



User Guide Belimo SelectPro™

Information

Belimo is an innovative technology company listed on the stock exchange with more than 1400 employees world-wide and numerous foreign subsidiaries and distribution companies. We have been developing, producing and distributing electric actuators for air dampers and fittings for heating, ventilation and air-conditioning technology since 1975. Belimo is world-wide market leader with a comprehensive product range in this specific market.

Table of Content

Table of Content	I
Document information	II
Belimo SelectPro™ – Information for use	III
1 Start of Belimo SelectPro™	1
2 Central functions of Belimo SelectPro™	2
2.1 File	2
2.2 Settings	2
2.3 Help.....	3
3 Belimo SelectPro™ – Operation	4
3.1 Project Reference, Project Name, Created by	4
3.2 Specification of valves	4
3.3 Steam application design.....	5
3.4 Design of 6-way characterized control valve.....	5
3.5 Design of pressure-independent characterized control valve.....	6
3.6 Valve Selection.....	6
3.7 Selection of actuators	7
3.8 Project list.....	7
3.9 Water, Steam, Pressure Independent.....	8
3.10 Merged Product Schedule	8
3.11 Show custom attributes	8
3.12 Personalize attribute name	9
3.13 Selectable accessories	9

Document information

Date	Version	Performed action
Jan 23, 2015	0.1	Draft
Apr 24, 2015	1.0	Modification for SelectPro™ 3.3
Aug 13, 2015	1.1	Modification for SelectPro™ 3.4

Belimo SelectPro™ – Information for use

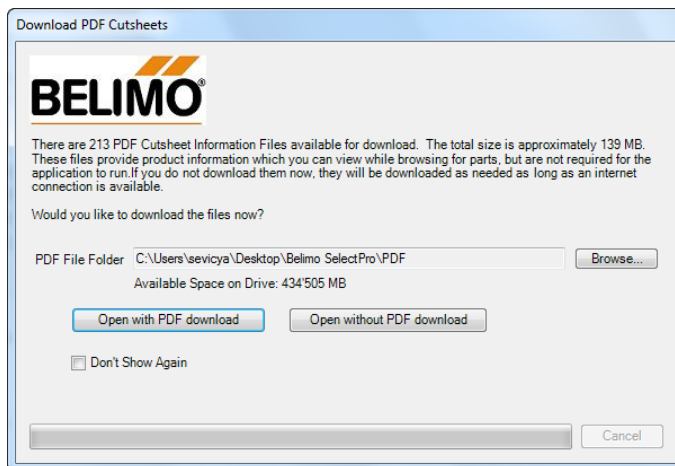
The most important functions of the Belimo SelectPro™ software are described in this document. If you have any further questions, please consult our Customer Service or contact your responsible Belimo partner.

Link to [Contact Information](#)

1 Start of Belimo SelectPro™

When the software is started, you will be offered the option of downloading all the PDF data sheets for offline operation of all the products included in the scope of the software. In the event that you do not download the data sheets, the program will attempt to download them from the internet each time the respective data sheet is opened (assuming that there is an active internet connection available).

The download of the data sheets can however also be carried out later at any time.



2 Central functions of Belimo SelectPro™

You can use the menus **File**, **Settings** and **Help** to call up additional help features and to access the most important functions.

2.1 File



New	Start a new project
Open	Open an existing project that has been saved
Save / Save as	Save a project as a .bel file
Export to Excel	Export data from Belimo SelectPro™ to an Excel file.
Download PDFs	Download the PDF data sheets; insofar as this has not already happened at the time the tool was first opened.
Print	Call up print menu
Exit	Exit SelectPro

2.2 Settings



Edit customer information	The contact information for the customer and for Belimo. This is where the contact data for the customer is to be entered. This data will be used for the printouts which you compile with the aid of the program. If you do not know your customer number, please contact us. The customer number is not required to use this tool.
Change calculation units	Units for flow and pressure can be selected.
Change language	Selection of program language
Options	Possibility of setting to a proxy server

2.3 Help



Belimo SelectPro Instructions	Download of the Belimo SelectPro™ user guide.
Info	Version information
Steam Calculation	Enter your data here for steam calculation.

3 Belimo SelectPro™ – Operation

3.1 Project Reference, Project Name, Created by



Project Reference

Project Name

Created By

Free text for attribution purposes can be entered in the fields **Project Reference**, **Project Name** and **Created by**.

