

HIGH PRESSURE EXPANSION NON-RETURN VALVE



RMC's High Pressure Expansion Non-Return (HPNR) Valves are a combination non-return and pressure relief device.



Model	Catalogue Number
HPNR 15mm Unrestricted	HPNR503

Description

RMC's High Pressure Expansion Non-Return (HPNR) Valves are suitable for coil type heat exchange water heaters. The valve is a combination non-return and pressure relief device. The non-return prevents the backflow of hot water into the mains supply. The relief valve prevents an over-pressure condition within the coil.

HPNR Valves limit the maximum pressure in a system by relieving excess pressure to the drain line and are classified as a functional control for this type of application. HPNR Valves should only be installed on the cold or inlet supply of a water heater as the valve is primarily intended to cope with the excess pressure generated during a normal heating cycle.

RMC's HPNR Valve is available in a 15mm configuration.

Application

RMC's HPNR Valve is suitable for installation in water heaters where the dual function of inlet pressure control and cold expansion relief is required (e.g. Coil type heat exchange mains pressure water heaters).

Performance Specifications

Maximum Temperature	99°C
Kilowatt Capacity	10 kilowatts
Inlet Thread	DN15Cn
Coil Connection (Refer to 02 below)	G3/8 Female
Static Tank Connection (Refer to 01 below)	G1/2 Female
Pressure Setting	1400 kPa

Features and Benefits

- Economical one-piece construction
- One valve meets the requirements of expansion and non-return valve for heat-exchange heaters
- Increased heating efficiency
- Expanded water is directed to the storage tank rather than dumped to waste
- Sealed spring cavity prevents spring from seizing in the event of calcification
- Dezincification resistant
- Meets Australian Standard for potable water supply
- Suitable for horizontal or vertical installation
- Individually tested and calibrated

Materials

Body	DZR Forged Brass
Spring	Stainless Steel
O-ring	Nitrile
Seal	Silicon
Check Valve	EPDM, POM Stainless Steel



Uniquely Australian

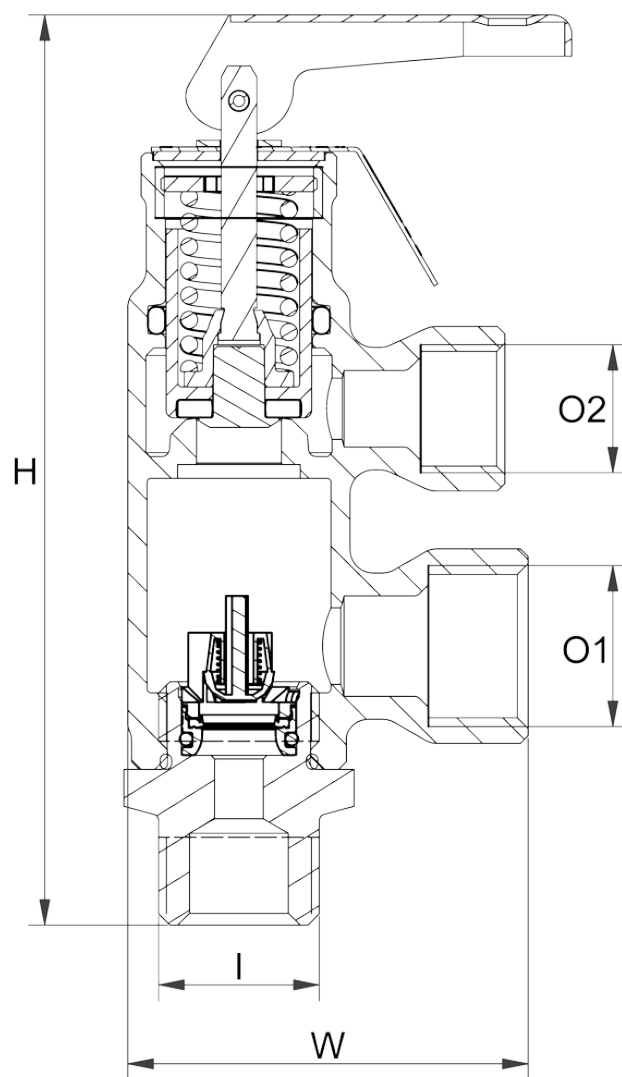
HIGH PRESSURE EXPANSION NON-RETURN VALVE



Dimensions

Model	H	W	I	O1	O2
HPNR	119	53	DN15	DN15	DN10

All dimensions in millimeters unless otherwise stated



LOW PRESSURE EXPANSION CONTROL VALVES



Low Pressure Expansion Control Valves limit the maximum pressure in a pressurised, unvented water heater system by relieving excess pressure to the drain line.



Model	Catalogue Number
LV50 15mm (65-280kPa)	LV501
LV75 20mm (65-280kPa)	LV701
<i>Please state required pressure when ordering</i>	

Description

Low Pressure Expansion Control Valves should only be installed on the cold or inlet supply of a water heater as the valve is primarily intended to cope with the excess pressure generated during a normal heating cycle.

RMC Low Pressure Expansion Control Valves are available in 15mm and 20mm configurations.

Application

The RMC Low Pressure Expansion Control Valve range of relief valves are suitable for use on water heater inlets or for any application where expansion safeguards are necessary. RMC recommends installing a Low Pressure Expansion Control Valve as part of a complete inlet control system for water heater applications.

Please check with RMC to ensure that the Low Pressure Expansion Control Valve is suitable for your application.

Notes

The Drain Line must be compliant with AS/NZS 3500. Failure to provide adequate drainage may result in premature activation of the blowout cage. The blowout cage in this valve cannot be replaced as it is rolled into the body of the valve.

Features and Benefits

- Increased heating efficiency
- Releasing pressure at the inlet saves energy by not purging heated water
- Auxiliary pressure relief device
- Sealed spring cavity prevents spring from seizing in the event of calcification
- Dezincification resistant
- Meets Australian Standard for potable water supply
- Suitable for horizontal or vertical installation

Materials

Body	Cast Gunmetal
Internal Parts	Brass and Stainless Steel
Seat Disc	Silicon
Pressure Spring	Stainless Steel



Uniquely Australian

LOW PRESSURE EXPANSION CONTROL VALVES



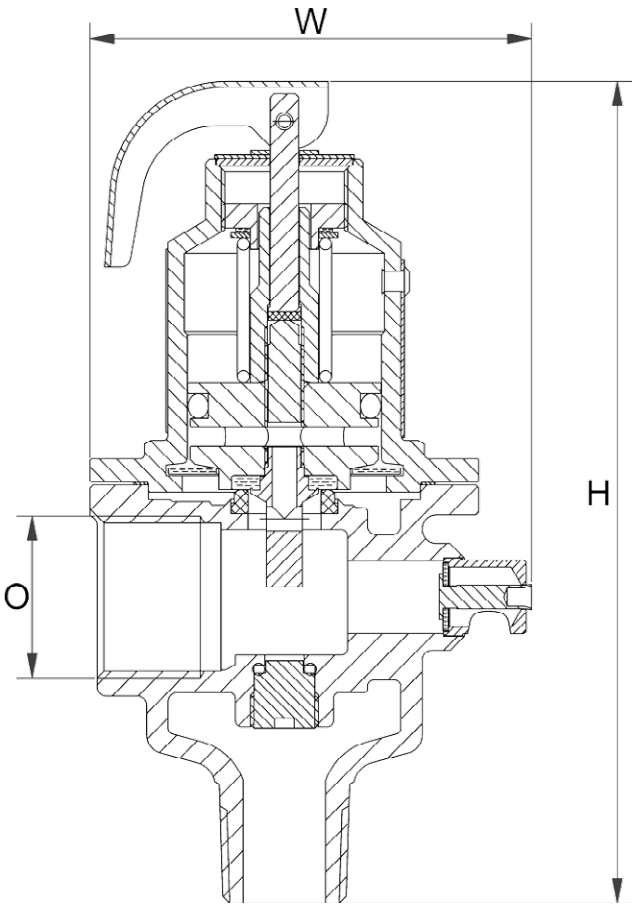
Performance Specifications

	LV50	LV75
Inlet (M.I.) mm	15	20
Outlet (F.I.) mm	20	20
Kilowatt Capacity	11 kW	11 kW
Maximum Temperature	99°C	99°C
Standard Pressure Settings Available (kPa)	Available in pressures from 65-280 kPa (All models)	

