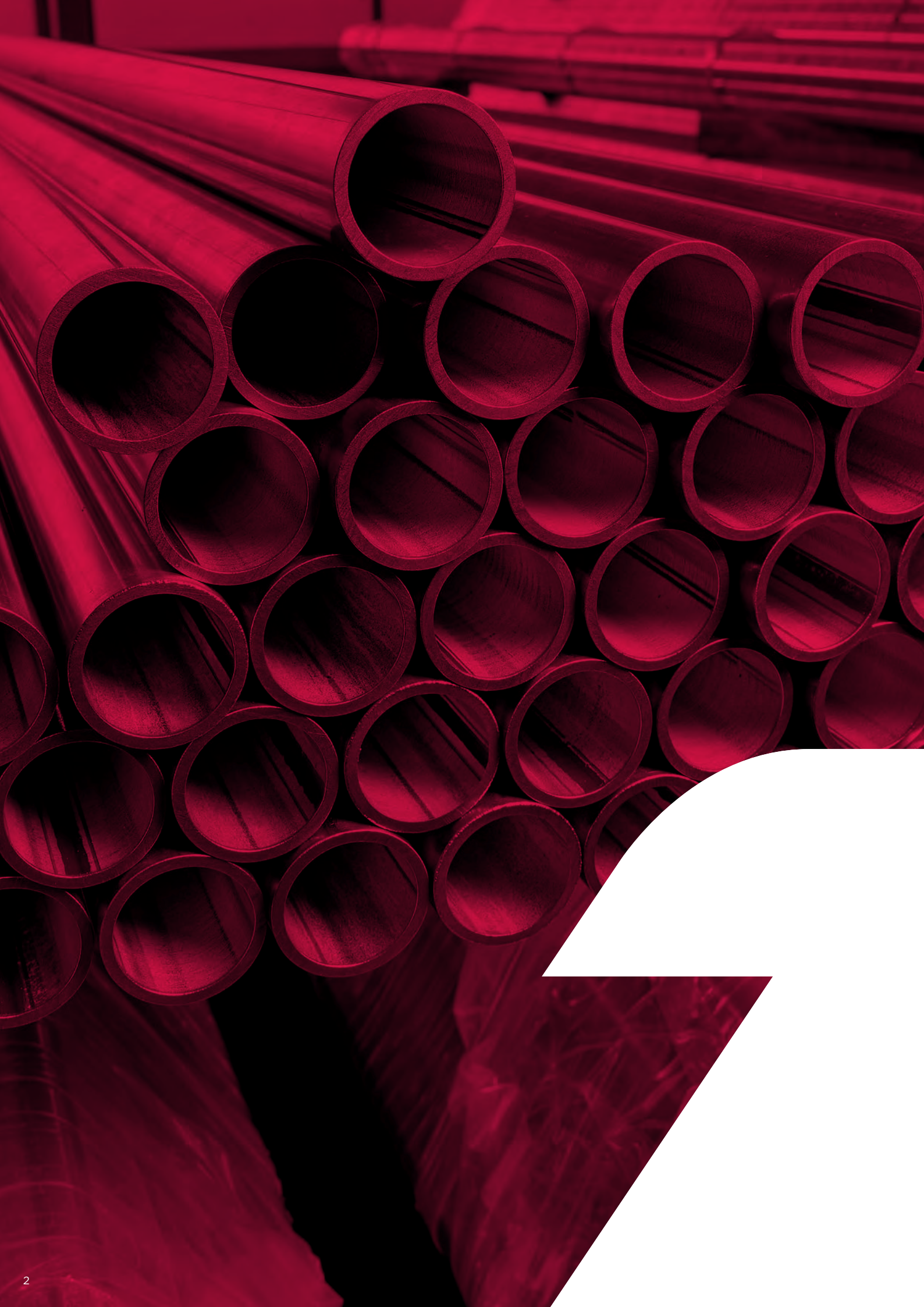


Pegler ProFlow



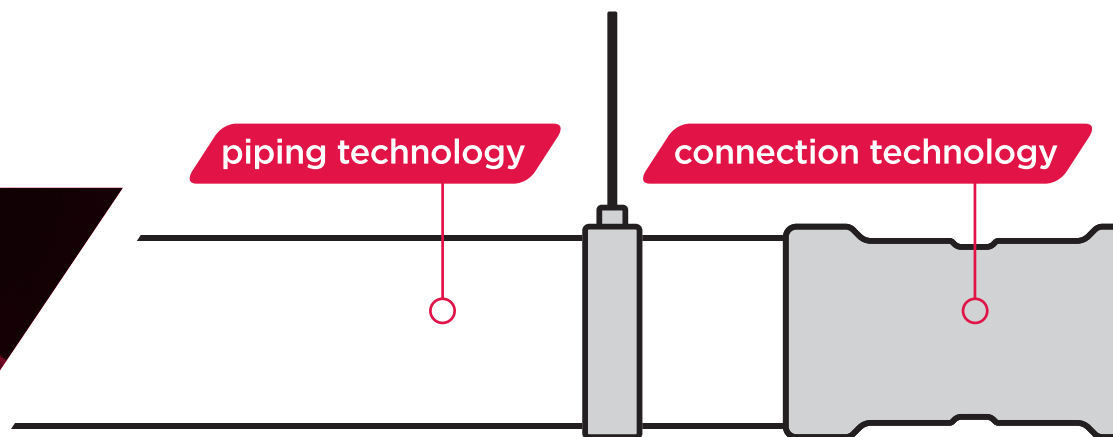


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Aalberts integrated piping systems

don't just buy
products,
buy solutions.



we are Aalberts integrated piping systems

Aalberts integrated piping systems engineers the most advanced integrated piping systems for the distribution and control of liquids and gases for key verticals, like industrial, utilities, commercial and residential. We offer fully integrated piping systems in valve, connection, fastening and piping technology. We work hand-in-hand with our customers to create the perfect integrated piping system, that meets their requirements. Our piping systems are easy to specify, install, control and maintain, saving important preparation and installation time. We meet the highest quality and industry standards needed in the selected verticals. We are the only business that truly offers its customers a single sourced and complete integrated piping solution, each and every time.

Don't just buy products, buy solutions.

our mission

With our integrated piping systems, supported by the unique Aips Digital Design Service, we ensure that you will always get the best and easiest solution for the installation of an integrated piping system. From the moment that your plan is being sketched out on the digital drawing board, you can get advice on complete and tailored solutions. With the Aips Revit Plug-in you have digital access to the complete product offering within Aalberts integrated piping systems. This information is always accessible and up to date, allowing the design of an optimal and economically attractive installation that will meet all your demands. So whether the task is project conception, installation, or on-going maintenance, we are the company that truly delivers a complete system and service offering. Our know-how, our can-do attitude, and our relentless innovation come as standard. We will sweat the small stuff in our quest to find the perfect solutions, even if we have to invent them.

This is how we deliver excellence.

our way or working

We operate from various regions around the globe: America, United Kingdom, Middle East, Asia Pacific and Europe. As we have multiple locations in many countries, we are always close to our customers. More than 3500 mission critical employees are persistent to offer the best integrated piping system. They work on our products, solutions and services every day. No matter how big the opportunity is, when we say we've got this, we won't let go until there is nothing left to learn. We improve ourselves by exchanging knowledge and experience to stay ahead of our competitors.

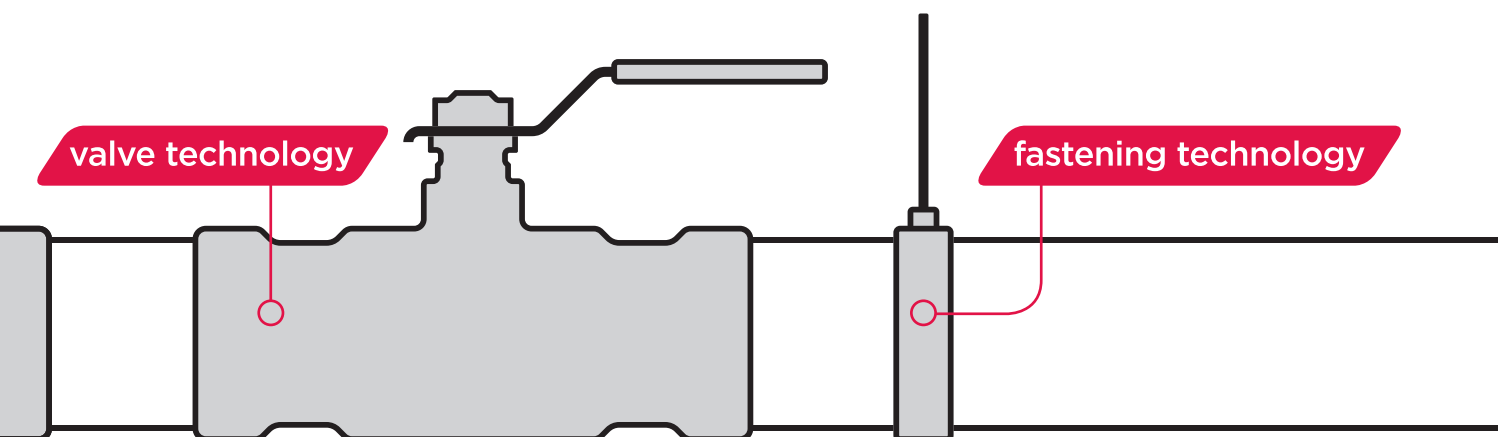
Good is never good enough.

With our sustainable spirit we contribute to circularity every single day. This belief is strongly linked to the way we do business. Rethink, reduce and recycle. We are entrepreneurial and take ownership in everything we do. We are convinced that self-development and diversity is essential.

The Aalberts way, winning with people.

the strength of Aalberts integrated piping systems

- the perfect solution for every project
- smart, fast and efficient installation
- valuable advice from the drawing board to delivery
- a very wide product range



Aalberts integrated piping systems connect: our systems are easy to combine with each other

Aalberts integrated piping systems is the combination of different companies with a strong legacy in their markets. The individual brands are well-known and each represents a long history. Together they offer the best integrated piping system for now and in the future.

Connection technology

VSH

VSH has been supplying quality products for 90 years and delivers piping systems and fittings throughout the world. In the 1970's VSH brought the well-known VSH Super compression fitting on the market which is still a best-seller, followed by the VSH XPress pressfitting, a technology that makes it possible to realize a connection even faster and more reliable.

Shurjoint

The history of Shurjoint dates back to 1974, when the founders produced their first grooved couplings. These first couplings were produced from malleable iron, the casting material of choice at this time. Shurjoint is recognized as a world leader in the design and manufacture of mechanical piping components.

Valve technology

Pegler

Pegler is well known and respected as being one of the leading manufacturers of advanced plumbing, heating and engineering products in the world. It's a reputation earned through a total dedication to quality, innovation and customer service, which has been the hallmark of the company since the establishment in the 1890's. Today Pegler is one of the key players in the valve industry, bringing a continues flow of new products to the market, like the ProFlow. The ProFlow delivers an exceptional performance and accuracy throughout the entire range.

VSH PowerPress®



material	carbon steel
suitable for	thick-walled steel
connection	press / DW-profile
dimensions	½" - 2" (DN15 - DN50)

VSH Shurjoint



material	ductile iron / stainless steel
suitable for	thick-walled steel / stainless steel / HDPE
connection	groove
dimensions	½" - 104" (DN15 - DN2600)

Aalberts integrated piping systems range

We offer a series of product ranges that:

- connect seamlessly
- are available in dimensions from 6 mm up to 104" (DN2600)
- can be used for thick-walled pipe and thin-walled metal or plastic tube
- have press, compression, groove and push connections
- can be expanded with valves and accessories
- are BIM ready



Pegler Terrier



material	brass
suitable for	copper pipe / multi layer pipe (for push connections)
connection	push / threaded / compression
dimensions	8 - 15 mm

Pegler Valve



material	brass / brass (DZR) / cast iron / copper stainless steel / bronze
suitable for	range of pipe depending on the connection tech used
connection	threaded / push / press / flanged / compression / lugged / wafer
dimensions	DN15 - DN600

Pegler ProFlow



material	brass / ductile iron
suitable for	steel / stainless steel / copper
connection	thread / press / flange
dimensions	DN15 - DN600

VSH XPress



material	carbon steel / stainless steel / copper / cuprifer
suitable for	thin-walled steel / carbon steel / stainless steel / copper / cuprifer
connection	press / M-profile
dimensions	12 - 108 mm (DN10 - DN100)

VSH MultiPress



material	PPSU / brass
suitable for	multilayer tube
connection	press / U & TH profile
dimensions	14 - 63 mm (DN10 - DN50)

VSH Tectite

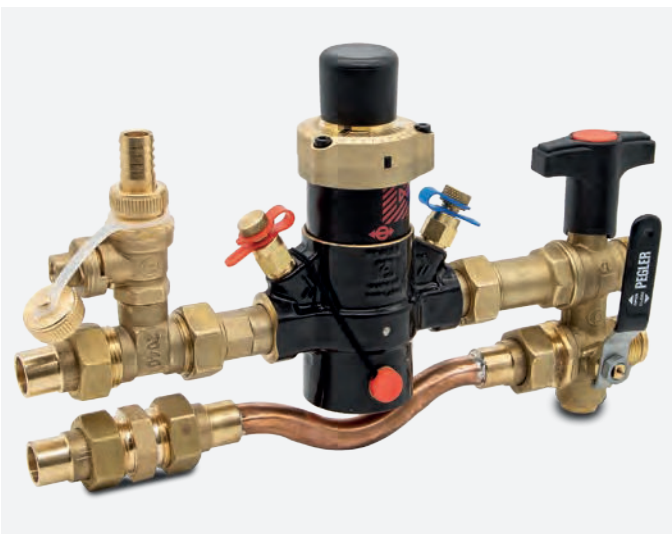
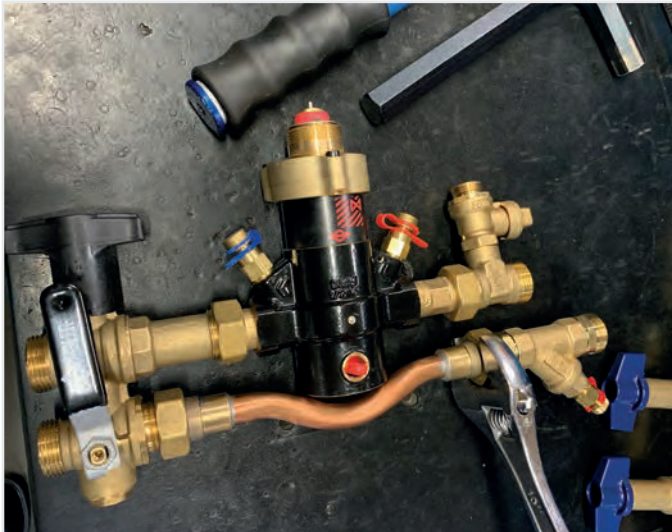


material	brass / stainless steel / copper
suitable for	thin-walled stainless steel / copper
connection	push
dimensions	10 - 54 mm (DN8 - DN50)

Pegler ProFlow

The Pegler ProFlow valve range offers installers a comprehensive balancing valve solution. Pegler ProFlow valves are manufactured in the UK at the Aalberts integrated piping system facility using the latest manufacturing processes, including the use of extruded material such as low-lead DZR Brass.

