P) CO ₂ T | UL-HGX46 (P) CO ₂ T | UL-HGX56 CO ₂ T + LT |

Release of Production for AK-XM 102A and 102B Extension Modules with New Software Version 2.02



Due to end of life of existing micro controller used on board of our AK-XM 102A and AK-XM 102B extension modules and to avoid consequently the risk of a production stop, we have introduced an alternative micro controller which has led to a redesign and the release of production with new software version 2.02, while maintaining the same functionality of the products.

Products equipped with the new software version 2.02, will also present a new product version.

The products affected with the new product version accordingly are as follows:

| Part Number | Object Description |
|---------------|---|
| 080Z0008 PV08 | AK-XM 102A, Control, Ext. Module, 8DI Low |
| 080Z0013 PV09 | AK-XM 102B, Control, Ext. Module, 8DI High, Euro Conn |

The affected product will maintain the same functionality, the same product code number, while it will present a different product version reported on the backside of the module itself and on the packaging label due to the new micro controller utilized.



For a period, we might still have the present and new product version available, depending on which component (micro controller) utilized.

Finished products are available in stock.

Alsmart Firmware and Alsmart Design: New Version Release

We are pleased to announce the release of the new Alsmart® Firmware and a new Alsmart® Design version for the Alsmart® Universal Controller Platform.

The new Firmware version for all the AS-CX06 and a new correspondent version of Alsmart Design has been released with new functionalities, improvements and new configurations tools.

In addition, several Applications Notes are available for download to support and guide on the controllers' usage and settings.

This software release aims to improve stability, provides new functionalities and interfaces.



Alsmart Firmware version 1.32.000x – Key highlights

Please check the change log included in the package for more details.

- Ethernet over USB library integration
- Display as copy key
- Support for Modbus 32 bit single register r/w
- Major new functionalities on the Alsmart Service Tool (version 2.18.0019):
 - Synoptic view and editor
 - New Network configuration page
 - Improved Charts experience

Alsmart Design version 1.08.0003 – Key highlights

Please check the change log included in the package for more details.

- Modbus map files
- Advanced structures
- Visibility expressions
- MQTTS (read/write function)

Application Notes

The Applications Notes are detailed documents to support the usage and exploit Alsmart® Universal Controller functionalities.

Scripts Package

A new package of Phyton Scripts for PC is available for download with the new Firmware release. These Phyton Scripts can be used to perform various actions on the controllers via USB or via Ethernet. A dedicated Application Note is provided to explain how to use them.

Affected products:

- Alsmart Firmware version 1.32.0001 for Pro/Pro+
- Alsmart Firmware version 1.32.0002 for Mid+/Mid/Lite
- Alsmart Design version 1.08.0003

The Alsmart Firmware 1.32.000x, Alsmart Design v. 1.08.0003, the Application Notes and the Scripts Package can be downloaded from Danfoss Partner Portal: [Partner Portal | Danfoss Climate Solutions](#) from the dedicated Alsmart section.

Follow the attached instruction to get the access: [Alsmart Partner Portal - Quick setup guide](#)

Stock units will not be recalled or updated. Production update will follow within the next few weeks.

AK-PC 782A and AK-PC 782B: Web Release of New Software Version 4.15

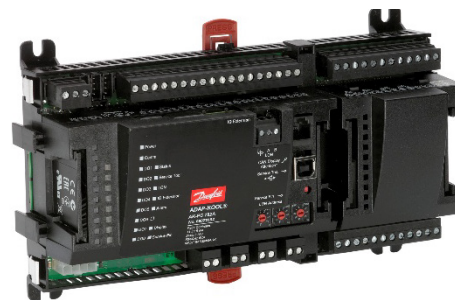
A new software version 4.15 for both the Pack controllers AK-PC 782A (PN 080Z0192) and AK-PC 782B (PN 080Z0202) is now available, with the intention of supporting the continuous development of transcritical CO₂ packs.

With this software release a new feature has been added to both the AK-PC 782A and AK-PC 782B:

- Extend P-T CO₂ relationship down to 1 bar abs, by fixing a fault in Triple Point & Critical Point area:
 - Below Triple point, Status in all suction groups will show "Pump Down" and capacity will go to zero.
 - Below Triple point, Alarms will show "Low pressure P0-Mt/Lt/It"
 - Above Critical point, Status in all suction groups will show "Normal Ctrl" and capacity will run with full speed.
 - Above Critical point, Alarms will show "High pressure P0-Mt/Lt/It"

The current AK-PC 782A and AK-PC 782B with software ver. 4.10 can be both upgraded to software ver. 4.15 if desired, by using the Service Tool. The upgrade is optional.

