



**Honeywell Water Controls Guide
Supplied by Ultravalve**

Introduction

Welcome to the Honeywell Water Controls Guide. Honeywell offers an extensive range of water controls and this guide provides a simple overview of solutions for domestic, commercial and industrial applications.

Our product portfolio includes pressure reducing valves, thermostatic mixing valves, water filters, backflow prevention devices, pilot operated valves and balancing valves.

Whether your requirement is to ensure water quality, constant supply pressure, safe temperature delivery or to save resources, Honeywell has the solution for you.



Our range of water controls are manufactured in Mosbach Germany. The 15,000m² site comprises four production areas; a brass foundry, plastic moulding plant, body machining area and assembly and testing line.

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Pressure Reducing Valves

Pressure reducing valves protect pipework, valves and appliances from damage caused by excessive water pressure. The set pressure is maintained at a constant, even when the inlet pressure fluctuates, therefore minimizing flow noises. Reducing the pressure also reduces consumption which conserves natural resources and saves you money. You can save 27 litres per day simply by reducing the pressure from 6.0 to 4.0 bar. (Efficient Water Consumption table.)

Our compact pressure reducing valves, D04FS, D05F and D06F have all been awarded the Waterwise Marque which is awarded annually to products which reduce water wastage or raise the awareness of water efficiency. For more information please visit the Waterwise website www.waterwise.org.uk

Efficient Water Consumption

Water pressure	Water consumption per person per day	Water consumption per year for a four person household	Water consumption as a percentage
6.0 bar	140 litres	200 m ³	100%
4.0 bar	113 litres	162 m ³	81%
3.0 bar	99 litres	142 m ³	71%

D04FS



The D04FS is designed to protect household appliances against excessive supply pressures. A small compact valve that will maintain a constant water pressure irrespective of the supply pressure, which is often much higher.

Features and Benefits

- Spring loaded, balanced seat means a constant outlet pressure regardless of fluctuating inlet pressure
- Light weight
- Simple, compact construction
- Available with pressure gauge
- 16 bar inlet pressure
- 1.5 bar to 6 bar outlet pressure
- Maximum operating temperature 70°C

Sizes 15mm and 22mm compression connections, $\frac{3}{8}$ ", $\frac{1}{2}$ " and $\frac{3}{4}$ " BSP connections



D05F



The D05F is designed to protect household water installations against excessive pressure from the supply and it can also be used for industrial and commercial applications.

Features and Benefits

- Spring loaded, balanced seat means a constant outlet pressure regardless of fluctuating inlet pressure
- Set pressure indicated on the set point scale
- Valve insert can be replaced
- Integral fine filter with 1mm mesh
- Light weight
- Available with pressure gauge
- Up to 25 bar inlet pressure
- 1.5 bar to 6 bar outlet pressure
- Maximum operating temperature 70°C

Sizes 15mm and 22mm compression connections, $\frac{1}{2}$ ", $\frac{3}{4}$ " and 1" BSP connections



Designed to protect domestic, commercial and industrial applications from excessive pressure, the D06F range enables excellent product performance, reliability and servicing capabilities.

D06F



Features and Benefits

- Spring loaded, balanced seat means a constant outlet pressure regardless of fluctuating inlet pressure
- Set pressure indicated on the set point scale
- Integral fine filter with 0.16mm mesh
- Available with pressure gauge
- Up to 25 bar inlet pressure
- 1.5 bar to 6 bar outlet pressure
- Class 1 acoustic valve ensures quiet operation
- High quality synthetic valve insert ensures resistance to scaling and cavitation
- Maximum operating temperature 70°C

Sizes 15mm and 22mm compression connections, 1/2", 3/4", 1", 1 1/4", 1 1/2", 2" BSP connections



D06FH (High pressure applications)



D06FN (Low pressure applications)



Features and Benefits

- Spring loaded, balanced seat means a constant outlet pressure regardless of fluctuating inlet pressure
- Integral fine filter with 0.16mm mesh
- Available with pressure gauge
- Up to 25 bar inlet pressure
- Outlet pressure:
D06FH – 1.5 bar to 12 bar
D06FN – 0.5 bar to 2 bar
- Maximum operating temperature 70°C

Sizes 1/2", 3/4", 1", 1 1/4", 1 1/2", 2" BSP connections



The MTA06 and MTA06-H multi occupant assembly combines a shut off valve, pressure reducing valve and a double check valve all in one unit. The double check valve protects the supply system and the isolating valve provides a quick and easy isolation point. The combination of three valves in one unit makes this device compact and perfect for residential apartments, commercial units and offices.

MTA06



MTA06-H



Features and Benefits

- Spring loaded, balanced seat means a constant outlet pressure regardless of fluctuating inlet pressure
- Inlet pressure:
MTA06 – Max 16 bar
MTA06-H – Max 25 bar
- Outlet pressure:
MTA06 – 1.5 bar to 6 bar (preset at 3 bar)
MTA06-H – 1.5 bar to 12 bar (preset at 3 bar)
- Operating temperatures:
MTA06 – maximum 40°C
MTA06-H – maximum 70°C

Sizes ¾", 1" with threaded connections, (inlet male, outlet female)

The D15P flanged direct acting pressure reducing valve (PRV) and D15NP direct acting PRV can be used to protect large domestic, commercial and industrial applications against excessive pressure, giving accurate pressure control for a variety of applications including water, compressed air and nitrogen.