Our end-to-end process provides continuity of British manufacturing and testing, ensuring the highest level of reliability and quality. All elements of the valve manufacturing process from design through to expert production ensures accuracy, flexibility and system efficiency essential to all building applications.



Pegler ProFlow MVS40 1600

The Pegler ProFlow MVS40 valves are a range of prefabricated assemblies that have been designed to control and maintain Fan Coil Units or other terminal units. Introducing the NEW Pegler ProFlow MVS40 1600 (modular valve solution) which combines all the valves required to control and maintain a Fan Coil Unit or other hydronic terminal units.

The ProFlow MVS40 1600 MVS are designed to be connected directly to all terminal unit and positioned over a condensate drip tray.

The ProFlow MVS40 1600 series includes an axial pressure independent control valve (PICV) to maintain design flow rates and provide modulating temperature control.

The valve set includes isolation on both flow and return legs with a flushing bypass, and offered with and without strainers.

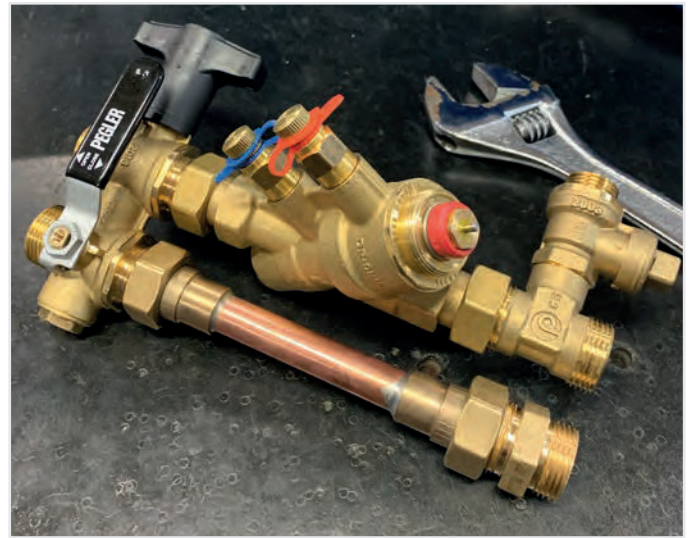
The ProFlow MVS40 1600 also includes a drain point and when connected to a terminal unit allows an outlet for back flushing. The valve set includes isolation on both flow and return legs with a flushing bypass. The MVS also includes a drain point and when connected to a terminal unit allows an outlet for back flushing.

advantages of the Pegler ProFlow MVS40 1600

- DZR brass
- pressure rated to PN16
- allows full bore high velocity flushing
- flushing in either direction BSRIA guide BG29
- complete with a 1600 PICV
- flow-control with a hysteresis of 5.0% to 7.7%
- M30 x 1.5mm actuator mount
- 100% BMS valve override authority
- built-in "fast-flush" full-bore integrated flushing bypass
- integral in line isolation valve
- toggle between bypass & dynamic functions
- complete with locking pin for anti-tamper
- visible on the rotation sleeve
- available with press, push, male threaded and soldered connection
- variants both with and without a strainer

Pegler ProFlow MVS40 902

The tried and trusted Pegler ProFlow MVS40 902 PICV (Pressure Independent Control Valve) comes complete with a venturi measurement, this allows the a flow reading directly through the valve. Providing significant time savings when it comes to verifying the flow and improved accuracy.



advantages of the Pegler ProFlow MVS40 902

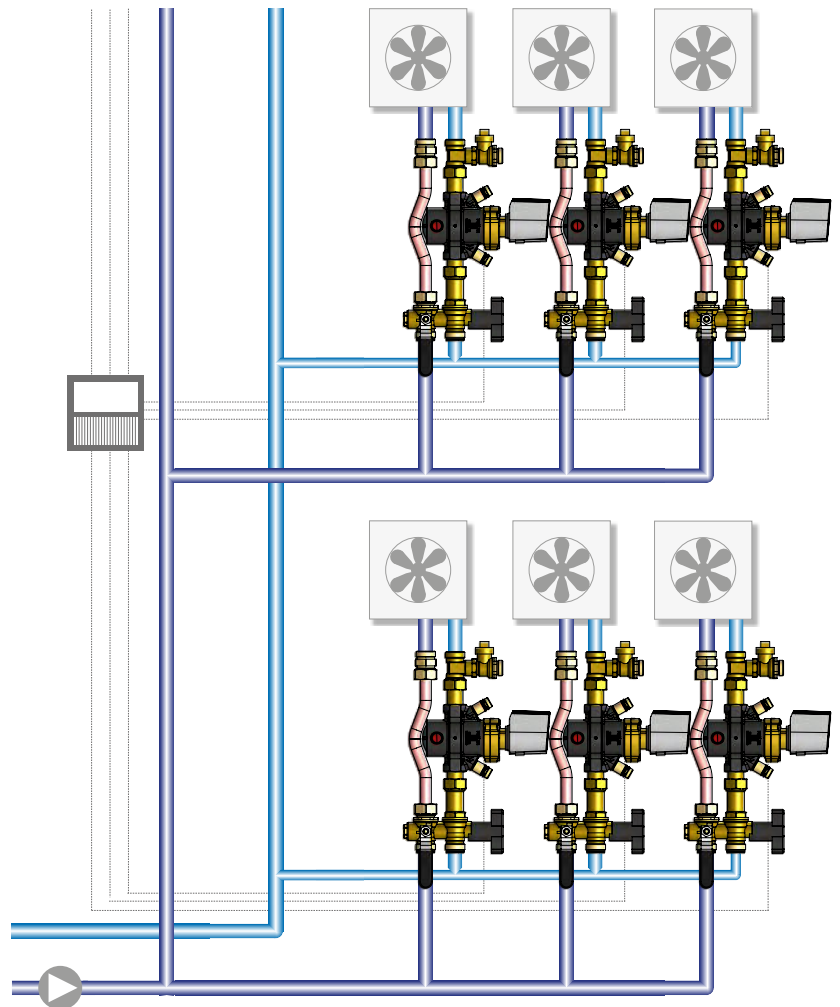
- DZR brass
- pressure rated to PN16
- built in venturi for flow measurement
- flow-control with a hysteresis of 5.0% to 7.7%
- M30 x 2.5mm actuator mount
- 100% BMS valve override authority
- visible on the rotation sleeve
- available with press, push, male threaded and soldered connection
- variants both with and without a strainer



dynamic applications

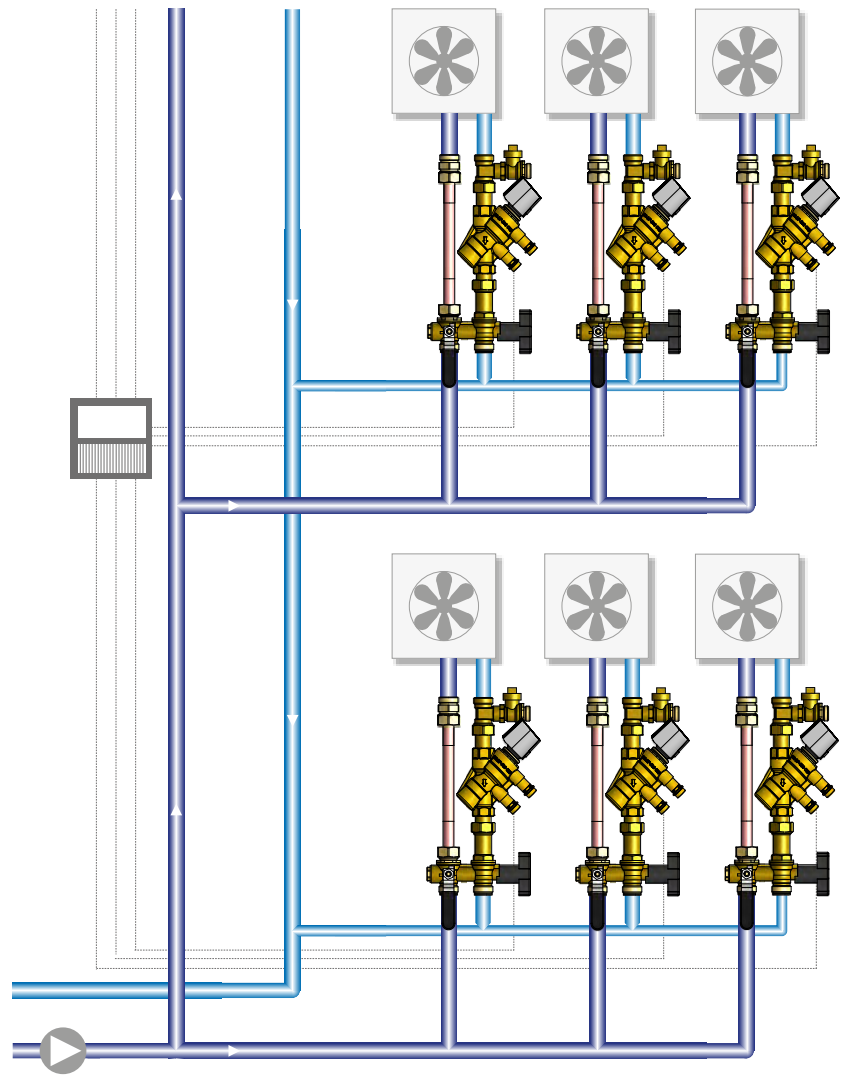
fan coil system with variable flow

The 1600 MVS is suitable for applications that require simplified flushing and maintenance access. The integrated bypass technology allows various flushing steps to be completed in minutes rather than hours.



fan coil system with variable flow

The 902 Pegler ProFlow PICV also provides hydronic balancing in variable flow systems in order to ensure the optimum flow is achieved at all load conditions, in the terminal units. The actuator controlling the two-way valve inside the ProFlow PICV is connected to a room thermostat or a BMS system. By opening or closing the two-way valve in reference to the room temperature, the required temperature is achieved. The 902 MVS is suitable for applications that need regular flow verification, with the venturi measurement built into the dynamic valve.







Pegler ProFlow

technical
data

applications



heating installations

Pegler ProFlow Valves are used in heating applications and are suitable for water and other neutral liquids. For media other than water, measuring corrections must be applied

Pegler ProFlow 1600 PICV (pressure independent control valve)

connection	female thread
operating temperature	-10°C to +90°C
max. operating pressure	16 bar

Pegler ProFlow PS902 PICV (pressure independent control valve)

connection	female thread
operating temperature	-10°C to +90°C
max. operating pressure	16 bar



cooling installations

Pegler ProFlow Valves are used for cooling applications and suitable for water and other neutral liquids or water with glycol. For media other than water, measuring corrections must be applied

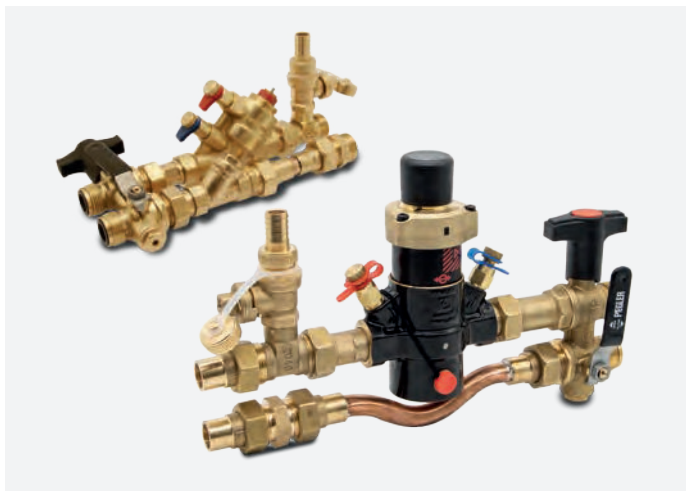
Pegler ProFlow 1600 PICV (pressure independent control valve)

connection	female thread
operating temperature	-10°C to +90°C
max. operating pressure	16 bar

Pegler ProFlow PS902 PICV (pressure independent control valve)

connection	female thread
operating temperature	-10°C to +90°C
max. operating pressure	16 bar

technical characteristics



Pegler ProFlow 1600 MVS

The MVS unit is a DZR brass, and pressure rated to PN16. The MVS unit allows full bore high velocity flushing in either direction in accordance with BSRIA guide BG29.

The MVS unit is complete with a PICV which offers close flow-control with a hysteresis of 5.0% to 7.7% and incorporates an M30 x 2.5mm actuator mount with 100% BMS valve override authority.

The PICV also incorporates a built-in “fast-flush” full-bore integrated flushing bypass and an integral in line isolation valve that are separate from the dynamic PICV cartridge.

The bypass and dynamic functions of the PICV are individually selectable via a rotating quarter turn action, offering a locking pin for anti-tamper purposes. The selected function is visible on the rotation sleeve.

The PICV set point is permanently visible with the actuator mounted.

The MVS unit is also available with press, push, male threaded and soldered connection options for both heat-free and traditional pipework installation.

The MVS will also offer variants both with and without a strainer.

Pegler ProFlow 1600 PICV

The valve is suitable for automatic pressure independent balancing, modulating control, measurement and flow shut off. The body of the Pegler ProFlow 1600 PICV is made of dezincification resistant brass CW511L. The valve internals include a diaphragm mechanism made of polyphenylene sulphide (PPS). The valve is suitable for actuation and has an adjustable position indicator with 10 set points. It is also equipped with two self-sealing test points for flow measurement which include colour coded caps.

markings

marking on valve body:	pressure rating (PN) and size (DN), setpoint indicator, flow
marking on shuttle:	direction symbols for ‘flush’, ‘shut-off’ and ‘dynamic operation’

connections

The valve can be supplied with female threaded connections, VSH XPress connections.

installation guidelines

Pegler ProFlow MVS40 1600

Unpack the valve and check that the flow paths and valve threads are clean and free from debris. Check the body markings and product tag, where fitted, to ensure that the correct valve has been selected for installation.

Before valve installation the pipework to which the valve is to be connected should be inspected for cleanliness and freedom from debris. The valve is marked with a directional flow arrow on the body. The valve will function correctly providing it is fitted so that the fluid transported follows the indicated flow direction.