Dimensions

Model	Width (W)	Height (H)	Outlet (O)
LV50 15mm	73	135	DN15
LV75 20mm	73	135	DN20

NB: All dimensions in millimeters unless otherwise stated.



PRESSURE AND TEMPERATURE RELIEF VALVES



RMC's Pressure, Temperature & Vacuum Relief (P & T Relief) Valves are safety controls for unvented water heaters. They ensure that the pressure and temperature of the water do not exceed 99°C in the event the normal thermostatic controls fail.



Model	Size	Catalogue Number				
		500kPa	700kPa	850kPa	1000kPa	1400kPa
HT55	15mm	HT501	HT503	HT505	HT507	HT511
HTE55-1	15mm	-	HTE501	HTE502	HTE504	HTE506
HTE55-2	15mm	-	-	HTE509	HTE511	HTE513
HTT55-1	15mm	-	HTT515	HTT516	HTT517	HTT518
HT575	20mm	HT701	HT703	HT705	HT707	HT711
HTE575-1	20mm	-	-	HTE701	HTE703	HTE705
HTE575-2	20mm	-	-	HTE710	HTE709	-

Description

These valves may be used to guard against over-heating and over-pressure hazards wherever water is stored in unvented containers. This is a requirement of Australian Standard AS 3500-4.

RMC P & T Relief Valves are available in 15mm and 20mm configurations.

Application

The Pressure and Temperature Relief (P & T Relief) Valve should be installed at the heater. The system inlet pressure should be no higher than 80% of the set pressure of the P & T Relief Valve.

Please ensure that the set pressure of the High Pressure Expansion Control Valve is suitable for use with the water heater it will be installed with. For more information refer to the RMC Valve Application Guide.

Notes

1. It is recommended that the easing lever be actuated every six months to prevent accumulation of mineral deposits that may impair valve operation. Lever should be operated smoothly as a sudden influx of water may cause the auxiliary pressure relief device to activate.
2. The Drain Line must be compliant with AS 3500. Failure to provide adequate drainage may result in premature activation of the auxiliary pressure relief device.
3. Insulation is available for all Pressure and Temperature Relief Valves.

Features and Benefits

- Auxiliary pressure relief device
- Prevents pressure building up in the event of a blockage in the drain line
- Female BSP thread on outlet thread prevents incorrect installation to the tank
- Plastic coated temperature probe prevents electrolysis of the probe outer casing
- Dezincification resistant
- Meets Australian Standard for potable water supply
- Sealed spring cavity prevents spring from seizing in the event of calcification
- Suitable for horizontal or vertical installation
- Individually tested and calibrated
- Every valve is tested to ensure high quality and performance

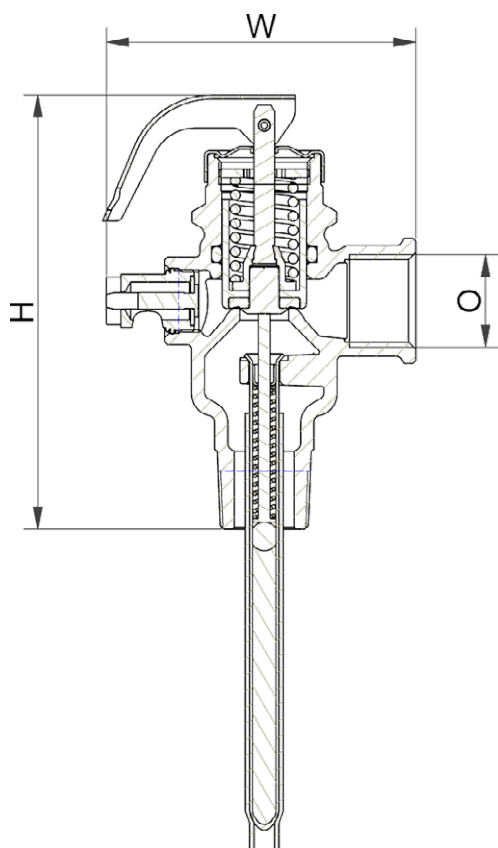


PRESSURE AND TEMPERATURE RELIEF VALVES



Dimensions

Model	Width (W)	Height (H)	Outlet (O)
HT55	68	98	DN15
HTE55-1	68	121	DN15
HTE55-2	68	144	DN15
HTT55-1	73	121	DN15
HT575	73	99	DN20
HTE75-1	73	121	DN20
HTE75-2	73	144	DN20



Materials

Body	Cast Gunmetal
Internal Parts	Brass and Polysulfone
Seat Disc	Silicone Rubber Compound
Pressure Spring	Stainless Steel
Thermal Element	Wax-based
Aux. Pressure Relief Device	Nylon

Technical Specifications

Model	Inlet (M) mm	Outlet (F) mm	Hot water take-off (compression)	kW Capacity	Max Temp.
HT55	R½	G½		10 kW	99°C
HTE55-1	R½	G½		10 kW	99°C
HTE55-2	R½	G½		10 kW	99°C
HTT55-1	R½	G½	DN15Cn	10 kW	99°C
HT575	R¾	G¾		46 kW	99°C
HTE575-1	R¾	G¾		46 kW	99°C
HTE575-2	R¾	G¾		30 kW	99°C

Standard Pressure Settings Available (kPa)

Model	500	700	850	1000	1400
HT55	✓	✓	✓	✓	✓
HTE55-1		✓	✓	✓	✓
HTE55-2			✓	✓	✓
HTT55-1		✓	✓	✓	✓
HT575	✓	✓	✓	✓	✓
HTE575-1			✓	✓	✓
HTE575-2			✓	✓	

PRESSURE, TEMPERATURE & VACUUM RELIEF VALVES



RMC's Pressure, Temperature & Vacuum Relief (P, T & V Relief) Valves are safety controls for unvented water heaters. They ensure that the pressure and temperature of the water do not exceed 99°C in the event the normal thermostatic controls fail.



Model	Catalogue Number
LTV55	LTV501
LTV575	LTV701

Description

P, T & V Relief Valves incorporate a vacuum breaking (air-inlet) device to protect the cylinder against implosion during the contraction cycle in lower working pressure hot water cylinders.

These valves may be used to guard against over-heating and over-pressure hazards wherever water is stored in unvented containers, particularly in lower working pressure hot water systems. This is a requirement of Australian Standard AS 3500-4.