D15P



D15NP



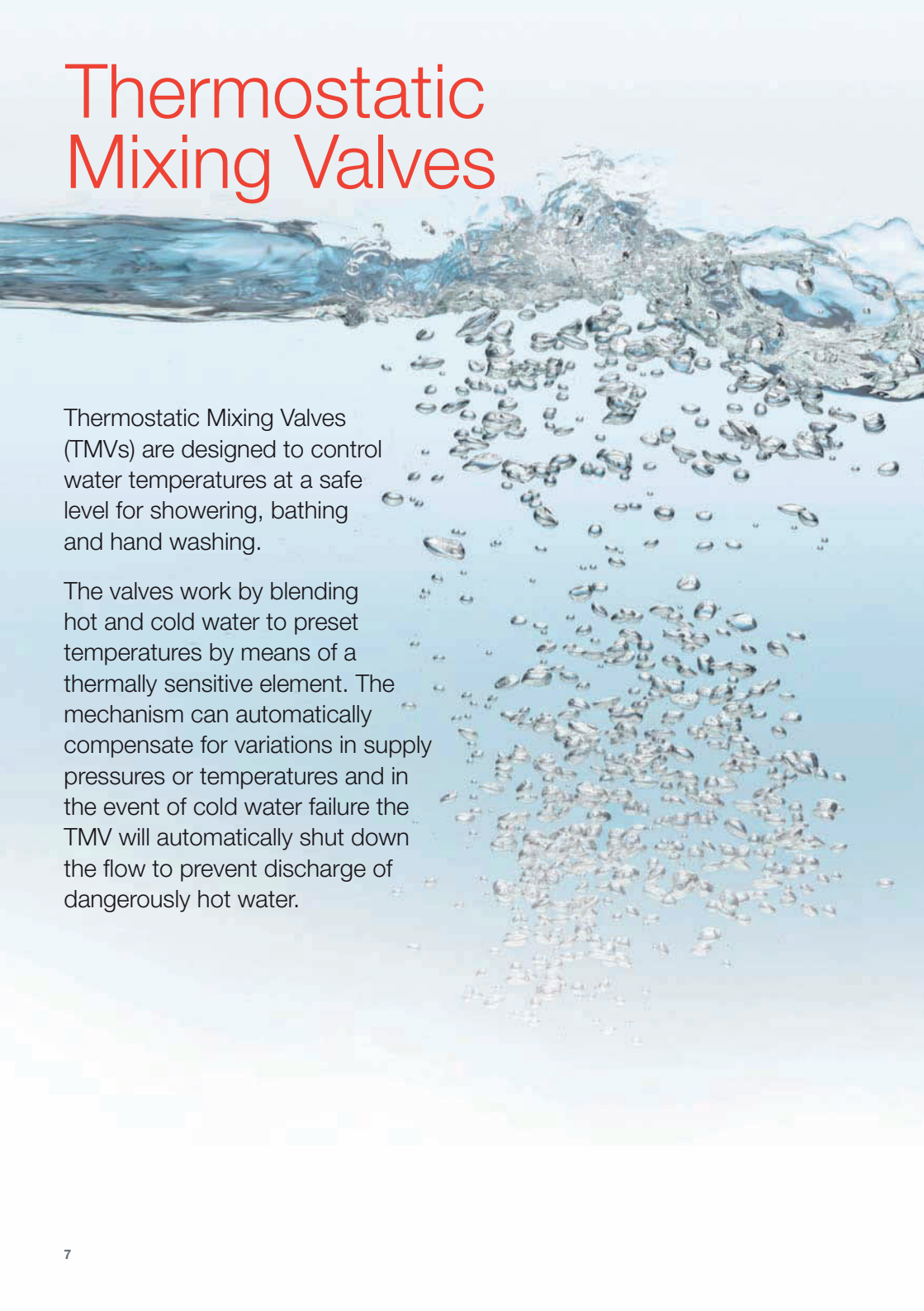
Features and Benefits

- Inlet pressure balancing; the set outlet pressure is unaffected by inlet fluctuations
- Inlet pressure up to 16 bar
- Outlet pressure:
D15P – DN50 – DN150 – 1.5 to 8 bar
DN200 – 1.5 to 6 bar
D15NP – 0.2 to 2 bar
- Epoxy coated cast iron body
- Maximum operating temperature 70°C

Sizes DN50 – DN200



Thermostatic Mixing Valves



Thermostatic Mixing Valves (TMVs) are designed to control water temperatures at a safe level for showering, bathing and hand washing.

The valves work by blending hot and cold water to preset temperatures by means of a thermally sensitive element. The mechanism can automatically compensate for variations in supply pressures or temperatures and in the event of cold water failure the TMV will automatically shut down the flow to prevent discharge of dangerously hot water.

TMV2 and TMV3 explained



TMV2 and TMV3 approval is administered by Buildcert which is an independent third party that certifies thermostatic mixing valves against the requirements of the NHS Estates Model Engineering Specification D 08 (TMV3 approval), and the requirements of BS EN 1111 and 1287 (TMV2 approval).

TMV2



Within the domestic market there is a similar risk to all members of a household from scalding especially for the younger and older residents. Buildcert developed the TMV2 approval that uses BS EN 1111 and 1287 to set the minimum performance levels of the valves.

TMV3



The NHS Estates document D 08 is primarily for thermostatic mixing valves installed within healthcare properties that supply hot water to a point of use that is used by vulnerable members of the NHS facility. The performance requirements of D 08 mean that the thermostatic mixing valve must be maintained and monitored on a regular basis. TMV3 valves are considered to provide a higher level of protection against scalding.

Building Regulations

Legislation has been in place in Scotland since May 2006 with a requirement to fit thermostatic mixing valves as standard to baths and bidets in all new build domestic properties.

In England and Wales, Building Regulations have now recognised the need for thermostatically controlled mixing valves and in 2010 Part G was revised to include a section on prevention of scalding. This new revision applies to baths in all new build, extensions of buildings or buildings with a material change of use. The local authority or approved building inspector can provide further advice.

Part G

Building Regulation Part G3 considers hot water supply and systems. In particular section 3.65 covers prevention of scalding:

The hot water supply temperature to a bath should be limited to a maximum of 48°C by use of an in-line blending valve or other appropriate temperature control device, with a maximum temperature stop and a suitable arrangement of pipework.

Duty of Care

It is the responsibility of the person in charge of the property to ensure all necessary steps are taken to prevent people being injured. On all domestic, commercial or institutional properties a risk assessment should be carried out to establish how susceptible people are to the dangers of scalding. If a person has taken all reasonable steps to ensure safety of those people living and working in the environment, they will have discharged their duty of care.

The Honeywell TM200VP is a TMV3 scheme approved thermostatic mixing valve, suitable for controlling point of use hot water temperatures in high risk applications such as hospitals, healthcare premises and nurseries.

TM200VP



Features and Benefits

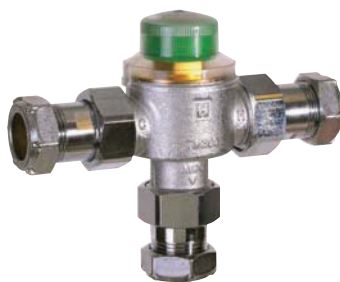
- Proven thermal element for accurate hot water temperature control
- Calibrated setting dial for easy hot water temperature setting
- Scald protection, automatically shuts off if cold water fails
- Inner components are made of scale resistant materials
- '4 in 1' variant includes check valves, strainers, isolating valves and test points

Sizes 15mm and 22mm compression connections



The Honeywell TM300 is a TMV2 scheme approved thermostatic mixing valve, suitable for controlling point of use hot water temperatures in medium risk applications such as domestic homes, schools and housing association dwellings.

TM300



Features and Benefits

- Proven thermal element for accurate hot water temperature control
- Calibrated setting dial for easy hot water temperature setting
- Scald protection, automatically shuts off if cold water fails
- Inner components are made of scale resistant materials
- '4 in 1' variant includes check valves, strainers, isolating valves and test points

Sizes 15mm and 22mm compression connections



A guide to where legislation requires Thermostatic Mixing Valves (TMV's) to be fitted and which Honeywell mixing valves to use in each circumstance.

Type of Environment	Appliance	Is a TMV required by legislation or authoritative guidance?	Is a TMV recommended by legislation or authoritative?	Is a TMV suggested best practice?	Valve type	Accreditation	Reference documents (See below)
Private dwelling	Bath Basin Shower			yes yes yes	TM300-3/4H 22mm compression fittings or TM300-3/4ZD 22mm with 4 in 1 tailpieces	TMV2 TMV2 TMV2	
Housing association dwelling	Bath Basin Shower		yes	yes yes	TM300-3/4H 22mm compression fittings or TM300-3/4ZD 22mm with 4 in 1 tailpieces	TMV2 TMV2 TMV2	Housing Corp Standard (1.2.1.33a)
Housing association dwelling for the elderly	Bath Basin Shower	yes yes yes			TM300-3/4H 22mm compression fittings or TM300-3/4ZD 22mm with 4 in 1 tailpieces	TMV2 TMV2 TMV2	Housing Corp Standard (1.2.1.58 and 1.2.1.59)
Hotel	Bath Basin Shower			yes yes yes	TM300-3/4H 22mm compression fittings or TM300-3/4ZD 22mm with 4 in 1 tailpieces	TMV2 TMV2 TMV2	Guidance to the Water Regulations (G18.5)
NHS nursing home	Bath Basin Shower		yes yes yes		TM200VP -3/4E 15mm compression fittings TM200VP -3/4H 22mm compression fittings TM200VP -3/4ZC 15mm with 4 in 1 tailpieces TM200VP -3/4ZD 22mm with 4 in 1 tailpieces	TMV3 TMV3 TMV3 TMV3	NHS Health Guidance Note, Care Homes Regulation 2001, D08
Private nursing home	Bath Basin Shower		yes yes yes		TM200VP -3/4E 15mm compression fittings TM200VP -3/4H 22mm compression fittings TM200VP -3/4ZC 15mm with 4 in 1 tailpieces TM200VP -3/4ZD 22mm with 4 in 1 tailpieces	TMV3 TMV3 TMV3 TMV3	Guidance to the Water Regulations (G18.6), Care Standards Act 2000, Care Homes Regulations 2001, HSE Care Homes Guidance
Young persons' care home	Bath Basin Shower	yes yes yes			TM200VP -3/4E 15mm compression fittings TM200VP -3/4H 22mm compression fittings TM200VP -3/4ZC 15mm with 4 in 1 tailpieces TM200VP -3/4ZD 22mm with 4 in 1 tailpieces	TMV3 TMV3 TMV3 TMV3	DoH National Minimum Standards Children's homes Regulations, Care Standards Act 2000, Care Homes Regulations 2001, HSE Care Homes Guidance
Schools, including nursery	Basin Shower Bath	yes yes, but 43°C max	yes		TM300-3/4H 22mm compression fittings or TM300-3/4ZD 22mm with 4 in 1 tailpieces	TMV2 TMV2 TMV2	Building Bulletin 87, 2 nd edition, The School Premises Regulations/ National minimum care Standards Section 25.8
Schools for the severely disabled including nursery	Basin Shower Bath	yes yes, but 43°C max	yes		TM200VP -3/4E 15mm compression fittings TM200VP -3/4H 22mm compression fittings TM200VP -3/4ZC 15mm with 4 in 1 tailpieces TM200VP -3/4ZD 22mm with 4 in 1 tailpieces	TMV3 TMV3 TMV3 TMV3	Building Bulletin 87, 2 nd edition, The School Premises Regulations, If residential, Care Standards Act
NHS hospital	Bath Basin Shower	yes yes yes			TM200VP -3/4E 15mm compression fittings TM200VP -3/4H 22mm compression fittings TM200VP -3/4ZC 15mm with 4 in 1 tailpieces TM200VP -3/4ZD 22mm with 4 in 1 tailpieces	TMV3 TMV3 TMV3 TMV3	NHS Health Guidance Note, D08
Private hospital	Bath Basin Shower		yes yes yes		TM200VP -3/4E 15mm compression fittings TM200VP -3/4H 22mm compression fittings TM200VP -3/4ZC 15mm with 4 in 1 tailpieces TM200VP -3/4ZD 22mm with 4 in 1 tailpieces	TMV3 TMV3 TMV3 TMV3	Guidance to the Water Regulations (G18.6)