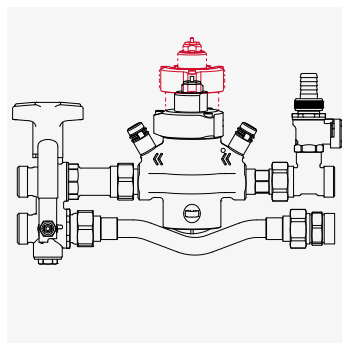
ProFlow valves are manufactured to exacting standards and, therefore, should not be subjected to misuse. The following should be avoided:

- Careless handling of the valve
- Dirt and debris entering the valve through the end ports
- Excessive force during assembly and operation

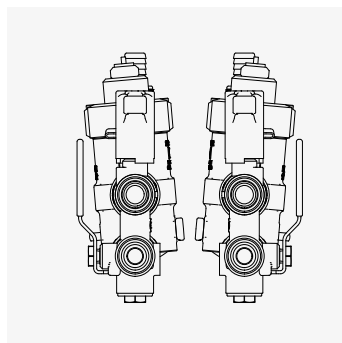
Use suitable hangers close to both ends of the valve in order to remove stresses transmitted by the pipe. Confirm that the pipe threading length is correct to avoid excessive penetration of the pipe into the valve that would otherwise cause damage.

Care should be taken to apply jointing compound to the pipe only and not in the valve threads. Surplus compound will then be forced outwards and will not enter the valve. Overuse of compound can lead to valve failure on the body ends.

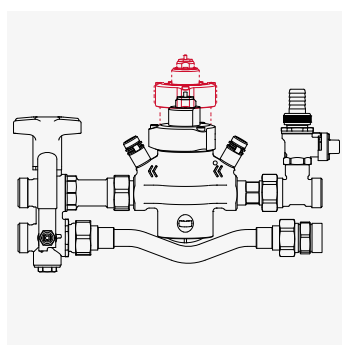
installation



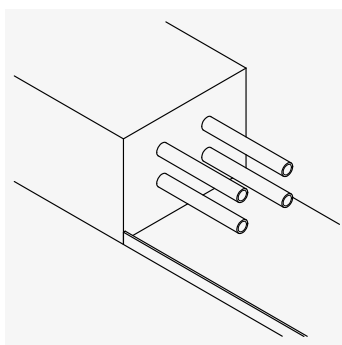
1. An Arrow on the ProFlow 1600 PICV body located on the return will indicate the direction of the MVS mounting.



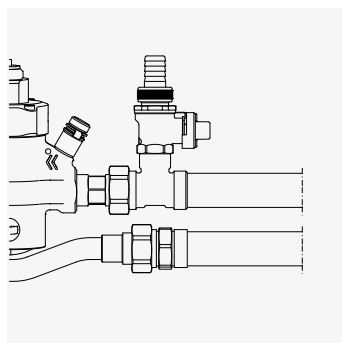
2. ProFlow 1600 MVS can be mounted vertically (or), also horizontally dependant on the fan coil manufacturer.



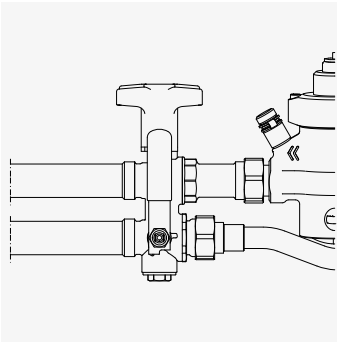
3. The ProFlow MVS is provided with 40 mm centres and meets all compact fan coils designs. This allows full flexibility when avoiding ceiling height restriction.



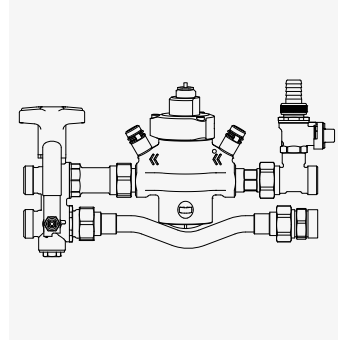
4. Ensure that the pipe work to the terminal unit is prepared correctly, cutting de-burring and chamfering in accordance with the connection type requirements.



5. Installation to the fan coil unit can be made using the eurocone/ solder adapters supplied. Alternative connections such as threaded, flexible, press and push connections are also possible via the use of adapters (not supplied).



6. Connection to the supply system can be made using either traditional soldering or via the use of flexible, press* and push-fit* connections.
*requires the use of the flat faced connectors supplied with the unit.

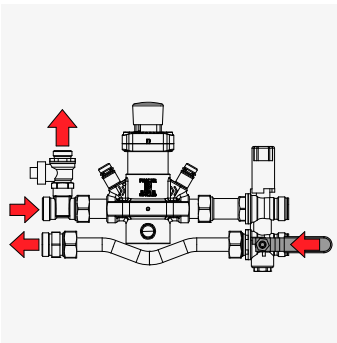


7. It is recommended that the installation of the actuator is left until the flushing and commissioning procedure has been completed. The 1600 PICV should remain in by-pass mode until flushing is completed.

flushing

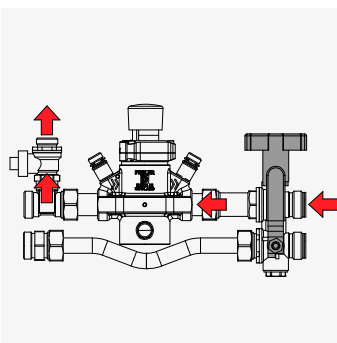
The valve set is configured so that it can be easily flushed out of circuit (by-passed) and also to allow forward and back flushing of the connected terminal unit.

mains flush



- To perform a mains flush
1. Isolate the return leg using the isolation valve
 2. Set the flushing by-pass valve, so that the handle is parallel to the axis of the by-pass flow, this also isolates the flow leg.

forward flush to drain

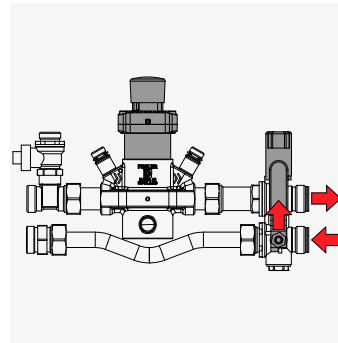


The valve set and attached coil can be forward-flushed to drain in order to purge and flush the attached coil.

3. Isolate the return leg
4. Set the flushing by-pass handle parallel to inlet / outlet.
5. After attaching a hose to the blow down valve using the supplied hose barb, open the blow down valve.

Be sure to isolate and cap off the blow down valve before returning the valve set to service.

back flush to drain



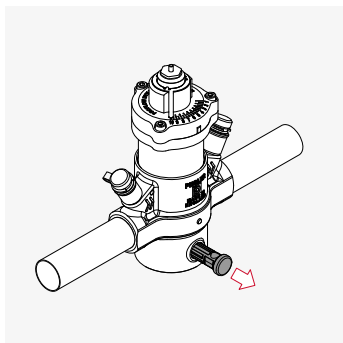
6. Ensure the PICV is in by-pass position
7. Set the flushing by-pass valve, so that the handle is parallel to the axis of the by-pass flow.
8. Open the return isolation valve
9. After attaching a hose to the blow down valve using the supplied hose barb, open the blow down valve.

Be sure to isolate and cap off the blow down valve before returning the valve set to service.

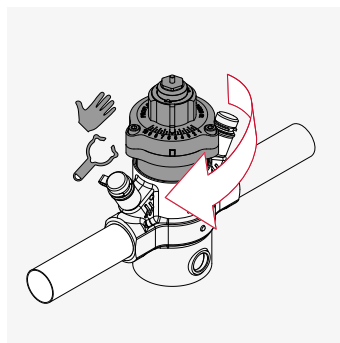
After flushing, water quality should be maintained in accordance with best practice.

engage operational mode

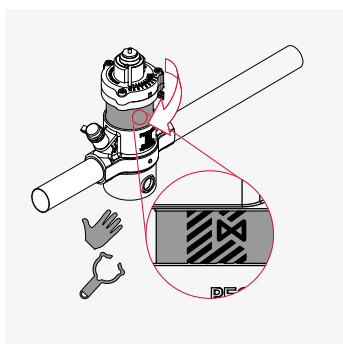
system flushing



1. The 1600 valve is supplied in Bypass position. After installation it should remain in Bypass position until all system flushing operations are completed. Then follow the steps detailed below to enable the dynamic balancing mode, commission and verify the valve.

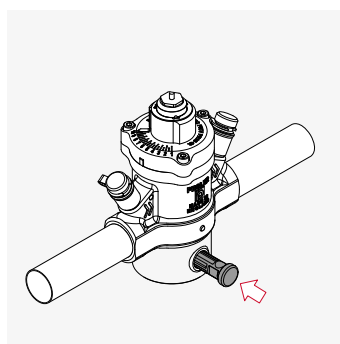


3. Continue the clockwise motion until the head goes no further, at this point the PICV will activate into the operational mode. This can be completed by hand or with the use of an operational tool (see accessories).



2. To activate the operational mode remove the locking pin.

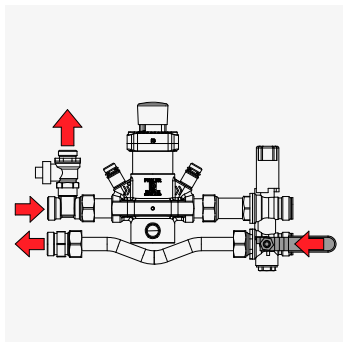
By turning the head clockwise the exposed shuttle markings will demonstrate the isolation mode, the isolation function is active when the isolation symbol is fully visible and the bypass symbol is hidden.



important note - The locking pin must be reinserted to ensure anti tamper and security.

caution - Suitable hand protection should be worn when operating valves used in extreme temperature applications.

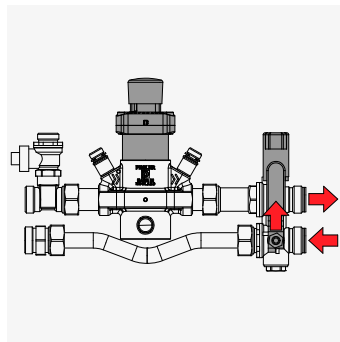
filling and purging



Once the system has been back flushed it is prudent to fill the PICV valve with treated water. To do this

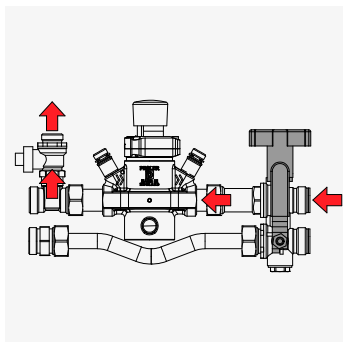
1. Set the flushing by-pass valve, so that the handle is parallel to the axis of the by-pass inlets.
2. Switch PICV to operational mode.

normal operation

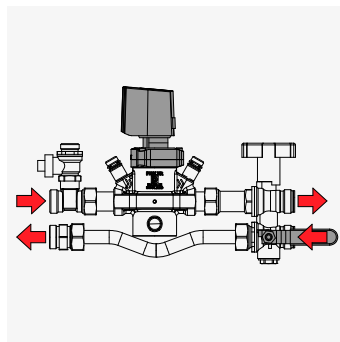


The valve set should be configured as follows during normal operation.

5. Return isolation valve is open.



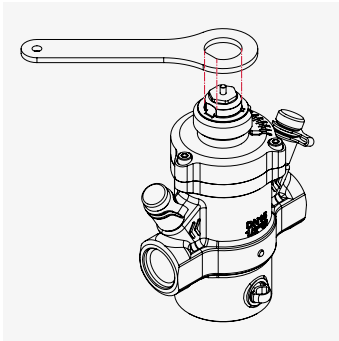
3. Open the blow down valve to allow a small amount of treated water to be drawn into a bucket the entire valve set is full of the treated water.
4. Close the blow down valve and ensure that the cap is replaced.



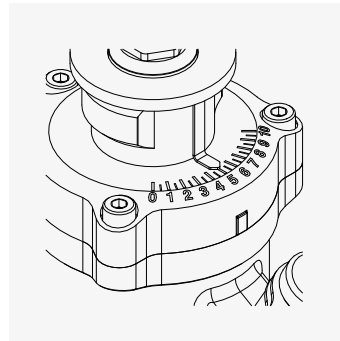
6. The flushing by-pass valve is set, so that the handle is parallel with the axis of the valve inlets.

commissioning

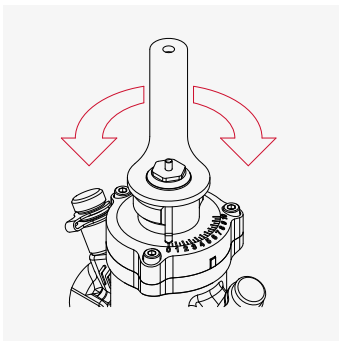
regulation



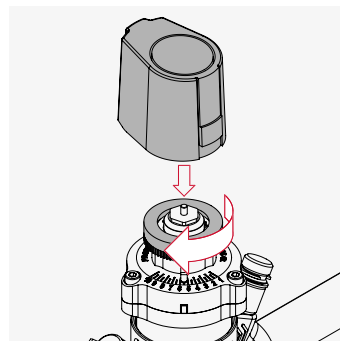
1. Using a setting tool, the spindle can be rotated clockwise and anticlockwise to achieve the desired setting point.



3. The setting indicator allows for accurate positioning from 0 to 10, the clear markings remain in position and preserves the flow setting of the valve even when in isolation or bypass mode, avoiding further costly time on re commissioning and maintenance.



2. The Pegler ProFlow 1600 valve has a visible position indicator displayed on the head of the valve, which is visible both with and without an actuator installed.

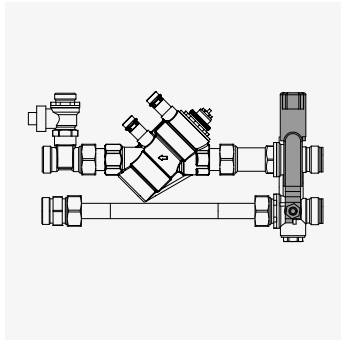


4. Simply screw the adapter ring onto the valve and fit the thermal head onto it. Rotate the lower ring until you hear a click. There is no need for any adapters when the valve and actuator have matching M30 x 1.5 threads.

operation

The valve set is configured so that it can be easily flushed out of circuit (by-passed) and also to allow back flushing of the connected terminal unit. The valve set should only be forward flushed to fill and purge the valve with treated water.

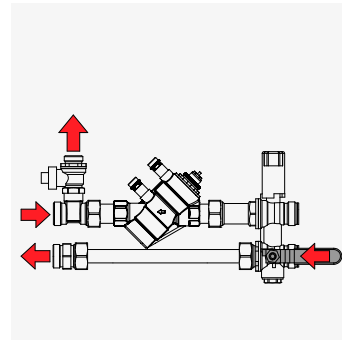
mains flush



- To perform a mains flush
1. Isolate the return leg using the isolation valve.
 2. Open the flushing by-pass valve, so that the handle is parallel to the axis of the by-pass flow, this also isolates the flow leg.