RMC P, T & V Relief Valves are available in 15mm and 20mm configurations.

Application

The Pressure, Temperature and Vacuum Relief (P, T & V Relief) Valves should be installed at the heater. System inlet pressure should be no higher than 80% of the set pressure of the P, T & V Relief Valve. Please check with RMC to ensure which Pressure, Temperature and Vacuum Relief Valve is suitable for your application.

Materials

Body	Cast Gunmetal
Internal Parts	Brass and Stainless Steel
Seat Disc	Silicon
Pressure Spring	Stainless Steel
Thermal Element:	Wax-based

Features and Benefits

- Integral vacuum breaker device
- Offers protection against implosion during contraction cycle
- Auxiliary pressure relief device
- Prevents pressure building up in the event of a blockage in the drain line
- Female BSP thread on outlet thread prevents incorrect installation to the tank
- Plastic coated temperature probe prevents electrolysis of the probe outer casing
- Dezincification resistant
- Meets Australian Standard for potable water supply
- Sealed spring cavity prevents spring from seizing in the event of calcification
- Suitable for horizontal or vertical installation
- Individually tested and calibrated

Notes

The Drain Line must be compliant with AS 3500. Failure to provide adequate drainage may result in premature activation of blowout cage. The Blowout Cage in this valve cannot be replaced as it is rolled into the body of the valve.



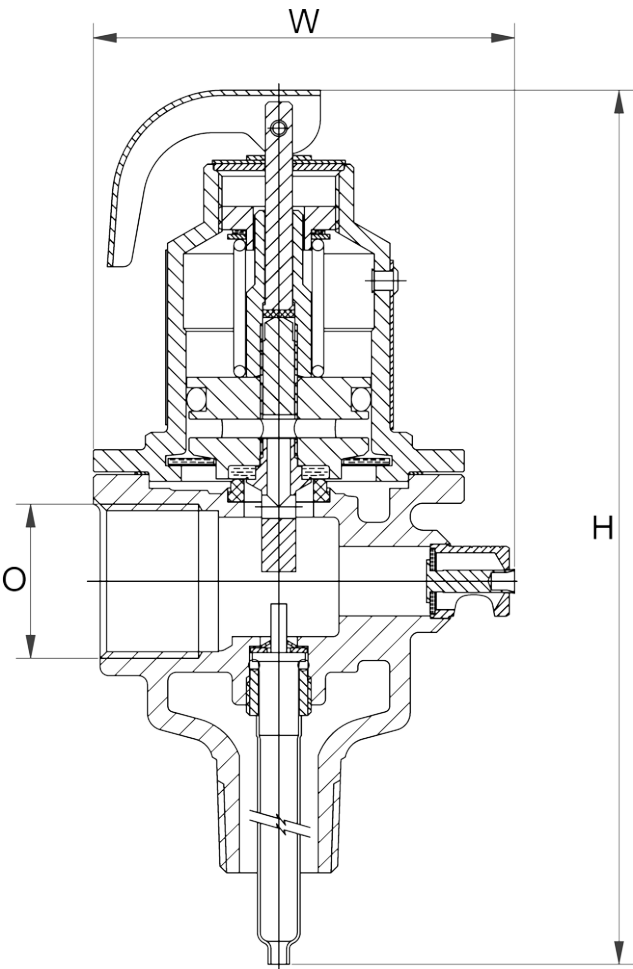
Uniquely Australian

Performance Specifications

	LTV55	LTV575
Maximum Temperature:	99°C (All models)	
Kilowatt Capacity:	7.3 kW	40 kW
Vacuum Relief	50 L/min (All models)	
Inlet Thread:	15mm BSP Male Taper	20mm BSP Male Taper
Outlet Thread:	20mm BSP Female (All models)	
Pressure Settings Available (kPa)	Available in pressures from 65-280 kPa (All models)	

Dimensions

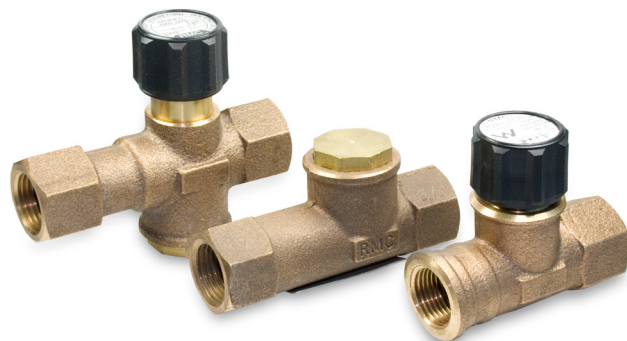
Model	Width (W)	Height (H)	Outlet (O)
LTV55	73	135	DN15
LTV575	73	135	DN20



Combination Non-Return Isolating Valve

Scope of Use / Specification Sheet

The Combination Non-Return Isolating Valve combines the mandatory functions of an isolating valve and non-return valve for the installation of pressurised water heaters.



Product Code

Model		Catalogue Number
15mm F BSP	NI50 Duo Valve	NI501
15mm Int Flare	NI50-A Duo Valve	NIA501
15mm M Comp	NI50-C Duo Valve*	NIC501
15mm F BSP	NR50-S Non-Return with Strainer	NRS501
15mm F BSP	NRI501-S Trio	NRIS501
20mm F BSP	NI75 Duo Valve	NI701
20mm Int Flare	NI75-A Duo Valve	NI703

*(Inc. nuts, copper and nylon olives)

Materials

Body	Cast gunmetal
Springs	Stainless steel
O-Rings/Seals	Nitrile
Internal Components	DZR brass/ultem
Strainer	Stainless steel

Application

Combination Non-Return Isolating Valves are suitable for use on water heater systems or wherever both non-return and isolating functions are required. RMC recommends installing a Combination Non-Return Isolating Valve as part of a complete inlet control system for water heater applications.

Features and Benefits

- Integral construction of non-return valve and isolating valve
- One piece unit for tidy, simple and economical installation
- No intermediate joins or fittings, reducing the opportunity for leaks and faults
- Tamper-proof non-return valve
- NRI50S 15mm Trio Valve model features integral line strainer for even simpler installation
- Dezincification resistant
- Meets Australian Standard for potable water supply
- Valve designed to work effectively in vertical or horizontal orientation

Description

The RMC Combination Non-Return Isolating Valve provides isolation and prevents the backflow of water from a water heater to the mains line. The device serves the dual purpose of protecting the mains supply from contamination and preventing the loss of water that has already been heated. The isolating valve component is useful as a means of controlling inlet water supply to unvented storage water heaters.

RMC Combination Non-Return Isolating Valve is available in 15mm and 20mm configurations.

Installation

Installation is subject to the requirements of the applicable regulatory authority, the National Construction Code Volume Three – Plumbing Code of Australia, associated reference standards as applicable at the time and AS/NZS 3500.1.