DoH National Minimum Standards Children's homes Regulations
Department of Health, National Minimum Standards Children's homes Regulations.

Housing Corp Standard Housing Corporation, Scheme Development Standards, 5th Edition, Housing Corporation 2003.

D08 Model engineering specifications D08 Thermostatic mixing Valves (healthcare premises), NHS Estates, 1997

National minimum care Standards Section 25.8

Building Bulletin 87 2nd edition School Building and Design Unit Department for Education and Skills. Building Bulletin 87 2nd edition,

NHS Health Guidance Note National Health Service Guidance note. Safe hot water and surface temperatures.

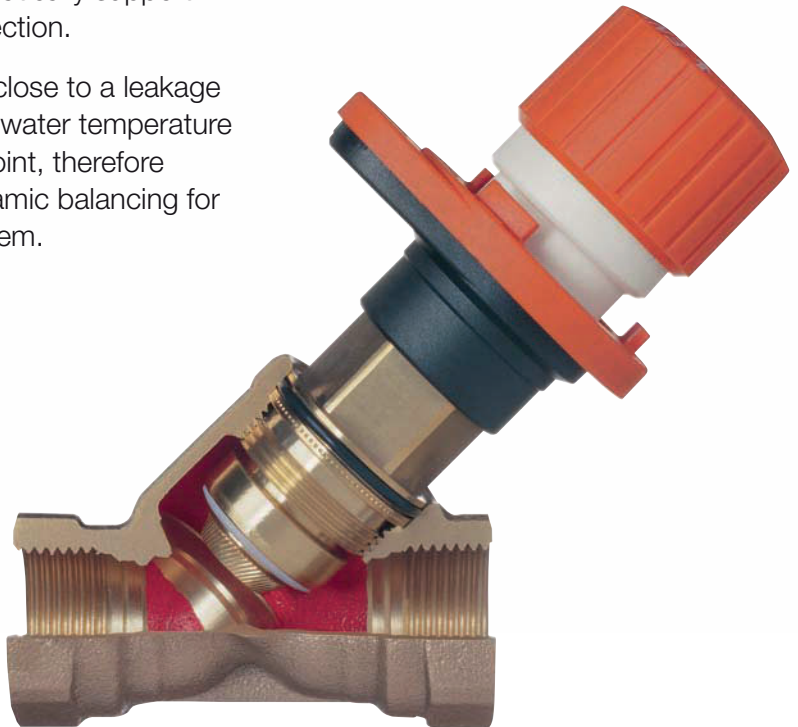
Guidance to the Water Regulations Department for Environment, Food & Rural Affairs, Water Supply (Water Fittings) Regulations 1999 Guidance Document relating to Schedule 1: Fluid Categories and Schedule 2: Requirements for Water Fittings. DEFFRA 1999, London.

Balancing Valves



The Kombi 4 is a thermostatic balancing valve for hot water circulation systems. Installed in the return pipework and equipped with a thermal actuator the Kombi 4 will control return water temperatures and will automatically support thermal disinfection.

The valve will close to a leakage rate when the water temperature reaches set point, therefore providing dynamic balancing for the water system.





Handwheel
with display of
selected setting



Optional thermostatic
actuator
keeps the circulation
temperature constant
to the exact degree.
Retrofittable without
interruption



Draining adaptor
is mounted
retrospectively and can
be unscrewed after
the draining process



Optional thermometer
can be used with
or without the
thermostatic control
attachment

Kombi 4



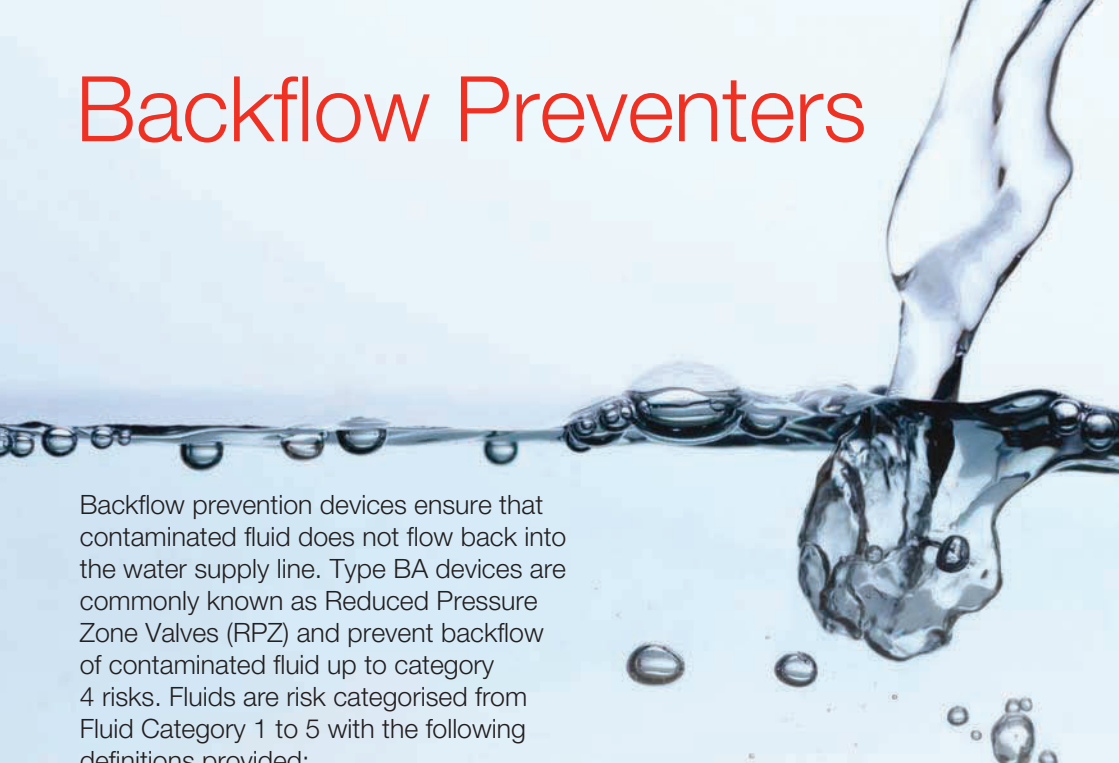
Features and Benefits

- Optional thermostatic actuator controls the return water temperature and allows a thermal disinfection cycle
- A combined throttle and shut off facility means no need for additional isolation valves
- A separate drain adapter can be used as a drain off point
- The additional thermometer can clearly display the circulation temperature