3.2 Specification of valves



Project Reference

Project Name

Created By

File Settings Help

Preselection

Pattern

Application

Clear All

<input type="checkbox"/> PIQCV Pressure-independent zone valve	<input type="checkbox"/> PI6WCCV Pressure-independent zone valve	<input type="checkbox"/> PICCV Pressure-independent characterized control valve	<input type="checkbox"/> EPIV Electronic pressure-independent characterized control valve	<input type="checkbox"/> EV Pressure-independent Belimo Energy Valve™
<input type="checkbox"/> QCV Zone Valve	<input type="checkbox"/> CCV 6-way characterized control valve	<input type="checkbox"/> CV / QCV Shut-off and change-over ball valve/ Zone Valve	<input type="checkbox"/> CCV Characterized control valve	<input type="checkbox"/> H Globe valve
				<input type="checkbox"/> BFV Butterfly valve

Application Parameter

Medium Water

Flow m³/h

Differential Pressure bar

Kv

Valve Selection

Clear Valve Selection

- The use of dropdowns and input fields need not follow a sequence.
- Not all fields need to be filled out, although the valve suggestions can be further limited by more complete entries in the fields.
- The entries and selections can be modified or cancelled.

3.3 Steam application design

The screenshot shows the Belimo SelectPro software interface for steam application design. At the top, there are fields for Project Reference, Project Name, and Created By. Below this is a blue navigation bar with 'File', 'Settings', and 'Help' options. The main area is divided into three sections:

- Preselection:** A grid of valve types with checkboxes and icons. The selected valve is '6-way characterized control valve' (CCV). Other options include PIQCV, PI6WCCV, PICCV, EPIV, EV, QCV, CV/QCV, CCV, H, and BFV.
- Application Parameter:** A section with a dropdown for 'Medium' set to 'Steam', and input fields for 'Flow' (Kg/h), 'Inlet Pressure' (bar), 'Outlet Pressure' (bar), and 'Kv'.
- Valve Selection:** A section with a 'Clear Valve Selection' button.

The user interface for steam applications differs only slightly from water application. It is equipped with additional entry fields, such as inlet pressure (absolute) and output pressure (absolute).

3.4 Design of 6-way characterized control valve

The screenshot shows the Belimo SelectPro software interface for 6-way characterized control valve design. At the top, there are fields for Project Reference, Project Name, and Created By. Below this is a blue navigation bar with 'File', 'Settings', and 'Help' options. The main area is divided into three sections:

- Preselection:** A grid of valve types with checkboxes and icons. The selected valve is '6-way characterized control valve' (CCV). Other options include PIQCV, PI6WCCV, PICCV, EPIV, EV, QCV, CV/QCV, CCV, H, and BFV.
- Application Parameter:** A section with two sequences. Each sequence has a dropdown for 'Medium' set to 'Water', and input fields for 'Flow' (m3/h), 'Differential Pressure' (bar), and 'Kv'.
- Valve Selection:** A section with a 'Clear Valve Selection' button.

The user interface 6-way characterized control valves offers the option to enter flow, differential pressure and kv-value for both sequences.

3.5 Design of pressure-independent characterized control valve

BELIMO Project Reference Project Name Created By

File Settings Help

Preselection Pattern Application **Pressure Independent**

☐ PIQCV Pressure-independent zone valve
☐ PI6WCCV Pressure-independent zone valve
☐ PICCV Pressure-independent characterized control valve
☐ EPIV Electronic pressure-independent characterized control valve
☐ EV Pressure-independent Belimo Energy Valve™
☐ QCV Zone Valve
☐ CCV 6-way characterized control valve
☐ CV / QCV Shut-off and change-over ball valve/ Zone Valve
☐ CCV Characterized control valve
☐ H Globe valve
☐ BFV Butterfly valve

Application Parameter

Medium Flow l/s Differential Pressure bar

Valve Selection

The user interface for pressure-independent applications differs slightly from all other applications.

3.6 Valve Selection

Valve Selection

Connection Max Temp ps (PN) DN Leakage Rate / Leakage Class

Valve Results

Type	Pattern	ps	Flange PN	Max Temp	Kvs=16 m³/h DN = 20	Kvs=16 m³/h DN = 32	Kvs=16 m³/h DN = 40	Kvs=25 m³/h DN = 40	Kvs=25 m³/h DN = 50
CCV	2W	600 kPa	PN6	100 °C		R6032R16-B3		R6040R25-B3	
CCV	3W	600 kPa	PN6	100 °C			R7040R16-B3		R7050R25-B3
CCV	2W	1600 kPa		100 °C			R438	R439	R448
CCV	3W	1600 kPa		100 °C			R538		R548
CCV	2W	1600 kPa		120 °C			R2040-16-S3	R2040-25-S3	R2050-25-S4
CCV	3W	1600 kPa		120 °C			R3040-16-S3	R3040-25-S4	R3050-25-S4
CCV	2W	2700 kPa		130 °C	R419D				

- All of the suggested valves are displayed and can be selected by clicking on them.
- If several products are displayed, then the arrows to the left («) and to the right (») can be used to navigate.