Combination Non-Return Isolating Valve

Performance Specifications

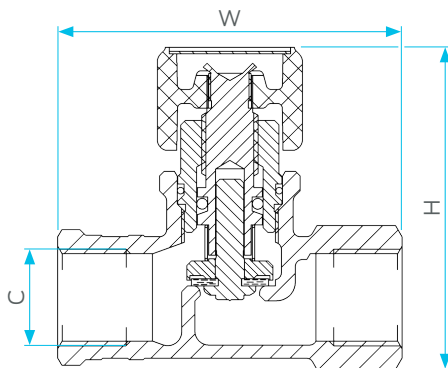
Model	Size/Connection	Max. Temperature	Max. Inlet Pressure	Non-Return	Isolating	Line Strainer
NI150 Duo Valve	DN15 Female	40°C	1400kPa	✓	✓	
NI50-A Duo Valve	DN15 Internal Flare	40°C	1400kPa	✓	✓	
NI50-C Duo Valve	DN15 Compression	40°C	1400kPa	✓	✓	
NI75 Duo Valve	DN20 Female	40°C	1400kPa	✓	✓	
NI75-A Duo Valve	DN20 Internal Flare	40°C	1400kPa	✓	✓	
NR50-S with Strainer	DN15 Female	40°C	1400kPa	✓		✓
NRI50-S Trio Valve	DN15 Female	40°C	1400kPa	✓	✓	✓

Dimensions

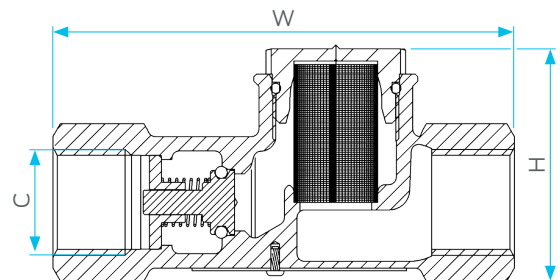
Model	Connection (C)	Width (W)	Height (H)
NI50	G½ Female	74	72
NI50-A	DN15Cn INT Flare	86	72
NI50-C	DN15Cn	102	72
NI75	G¾ Female	80	85
NI75-A	DN20Cn INT Flare	97	85
NR50-S	G½ Female	95	47
NRI50-S	G½ Female	95	83

Note: All measurements in mm unless otherwise stated.

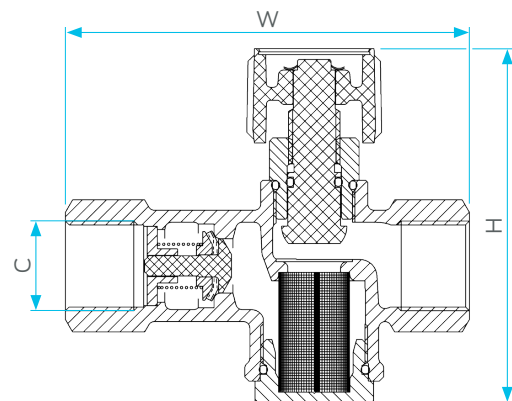
NI50 / NI50-A / NI50-C / NI75 / NI75-A



NR50-S



NRI50-S



Standards and Approvals



AS 13571
WMKA21984

Warranty

Reliance Worldwide Corporation (Aust.) Pty. Ltd. (RWC) will either replace or repair any defective goods where the defect arose as a result of manufacture within the warranty period. You may contact RWC at the phone number, address or e-mail shown below for further information or to make a claim.

Visit www.rmc.com.au/warranty to view the warranty statement in full and for further important information.

Pressure Reducing Valve

Scope of Use / Specification Sheet

The RMC Commercial PRV is a high flow pressure regulating valve for Commercial and Industrial Installations.

Product Code

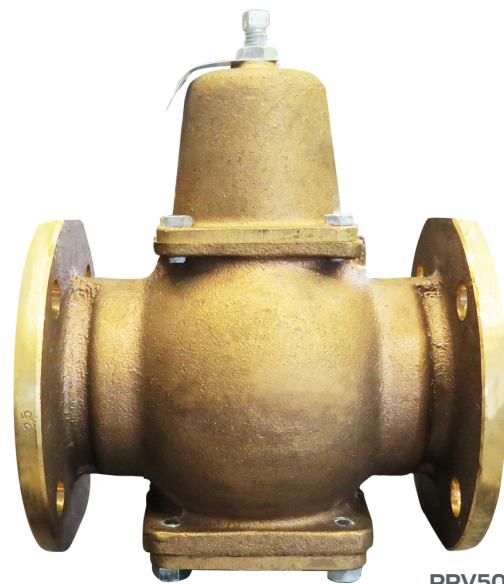
Model	Catalogue Number
50mm Flange	PRV50
65mm Flange	PRV65
80mm Flange	PRV80
100mm Flange	PRV100

Materials

Body	Cast Gunmetal
Spring	Spring Steel
Piston	Lead Free Bronze
Body Seat	Lead Free Bronze
Screw/Nut	316 Stainless Steel
Piston	DZR Brass
O-Ring	BUNA-N
Seat Ring	304 Stainless Steel

Description

The RMC Commercial PRV is supplied standard with flanged connections from 50mm to 100mm diameter. Reliance Commercial PRVs are adjustable from 350kPa – 750kPa, and are factory set at 500kPa.



PRV50

Features and Benefits

- Watermark approved product
- Balanced piston design
- Provides closer regulation and quiet performance
- Every valve is fully factory tested
- Specify and install with confidence
- Simple dependable construction
- Fewer parts for greater reliability
- Flanged connections
- Suitable for all standard installations

Application

The high capacity RMC Commercial PRV is ideal for supply to large usage facilities such as factories and industrial establishments. The PRV must be installed in the horizontal position, with the spring chamber upright. For ease of operation and maintenance it is suggested that manual isolation valves be installed upstream and downstream of the valve.

Pressure Reducing Valve

Technical Specifications

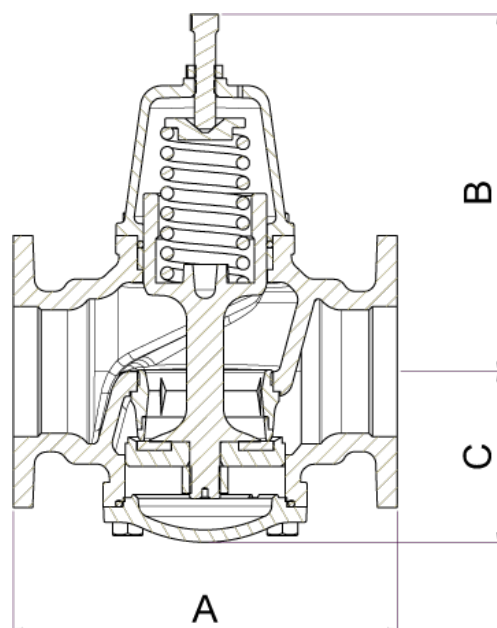
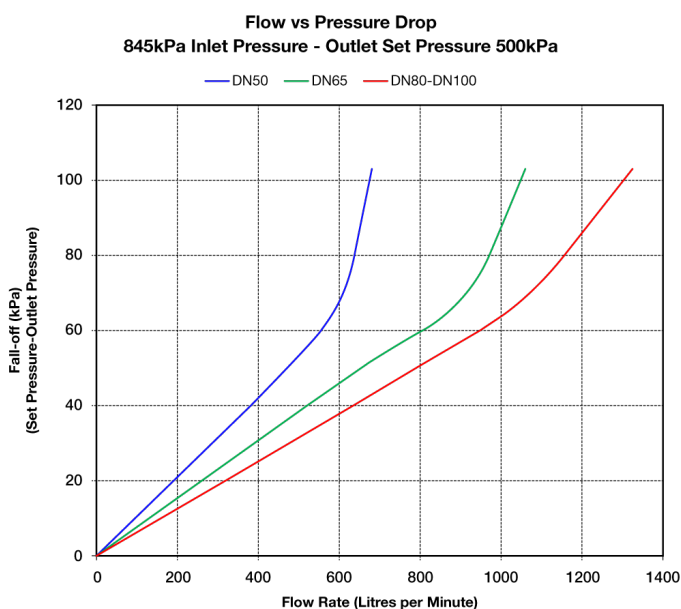
Outlet Pressure Range	350 to 750kPa
Factory Set Pressure	500kPa
Maximum Temperature	60°C
Maximum Operating Pressure	1600kPa
Maximum Inlet Pressure	2000kPa

Dimensions

Model	DN	A	B	C
PRV50	50mm Table D	198	190	90
PRV65	65mm Table D	201	190	90
PRV80	80mm Table D	210	190	90
PRV100	100mm Table D	222	190	102

Note: All measurements in mm unless otherwise stated.