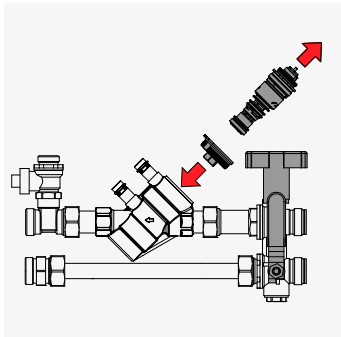
After flushing, water quality should be maintained in accordance with best practice.

filling and purging



- Once the system has been back flushed it is prudent to fill the PICV valve with treated water. To do this
7. Close the flushing by-pass valve, so that the handle is parallel to the axis of the by-pass inlets.
 8. Open the PICV valve.
 9. Open the blow down valve to allow a small amount of treated water to be drawn into a bucket the entire valve set is full of the treated water.
 10. Close the blow down valve and ensure that the cap is replaced.

back flush to drain

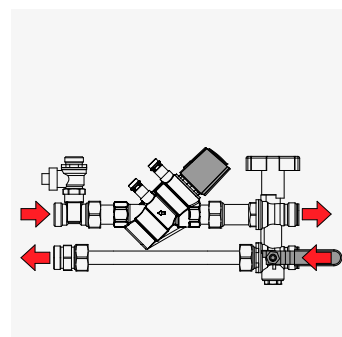


The valve set and attached coil can be back-flushed to drain in order to purge and flush the attached coil.

3. Close the PICV either using the knob provided or by driving the actuator closed.
4. Open the flushing by-pass valve, so that the handle is parallel to the axis of the by-pass flow.
5. Open the return isolation valve.
6. After attaching a hose to the blow down valve using the supplied hose barb, open the blow down valve.

Be sure to isolate and cap off the blow down valve before returning the valve set to service.

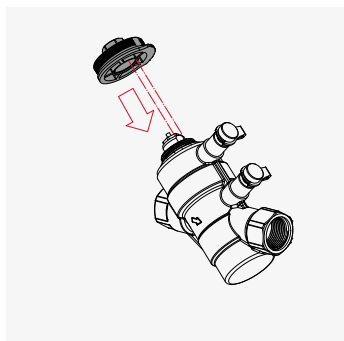
normal operation



- The valve set should be configured as follows during normal operation.
11. Return isolation valve is open.
 12. The flushing by-pass valve is closed, so that the handle is parallel with the axis of the valve inlets.
 13. Any override clutches on the PICV actuator are disengaged, the valve will be positioned as determined by the BMS controller.

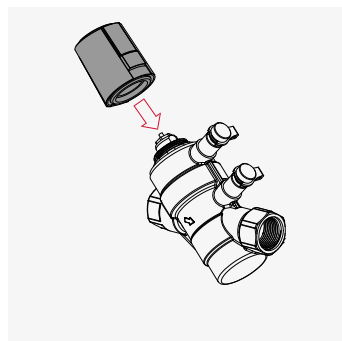
operation of the control valve

commissioning



Place protect / setting cap on to the 902 headwork.

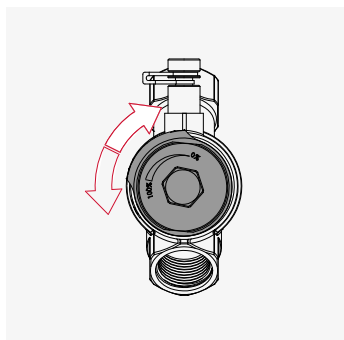
removing the cartridge



Using a setting tool, the spindle can be rotated clockwise and anticlockwise to achieve the desired setting point.

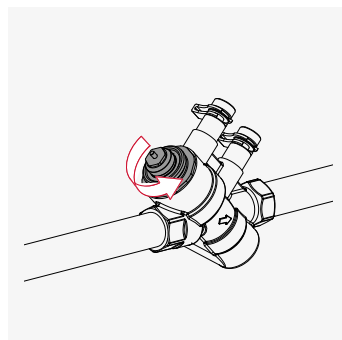
(see accessories page 43 for tool)

regulation

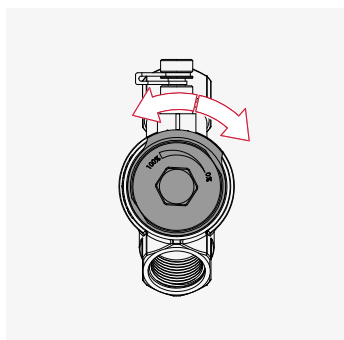


Using a setting tool, the spindle can be rotated clockwise and anticlockwise to achieve the desired setting point.

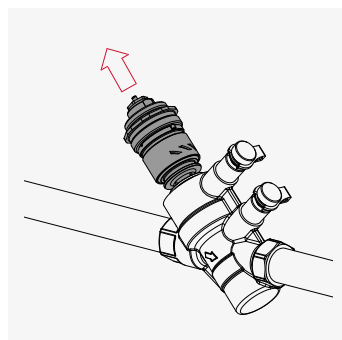
(see accessories page 43 for tool)



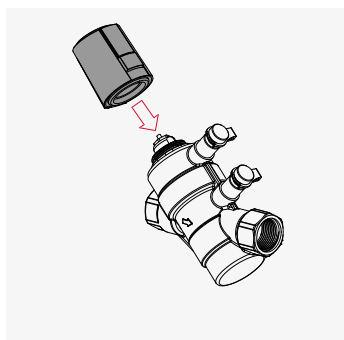
Removing the cartridge - Ensure the system line has been isolated and drained before removing the cap. Use a 37mm spanner to remove valve cap and undo to expose the cartridge.



The setting indicator allows for accurate positioning from 0 to 10, the clear markings remain in position and preserves the flow setting of the valve even when in isolation or bypass mode, avoiding further costly time on re commissioning and maintenance.

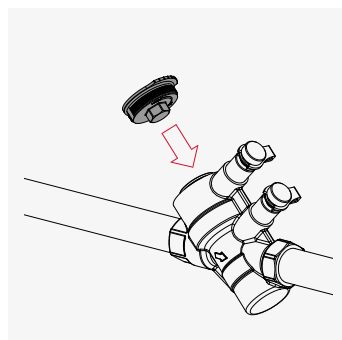


Remove the cartridge and use then use the reverse of setting cap to ensure the valve is sealed. The flushing process for the valve can be initiated. The steps can then be reversed to reinstall the cartridge.



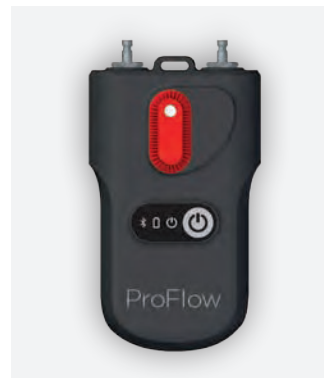
Simply screw the adapter ring onto the valve and fit the thermal head onto it. Rotate the lower ring until you hear a click.

There is no need for any adapters when the valve and actuator have matching M30 x 1.5 threads.



Then use the reverse of setting cap to ensure the valve is sealed.

Pegler ProFlow BC3 balancing computer



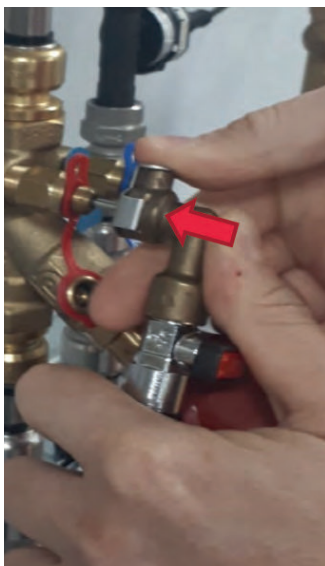
handle position: measure



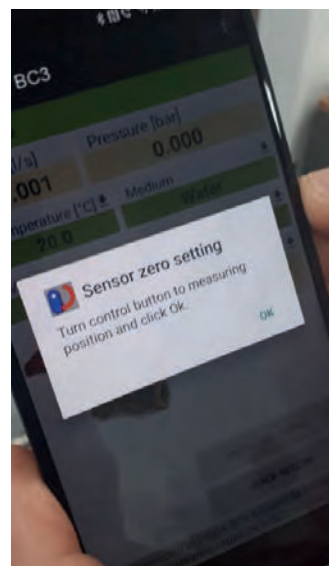
handle position: zero

Verification of flow can be done using a suitable flow measurement device and utilising the built-in test points on the valve. The Pegler ProFlow BC3 balancing computer is supplied with pre-programmed loss coefficient data (Kvs values) allowing a direct measurement of flow rate to be obtained, ensuring the system is balanced correctly to achieve optimum efficiency. To download the app search for Pegler ProFlow BC3 on either Google Play or the App Store.

connecting the Pegler ProFlow BC3 balancing computer



1. connect the hoses to the valve using needle connectors (included).



2. zero the flow meter and bleed air from the hoses. *(See handle positions top right).

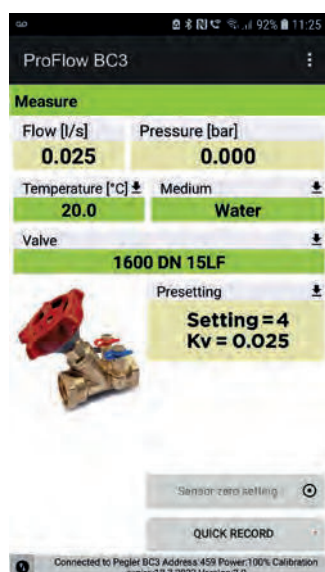


3. select the valve (where valve data is not available, a direct Kv can be used for verification, found in the options menu).

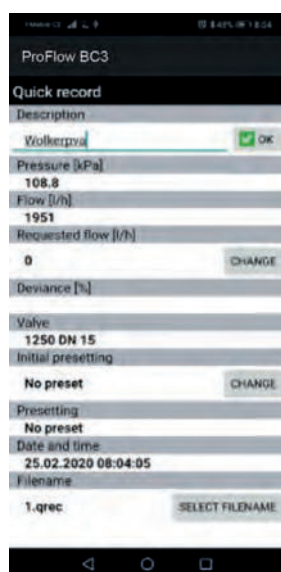


All Pegler ProFlow 1600 PICV products have been included as best practice, the differential pressure working range will be the same throughout the selection, and the Pegler ProFlow BC3 will verify this.

results for the Pegler ProFlow 1260 and V955

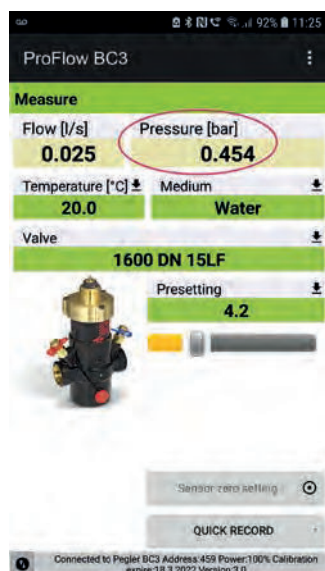


Flow through the valve is calculated and displayed live on the mobile device screen.



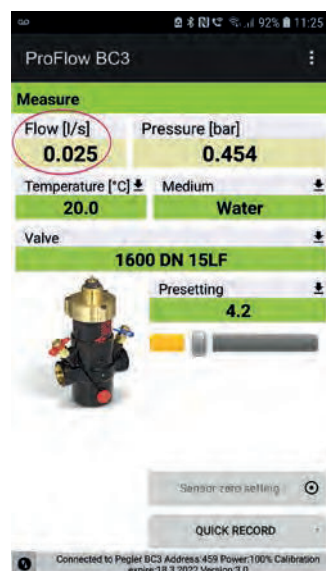
Readings can be saved via the quick records option for ease.

results for the Pegler ProFlow 1600 PICV



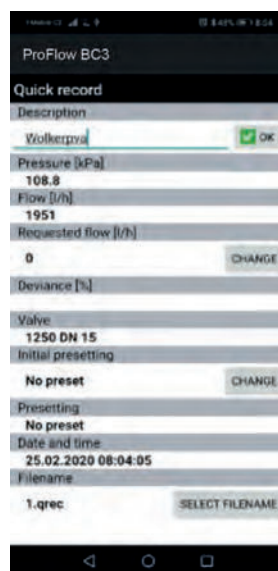
live view

The app will display the live pressure loss across the Pegler ProFlow 1600 PICV valve. This can be used to verify the valve is within the working range as shown on the supplied charts, and will be providing a stable flow.



quick reference

The app also provides a quick reference for the Pegler ProFlow 1600 PICV published flow data, the sliding bar confirms the setting point against the required flow rate (please note this is for reference only).



