

ENGINEERING
TOMORROW



September 2022 | 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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New SVA-140B Stop Valve for Large Capacity CO₂ Transcritical Systems

Danfoss is introducing a new serviceable industrial stop valve SVA-140B for large capacity CO₂ transcritical systems. The new SVA-140B stop valve has been designed specifically for high pressure CO₂ systems and can be used in heavy commercial and industrial refrigeration applications.

The stop valve will be available in:

- Butt weld/brazing in design
- Angle/straight valve housing
- Forged housing (50/65) and casting housing (80/100)
- 140 bar MWP and include +1 extra flat gasket for installation
- Serviceable and replaceable
- Flexibility with SVL platform
- Temperature range -40 °C - +150 °C

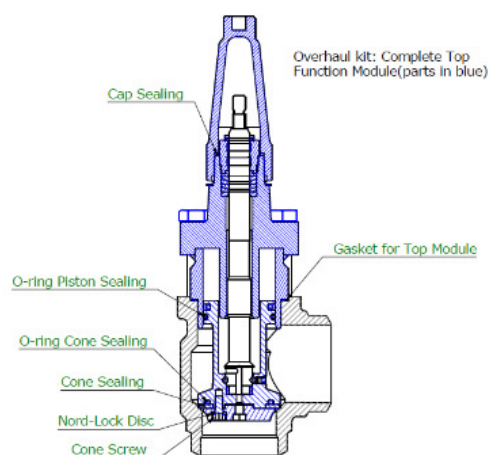


Full Serviceability Level

The Stop Valve is fully serviceable and features a balanced piston for easy opening and closing as well as a long-lasting seat design. The serviceability extends the system's life and reduces the risk of leaks and rework.

The new SVA-140B Stop Valve inherits the SVL platform's industrial level of serviceability, which is not found on commercial butterfly valves; this means that the portfolio includes Inspection Kit, Repair Kit, and Overhaul Kit.

- The **Inspections Kit** contains various gasket and sealing parts for separating and inspecting the valve
- The **Repair Kit** contains gasket, sealing, and cone replacement parts. The valve's lifetime can be extended by servicing the cone and seating
- The **Overhaul Kit** is a complete top functions module that replaces all parts except the housing, allowing full service without having to cut the pipes or replace the entire valve



	Inspection Kit FIA/SVA-140B
DN 50	148B6849
DN 65	148B6849
DN 80	148B6850
DN 100	148B6851

	Repair Kit SVA-140B
DN 50	148B6852
DN 65	148B6852
DN 80	148B6853
DN 100	148B6854

	Overhaul Kit SVA-140B
DN 50	148B6860
DN 65	148B6855
DN 80	148B6856
DN 100	148B6857

Industrial applicability

The Stop Valve is especially applicable in medium and high-pressure part of the CO2 transcritical system:

- Upstream to HP valve
- Upstream to by-pass valve
- Upstream to MT compressors
- Upstream to hot gas defrost valves

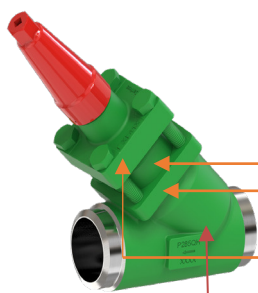
SVA-140B: New design

The SVA-140B housing is forged in DN 50/65 and casted in DN 80/100, and it is shared with the 52 bar and 65 bar ranges, with a few notable exceptions:

Housing Exceptions:

- Bolt hole size
- MWP and other marking
- Colour of primer
- Larger bolts in 42CrMo5

		Bolt size and material		
		52 bar	65 bar	140 bar
	Bolt quantity	SS A2-70	42CrMo5	42CrMo5
DN 50	4	M10	M10	M14
DN 65	4	M12	M12	M14
DN 80	8	M10	M10	M12
DN 100	8	M12	M12	M14



The SVA-140B top complete is different from the 52/65 bar

- The top complete is with long neck execution to have balanced design which ensures smooth opening and closing.
- Flat gasket is reinforced
- Thicker flange in all sizes
- PEEK cone seating/serviceable

The valves are green to distinguish them from the SVL in 52 bar (red) and 65 bar (yellow).