Flow Characteristics



Standards and Approvals



WMTS-052
WMK26247

Warranty

Reliance Worldwide Corporation (Aust.) Pty. Ltd. (RWC) will either replace or repair any defective goods where the defect arose as a result of manufacture within the warranty period. You may contact RWC at the phone number, address or e-mail shown below for further information or to make a claim.

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Compact Pressure Reducing Valve

Scope of Use / Specification Sheet

The RMC Pressureguard® Compact Pressure Reducing Valve is used in water systems to limit the downstream pressure to the pre-set maximum. Easy serviceability and robust design makes the Pressureguard® a premium valve on the market.



PRV15, PRV20, PRV25

Product Code

Model	Catalogue number
15mm	PRV15
20mm	PRV20
25mm	PRV25

Materials

Body	Forged brass
Spring chamber	Epoxy coated zinc alloy
Adjusting screw	Brass
Pressure plate	Steel (zinc plated)
Diaphragm	EPDM
Seat Disc	EPDM
Piston	DZR brass
Strainer	Stainless steel
O-Ring	EPDM
Cartridge case	mPPE (polyphenylene ether)

Application

The RMC Pressureguard® Compact Pressure Reducing Valve is suitable for use in residential installations. The valve maintains a constant maximum outlet pressure to protect downstream installations from variations in supply pressure. Installing a Pressure Reducing Valve can minimise water wastage.

Incorporating the latest technologies into the modular designed compact PRV, the valve is suited for installations in areas with limited access.



Features and Benefits

- Adjustable outlet pressure set
- High flow capacity with minimal head loss
- Suitable for entire residential installations
- Robust design and construction
- Protects downstream installations from excess supply pressure
- Reduces maintenance and repair costs on expensive equipment
- Compact cartridge based design
- Valve and strainer can be serviced without disassembly
- No special tools required for maintenance or adjustment
- Simple screw adjustment mechanism
- Can be installed in any orientation

Technical Specifications

Recommended Operating Pressure Range	500 – 1600kPa
Multiple Installation Operating Pressure Range	500 – 1000kPa
Maximum Inlet Pressure	2000kPa
Maximum Supply Temperature	80°C
Adjustable Outlet Pressure Range	150 – 600kPa
Factory Set Pressure	500kPa ± 10%
Fluid Media	Water

Standards and Approvals



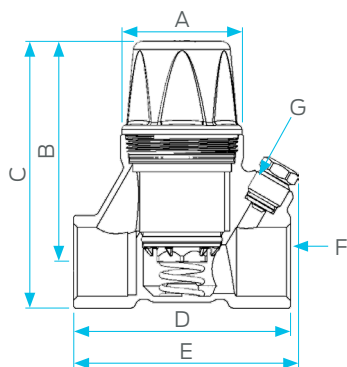
AS 1357.2
WMKA0938
SAI GLOBAL

Compact Pressure Reducing Valve

Dimensions

Model	A	B	C	D	E	F	G
PRV 15mm Female	43	80	94	76	80	RP $\frac{1}{2}$	G $\frac{1}{4}$
PRV 20mm Female	43	77	93	76	79	RP $\frac{3}{4}$	G $\frac{1}{4}$
PRV 25mm Female	43	74	93	79	81	RP1	G $\frac{1}{4}$

Note: All measurements in mm unless otherwise stated.



Multi-Storey Buildings

Where multiple pressure reducing valves will be used as part of a hydraulic circuit, consideration should be given to the design of the hydraulic circuit to avoid the operating condition where combined high inlet pressure/low outlet flow-rate results in high water velocity within the pressure reducing valve. Where inlet pressures are likely to exceed 1000kPa, this may be achieved through staged pressure reduction measures.

Installation

Installation is subject to the requirements of the applicable regulatory authority, the National Construction Code Volume Three – Plumbing Code of Australia, associated reference standards as applicable at the time and AS/NZS 3500.1.

Warranty

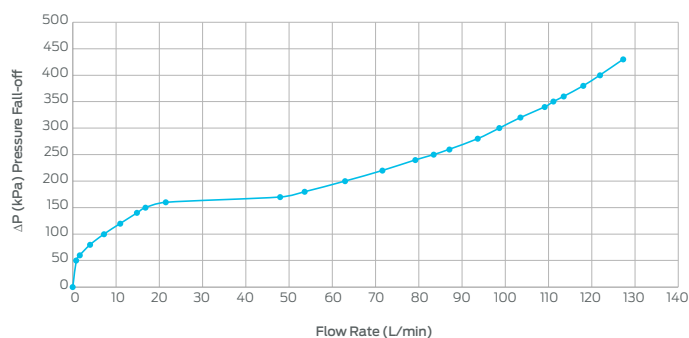
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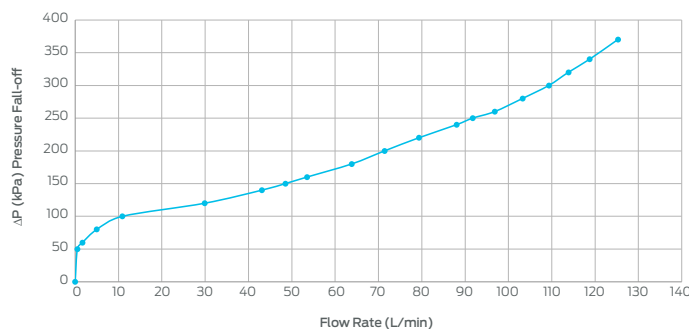
Flow Rates

DN15	18L/min	150kPa
	60L/min	600kPa
DN20	20L/min	150kPa
	118L/min	600kPa
DN25	35L/min	150kPa
	120L/min	600kPa

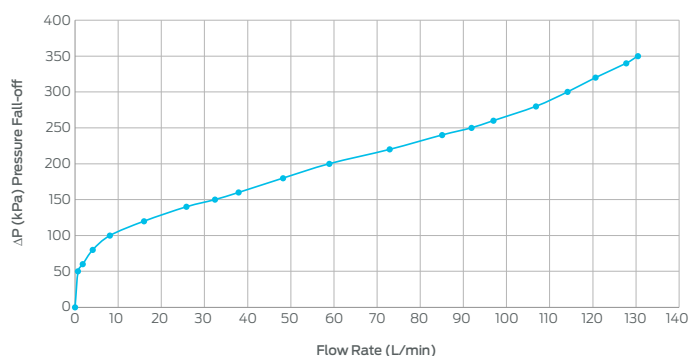
PRV15 Flow vs Pressure Drop
1000kPa Inlet Pressure – Outlet Set Pressure 500kPa



PRV20 Flow vs Pressure Drop
1000kPa Inlet Pressure – Outlet Set Pressure 500kPa



PRV25 Flow vs Pressure Drop
1000kPa Inlet Pressure – Outlet Set Pressure 500kPa



Non-Return Valves

Scope of Use / Specification Sheet

RMC High Temperature Non-Return Valves prevent the backflow of water from a water heater to the mains line.