Readings can be saved via the quick records option for ease.

how to use tables and charts

valve size selection by a design flow rate chart

The correct valve size can be obtained for the Pegler ProFlow 1600 or 902 static commissioning valves by using the flow rate chart below:

example:

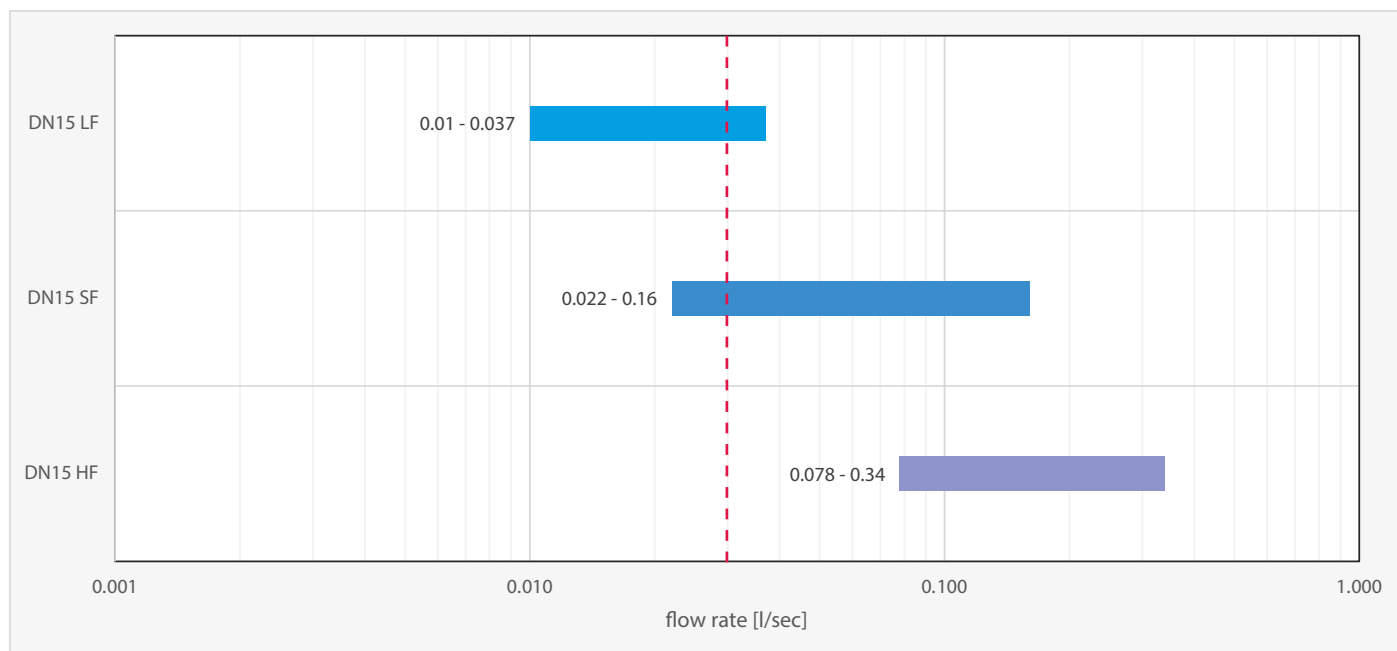
required flow: 0.07 l/s = 252 l/h

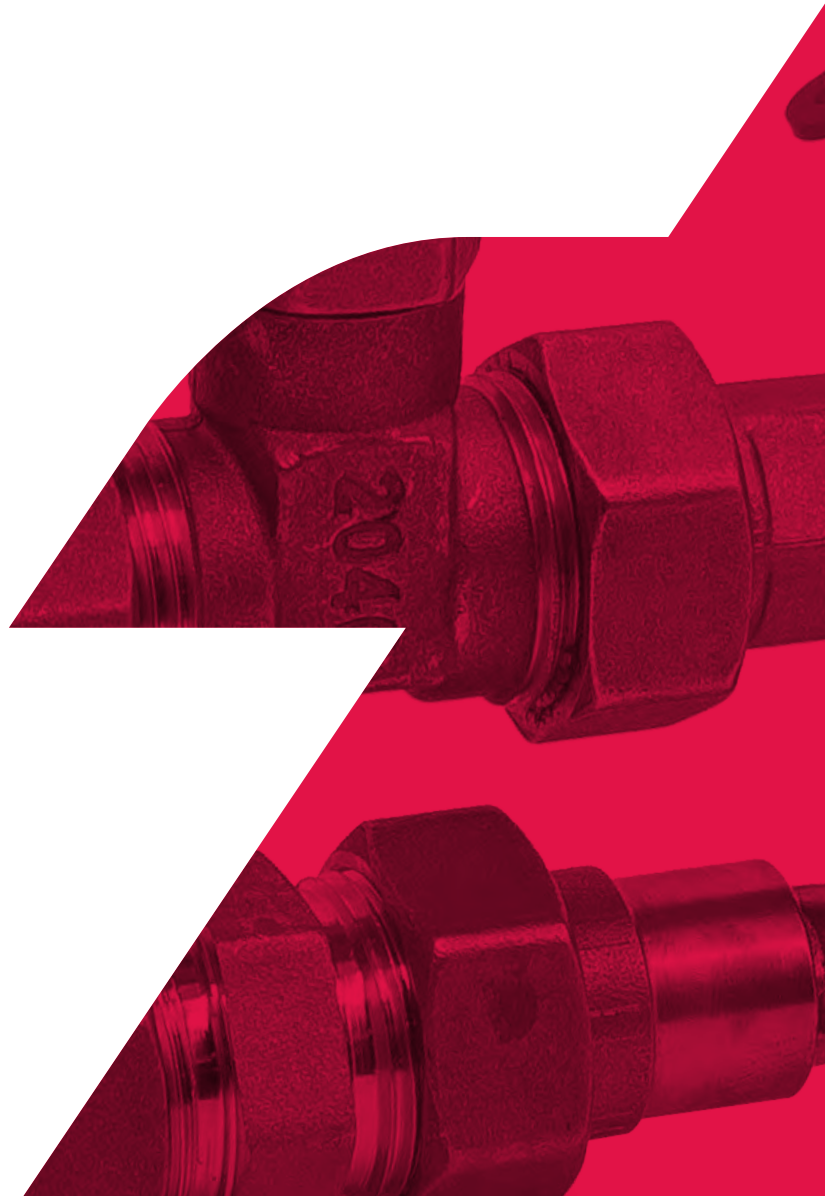
allowable pressure drop: 10 kPa

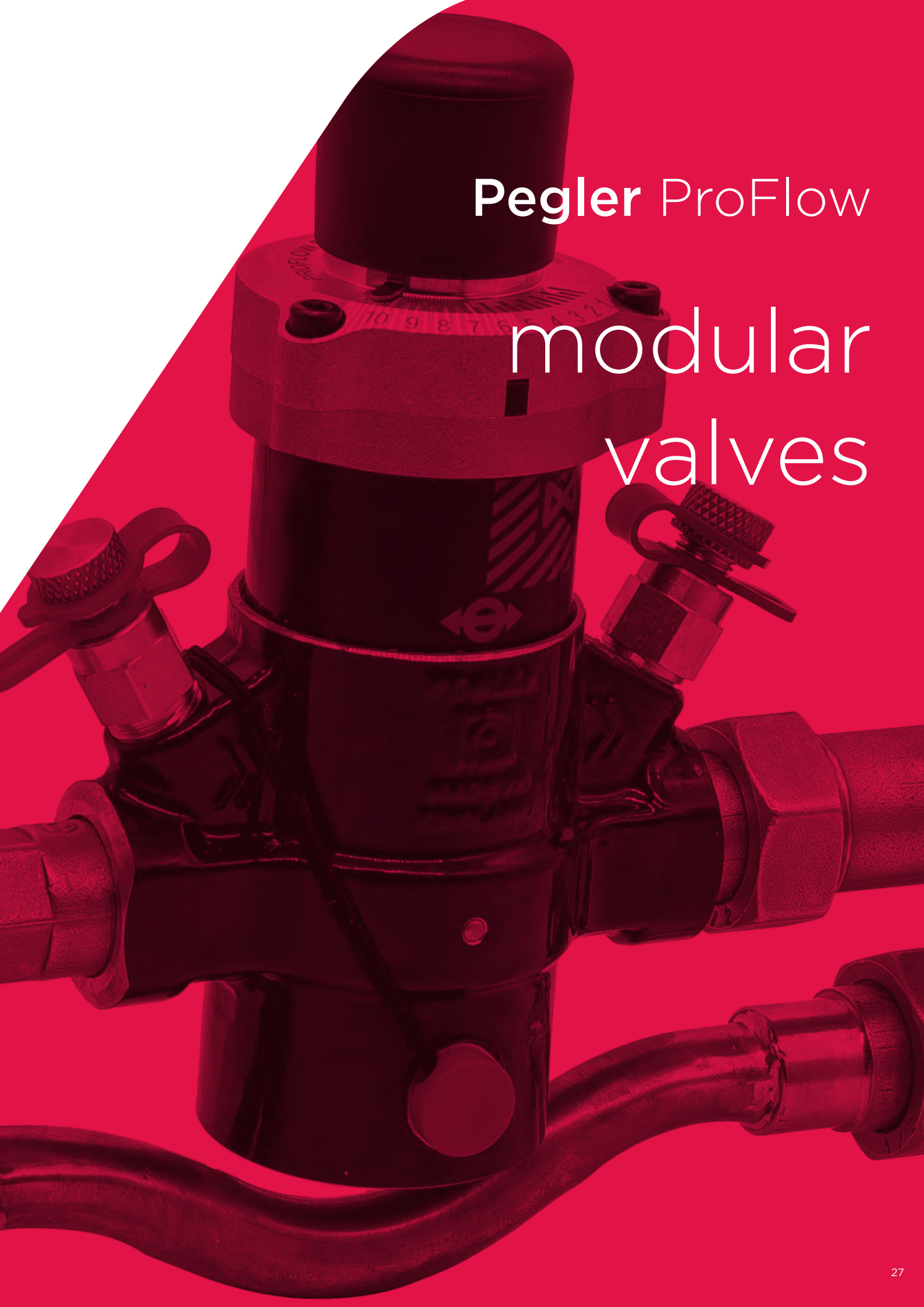
for selecting a valve by a design flow rate chart follow the steps below:

- draw a vertical line up from the desired flow rate
- where the line meets the bar, this indicates a suitable valve for that flowrate
- where the line crosses multiple different bars then we would recommend selecting the lower flow rate class for maximum accuracy and stability. In some installations the pipe size of the system may limit the selection

In the example below (using the 1600 graph) the red line is drawn up from the desired flow rate (0.07 l/s) and crosses the lower end of the bar of the DN15 standard flow and upper end of the bar of the DN15 low flow. As both valves are DN15 it is recommended to select the DN15 low flow as being near the maximum working range of the valve it will have the best stability and accuracy.



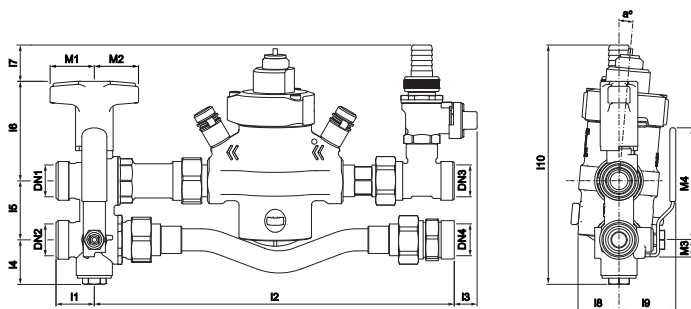
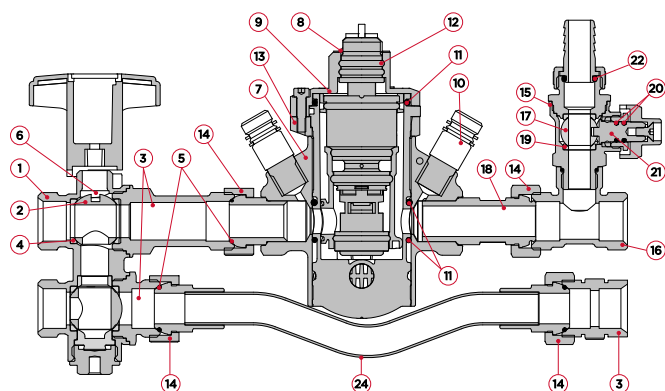




Pegler ProFlow

modular
valves

MVS 1600 modular valve system



specification

- unique BSRIA compliance
- integrated bypass technology
- simplified backflush
- 40mm centres
- hot and cold indicators
- low, standard and high flow versions
- compact operation envelope
- left or right handed

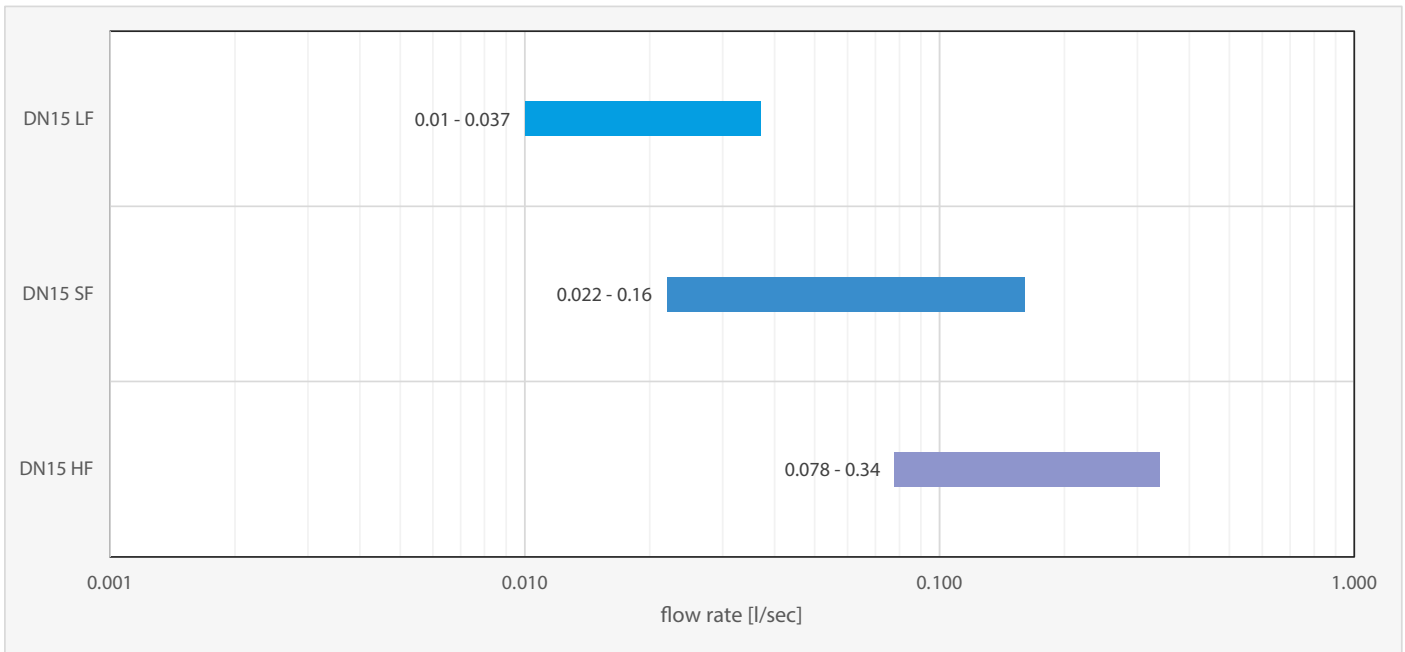
no.	component	material
Bypass		
1	body	DZR brass (CW602N)
2	balls	nickel plated brass (CW617N)
3	insert	DZR brass (CW602N)
4	seats	PTFE
5	o-rings	VITON
6	stems	brass (CW614N)
PICV		
7	body	DR brass (CW511L)
8	indicator	stainless steel (AISI 304)
9	cap	DR brass (CW511L)
10	binder point	brass
11	o-ring	EPDM
12	cartridge	Polyphenylene Sulphide (PPS)
13	clamp	DR brass (CW511L)
adapter nut		
14	adapter nut	brass (CW617N)
drain valve		
15	body drain	brass (CW617N)
16	body tee	DZR brass (CW602N)
17	ball	nickel plated brass (CW617N)
18	insert	brass (CW614N)
19	seats	PTFE
20	stem o-rings	VITON
21	stem	brass (CW614N)
22	o-ring	EPDM
other		
23	pipe	copper

pressure equipment directive category

all sizes SEP

dimension	code	weight (kg)	I1	I2	I3	I4	I5	I6	I7	I8	I9	I10	DN1-DN4	a degrees	M1	M2	M3	M4
15 (DN15) LF (RH)	18600	2.45	26	244	-	30	40	68	25	28	39	162	15	5	30	30	12	78
15 (DN15) SF (RH)	18601	2.45	26	244	-	30	40	68	25	28	39	162	15	5	30	30	12	78
15 (DN15) HF (RH)	18602	2.45	26	244	-	30	40	68	25	28	39	162	15	5	30	30	12	78
15 (DN15) LF (LH)	18606	2.45	26	244	-	30	40	68	25	28	39	162	15	5	30	30	12	78
15 (DN15) SF (LH)	18607	2.45	26	244	-	30	40	68	25	28	39	162	15	5	30	30	12	78
15 (DN15) HF (LH)	18608	2.45	26	244	-	30	40	68	25	28	39	162	15	5	30	30	12	78

dimension	flow [l/s]		flow [l/min]		flow [l/h]	
	min	max	min	max	min	max
15 (DN15) LF (LH)	0.010	0.037	0.60	2.22	36.0	133.2
15 (DN15) SF (LH)	0.022	0.160	1.32	9.60	79.2	576.0
15 (DN15) HF (LH)	0.078	0.340	4.68	20.40	280.8	1224.0
15 (DN15) LF (RH)	0.010	0.037	0.60	2.22	36.0	133.2
15 (DN15) SF (RH)	0.022	0.160	1.32	9.60	79.2	576.0
15 (DN15) HF (RH)	0.078	0.340	4.68	20.40	280.8	1224.0