The software version 4.15 is available only as Web release, [download here](#).



StoreView Web (SvW) Release 3.3.1



Storeview Web (SvW) version 3.3.1, released at the beginning of April 2025, introduced enhancements in usability, configuration, and stability. However, a critical connectivity issue between Alsense and SvW - caused by a proxy-related compatibility problem - temporarily blocked Alsense users from accessing site views. As an immediate action, the release was rolled back to version R3.2.1 to minimize customer impact.

The issue has now been resolved, and preventative measures have been implemented to avoid similar disruptions in future releases. The updated version will be re-evaluated for deployment following further validation.

Link to Operation Guide: [Change log for SvW 3.3.1](#)

Timing and availability

StoreView Web (3.3.1) was released from Danfoss on April 2025 but may take up to 24 hours to take effect depending on browser versions.

StoreView Web (3.3.1) is available via browser (svw.danfoss.com) and via desktop app, available from same location. Please note that StoreView Web requires connectivity to your System Manager.

Affected products

StoreView Web supports:

- AK-SM 800 Series (Recommended / tested with VG08.095.008)
- AK-SM 800A Series (Recommended / tested with R4.2.4 package)

More information and news about the current and future updates can be found on [Danfoss.com](#).

Optyma™ Slim Pack Piping Change

As part of Danfoss' continuous quality monitoring, due to infrequent and extremely rare abnormal vibration discovered in the field under very specific working conditions, we are pleased to announce that we have extended the discharge tube piping design to ensure reliable operation for years to come, under all intended working conditions.

Description

Under specific working conditions Optyma Slim Pack models under mentioned can exhibit higher vibration levels. We have not detected any abnormal noise yet after several years of operation, but to ensure high quality products this optimization is part of our continuous product improvement process.

Affected products

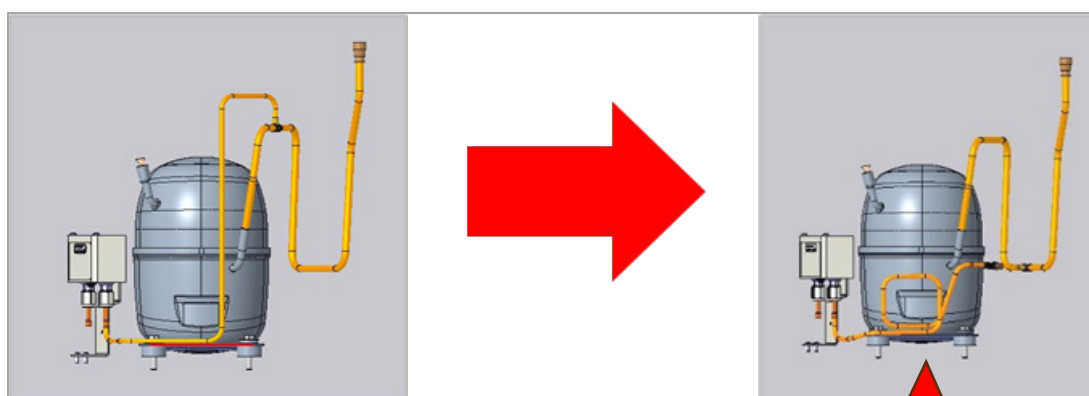
All Optyma Slim Pack models with DS compressors.



| Optyma Slim Pack W05 Designation | Optyma Slim Pack W05 Code | Optyma Slim Pack W09 Designation | Optyma Slim Pack W09 Code |
|----------------------------------|---------------------------|----------------------------------|---------------------------|
| OP-MSTM026DSW05G | 114X7234 | OP-MSTM026DSW09G | 114X7300 |
| OP-MSTM026DSW05E | 114X7235 | OP-MSTM026DSW09E | 114X7301 |
| OP-MSTM022DSW05G | 114X7233 | OP-MSTM022DSW09G | 114X7299 |
| OP-MSTM034DSW05G | 114X7237 | OP-MSTM034DSW09G | 114X7302 |
| OP-MSTM034DSW05E | 114X7236 | OP-MSTM034DSW09E | 114X7303 |
| OP-LSVM026DSW05G | 114X7227 | OP-LSVM026DSW09G | 114X7297 |
| OP-LSVM034DSW05G | 114X7228 | OP-LSVM034DSW09G | 114X7298 |
| OP-MSTM038DSW05G | 114X7326 | OP-MSTM038DSW09G | 114X7328 |

The 2 models in grey _034DS_ have already been announced and implemented.