Product Code

Model	Size	Product Code
NR50 High Temperature	15mm Female BSP	NR50HT
NR75 High Temperature	20mm Female BSP	NR75HT
NR100 High Temperature	25mm Female BSP	NR100HT

Materials

Body	Arsenical Brass
Internal Parts	Neoperl® OV15-HT/OV20-HT AS/NZS 4020 Approved

Application

RMC Non-Return Valves are suitable for use on water heater systems or wherever non-return functionality is required. RMC recommends installing a Non-Return Valve as part of a complete inlet control system for water heater applications.

Notes

For applications relating to the protection of drinking water supplies from contamination, please refer to RMC's Backflow Prevention product range.

Features and Benefits

- Durable, single piece, brass body
- Tamper-proof non-return valve
- Dezincification resistant
- Meets Australian Standard for potable water supply
- Valve designed to work effectively in either vertical or horizontal installations

Description

Non-Return Valves serve the dual purpose of protecting the mains supply from contamination and prevents the loss of water that has already been heated.

Non-Return Valves are suitable for use in domestic and commercial water heater installations, and are rated for high temperature applications (up to 99°C).

RMC Combination Non-Return Valves are available in 15mm, 20mm and 25mm configurations, and conform to AS 1357.1-2009.

Installation

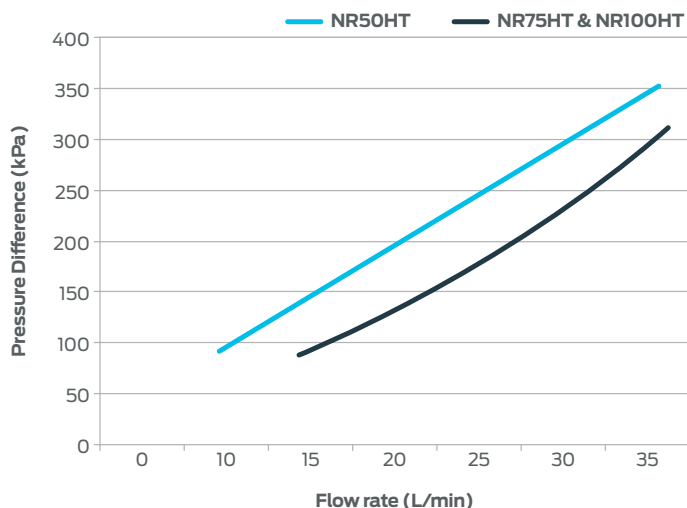
Installation is subject to the requirements of the applicable regulatory authority, the National Construction Code Volume Three – Plumbing Code of Australia, associated reference standards as applicable at the time and AS/NZS 3500.1.

Non-Return Valves

Technical Specifications

Operating Temperature	1°C – 99°C	
Maximum Inlet Pressure	1400kPa	
Inlet / Outlet Connections	G½, G¾, G1 Internal thread	
Installation Orientation	Horizontal or Vertical	
Maximum Flow Rate	NR50HT	36 L/min
	NR75HT & NR100HT	50 L/min
Opening Pressure	NR50HT	2.1kPa
	NR75HT & NR100HT	1.7kPa

Flow Characteristics



Standards and Approvals

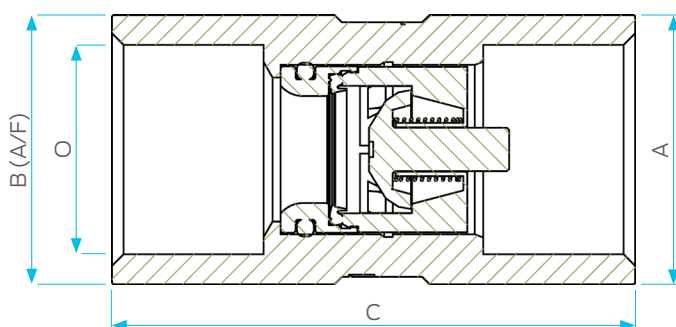


AS 1357.1
WMKA0938

Dimensions

Size	A	B	C	Outlet (O)
NR50HT	31	27	53	DN15
NR75HT	37	32	62	DN20
NR100HT	44	38	68	DN25

Note: All measurements in mm unless otherwise stated.



Warranty

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Pressure Reducing Valve

Scope of Use / Specification Sheet

The RMC Pressure Reducing Valve is for use in industrial and commercial installations. Fitting the valve at the mains supply protects downstream installations from variations in supply pressure. Use of a Pressure Reducing Valve can minimise water wastage.



PRV015

Product Code

Size	Details	Product Code
15mm	Adjustable 155-550kPa	PRV015
20mm	Adjustable 155-550kPa	PRV020
25mm	Adjustable 155-550kPa	PRV025
32mm	Adjustable 155-550kPa	PRV032
40mm	Adjustable 155-550kPa	PRV040
50mm	Adjustable 155-550kPa	PRV050

Materials

Body	Forged Brass
Spring Chamber	Nylon
Adjusting Spring	Stainless Steel (zinc plated)
Pressure Plate	Stainless Steel (zinc plated)
Diaphragm	EPDM
Body Seat	Polysulfone
Seat Disc	EPDM
Piston	Stainless Steel/Brass
Strainer Screen	Stainless Steel

Features and Benefits

- Tool-free adjustment
- Convenient twist-cap simplifies pressure adjustment
- Protects downstream installations from excess supply pressure
- Reduces maintenance and repair costs on expensive equipment
- Simple single sieve cartridge based design
- Valve and strainer can be serviced without disassembly and without resetting pressure
- Dissipates noises due to water flow across the seat providing a quieter installation
- Integrated 1/4" gauge ports provide a convenient access point for testing and setting pressure
- Can be installed in any orientation
- Suitable for a wide range of installation arrangements

Pressure Reducing Valve

Technical Specifications

Recommended Operating Pressure Range	500-1600kPa
Multiple Installation Operating Pressure Range	500-1000kPa*
Maximum Inlet Pressure	2000kPa
Maximum Supply Temperature	80 °C
Adjustable Outlet Pressure Range	155-550kPa
Factory Set Pressure	500kPa ± 10%
Fluid Media	Water

Notes

*Installation Suggestion: Multi storey buildings - where multiple pressure reducing valves will be used as part of a hydraulic circuit, consideration should be given to the design of the hydraulic circuit to avoid the operating condition where combined high inlet pressure/low outlet flow-rate results in high water velocity within the Pressure Reducing Valve. Where inlet pressures are likely to exceed 1000kPa, this may be achieved through staged pressure reduction measures.