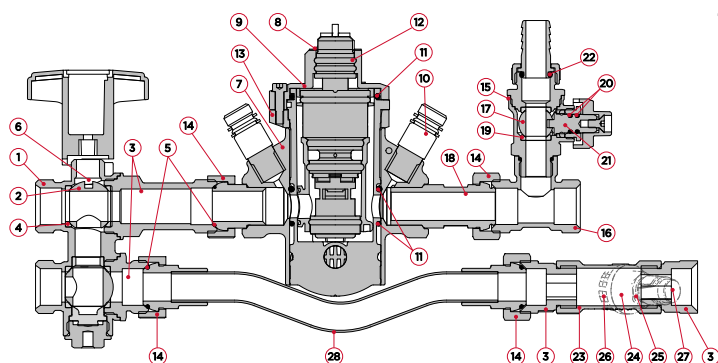


MVS 1600 modular valve system with strainer

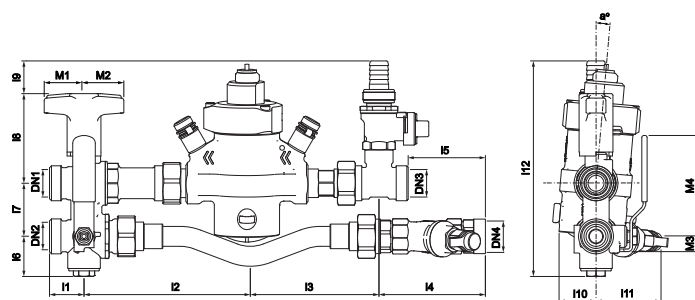


specification

- unique BSRIA compliance
- integrated bypass technology
- simplified backflush
- 40mm centres
- hot and cold indicators
- low, standard and high flow versions
- compact operation envelope
- left or right handed
- strainer included



no.	component	material
Bypass		
1	body	DZR brass (CW602N)
2	balls	nickel plated brass (CW617N)
3	insert	DZR brass (CW602N)
4	seats	PTFE
5	o-rings	VITON
6	stems	brass (CW614N)
PICV		
7	body	DR brass (CW511L)
8	indicator	stainless steel (AISI 304)
9	cap	DR brass (CW511L)
10	binder point	brass
11	o-ring	EPDM
12	cartridge	Polyphenylene Sulphide (PPS)
13	clamp	DR brass (CW511L)
adapter nut		
14	adapter nut	brass (CW617N)
drain valve		
15	body drain	brass (CW617N)
16	body tee	DZR brass (CW602N)
17	ball	nickel plated brass (CW617N)
18	insert	brass (CW614N)
19	seats	PTFE
20	stem o-rings	VITON
21	stem	brass (CW614N)
22	o-ring	EPDM
strainer		
23	body	brass CW617N (EN 12165) CuZn40Pb2
24	cap	brass CW617N (EN 12165) CuZn40Pb2
25	o-rings	NBR
26	strainer basket	stainless steel AISI 304
27	test point	brass CW614N (EN 12164)
other		
28	pipe	copper



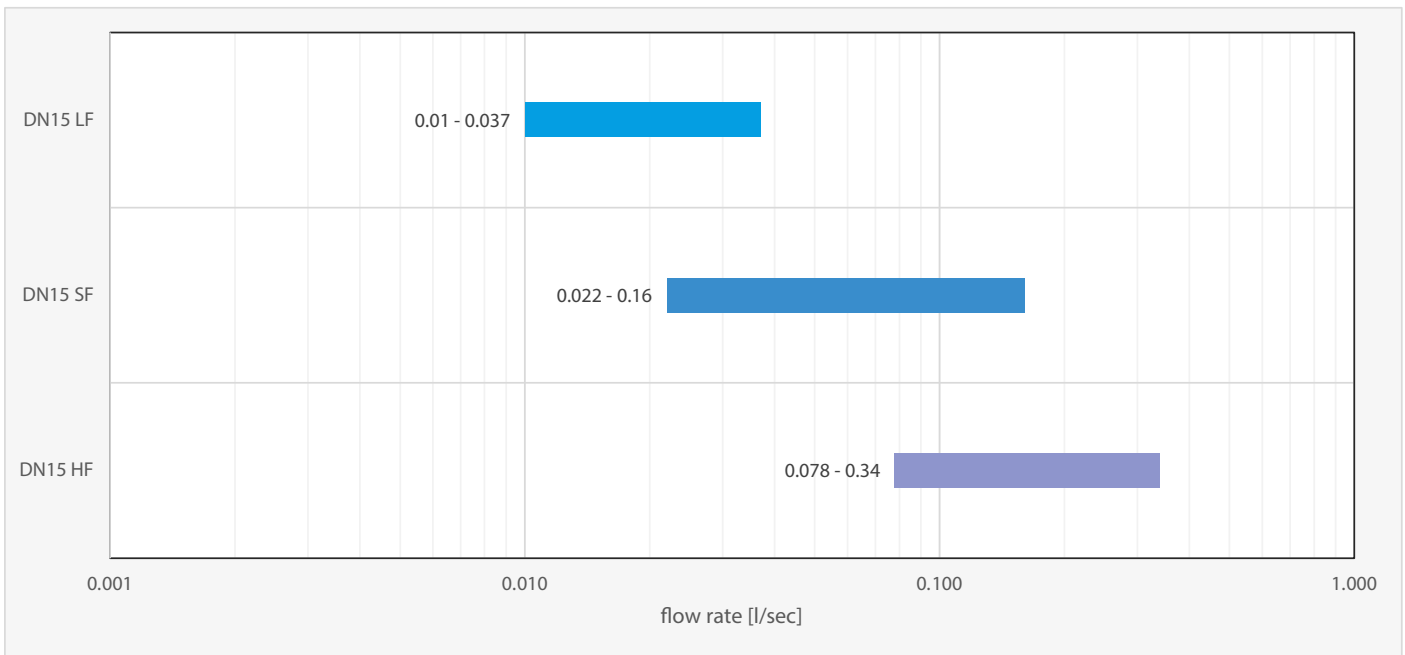
dimension	code	weight (kg)	I1	I2	I3	I4	I5	I6	I7	I8	I9	I10	I11	I12	DN1-DN4	a degrees	M1	M2	M3	M4
15 (DN15) LF (RH)	18603	2.67	26	125	97	80	58	30	40	68	25	28	39	162	15	5	30	30	12	78
15 (DN15) SF (RH)	18604	2.67	26	125	97	80	58	30	40	68	25	28	39	162	15	5	30	30	12	78
15 (DN15) HF (RH)	18605	2.67	26	125	97	80	58	30	40	68	25	28	39	162	15	5	30	30	12	78
15 (DN15) LF (LH)	18609	2.67	26	125	97	80	58	30	40	68	25	28	39	162	15	5	30	30	12	78
15 (DN15) SF (LH)	18610	2.67	26	125	97	80	58	30	40	68	25	28	39	162	15	5	30	30	12	78
15 (DN15) HF (LH)	18611	2.67	26	125	97	80	58	30	40	68	25	28	39	162	15	5	30	30	12	78

pressure equipment directive category

all sizes

SEP

dimension	flow [l/s]		flow [l/min]		flow [l/h]	
	min	max	min	max	min	max
15 (DN15) LF (LH)	0.010	0.037	0.60	2.22	36.0	133.2
15 (DN15) SF (LH)	0.022	0.160	1.32	9.60	79.2	576.0
15 (DN15) HF (LH)	0.078	0.340	4.68	20.40	280.8	1224.0
15 (DN15) LF (RH)	0.010	0.037	0.60	2.22	36.0	133.2
15 (DN15) SF (RH)	0.022	0.160	1.32	9.60	79.2	576.0
15 (DN15) HF (RH)	0.078	0.340	4.68	20.40	280.8	1224.0

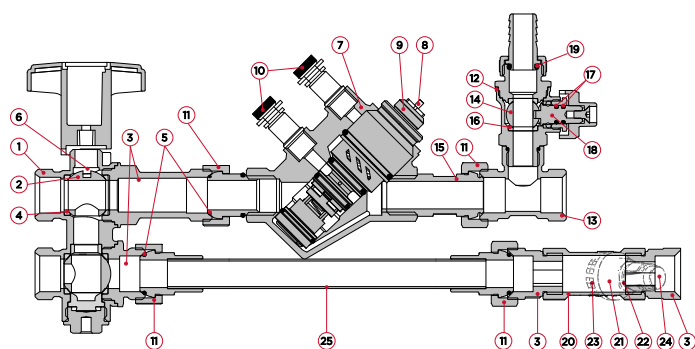


MVS 902S modular valve system

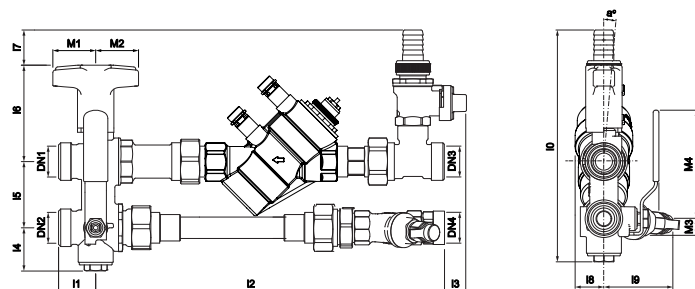


specification

- 40mm centres
- hot and cold indicators
- low, standard and high flow versions
- compact operation envelope
- left or right handed



no.	component	material
Bypass		
1	body	DZR brass (CW602N)
2	balls	nickel plated brass (CW617N)
3	insert	DZR brass (CW602N)
4	seats	PTFE
5	o-rings	VITON
6	stems	brass (CW614N)
PICV		
7	body	DZR brass
8	spindle	DZR brass
9	venturi	DZR brass
10	test point	brass CW614N (EN12164)
adapter nut		
11	adapter nut	brass (CW617N)
drain valve		
12	body drain	brass (CW617N)
13	body tee	DZR brass (CW602N)
14	ball	nickel plated brass (CW617N)
15	insert	brass (CW614N)
16	seats	PTFE
17	stem o-rings	VITON
18	stem	brass (CW614N)
19	o-ring	EPDM
other		
20	pipe	copper

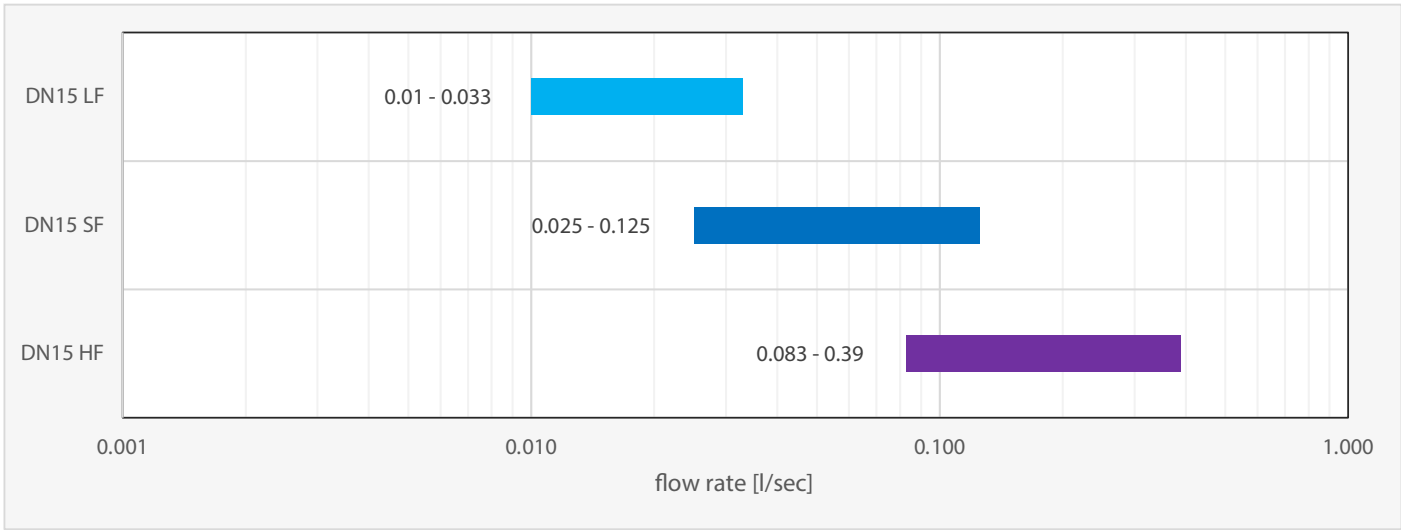


pressure equipment directive category

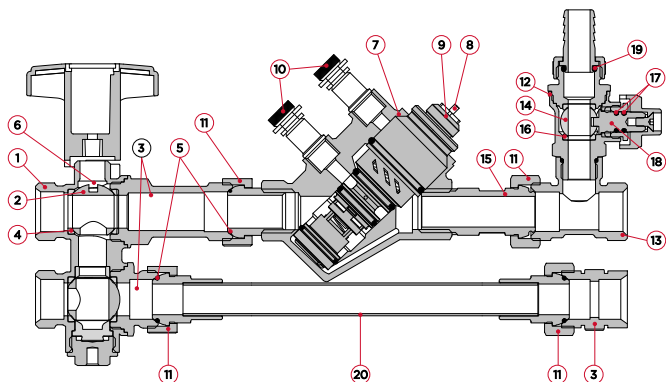
all sizes SEP

dimension	code	weight (kg)	I1	I2	I3	I4	I5	I6	I7	I8	I9	I10	DN1-DN4	a degrees	M1	M2	M3	M4
15 (DN15) LF (RH)	18300	2.13	26	244	-	30	40	68	25	28	39	162	15	5	30	30	12	78
15 (DN15) SF (RH)	18301	2.18	26	244	-	30	40	68	25	28	39	162	15	5	30	30	12	78
15 (DN15) HF (RH)	18302	2.14	26	244	-	30	40	68	25	28	39	162	15	5	30	30	12	78
15 (DN15) LF (LH)	18306	2.09	26	244	-	30	40	68	25	28	39	162	15	5	30	30	12	78
15 (DN15) SF (LH)	18307	2.13	26	244	-	30	40	68	25	28	39	162	15	5	30	30	12	78
15 (DN15) HF (LH)	18308	2.13	26	244	-	30	40	68	25	28	39	162	15	5	30	30	12	78

dimension	flow [l/s]		flow [l/min]		flow [l/h]	
	min	max	min	max	min	max
15 (DN15) LF (LH)	0.010	0.033	0.60	1.98	36.0	118.8
15 (DN15) SF (LH)	0.025	0.125	1.50	7.50	90.0	450.0
15 (DN15) HF (LH)	0.083	0.390	4.98	23.40	298.8	1404.0
15 (DN15) LF (RH)	0.010	0.033	0.60	1.98	36.0	118.8
15 (DN15) SF (RH)	0.025	0.125	1.50	7.50	90.0	450.0
15 (DN15) HF (RH)	0.083	0.390	4.98	23.40	298.8	1404.0