Sizes ½" – 1½" BSP connections with various fittings options



Backflow Preventers



Backflow prevention devices ensure that contaminated fluid does not flow back into the water supply line. Type BA devices are commonly known as Reduced Pressure Zone Valves (RPZ) and prevent backflow of contaminated fluid up to category 4 risks. Fluids are risk categorised from Fluid Category 1 to 5 with the following definitions provided:

Fluid Category 1

Wholesome water supplied by a water undertaker and complying with the requirements of regulations made under section 67 of the Water Industry Act 1991

Fluid Category 2

Water in fluid category 1 whose aesthetic quality is impaired owing to:

- a) A change in its temperature, or
- b) The presence of substances or organisms causing a change in its taste, odour or appearance, including water in a hot water distribution system

Fluid Category 3

Fluid which represents a slight health hazard because of the concentration of substances of low toxicity, including any fluid which contains:

- a) Ethylene glycol, copper sulphate solution or similar chemical additives, or
- b) Sodium hypochlorite (common disinfectants)

Fluid Category 4

Fluid which represents a significant health hazard because of the concentration of toxic substances, including any fluid which contains:

- a) Chemical, carcinogenic substances or pesticides (including insecticides and herbicides), or
- b) Environmental organisms of potential health significance

Fluid Category 5

Fluid representing a serious health hazard because of the concentration of pathogenic organisms, radioactive or very toxic substances, including any fluid which contains:

- a) Faecal material or other human waste,
- b) Butchery or other animal waste, or
- c) Pathogens from any other source

RPZ valves may be used for all fluid categories except category 5 and there are many applications for RPZ valves including breweries, car washing and degreasing plants, dairies, commercial laundries and commercial dishwashers. All proposed installations of backflow prevention devices must be submitted to the local water supplier for approval.

The BA295 and BA195 are backflow preventers suitable for protection against back pressure, backflow and back siphonage for fluids up to category 4.

BA295



Features and Benefits

- Compact construction
- Combined check valve and discharge valve cartridge assembly – easier servicing and maintenance
- Maximum operating temperature 65°C
- DZR brass housing
- Integral inlet strainer
- Triple security – two check valves and a discharge valve separate the backflow preventer into three pressure zones
- BA295i variant – stainless steel body

Sizes ½" – 2" BSP connections



BA195



Features and Benefits

- Compact construction – suitable for areas where space is limited
- Combined check valve and discharge valve cartridge assembly – easier servicing and maintenance
- Maximum operating temperature 65°C
- DZR brass housing
- Integral inlet strainer
- Triple security – two check valves and a discharge valve separate the backflow preventer into three pressure zones

Sizes ¾" BSP connection



The BA298 is a backflow preventer suitable for protection against back pressure, backflow and back siphonage for fluids up to category 4. It is particularly suitable for industrial and commercial applications.

BA298



Features and Benefits

- Light weight stainless steel construction
- Maximum operating temperature 60°C
- In-line service – all components serviceable without removal from pipework
- BA298i F variant – fully stainless steel version offers maximum corrosion protection

Sizes DN65 – DN150



Water Filters

Honeywell water filters use a patented reverse rinsing system to ensure clean water is supplied at all times to an appliance or process. Dirt particles or foreign bodies are filtered out by a fine stainless steel mesh filter which prevents pitting corrosion of pipework and ensures performance of the system.

Water filter combinations which combine water filtration with pressure control are available along with accessories which can automate the filters.

The F76S fine filter and F76S-F flanged fine filters are used to prevent the ingress of dirt particles for industrial and commercial applications. The patented reverse rinse mechanism ensures that flow is available at all times, even during the back wash process.

F76S



Features and Benefits

- Double spin technology for connection sizes $\frac{1}{2}$ " – $1\frac{1}{4}$ "
- Filter and filter bowl can be replaced
- Available with a pressure gauge
- Filtered water even during back wash cycle
- Construction:
Brass construction PN16
- Mesh sizes:
20µm to 500µm
- Z11S automatic actuator can be fitted for timed back wash
- DDS76 differential pressure switch can be fitted for fully automated operation

Sizes

$\frac{1}{2}$ " – 2" screwed BSP connections



F76S-F



Features and Benefits

- Available with a pressure gauge
- Filtered water even during back wash cycle
- Construction:
Red bronze construction PN16 means corrosion protection
- Mesh sizes:
50µm to 500µm
- Z11AS automatic actuator can be fitted for timed back wash
- DDS76 differential pressure switch can be fitted for fully automated operation

Sizes

DN65 – DN100



DDS76



DDS76 differential pressure switch

Z11S / Z11AS



Z11S/Z11AS automatic actuator

Series 300 Control Valves

DR300



The Honeywell Series 300 is an extensive range of pilot operated diaphragm valves for use with wholesome water, heating and chilled water applications.

Many control options are available, all derived from a common, compact body design. The soft seal with stainless steel seat ensures drip free shut off.

The valve range offers excellent regulation from full flow capacity down to near zero flow conditions, eliminating the need for a low flow bypass and making valve selection easier and faster.

Valves may be operated hydraulically, or may be solenoid operated and managed by a Building Management System controller.

A pressure regulating valve which maintains a constant outlet pressure regardless of inlet pressure fluctuations.

Features and Benefits

- High flow capacity
- Outlet pressure up to 12 bar
- Pilot control circuit with integral rinsable filter insert
- PN 16 standard. PN 25 on request
- Maximum operating temperature 80°C

Sizes DN 40 – DN 450



FV300



A filling valve which uses a float to control levels in a tank.

Features and Benefits

- High flow capacity
- Pilot float valve to enable 'delayed fill' for water tanks

- Float valve switching differentials up to 160mm
- Hydraulic or solenoid valve operated
- PN 16 standard. PN 25 on request
- Maximum operating temperature 80°C

Sizes DN 40 – DN 450

DH300



The set pressure of this pressure sustaining valve is held constant on the inlet side.

Features and Benefits

- May be used in-line or on a branch with excess pressure
- Pilot control circuit with integral rinsable filter insert
- PN 16 standard. PN 25 on request
- Maximum operating temperature 80°C

Sizes DN 40 – DN 450

SV300



Protects downstream parts of a system from excessive pressure with a quick relief safety valve.

Features and Benefits

- Very fast opening at set point
- High flow capacity
- Relief pressure setting up to 12 bar
- Pilot control circuit with integral rinsable filter insert
- PN 16 standard. PN 25 on request
- Maximum operating temperature 80°C

Sizes DN 40 – DN 450

MV300



A magnetic remote controlled solenoid valve that opens or shuts off a system.