Standards and Approvals



AS 1357.2
WMKA2532

Installation

Installation is subject to the requirements of the applicable regulatory authority, the National Construction Code Volume Three – Plumbing Code of Australia, associated reference standards as applicable at the time and AS/NZS 3500.1.

Warranty

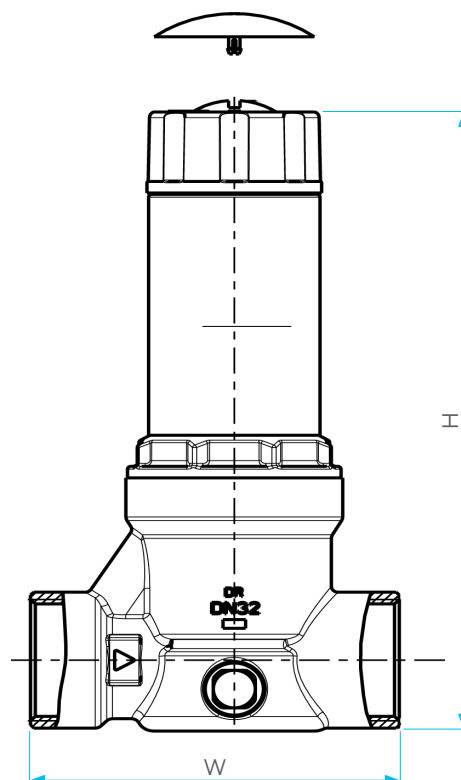
Reliance Worldwide Corporation (Aust.) Pty. Ltd. (RWC) will either replace or repair any defective goods where the defect arose as a result of manufacture within the warranty period. You may contact RWC at the phone number, address or e-mail shown below for further information or to make a claim.

Visit www.rmc.com.au/warranty to view the warranty statement in full and for further important information.

Dimensions

Size	Width (W)	Height (H)	Outlet Size
15mm	73	120	DN15
20mm	75	120	DN20
25mm	100	150	DN25
32mm	114	216	DN32
40mm	130	226	DN40
50mm	140	226	DN50

Note: All measurements in mm unless otherwise stated.



Primary Temperature Control Valve

Scope of Use / Specification Sheet

RMC's Primary Temperature Control Valve is a temperature control valve that mixes hot water with cold water to deliver blended water at a constant temperature throughout an entire house, building or system.



MIX11092

Product Code

Size	Product Code
20mm	MIX11092

Materials

Body	Forged Brass
Internal Components	DZR Brass
Seals	Viton®
Springs	Stainless Steel
Piston	Polysulfone
Fittings	DZR Brass
Strainers	Stainless Steel
Non-Return Cartridges	PPO-GF (Noryl®)/EPDM

Description

RMC's Primary Temperature Control Valve (PTCV) is suitable for domestic and commercial applications requiring controlled delivery of water heated above temperatures suitable for sanitary devices intended for personal hygiene. PTCV is compatible with both storage, instantaneous and heat exchange (continuous flow) type water heaters, boilers and solar systems.

Installation

Installation is subject to the requirements of the applicable regulatory authority, the National Construction Code Volume Three – Plumbing Code of Australia, associated reference standards as applicable at the time and AS/NZS 3500.1.

Features and Benefits

- Mixes hot water and cold water to deliver blended water
- Ideal for industrial and commercial applications requiring blended water
- Controls maximum temperature of delivered water
- Can be installed on water heater systems to prevent superheated water being delivered
- Valve safer and easy to install and easy to remove for servicing of strainers upstream of check valves
- More accurate control of outlet temperature
- Tamper-proof adjustment with special adjuster key eliminating chances of accidental adjustment
- Dezincification resistant
- Meets Australian Standard for potable water supply
- Every valve is individually tested and calibrated to ensure higher quality and performance
- Protects valve and check valve from impurities in the water supply

Application

RMC's PTCV is a temperature control valve for use in hot water distribution systems where temperature control is needed at temperatures higher than those suitable for sanitary devices intended for personal hygiene. Fitting the valve at the hot water source ensures the delivery of constant temperature hot water throughout the system, whilst preventing delivery of superheated water.

RMC's PTCV is NOT INTENDED FOR USE as a tempering valve under any circumstances.

Primary Temperature Control Valve

Working Pressures and Temperatures

Cold water supply temperature	5°C – 30°C
Hot water supply temperature	60°C – 99°C
Optimum outlet temperature range	50°C – 70°C
Set temperature	Factory set to 63°C
Accuracy of outlet temperature	±3°C
Minimum temperature differential (between hot supply and outlet temperature)	15°C
Supply pressure, static	200 kPa - 1600 kPa maximum ¹
Supply pressure imbalance, dynamic (at time of commissioning)	2:1 maximum ²
Maximum permitted pressure variation in either supply, in order to control outlet temperature to ±3°C (from supply pressure at commissioning)	±10% maximum ^{3,4}
Minimum flow rate	4 L/min
Maximum flow rate	33 L/min
Fittings supplied	Male BSP Thread

Notes

- 1 The maximum permitted ratio of supply pressures, under dynamic (flow) conditions. For optimum performance it is recommended that the hot and cold pressures at commissioning are as close as possible to equal.
- 2 The maximum permitted variation in either supply pressure from the pressure at commissioning in order to control the outlet temperature to ±3°C
- 3 Note that rapid changes in supply pressure can result in a spike in the outlet temperature beyond ±3°C. Following a rapid change in supply pressure it may take a number of seconds for the temperature to return to within a ±3°C limit. Steps should be taken on-site to eliminate any cause of rapid supply pressure variation.
- 4 Under flow conditions dynamic pressure should exceed 100kPa.

Standards and Approvals

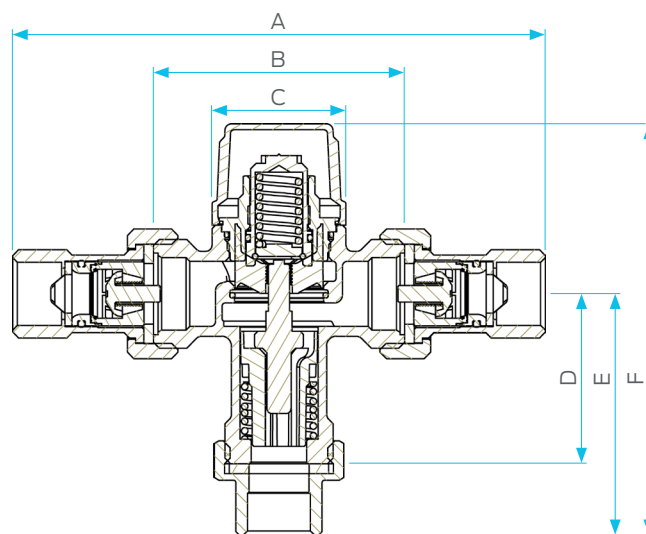


AS 1357.2
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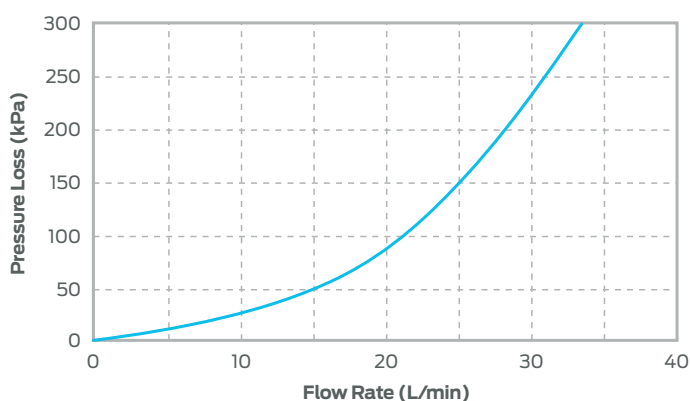
Dimensions

Model	A	B	C	D	E	F
PTCV	163	77	41	52	73	126

Note: All measurements in mm unless otherwise stated.