3.7 Selection of actuators

Select Suitable Actuator for R3040-25-S4

Clear Actuator Selection

Actuator Selection

Control Type Built-In Aux Switch Safety Function Nominal Voltage

Running Time Close Off

Part Number	Nominal Voltage	Control Type	Torque/Force	Running Time / Actuating Time	IP Protection	Safety Position	Auxiliary Switch(es) Internal	Closing Pressure
SR230A	230 VAC	Open/Close, 3-point	20 Nm	90 s	IP 54	Non-Fail Safe		1400 kPa
SR230A-S	230 VAC	Open/Close, 3-point	20 Nm	90 s	IP 54	Non-Fail Safe	One	1400 kPa
SR230P	230 VAC	Open/Close, 3-point	20 Nm	90 s	IP 66/67	Non-Fail Safe		1400 kPa
SR24A	24 VAC/VDC	Open/Close, 3-point	20 Nm	90 s	IP 54	Non-Fail Safe		1400 kPa
SR24ALON	24 VAC/VDC	LON	20 Nm	90 s	IP 54	Non-Fail Safe		1400 kPa
SR24A-MP	24 VAC/VDC	MP Bus	20 Nm	90 s	IP 54	Non-Fail Safe		1400 kPa
SR24A-S	24 VAC/VDC	Open/Close, 3-point	20 Nm	90 s	IP 54	Non-Fail Safe	One	1400 kPa
SR24A-SR	24 VAC/VDC	DC 2-10 V	20 Nm	90 s	IP 54	Non-Fail Safe		1400 kPa
SR24P	24 VAC/VDC	Open/Close, 3-point	20 Nm	90 s	IP 66/67	Non-Fail Safe		1400 kPa
SR24P-SR	24 VAC/VDC	DC 2-10 V	20 Nm	90 s	IP 66/67	Non-Fail Safe		1400 kPa
SR24A-SR	24 VAC/VDC	DC 2-10 V	20 Nm	35 s	IP 54	Non-Fail Safe		1400 kPa

- Only those actuators are displayed which are appropriate for the valve that has been selected.
- Not all fields need to be filled out, although the actuator suggestions can be further limited by more complete entries in the fields.
- The entries and selections can be modified or cancelled.

3.8 Project list

Select Suitable Actuator for R3040-25-S4

Clear Actuator Selection

Actuator Selection



Control Type Built-In Aux Switch Safety Function Nominal Voltage

Running Time Close Off

Part Number	Nominal Voltage	Control Type	Torque/Force	Running Time / Actuating Time	IP Protection	Safety Position	Auxiliary Switch(es) Internal	Closing Pressure
SR230A	230 VAC	Open/Close, 3-point	20 Nm	90 s	IP 54	Non-Fail Safe		1400 kPa
SR230A-S	230 VAC	Open/Close, 3-point	20 Nm	90 s	IP 54	Non-Fail Safe	One	1400 kPa
SR230P	230 VAC	Open/Close, 3-point	20 Nm	90 s	IP 66/67	Non-Fail Safe		1400 kPa
SR24A	24 VAC/VDC	Open/Close, 3-point	20 Nm	90 s	IP 54	Non-Fail Safe		1400 kPa
SR24ALON	24 VAC/VDC	LON	20 Nm	90 s	IP 54	Non-Fail Safe		1400 kPa
SR24A-MP	24 VAC/VDC	MP Bus	20 Nm	90 s	IP 54	Non-Fail Safe		1400 kPa
SR24A-S	24 VAC/VDC	Open/Close, 3-point	20 Nm	90 s	IP 54	Non-Fail Safe	One	1400 kPa
SR24A-SR	24 VAC/VDC	DC 2-10 V	20 Nm	90 s	IP 54	Non-Fail Safe		1400 kPa
SR24P	24 VAC/VDC	Open/Close, 3-point	20 Nm	90 s	IP 66/67	Non-Fail Safe		1400 kPa
SR24P-SR	24 VAC/VDC	DC 2-10 V	20 Nm	90 s	IP 66/67	Non-Fail Safe		1400 kPa
SR24A-SR	24 VAC/VDC	DC 2-10 V	20 Nm	35 s	IP 54	Non-Fail Safe		1400 kPa

Add To Schedule Update Schedule

Product Schedule

Water														Steam		Pressure Independent		Show Valve Selection Criteria				Select Custom Attributes	
		Pos	Material No.	Qty	Tag	Datasheet	Valve Pattern	Flow	dpv	Req. Kv [m³/h]	DN Size	Valve Kvs	Actual dpv	Close Off Pressure [kPa]	Valve Material No.	Actuator Material No.							
		1	R3040-25-S4-SR230A	1			3W	9.00 m³/h	15.0 kPa	23.24	40	25	13.0 kPa	1400 kPa	R3040-25-S4	SR230A							

The combination can be added to the project list by selecting the desired actuator by double-clicking or with the "Add to project list" button.