Features and Benefits

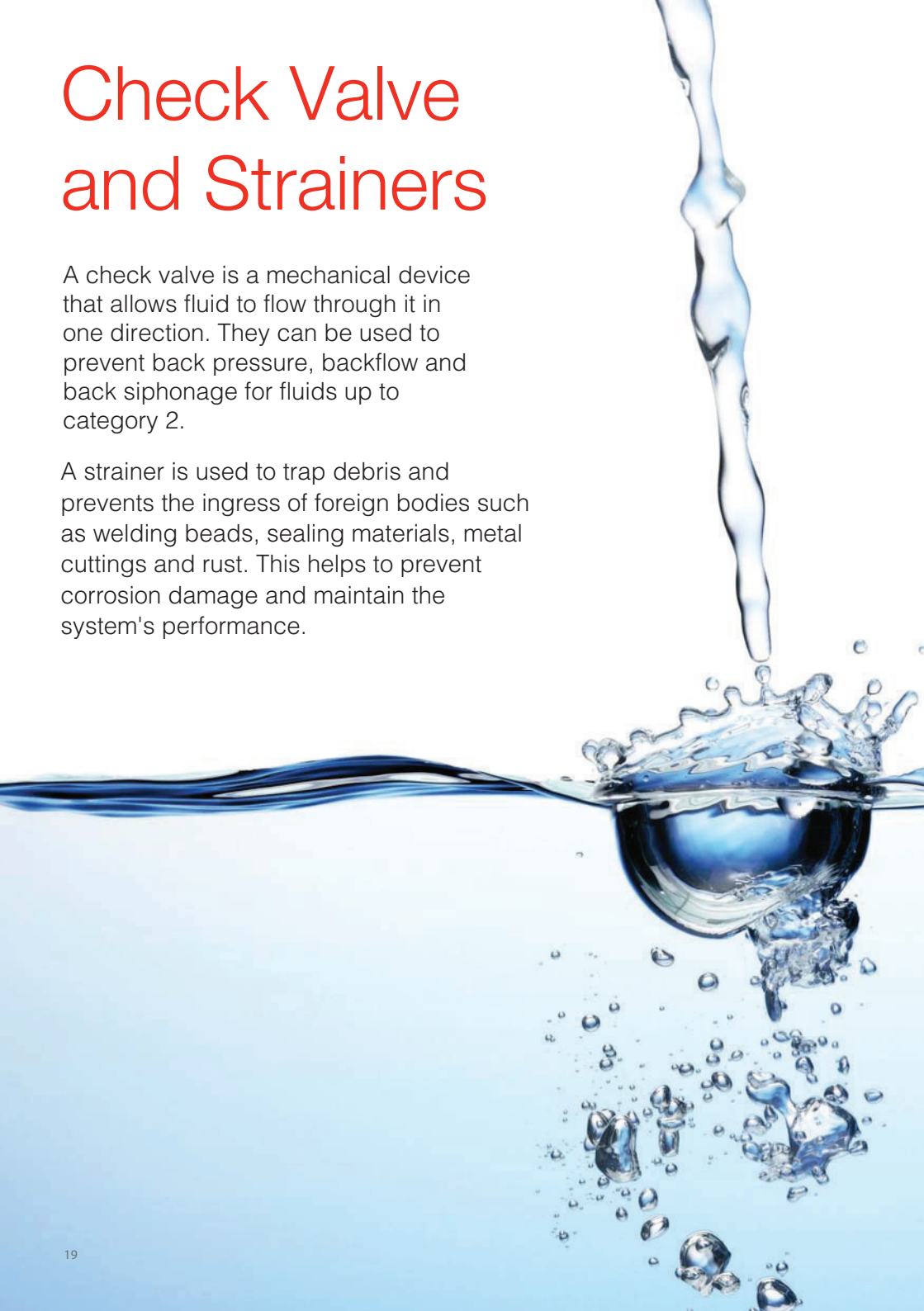
- High flow capacity
- Pilot control circuit with integral rinsable filter insert
- 24V / 230V versions
- PN 16 standard. PN 25 on request
- Maximum operating temperature 80°C

Sizes DN 40 – DN 450

Check Valve and Strainers

A check valve is a mechanical device that allows fluid to flow through it in one direction. They can be used to prevent back pressure, backflow and back siphonage for fluids up to category 2.

A strainer is used to trap debris and prevents the ingress of foreign bodies such as welding beads, sealing materials, metal cuttings and rust. This helps to prevent corrosion damage and maintain the system's performance.



RV283P



The RV283P is a flanged check valve and is used in commercial and industrial applications.

Features and Benefits

- Low pressure loss
- Maximum operating temperature 70°C
- Protects up to liquid category 2
- Powder coated inside and outside
- Maximum inlet pressure, choice of 16 bar (A) or 10 bar (B)
- Opening pressure 0.05 bar

Sizes DN 40 – DN 300



FY69P



The FY69P is a flanged strainer and is used in commercial and industrial applications.

Features and Benefits

- Low flow resistance
- Cast iron body and stainless steel construction provides corrosion resistance
- Sieves are easily removed and replaced
- Operating pressure maximum 16 bar
- Maximum operating temperature 150°C

Sizes DN 15 – DN 200

FY30



The FY30 is suitable for use in commercial and industrial applications.

Features and Benefits

- Low flow resistance
- Brass and stainless steel construction provides corrosion resistance
- Sieves are easily removed and replaced
- Operating pressure maximum 16 bar
- Maximum operating temperature 160°C

Sizes 3/8" – 2" BSP connections

Accreditations and Trade Bodies



WRAS Approval

When installing a product which will carry or receive water from the public mains water supply in the UK, it is a criminal offence if it does not comply with the Water Supply (Water Fittings) Regulations or Scottish Byelaws. These require that a water fitting should not cause waste, misuse, undue consumption or contamination of the water supply and must be 'of an appropriate quality and standard'.

WRAS Approval is the best way to demonstrate compliance as it is granted directly by representatives of the water suppliers and is therefore accepted by every water supplier in the UK.



Waterwise Marque

The Marque is awarded annually to products which reduce water wastage or raise the awareness of water efficiency.

We are members of the following:



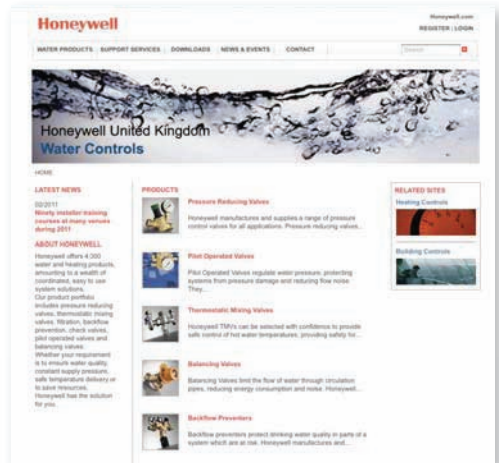
Thermostatic Mixing Valve
Manufacturers Association



Our Water Controls Website

www.honeywellukwater.com

- Full range of water products
- CPD training
- Download literature; installer guides, user guides, catalogues etc.
- FAQs
- Building Regulations
- Spare parts
- News
- See also www.honeywell-valvesizing.com



Water Products Product Code Selector

Pressure Reducing Valves (pages 4-6)

D04FS Pressure Reducing Valves

D04FS-1/2A	1/2" BSP connections, outlet range 1.5-6.0 bar
D04FS-3/4A	3/4" BSP connections, outlet range 1.5-6.0 bar
D04FS-1/2ZC	15mm compression fittings, outlet range 1.5-6.0 bar
D04FS-3/4ZC	22mm compression fittings, outlet range 1.5-6.0 bar
D04FS-3/8A	3/8" BSP connections, outlet range 1.5-6.0 bar
D04FS-1/2ZGC	As D04FS-1/2ZC complete with gauge
D04FS-3/4ZGC	As D04FS-3/4ZC complete with gauge

D05F Pressure Reducing Valves

D05F-1/2A	1/2" BSP connections, outlet range 1.5-6.0 bar
D05F-1/2E	1/2" BSP connections, no fittings, outlet range 1.5-6.0 bar
D05F-3/4E	3/4" BSP connections, no fittings, outlet range 1.5-6.0 bar
D05F-3/4A	3/4" BSP connections, outlet range 1.5-6.0 bar
D05F-1A	1" BSP connections, outlet range 1.5-6.0 bar
D05F-1E	1" BSP connections, no fittings, outlet range 1.5-6.0 bar
D05F-1/2EC	15mm compression fittings, outlet range 1.5-6.0 bar
D05F-3/4EC	22mm compression fittings, outlet range 1.5-6.0 bar