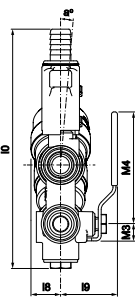
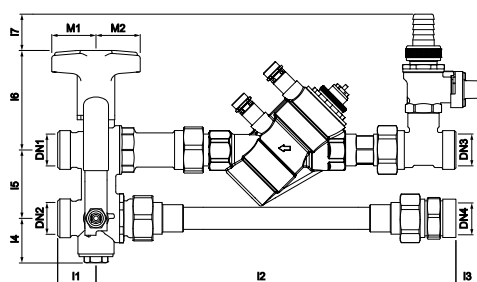
MVS 902S modular valve system with strainer



specification

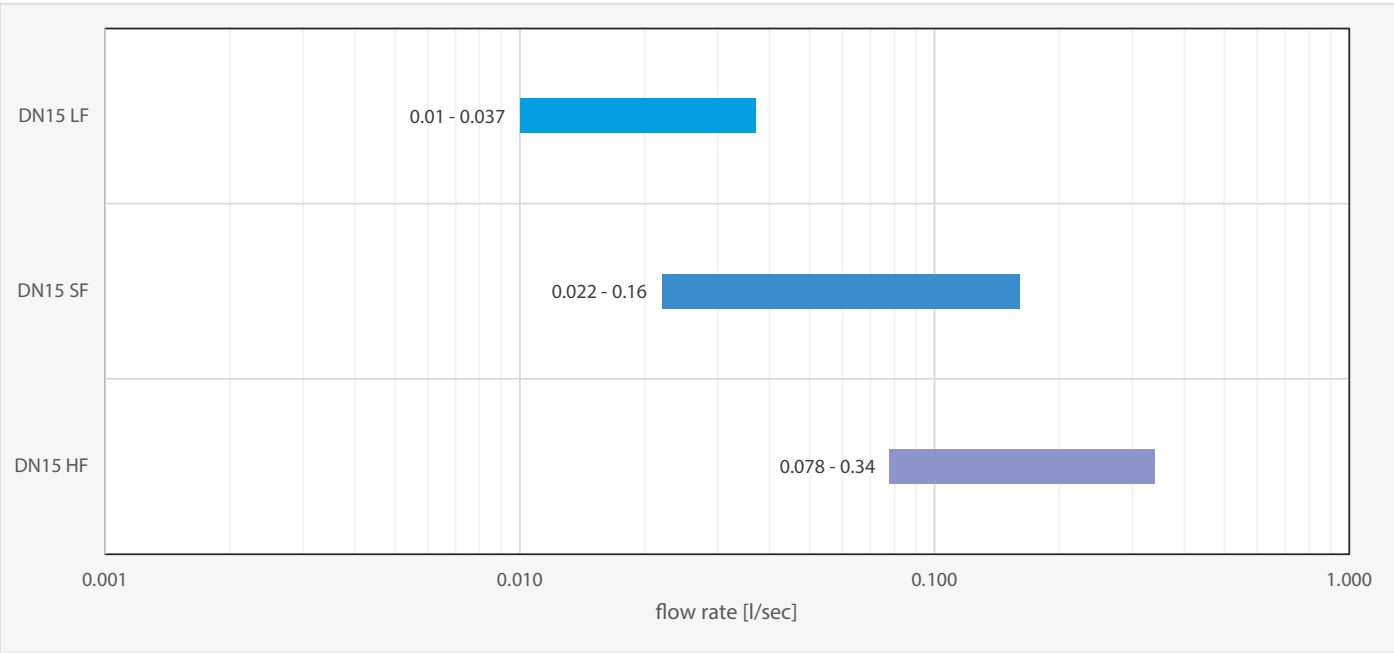
- 40mm centres
- hot and cold indicators
- low, standard and high flow versions
- compact operation envelope
- left or right handed
- strainer included

no.	component	material
Bypass		
1	body	DZR brass (CW602N)
2	balls	nickel plated brass (CW617N)
3	insert	DZR brass (CW602N)
4	seats	PTFE
5	o-rings	VITON
6	stems	brass (CW614N)
PICV		
7	body	DZR brass
8	spindle	DZR brass
9	venturi	DZR brass
10	test point	brass CW614N (EN12164)
adapter nut		
11	adapter nut	brass (CW617N)
drain valve		
12	body drain	brass (CW617N)
13	body tee	DZR brass (CW602N)
14	ball	nickel plated brass (CW617N)
15	insert	brass (CW614N)
16	seats	PTFE
17	stem o-rings	VITON
18	stem	brass (CW614N)
19	o-ring	EPDM
strainer		
20	pipe	brass CW617N (EN 12165) CuZn40Pb2
21	cap	brass CW617N (EN 12165) CuZn40Pb2
22	o-rings	NBR
23	strainer basket	stainless steel AISI 304
24	test point	brass CW614N (EN 12164)
other		
25	pipe	copper
pressure equipment directive category		
all sizes		SEP



dimension	code	weight (kg)	I1	I2	I3	I4	I5	I6	I7	I8	I9	I10	DN1-DN4	a degrees	M1	M2	M3	M4
15 (DN15) LF (RH)	18303	2.37	26	244	-	30	40	68	25	28	39	162	15	5	30	30	12	78
15 (DN15) SF (RH)	18304	2.36	26	244	-	30	40	68	25	28	39	162	15	5	30	30	12	78
15 (DN15) HF (RH)	18305	2.37	26	244	-	30	40	68	25	28	39	162	15	5	30	30	12	78
15 (DN15) LF (LH)	18309	2.39	26	244	-	30	40	68	25	28	39	162	15	5	30	30	12	78
15 (DN15) SF (LH)	18310	2.36	26	244	-	30	40	68	25	28	39	162	15	5	30	30	12	78
15 (DN15) HF (LH)	18311	2.35	26	244	-	30	40	68	25	28	39	162	15	5	30	30	12	78

dimension	flow [l/s]		flow [l/min]		flow [l/h]	
	min	max	min	max	min	max
15 (DN15) LF (LH)	0.010	0.033	0.60	1.98	36.0	118.8
15 (DN15) SF (LH)	0.025	0.125	1.50	7.50	90.0	450.0
15 (DN15) HF (LH)	0.083	0.390	4.98	23.40	298.8	1404.0
15 (DN15) LF (RH)	0.010	0.033	0.60	1.98	36.0	118.8
15 (DN15) SF (RH)	0.025	0.125	1.50	7.50	90.0	450.0
15 (DN15) HF (RH)	0.083	0.390	4.98	23.40	298.8	1404.0





Pegler ProFlow accessories



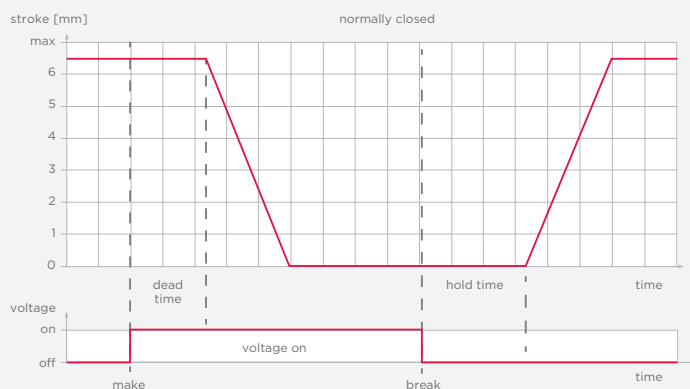
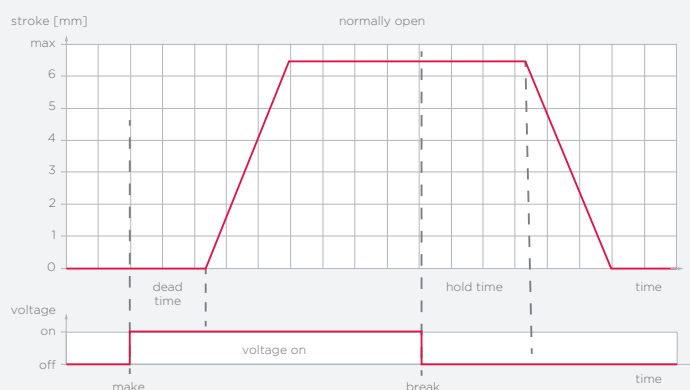
ProFlow

AT01 electro thermal actuator (open/closed)

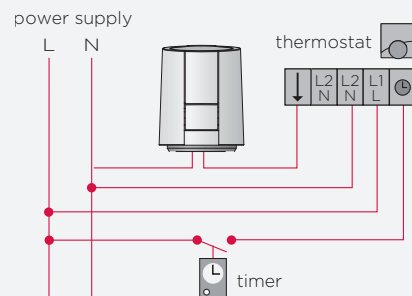


specifications

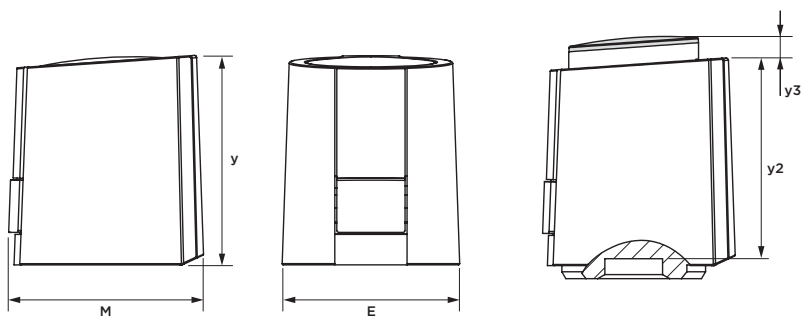
- compact dimensions
- first-open function
- maintenance free
- noiseless
- low power consumption
- 360° installation position
- fire resistance to UL94V-0
- position indicator



specifications	On/Off actuator 24V	On/Off actuator 230V
operating voltage	24VAC/DC -10 % to +20 %	230VAC -10 % to +10 %
operating power	2.3V A 1W	3.6V A 1W
actuator stroke	4/5/6.5 mm	4/5/6.5 mm
stroke time	approx. 3.5 min/ 4 min/5 min	approx. 3.5 min/ 4 min/5 min
actuating force	100/125N	100/125N
ambient temperature	0 to 60°C - operating - storage	0 to 60°C 0 to 50°C -25 to 60°C
protection class	IP54	IP54
connecting cable	1 m long, 2 core	1 m long, 2 core
housing	moulded plastic	moulded plastic
CE conformity	EN 60730-1	EN 60730-1



In the example above the actuator is connected to a power supply of 24VAC, 24VDC or 230VAC. In case the thermostat switch is activated and the actuator being in the normally closed version, the valve is opened steadily by the plunger motion. In the normally open version the valve is closed.



actuator type	article no.	voltage	weight (kg)	E	M	y1	y2	y3
DN15 - DN32 (normally closed - NC)	15202	24VAC/DC	0.14	44	48	52	50	7
DN15 - DN32 (normally open - NO)	15203	24VAC/DC	0.14	44	48	52	50	7
DN15 - DN32 (normally closed - NC)	15280	230VAC	0.14	44	48	52	50	7

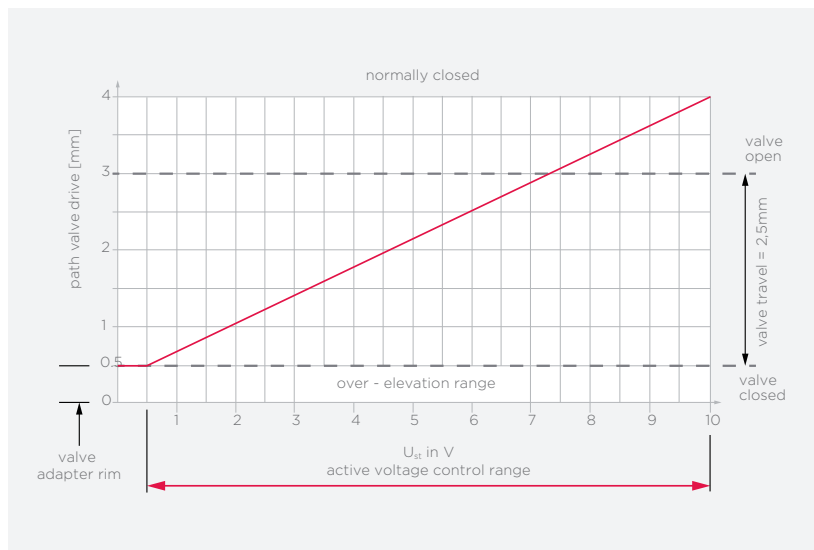
AE01 electro thermal actuator

(proportional control, normally closed)