The new design will ensure the flexibility and reliability of the brazed parts under all intended working conditions.



Gomax® Tubes for more flexibility

Optyma™ Plus Inverter - Possible Wrong Drive Settings

This notification concerns the settings of the drive in OPTYMA Plus Inverter models, which we recently identified as not being optimally configured during manufacturing. This can result in extended running times since the incorrect settings are preventing it from achieving its full cooling capacity. As a result, you may be experiencing issues maintaining desired temperatures during peak demand periods.

We want to assure you that this issue does not pose a risk to the unit's operation or longevity and that all the hardware is fully in accordance with specifications.

However, correcting these settings will allow your condensing unit to operate at its designed cooling capacity. These wrong initial controller settings can be corrected through a service visit.



Description

The setting failure may occur in three models manufactured between week 12 of 2024 and week 6 of 2025 (serial numbers ranging from 188307CG1224 to 199680CG0625 on the silver label located on the side panel of the condensing unit).

Incorrect drive controller settings:

- Parameter 3-02, description: Minimum References set at 0 when it must be set at → 60
- Parameter 3-03, description: Maximum Reference set at 0 when it must be set at → 200

Affected products

- Optyma Plus Inverter 114X4302
- Optyma Plus Inverter 114X4316
- Optyma Plus Inverter 114X4334

Customer impact

The drive settings for affected products need to be changed on the field during a service visit. To enable the field service technician the usage of LCP controller 120Z0581 is required. Alongside this controller, field service technician needs to get access to the SOP (Standard Operation Procedure), which explains the required working steps to make this change.

To change the drive – instructions

The SOP to make the change: [LINK to SOP](#)

MBC Pressure Switches, MBC Thermostats and MBV Test Valves: Data Matrix Introduction

In our continuous effort to enhance product traceability, we are introducing the Data Matrix Code (DMC) and the manufacturing date on the product labels of MBC pressure switches, MBC thermostats, and MBV test valves.



Example of the Data Matrix Code content:

061B112866AB1025A0286583

061B112866 – Danfoss code number

AB – Manufacturing Place – Grodzisk Mazowiecki (PL)

10 – Week of Year

25 – Year

A – Day of week (A-Monday, B-Tuesday, C-Wednesday...)

0286583 – Unique serial number

Example of the manufacturing date description:

AB – Manufacturing Place – Grodzisk Mazowiecki (PL)

10 – Week of Year

25 – Year

A – Day of week (A-Monday, B-Tuesday, C-Wednesday...)

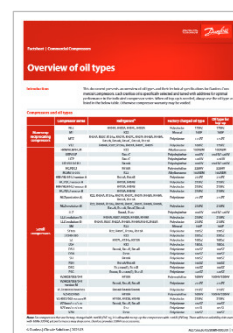
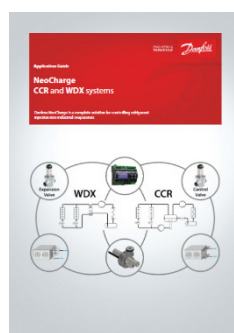
Affected are all code numbers of the following product types:

MBV1000, MBV3000, MBV5000, MBC5000, MBC5100, MBC5180, MBC8000, MBC8100

This change has been implemented in our production process starting from week 10 of 2025.

New and Updated Literature

- Catalogue - Optyma™ Slim Pack – 60 Hz & Optyma™ INVERTER – 50 Hz / 60 Hz - [LINK](#)
- Data Sheet - Pressure switch and Thermostat, type KPS - [LINK](#)
- Data Sheet - A3 Gas Sensor for general HVAC applications - [LINK](#)
- Data Sheet - Alsmart™ universal controller platform, type AS-XP05, AS-XP10, AS-PS20 - [LINK](#)
- Application Guide - NeoCharge Application Manual - CCR and WDX systems - [LINK](#)
- Data Sheet - Evaporator control, EKE 400 and EKE 450 - [LINK](#)
- User Guide - Danfoss Gas Detection Units, Basic, Premium and Heavy Duty - Direct display or Service Tool display operation - [LINK](#)
- Data Sheet - Overview of oil types for commercial compressor - [LINK](#)



Details for Additional Information

If you need additional information on Danfoss products and solutions, please **click the link below**, select your country and find contact details for our sales and service offices.

[→ Contact Danfoss](#)