D06F Pressure Reducing Valves

D06F-1/2B	1/2" BSP connections, outlet range 1.5-6.0 bar
D06F-1/2K	15mm compression fittings, outlet range 1.5-6.0 bar
D06F-3/4B	3/4" BSP connections, outlet range 1.5-6.0 bar
D06F-3/4K	22mm compression fittings, outlet range 1.5-6.0 bar
D06F-1B	1" BSP connections, outlet range 1.5-6.0 bar
D06F-11/4B	1 1/4" BSP connections, outlet range 1.5-6.0 bar
D06F-11/2B	1 1/2" BSP connections, outlet range 1.5-6.0 bar
D06F-2B	2" BSP connections, outlet range 1.5-6.0 bar

D06FH Pressure Reducing Valves (high pressure applications)

D06FH-1/2B	1/2" outlet range 1.5-12.0 bar
D06FH-3/4B	3/4" outlet range 1.5-12.0 bar
D06FH-1B	1" outlet range 1.5-12.0 bar
D06FH-11/4B	1 1/4" outlet range 1.5-12.0 bar
D06FH-11/2B	1 1/2" outlet range 1.5-12.0 bar
D06FH-2B	2" outlet range 1.5-12.0 bar

D06FN Pressure Reducing Valves (low pressure applications)

D06FN-1/2B	1/2" outlet range 1.5-2.0 bar
D06FN-3/4B	3/4" outlet range 1.5-2.0 bar
D06FN-1B	1" outlet range 1.5-2.0 bar
D06FN-11/4B	1 1/4" outlet range 1.5-2.0 bar
D06FN-11/2B	1 1/2" outlet range 1.5-2.0 bar
D06FN-2B	2" outlet range 1.5-2.0 bar

MTA06 Multi Occupant Assemblies

MTA06-3/4B	3/4" with Capron bowl, isolating valve and double check valve outlet range 1.5-6 bar
MTA06-1B	1" with Capron bowl, isolating valve and double check valve outlet range 1.5-6 bar

MTA06 Multi Occupant Assemblies (high pressure application)

MTA06-3/4H	3/4" with brass bowl, isolating valve and double check valve outlet range 1.5-12 bar
MTA06-1H	1" with brass bowl, isolating valve and double check valve outlet range 1.5-12 bar

D15P/D15NP Flanged Direct Acting Pressure Reducing Valves

D15P-50A	DN50 outlet range 1.5-8.0 bar
D15P-65A	DN65 outlet range 1.5-8.0 bar
D15P-80A	DN80 outlet range 1.5-8.0 bar
D15P-100A	DN100 outlet range 1.5-8.0 bar
D15P-125A	DN125 outlet range 1.5-8.0 bar
D15P-150A	DN150 outlet range 1.5-8.0 bar
D15P-200A	DN200 outlet range 1.5-2.0 bar
D15NP-50A	DN50 outlet range 0.2-2.0 bar
D15NP-65A	DN65 outlet range 0.2-2.0 bar
D15NP-80A	DN80 outlet range 0.2-2.0 bar
D15NP-100A	DN100 outlet range 0.2-2.0 bar
D15NP-125A	DN125 outlet range 0.2-2.0 bar
D15NP-150A	DN150 outlet range 0.2-2.0 bar
D15NP-200A	DN200 outlet range 0.2-2.0 bar

Thermostatic Mixing Valves (page 9)

TM200VP TMVs

TM200VP-3/4E	15mm, complete with check valves, TMV3 approved
TM200VP-3/4H	22mm, complete with check valves, TMV3 approved
TM200VP-3/4ZC	15mm with 4 in 1 tailpieces, TMV3 approved
TM200VP-3/4ZD	22mm with 4 in 1 tailpieces, TMV3 approved
VST200VP-15	15mm 4 in 1 tailpieces
VST200VP-22	22mm 4 in 1 tailpieces

TM300 TMVs

TM300-3/4H	22mm TMV2 approved
TM300-3/4ZD	22mm 4 in 1 tailpieces TMV2 approved
VST200VP-15	15mm 4 in 1 tailpieces

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Balancing Valves (page 12)

Kombi 4 Balancing Valves

V1810Y0015	Shut-off and throttle valve, 1/2", internal thread
V1810Y0020	Shut-off and throttle valve, 3/4", internal thread
V1810Y0025	Shut-off and throttle valve, 1", internal thread
V1810Y0032	Shut-off and throttle valve, 1 1/4", internal thread
V1810Y0040	Shut-off and throttle valve, 1 1/2", internal thread
VA2400A002	Thermal actuator for use with Kombi 4, 50-60°C
VA2400B002	Thermal actuator for use with Kombi 4, 40-65°C
VA3400A001	Draining Adaptor
TH07K	Thermometer

Backflow Preventers (page 14)

BA295 RPZ Valves

BA295-1/2AGB	RPZ 1/2" BSP
BA295-3/4AGB	RPZ 3/4" BSP
BA295-1BGP	RPZ 1" BSP
BA295-11/4BGP	RPZ 1 1/4" BSP
BA295-11/2AGB	RPZ 1 1/2" BSP
BA295-2AGB	RPZ 2A BSP
BA295I-1/2A	RPZ 1/2" BSP in SS
BA295I-3/4A	RPZ 3/4" BSP in SS
BA295I-1A	RPZ 1" BSP in SS
BA295I-11/4A	RPZ 1 1/4" BSP in SS
BA295I-11/2A	RPZ 1 1/2" BSP in SS
BA295I-2A	RPZ 2" BSP in SS

BA195-3/8E	Mini-backflow Preventer 3/8"
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BA298 Flanged RPZ Valves

BA298-65FA	Flanged RPZ - DN65
BA298-80FA	Flanged RPZ - DN80
BA298-100FA	Flanged RPZ - DN100
BA298-150FA	Flanged RPZ - DN150
BA298I-65FA	Flanged RPZ - DN65
BA298I-80FA	Flanged RPZ - DN80
BA298I-100FA	Flanged RPZ - DN100
BA298I-150FA	Flanged RPZ - DN150

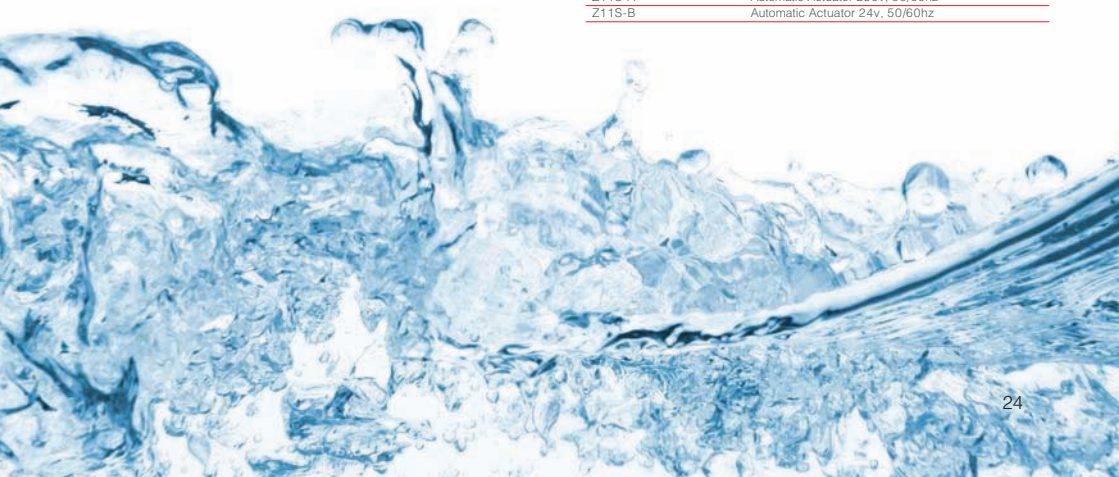
BA Valve Test Kits

TKA295	Analogue Test Kit for BA Valves
TK295	Electronic Test Kit for BA Valves

Water Filters (page 16)