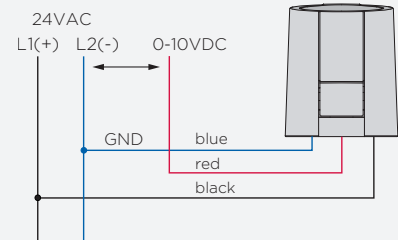


specifications

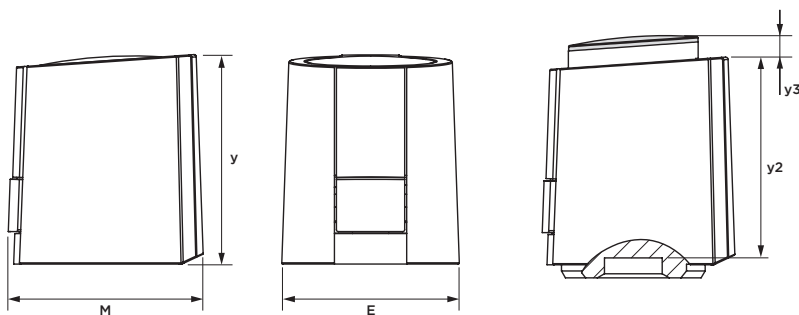
- proportional actuator
- compact dimensions
- first-open function
- maintenance free
- noiseless
- low power consumption
- 360° installation position
- fire resistance to UL94V-0



specifications	modulating actuator 24V
operating voltage	24VAC
operating power	3.1V A
actuator stroke	4/5/6.5 mm
stroke time	approx. 3.5 min/4 min/5 min
actuating force	220N
ambient temperature	0 to 60°C
- operating	0 to 50°C
- storage	-40 to 70°C
protection class	IP54
ambient humidity	0 - 95%
connecting cable	colour-coded fly lead, 1.5 m long, 3 core
housing	moulded plastic
CE conformity	EN 60730-1

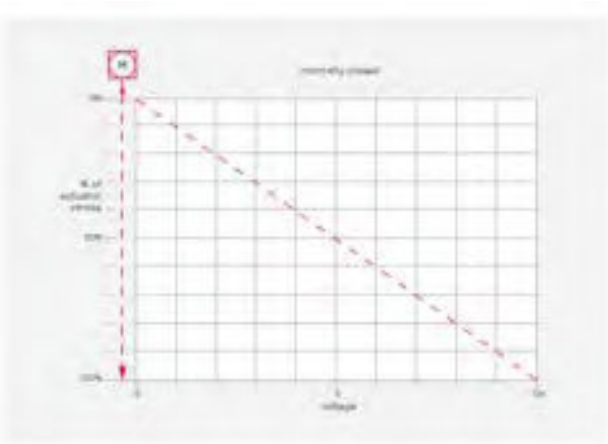


The above example is connected to a 24VAC or 24VDC power supply, with a control voltage from 0-10V-DC. When the control voltage is increased, the electronic control system immediately adapts the heat input to the elastic element and the valve is further opened, with the valve being normally closed (0 Volt).

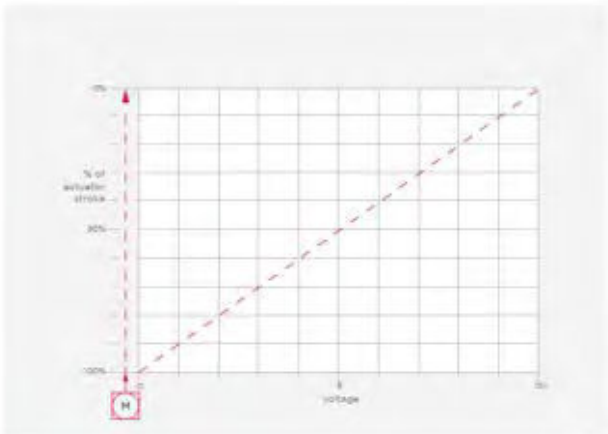


actuator type	article no.	voltage	weight (kg)	E	M	y1	y2	y3
DN15 - 32 (normally closed - NC)	15281	24VAC (10VDC)	0.14	44	48	52	50	7

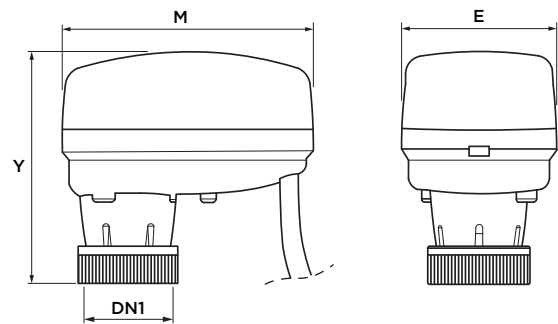
AP02 electro motoric actuator modulating
(proportional control)



Graph demonstrates Direct Acting



Use Dip switch 4 to change to Reverse Acting

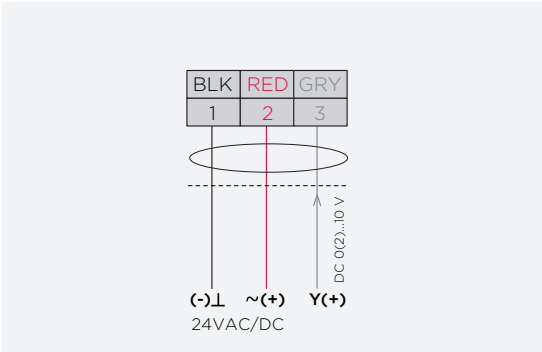


actuator type	article no.	voltage	weight (kg)	DN1	E	M	Y
DN15 - DN25	18275	24VAC (0-10VDC)	0.2	M30 x 1.5	49	80	74

specifications

- fast acting
- double colour LED
- removable cable
- direct acting

specifications	modulating floating 24VAC
operating voltage	24VAC +/-10%
operating power	2.5V A
actuator stroke	3.2 mm
stroke time	8 sec/mm
actuating force	120N
ambient temperature	0 - 60°C
-operating	0 - 50°C
-storage	-20 - 65°C
protection class	IP43
ambient humidity	0 - 95%
connecting cable	1.5 m long (3 x 0.35 mm²)
housing	ABS + PC
CE conformity	EN 60730-1

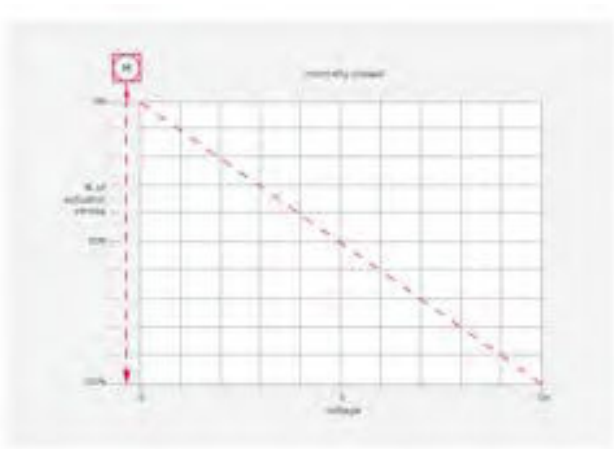


When the power is applied, the actuator self-calibrates performing an auto zero detection cycle. The actuator moves the stem down for a complete mechanical stroke until no changes are detected. Once the auto-zero is detected the actuator moves the stem accordingly with the input signal, within the value of the electrical stroke as per jumper setting.

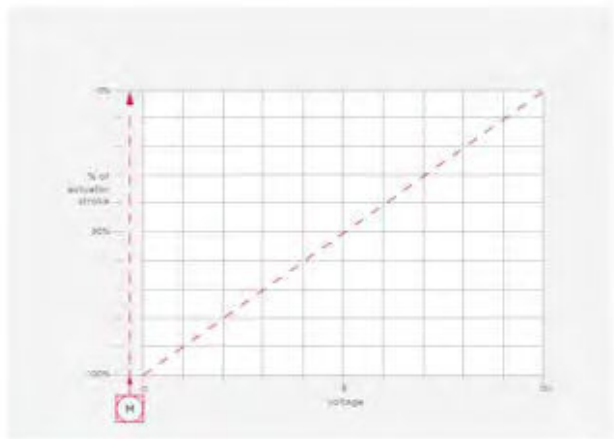
When the input signal increases (eg. from 0V to 10V) the actuator stem extends if the actuator is configured as Direct Action (DA).

When the input signal decreases (eg. from 10V to 0V) the actuator stem retracts if the actuator is configured as Direct Action (DA).

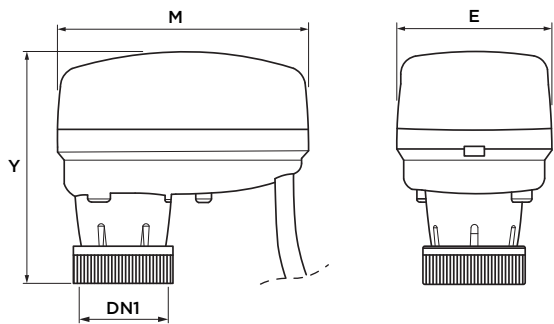
AP01 electro motoric actuator
(proportional control with feedback)



Graph demonstrates Direct Acting



Use Dip switch 4 to change to Reverse Acting

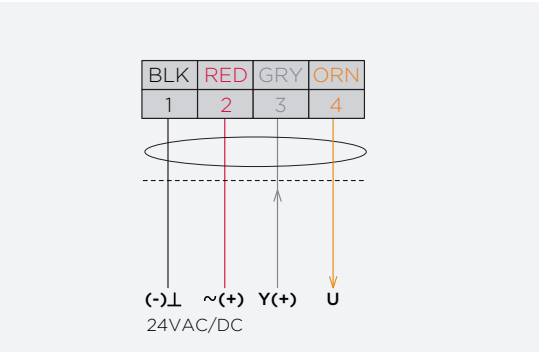


valve type	article no.	voltage	weight (kg)	DN1	E	M	Y
DN15 - DN25	18276	24VAC (0-10VDC)	0.2	M30 x 1.5	49	80	74

specifications

- fast acting
- double colour LED
- removable cable
- self adapting
- includes feedback

specifications	proportional actuator 24V
operating voltage	24VAC
operating power	6.0V A
actuator stroke	6.3 mm self adapting
stroke time	8 sec/mm
actuating force	160N
ambient temperature	0 - 60°C
-operating	0 - 50°C
-storage	-20 - 65°C
protection class	IP54
ambient humidity	0 - 95%
connecting cable	1.5 m long (3 x 0.35 mm²)
housing	ABS + PC
CE conformity	EN 60730-1

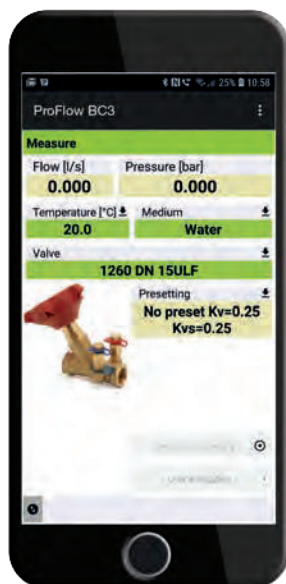


When the power is applied, the actuator self-calibrates performing an auto zero detection cycle. The actuator moves the stem down for a complete mechanical valve stroke until no changes are detected. Once the auto-zero is detected the actuator moves the stem accordingly with the input signal, within the value of the electrical stroke as per jumper setting.

When the input signal increases (eg. from 0V to 10V) the actuator stem retracts if the actuator is configured as Reverse Action (RA).

When the input signal decreases (eg. from 10V to 0V) the actuator stem extends if the actuator is configured as Reverse Action (RA).

BC3 Pegler ProFlow balancing computer



To download app search for
Pegler BC3



App requires Pegler ProFlow
BC3 balancing computer

specifications

- digital compensation of temperature effects
- user app for Android / iOS mobile devices
- correction of antifreeze flow calculation
- easy selection of balancing valve according to valve illustration
- capability of saving up to 2000 measured valves
- cover IP65 rated

Verification of flow can be done using a suitable flow measurement device and utilising the built-in test points on the valve.

The Pegler ProFlow BC3 balancing computer is supplied pre-programmed with the loss coefficient data (k values) allowing a direct measurement of flow rate to be obtained ensuring the system is balanced correctly to achieve optimum efficiency.

product specification

wireless data transfer	Bluetooth low energy 5.0
power supply	AAA Alkaline batteries or NiMH rechargeable batteries
power consumption	25 mA
operating time	45 h Max
zeroing of the pressure measurement	mechanical with hydraulic bypass
water resistance	IP65
calibration validity	24 months

maximum pressure conditions

normal pressure range	1.000 kPa
max. over pressure	120% of nominal pressure
linearity and hysteresis error	0.15% from nominal pressure range
error for the pressure range 0 till 5 kPa after pressure zero setting	± 50 Pa for nominal pressure range 1 MPa
temperature error	0.25 % from nominal pressure range
medium temperature**	-5 - 90°C
ambient temperature	-5 - 50°C
storage temperature	-5 - 50°C

** measured at the end of measuring hoses, length 1.5 m. Hot water flows through BC3 ProFlow Technics hydraulic parts during pressure zero procedure. Maximum time duration of zeroing when temperature of the medium exceeds 50°C is 10 seconds.

article no.	description	weight [kg]	length [mm]	width [mm]	height [mm]
16395	Pegler ProFlow BC3	0.420	180	80	52

1600SSP setting key

(for Pegler ProFlow 1600 PICV)



dimension	article no.
DN15 - DN25	16075

*see installation guidelines Pegler ProFlow 1600 PICV, page 36

1600PT operating tool

(for Pegler ProFlow 1600 PICV)



dimension	article no.
DN15	16079
DN20 - DN25	16080

*see installation guidelines Pegler ProFlow 1600 PICV, page 36

1600LPT locking pin and tether

(for Pegler ProFlow 1600 PICV)



dimension	article no.
DN15	16076
DN20 - DN25	16077

1600CP cartridge head protection cap

(for Pegler ProFlow 1600 PICV)



dimension	article no.
DN15 - DN25	16078

1600CRT cartridge

(for Pegler ProFlow 1600 PICV)



dimension	article no.	colour
DN15 low flow	16070	white
DN15 standard flow	16071	red
DN15 high flow	16072	black
DN20 standard flow	16073	white
DN20 high flow / DN25 standard flow	16074	black

920EX Venturi test point extension kit

(male taper thread)



dimension	article no.
1/4" x 50mm	15205

disclaimer:

The technical data are non-binding and do not reflect the warranted characteristics of the products. They are subject to change. Please consult our General Terms and Conditions. Additional information is available upon request. It is the designer's responsibility to select products suitable for the intended purpose and to ensure that pressure ratings and performance data are not exceeded. The installation instructions should always be read and followed. The system must always be depressurised and drained before any components, whether defective or otherwise, are removed, modified or corrected.

902CP dynamic shut-off cap



dimension	article no.
DN15 - DN32	15209



902CRT cartridges



dimension	article no.	colour
DN15 low flow	15192	white
DN15 standard flow	15193	red
DN15 high flow	15194	black
DN20 standard flow	15195	white
DN20 high flow / DN25 standard flow	15196	black



more information?

For a complete and up-to-date product range and our additional services, visit: www.pegler.co.uk

Would you like to make an appointment to meet an account manager in your region or receive advice and support from one of our experts? Please contact:

Aalberts integrated piping systems Ltd

tel: +44 (0) 1302 560 560

email: info.uk@aalberts-ips.com

www.pegler.co.uk

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