3.9 Water, Steam, Pressure Independent

Product Schedule

Water Steam Pressure Independent															
Show Custom Attributes Select Custom Attributes															
	Pos	Material No.	Qty	Tag	Datasheet	Valve Pattern	Flow	dpv	Req. Kv [m ³ /h]	DN Size	Valve Kvs	Actual dpv	Close Off Pressure [kPa]	Valve Material No.	Actuator Material No.
1		R3040-25-S4-SR230A	1			3W	9.00 m ³ /h	15.0 kPa	23.24	40	25	13.0 kPa	1400 kPa	R3040-25-S4	SR230A

The project form contains three tabs – **Water**, **Steam** and **Pressure Independent**. The valves selected for these applications are displayed in the respective forms.

3.10 Merged Product Schedule

Product Schedule															
View Merged Schedules Show Valve Selection Criteria Select Custom Attributes															
Combined															
Material No.	Qty	Tag	Datasheet	Valve Pattern	Flow	dpv	Req. Kv [m ³ /h]	DN Size	PN	Valve Kvs	Factory Setting	Actual dpv	Closing Pressure	Valve Material No.	Actuator Material No.

From version 3.4 the product schedule offers the option to merge all forms. By clicking the check box on the top all three product schedules (water, steam and pressure independent) will be merged in one single form.

3.11 Show custom attributes

Product Schedule

Water Steam Pressure Independent															
Show Custom Attributes Select Custom Attributes															
	Pos	Material No.	Qty	Tag	Datasheet	Valve Pattern	Flow	dpv	Req. Kv [m ³ /h]	DN Size	Valve Kvs	Actual dpv	Close Off Pressure [kPa]	Valve Material No.	Actuator Material No.
1		R3040-25-S4-SR230A	1			3W	9.00 m ³ /h	15.0 kPa	23.24	40	25	13.0 kPa	1400 kPa	R3040-25-S4	SR230A

Select Custom Attributes

Water	Steam	Pressure Independent
<input checked="" type="checkbox"/> Pos <input checked="" type="checkbox"/> Material No. <input checked="" type="checkbox"/> Qty <input checked="" type="checkbox"/> Tag <input checked="" type="checkbox"/> Datasheet <input checked="" type="checkbox"/> Valve Pattern <input checked="" type="checkbox"/> ΔT <input checked="" type="checkbox"/> Flow <input checked="" type="checkbox"/> dpv <input checked="" type="checkbox"/> Req. Kv [m ³ /h] <input checked="" type="checkbox"/> DN Size <input checked="" type="checkbox"/> Valve Kvs <input checked="" type="checkbox"/> Valve Kvs 2 <input checked="" type="checkbox"/> Actual dpv <input checked="" type="checkbox"/> Close Off Pressure [kPa] <input type="checkbox"/> Valve Material No. <input type="checkbox"/> Valve Type <input type="checkbox"/> Connection <input type="checkbox"/> Actuator Material No. <input type="checkbox"/> Torque/Force <input type="checkbox"/> Accessory <input type="checkbox"/> Note	<input type="checkbox"/> Use Custom Attribute Name Custom Attribute Name:	<input type="button" value="Up"/> <input type="button" value="Down"/>
<input type="button" value="Select All"/> <input type="button" value="Unselect All"/> <input type="button" value="OK"/> <input type="button" value="Cancel"/>		

Users can use this option to select which of the available attributes will be displayed. You can change the sequence of the attributes in the project form at any time by clicking in the attribute list on the "Up" or "Down" arrow keys. The attributes will then be automatically resorted in the project form afterwards.

Be aware:

Only selected attributes will be printed and exported towards Excel.

3.12 Personalize attribute name

From SelectPro 3.4 it is offered to personalize attributes (e.g. your internal product number). There are three attributes with default value Note 1, Note 2 and Note 3. Select one of these attributes and enter your custom attribute name. By clicking the check box "Use Custom Attribute Name" the name will be changed.

3.13 Selectable accessories

In addition, Belimo SelectPro™ includes accessories for the articles. When an accessory part is selected, it will be displayed as a separate item.

Example: Valve / actuator in Position 1, accessories in Position 1.1.

Product Schedule

Water	Steam	Pressure Independent															
Qty	Tag	Datasheet	Valve Pattern	Flow	dpv	Req. Kv [m3/h]	DN Size	Valve Kvs	Actual dpv	Close Off Pressure [kPa]	Valve Material No.	Actuator Material No.	Torque/Force	Accessory			
1			3W	9.00 m3/h	15.0 kPa	23.24	40	25	13.0 kPa	1400 kPa	R3040-25-S4	SR230A	20 Nm	Select Accessories...			
1			3W	9.00 m3/h	15.0 kPa	23.24	40	25	13.0 kPa	1400 kPa	R3040-25-S4	SR230A-S	20 Nm	Select Accessories...			