F76S Reverse Rinse Filters (standard temp up to 40°C)

F76S-1/2AA	1/2" BSP 100 Micron mesh
F76S-1/2AB	1/2" BSP 20 Micron mesh
F76S-1/2AC	1/2" BSP 50 Micron mesh
F76S-1/2AD	1/2" BSP 200 Micron mesh
F76S-1/2AE	1/2" BSP 300 Micron mesh
F76S-1/2AF	1/2" BSP 500 Micron mesh
F76S-1/2AAM	1/2" BSP 100 Micron mesh up to 70°C
F76S-3/4AA	3/4" BSP 100 Micron mesh
F76S-3/4AB	3/4" BSP 20 Micron mesh
F76S-3/4AC	3/4" BSP 50 Micron mesh
F76S-3/4AD	3/4" BSP 200 Micron mesh
F76S-3/4AE	3/4" BSP 300 Micron mesh
F76S-3/4AF	3/4" BSP 500 Micron mesh
F76S-3/4AAM	3/4" BSP 100 Micron mesh up to 70°C
F76S-1AA	1" BSP 100 Micron mesh
F76S-1AB	1" BSP 20 Micron mesh
F76S-1AC	1" BSP 50 Micron mesh
F76S-1AD	1" BSP 200 Micron mesh
F76S-1AE	1" BSP 300 Micron mesh
F76S-1AF	1" BSP 500 Micron mesh
F76S-1AAM	1" BSP 100 Micron mesh up to 70°C
F76S-11/4AA	1 1/4" BSP 100 Micron mesh
F76S-11/4AB	1 1/4" BSP 20 Micron mesh
F76S-11/4AC	1 1/4" BSP 50 Micron mesh
F76S-11/4AD	1 1/4" BSP 200 Micron mesh
F76S-11/4AE	1 1/4" BSP 300 Micron mesh
F76S-11/4AF	1 1/4" BSP 500 Micron mesh
F76S-11/4AAM	1 1/4" BSP 100 Micron mesh up to 70°C
F76S-11/2AA	1 1/2" BSP 100 Micron mesh
F76S-11/2AB	1 1/2" BSP 20 Micron mesh
F76S-11/2AC	1 1/2" BSP 50 Micron mesh
F76S-11/2AD	1 1/2" BSP 200 Micron mesh
F76S-11/2AE	1 1/2" BSP 300 Micron mesh
F76S-11/2AF	1 1/2" BSP 500 Micron mesh
F76S-11/2AAM	1 1/4" BSP 100 Micron mesh up to 70°C
F76S-2AA	1 1/4" BSP 100 Micron mesh
F76S-2AB	1 1/4" BSP Micron mesh
F76S-2AC	1 1/4" BSP 50 Micron mesh
F76S-2AD	1 1/4" BSP 200 Micron mesh
F76S-2AE	1 1/4" BSP 300 Micron mesh
F76S-2AF	1 1/4" BSP 500 Micron mesh
F76S-2AAM	1 1/4" BSP 100 Micron mesh up to 70°C
DDS76-1	Differential Pressure Switch 1" + 1 1/4"
DDS76-1/2	Differential Pressure Switch 1/2" + 3/4"
DDS76-11/2	Differential Pressure Switch 1 1/2" + 2"
Z11S-A	Automatic Actuator 230v, 50/60hz
Z11S-B	Automatic Actuator 24v, 50/60hz



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Water Filters cont. (page 16)

F76S-F Flanged Reverse Rinse Filters

F76S-65FA	DN65 100 Micron mesh
F76S-65FB	DN65 20 Micron mesh
F76S-65FC	DN65 50 Micron mesh
F76S-65FD	DN65 200 Micron mesh
F76S-65FF	DN65 500 Micron mesh
F76S-80FA	DN80 100 Micron mesh
F76S-80FB	DN80 20 Micron mesh
F76S-80FC	DN80 50 Micron mesh
F76S-80FD	DN80 200 Micron mesh
F76S-80FF	DN80 500 Micron mesh
F76S-100FA	DN100 100 Micron mesh
F76S-100FB	DN100 20 Micron mesh
F76S-100FC	DN100 50 Micron mesh
F76S-100FD	DN100 200 Micron mesh
F76S-100FF	DN100 500 Micron mesh
DDS76-1	Differential Pressure Switch
Z11AS-1A	Automatic Actuator 230v, 50/60hz
Z11AS-1B	Automatic Actuator 24v, 50/60hz

Pilot Operated Filling Valves

FV300-50AUK	Filling Valve, DN50, PN16
FV300-50BUK	Filling Valve, DN50, PN25
FV300-65AUK	Filling Valve, DN65, PN16
FV300-65BUK	Filling Valve, DN65, PN25
FV300-80AUK	Filling Valve, DN80, PN16
FV300-80BUK	Filling Valve, DN80, PN25
FV300-100AUK	Filling Valve, DN100, PN16
FV300-100BUK	Filling Valve, DN100, PN25
FV300-150AUK	Filling Valve, DN150, PN16
FV300-150BUK	Filling Valve, DN150, PN25
FV300-200AUK	Filling Valve, DN200, PN16
FV300-200BUK	Filling Valve, DN200, PN25
FV300-250AUK	Filling Valve, DN250, PN16
FV300-250BUK	Filling Valve, DN250, PN25
FV300-300AUK	Filling Valve, DN300, PN16
FV300-300BUK	Filling Valve, DN300, PN25
FV300-350AUK	Filling Valve, DN350, PN16
FV300-350BUK	Filling Valve, DN350, PN25
FV300-400AUK	Filling Valve, DN400, PN16
FV300-400BUK	Filling Valve, DN400, PN25
FV300-450AUK	Filling Valve, DN450, PN16
FV300-450BUK	Filling Valve, DN450, PN25

Series 300 Control Valves (pages 17-18)

Pilot Operated Pressure Regulating Valves

DR300-50AUK	Pressure Regulating Valve, DN50, PN16
DR300-50BUK	Pressure Regulating Valve, DN50, PN25
DR300-65AUK	Pressure Regulating Valve, DN65, PN16
DR300-65BUK	Pressure Regulating Valve, DN65, PN25
DR300-80AUK	Pressure Regulating Valve, DN80, PN16
DR300-80BUK	Pressure Regulating Valve, DN80, PN25
DR300-100AUK	Pressure Regulating Valve, DN100, PN16
DR300-100BUK	Pressure Regulating Valve, DN100, PN25
DR300-150AUK	Pressure Regulating Valve, DN150, PN16
DR300-150BUK	Pressure Regulating Valve, DN150, PN25
DR300-200AUK	Pressure Regulating Valve, DN200, PN16
DR300-200BUK	Pressure Regulating Valve, DN200, PN25
DR300-250AUK	Pressure Regulating Valve, DN250, PN16
DR300-250BUK	Pressure Regulating Valve, DN250, PN25
DR300-300AUK	Pressure Regulating Valve, DN300, PN16
DR300-300BUK	Pressure Regulating Valve, DN300, PN25
DR300-350AUK	Pressure Regulating Valve, DN350, PN16
DR300-350BUK	Pressure Regulating Valve, DN350, PN25
DR300-400AUK	Pressure Regulating Valve, DN400, PN16
DR300-400BUK	Pressure Regulating Valve, DN400, PN25
DR300-450AUK	Pressure Regulating Valve, DN450, PN16
DR300-450BUK	Pressure Regulating Valve, DN450, PN25