SVA-140B: Selecting and ordering

Product sales code numbers

	EN 10216-2 (D)		ANSI B36.10 Sch 80 (A)		EN 1254-5 (SD)		ASME B16.50 (SA)	
	ANG	STR	ANG	STR	ANG	STR	ANG	STR
DN 50	148B6817	148B6818	148B6817	148B6818	148B6827	148B6828	148B6827	148B6828
DN 65	148B6821	148B6822	148B6819	148B6820	148B6831	148B6832	148B6829	148B6830
DN 80	148B6823	148B6824	148B6823	148B6824	-	-	-	-
DN 100	148B6825	148B6826	148B6825	148B6826	-	-	-	-

The SVA-140B range can be found in Coolselector2 from September 2022.

The SVA-140B DN50-65 are available from CDC in July.

The SVA-140B DN80-DN100 will be available from Wuqing factory from September + freight (2-8 weeks).

Learn more and contact us

To learn more about how the new SVA-140B Stop Valve can help you save time and money on valve replacements, please contact your local Danfoss sales representative and access [SVA/FIA-140B | Danfoss](#)

Pressure Switches KP7BS / KP17W / KP17B / KP17WB: Setting Restrictions to Max. 32 bar



Danfoss pressure switch types KP7BS / KP17W / KP17B / KP17WB are pressure limiting safety switch devices, which in order to be compliant with the EU Pressure Directive PED, are designed to withstand a burst pressure equivalent to four times the maximum working pressure. During a periodic test to confirm compliance, we found that the lowest burst pressure of some of the above-mentioned switches have been found to be on the low end of the tolerance.

After consulting with certification authorities, it was deemed appropriate to advise our customers that the above-mentioned switches have a different maximum working pressure from week 35 2022 and should only be used where the system maximum working pressure does not exceed 32 bar.

It should be noted that the maximum setting for the mentioned switches remain unchanged at 32 bar, meaning the functionality of the switch remains unchanged.

Aside from this slight variance impacting PED compliance, the switches are fully functional and there is no risk of leaks. Additionally, the safety cut-out function of the switch is not affected by any means.

The production period of switches which are fully PED compliant at 32 bar maximum working pressure will be available from week 35, 2022, until further notice. The improvement investigation is ongoing and a notice about parts with a 35 bar maximum working pressure will be made available when ready.

We do apologize for any inconvenience caused by this issue. Should you have any questions not addressed here, please contact your local Danfoss sales representative.

AK-PC 651 Pack Controller Phase-Out

The existing AK-PC651 code no. 080G0312 is going to be phased-out due to obsolescence of the existing HW and will be migrated to a new HW platform.

A new controller named AK-PC 651A with code no. 080G0336, based on a different HW, will replace the existing AK-PC 651 with code no. 080G0312, but it will present a different layout in terms of I/Os.

There will not be dimensional changes in the product, but it will need a different wiring for the electrical connections.

Phase-out activity has started for the code no. 080G0312 and we cannot accept from now on any new orders for this code number.

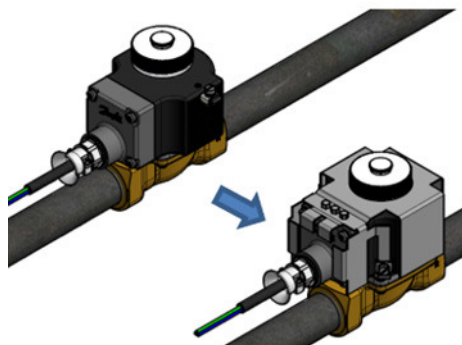
Any new orders should be placed with the new code number 080G0336.

If you have any questions regarding this information, please contact your local Danfoss sales representative.

BO ECEEx Coils are Replaced by BI IECEEx

From July 2022 Danfoss replace Zone 1 BO ECEEx Atex coils and start to offer new IECEEx / UKCAEx BI coils (Global and UK certified) (018Z85XX).

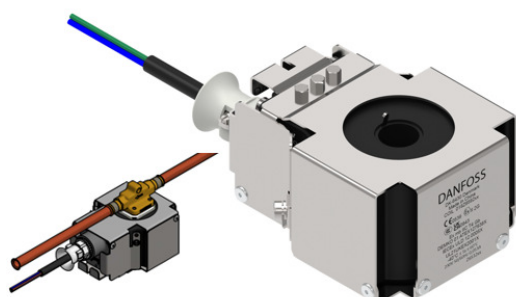
BO coils (018Z659X) can be ordered until December 31, 2022. Coils ordered will be delivered during 2023 and last day we deliver BO coils out of our warehouses is April 30, 2023.



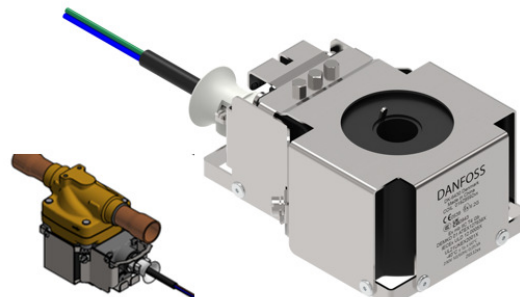
What BI coil to order to fit your Danfoss solenoid valve (13,5 mm armature system) or how to replace a BO coil.

- **Option 1:** Order "Bottom" version -> For pilots and indirect servo solenoid valves with small armature tube flanges. Type examples EV210B/BW, EV220B/BW 15-50, EV250B/BW, EVR 2-6.....
- **Option 2:** Order "Frame" version -> For direct operated or direct servo operated solenoid valves with larger armature tube flanges. Type examples EV210B 8-25, EV220B 6-22, EV221BW, EV227B, EVR 10-40.....

See table below.



Version with fixed bottom



Version with fixed steel frame

Existing BO coil sales code / description		New BI coil sales code <i>Bottom version</i>	New BI coil sales code <i>Frame version</i>
018Z6591	Coil BO 240C 240V 50/60Hz 5m Cable ATEX	018Z8585	018Z8591
018Z6592	Coil BO 230C 230V 50/60Hz 5m Cable ATEX	018Z8586	018Z8592
018Z6593	Coil BO 110C 110V 50/60Hz 5m Cable ATEX	018Z8587	018Z8593
018Z6595	Coil BO 024C 24V 50/60Hz 5m Cable ATEX	018Z8588	018Z8595
018Z6596	Coil BO 024D 24V DC 5m Cable ATEX	018Z8589	018Z8596

When you know the body type and DN size + voltage (24V AC, 24V DC, 110V AC, 230V AC or 240V AC), please see [the data sheet for details](#) what BI coil to order (Bottom or Frame version).

Danfoss@Chillventa 2022 - Meet Us at the Booth or Online, 11th-13th October!



Chillventa is coming soon and this year, we are taking the event worldwide with a hybrid experience you don't want to miss.

Our experts have prepared an exciting, jam-packed virtual experience that brings the booth right to you.

Our theme, 'Talk Green. Walk Green.' underscores our dedication to decarbonization with a commitment to share insights, ideas, and inspiration about a greener future - and provide you with concrete solutions to get started today.

No matter where you are in the world, you can:

- See cutting-edge product reveals in Industrial Refrigeration, Commercial Refrigeration, Food Retail, and Heat Pump applications
- Book one-on-one talks with our experts to unpack inspiring ideas and get in-depth solution know-how
- Watch the buzz from the booth in daily broadcasts
- Check out after-hours show highlights and insights
- Test your quick-thinking skills in an online-only game

Here are all the details:

Danfoss at Chillventa

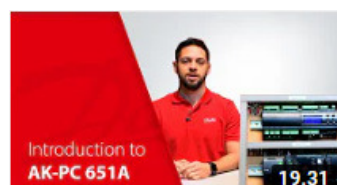
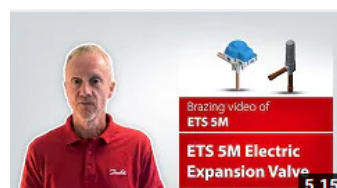
October 11th—13th

Hall 7, Booth 251 and online in our virtual booth

We can't wait to see you online! Explore the agenda and register – [HERE!](#)

Videos and infograms

- How to braze videos:
 - ETS 400L large expansion valve - [LINK](#)
 - ETS 5M electric expansion valve - [LINK](#)
 - ETS 8M electric expansion valve - [LINK](#)
 - EST 175-250L large electric expansion valve - [LINK](#)
- Introductions to AK-PC 651A - [LINK](#)
- Danfoss Multi Ejector Solution – how it works - [LINK](#)
- MCX design – Electrical wiring setup – [LINK](#)
- Low GWP walk-in cold room - [Infogram](#)
- Optyma™ Control: Connected cold rooms - [Infogram](#)



Details for Additional Information

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[Support Made Easy](#)

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