Pilot Operated Pressure Sustaining Valves

DH300-50AUK	Pressure Sustaining Valve, DN50, PN16
DH300-50BUK	Pressure Sustaining Valve, DN50, PN25
DH300-65AUK	Pressure Sustaining Valve, DN65, PN16
DH300-65BUK	Pressure Sustaining Valve, DN65, PN25
DH300-80AUK	Pressure Sustaining Valve, DN80, PN16
DH300-80BUK	Pressure Sustaining Valve, DN80, PN25
DH300-100AUK	Pressure Sustaining Valve, DN100, PN16
DH300-100BUK	Pressure Sustaining Valve, DN100, PN25
DH300-150AUK	Pressure Sustaining Valve, DN150, PN16
DH300-150BUK	Pressure Sustaining Valve, DN150, PN25
DH300-200AUK	Pressure Sustaining Valve, DN200, PN16
DH300-200BUK	Pressure Sustaining Valve, DN200, PN25
DH300-250AUK	Pressure Sustaining Valve, DN250, PN16
DH300-250BUK	Pressure Sustaining Valve, DN250, PN25
DH300-300AUK	Pressure Sustaining Valve, DN300, PN16
DH300-300BUK	Pressure Sustaining Valve, DN300, PN25
DH300-350AUK	Pressure Sustaining Valve, DN350, PN16
DH300-350BUK	Pressure Sustaining Valve, DN350, PN25
DH300-400AUK	Pressure Sustaining Valve, DN400, PN16
DH300-400BUK	Pressure Sustaining Valve, DN400, PN25
DH300-450AUK	Pressure Sustaining Valve, DN450, PN16
DH300-450BUK	Pressure Sustaining Valve, DN450, PN25

Water Products Product Code Selector

Series 300 Control Valves cont. (page 18)

Pilot Operated Quick Relief Safety Valves

SV300-50AUK	Quick Relief Safety Valve, DN50, PN16
SV300-50BUK	Quick Relief Safety Valve, DN50, PN25
SV300-65AUK	Quick Relief Safety Valve, DN65, PN16
SV300-65BUK	Quick Relief Safety Valve, DN65, PN25
SV300-80AUK	Quick Relief Safety Valve, DN80, PN16
SV300-80BUK	Quick Relief Safety Valve, DN80, PN25
SV300-100AUK	Quick Relief Safety Valve, DN100, PN16
SV300-100BUK	Quick Relief Safety Valve, DN100, PN25
SV300-150AUK	Quick Relief Safety Valve, DN150, PN16
SV300-150BUK	Quick Relief Safety Valve, DN150, PN25
SV300-200AUK	Quick Relief Safety Valve, DN200, PN16
SV300-200BUK	Quick Relief Safety Valve, DN200, PN25
SV300-250AUK	Quick Relief Safety Valve, DN250, PN16
SV300-250BUK	Quick Relief Safety Valve, DN250, PN25
SV300-300AUK	Quick Relief Safety Valve, DN300, PN16
SV300-300BUK	Quick Relief Safety Valve, DN300, PN25
SV300-350AUK	Quick Relief Safety Valve, DN350, PN16
SV300-350BUK	Quick Relief Safety Valve, DN350, PN25
SV300-400AUK	Quick Relief Safety Valve, DN400, PN16
SV300-400BUK	Quick Relief Safety Valve, DN400, PN25
SV300-450AUK	Quick Relief Safety Valve, DN450, PN16
SV300-450BUK	Quick Relief Safety Valve, DN450, PN25

Pilot Operated Solenoid Valves

MV300-50AUK	Solenoid Valve, DN50, P16
MV300-50BUK	Solenoid Valve, DN50, P25
MV300-65AUK	Solenoid Valve, DN65, P16
MV300-65BUK	Solenoid Valve, DN65, PN25
MV300-80AUK	Solenoid Valve, DN80, PN16
MV300-80BUK	Solenoid Valve, DN80, PN25
MV300-100AUK	Solenoid Valve, DN100, PN16
MV300-100BUK	Solenoid Valve, DN100, PN25
MV300-150AUK	Solenoid Valve, DN150, PN16
MV300-150BUK	Solenoid Valve, DN150, PN25
MV300-200AUK	Solenoid Valve, DN200, PN16
MV300-200BUK	Solenoid Valve, DN200, PN25
MV300-250AUK	Solenoid Valve, DN250, PN16
MV300-250BUK	Solenoid Valve, DN250, PN25
MV300-300AUK	Solenoid Valve, DN300, PN16
MV300-300BUK	Solenoid Valve, DN300, PN25
MV300-350AUK	Solenoid Valve, DN350, PN16
MV300-350BUK	Solenoid Valve, DN350, PN25
MV300-400AUK	Solenoid Valve, DN400, PN16
MV300-400BUK	Solenoid Valve, DN400, PN25
MV300-450AUK	Solenoid Valve, DN450, PN16
MV300-450BUK	Solenoid Valve, DN450, PN25

Check Valve and Strainers (page 20)

Flanged Check Valves

RV283P-40A	Flanged Check Valve, DN40, PN16
RV283P-40B	Flanged Check Valve, DN40, PN10
RV283P-50A	Flanged Check Valve, DN50, PN16
RV283P-50B	Flanged Check Valve, DN50, PN10
RV283P-65A	Flanged Check Valve, DN65, PN16
RV283P-65B	Flanged Check Valve, DN65, PN10
RV283P-80A	Flanged Check Valve, DN80, PN16
RV283P-80B	Flanged Check Valve, DN80, PN10
RV283P-100A	Flanged Check Valve, DN100, PN16
RV283P-100B	Flanged Check Valve, DN100, PN10
RV283P-125A	Flanged Check Valve, DN125, PN16
RV283P-125B	Flanged Check Valve, DN125, PN10
RV283P-150A	Flanged Check Valve, DN150, PN16
RV283P-150B	Flanged Check Valve, DN150, PN10
RV283P-200A	Flanged Check Valve, DN200, PN16
RV283P-200B	Flanged Check Valve, DN200, PN10
RV283P-250A	Flanged Check Valve, DN250, PN16
RV283P-250B	Flanged Check Valve, DN250, PN10
RV283P-300A	Flanged Check Valve, DN300, PN16
RV283P-300B	Flanged Check Valve, DN300, PN10

FY30 Strainers

FY30-3/8A	Strainer 3/8" 35mm Mesh
FY30-3/8B	Strainer 3/8" 0.18mm Mesh
FY30-1/2A	Strainer 1/2" 35mm Mesh
FY30-1/2B	Strainer 1/2" 0.18mm Mesh
FY30-3/4A	Strainer 3/4" 35mm Mesh
FY30-3/4B	Strainer 3/4" 0.18mm Mesh
FY30-1A	Strainer 1" 35mm Mesh
FY30-1B	Strainer 1" 0.18mm Mesh
FY30-1 1/4A	Strainer 1 1/4" 35mm Mesh
FY30-1 1/4B	Strainer 1 1/4" 0.18mm Mesh
FY30-1 1/2A	Strainer 1 1/2" 35mm Mesh
FY30-1 1/2B	Strainer 1 1/2" 0.18mm Mesh
FY30-2A	Strainer 2" 35mm Mesh
FY30-2B	Strainer 2" 0.18mm Mesh

FY69P Flanged Strainers

FY69P-15A	Flanged Strainer, 15mm
FY69P-20A	Flanged Strainer, 20mm
FY69P-25A	Flanged Strainer, 25mm
FY69P-32A	Flanged Strainer, 32mm
FY69P-40A	Flanged Strainer, 40mm
FY69P-50A	Flanged Strainer, 50mm
FY69P-65A	Flanged Strainer, 65mm
FY69P-80A	Flanged Strainer, 80mm
FY69P-100A	Flanged Strainer, 100mm
FY69P-125A	Flanged Strainer, 125mm
FY69P-150A	Flanged Strainer, 150mm
FY69P200A	Flanged Strainer, 200mm



Ultravalve Ltd
Units F & G, Westminster Industrial
Estate, Cradley Rd, Dudley, DY2
9SW
01384 411 888
sales@ultravalve.co.uk

www.ultravalve.co.uk

Honeywell