Flow Characteristics



Warranty

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PSL Range

Pressure Limiting Valves

Scope of Use / Specification Sheet

RMC's PSL Pressure Limiting Valves regulate the inlet supply line pressure to a preset maximum preventing over-pressure situations. PSL Pressure Limiting Valves are ideal for installation with high pressure storage water heaters, water meter assemblies, water softeners etc.



PSL50 and PSL75

Product Code

Model		350kPa	500kPa	600kPa
PSL50	Female Tapered	PSL511	PSL512	PSL513
PSL50-A	Internal Flare	PSLA511	PSLA512	PSLA513
PSL50-C	Male Compression	PSLC511	PSLC512	PSLC513
PSL75	Male Tapered	PSL714	PSL715	PSL716
PSL75-C	Male Compression	PSL721	PSL722	PSL723

Description

PSL Pressure Limiting Valves are of an inline barrel design. The valve remains open if the pressure in the supply line falls below the maximum preset pressure.

Valves are available in 15mm and 20mm configurations.

Materials

Body	DZR Brass
Internal Parts	DZR Brass and Stainless Steel
O-Rings / seal	Viton®
Spring	Stainless Steel
Piston	Polysulfone

Features and Benefits

- High pressure and temperature tolerances
- Suitable for a wide variety of pressure limiting applications
- Stainless steel seat
- Extended service life
- Dezincification resistant
- Meets Australian Standard for potable water supply
- Suitable for horizontal or vertical installation. Valve designed to work effectively in either orientation
- Available in fixed outlet pressure settings of 350kPa, 500kPa and 600kPa

Note

This valve is of a piston based design and needs a vent hole to ensure operation. If this valve is exposed to high inlet pressures (e.g. Poor water conditions or under water hammer conditions), damage to the valve can result in water leaking through the vent hole.

This hole should not be covered or filled in any way to prevent malfunction of this valve. It is recommended to not install this valve in enclosed spaces or areas where the venting of water has a potential to cause damage.

PSL Range

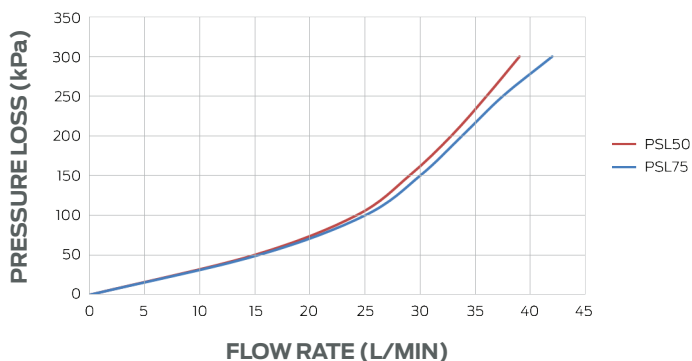
Pressure Limiting Valves

Specifications

Model	DN Size	Inlet/Outlet Fittings	Standard Pressure Settings Available (kPa)	Maximum Inlet Pressure (kPa)	Maximum Temperature
PSL50	15mm	Female Tapered	350, 500, 600	2000	80°C
PSL50-A	15mm	Flare	350, 500, 600	2000	80°C
PSL50-C	15mm	Compression	350, 500, 600	2000	80°C
PSL75	20mm	Male Tapered	350, 500, 600	2000	80°C
PSL75-C	20mm	Compression	350, 500, 600	2000	80°C

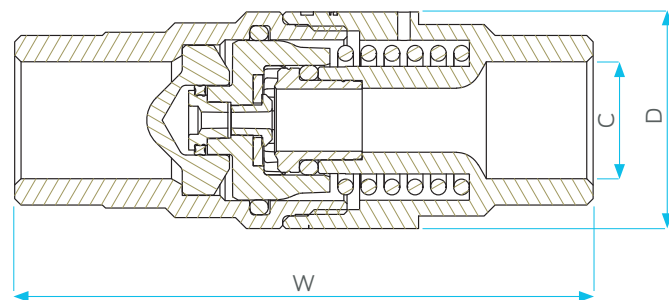
Flow rates

Nominal diameter	Flow rate (maximum)
15mm	50L/min at 700kPa inlet
20mm	60L/min at 700kPa inlet



Dimensions

Model	Width (W)	Diameter (D)	Connection (C)
PSL50	93	35	R $\frac{1}{2}$ "
PSL50-A	107	35	G $\frac{1}{2}$ " INT Flare
PSL50-C	115	35	G $\frac{1}{2}$ " (Cn)
PSL75	93	35	R $\frac{3}{4}$ "
PSL75-C	93	35	R $\frac{3}{4}$ " (Cn)



Note: All measurements in mm unless otherwise stated.

Installation

Installation is subject to the requirements of the applicable regulatory authority, the National Construction Code Volume Three – Plumbing Code of Australia, associated reference standards as applicable at the time and AS/NZS 3500.1.

Standards and Approvals



AS 1357.2
WMKA0938

Warranty

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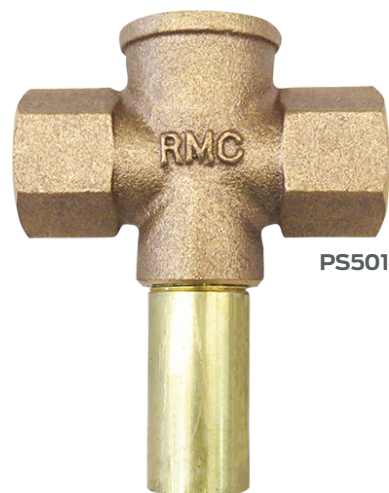
PS Range

Pressure Limiting Valves

Scope of Use / Specification Sheet

RMC's PS Pressure Limiting Valves regulate inlet supply line pressure to a preset maximum.

PS Pressure Limiting Valves are ideal for use with high pressure storage water heaters, water meter assemblies, water softeners etc.



PS501

Product Code

Model		350kPa	500kPa	600kPa
PS50	Female BSP	PS501	PS502	PS503
PS50-C	Compression	PSC501	PSC502	PSC503
PS75	Female BSP	PS701	PS702	PS703
PS100	Female BSP	PS1001	PS1002	PS1003

Description

RMC's PS Pressure Limiting Valves are of a T-shaped design. PS Pressure Limiting Valves are available in 15mm, 20mm and 25mm configurations.

RMC PS Pressure Limiting Valves are suitable for use to limit supply pressure below the set pressure of the expansion control valve and/or pressure and temperature relief valve on a high pressure storage water heater. The PS range of valves can be used interchangeably with the PSL range.

Materials

Body	Cast Gunmetal / Brass
Internal Parts	Brass and Stainless Steel
Seat Disc	Silicone
Pressure Spring	Stainless Steel
Piston	Acetal / Brass

Features and Benefits

- High pressure and temperature tolerances
- Suitable for a wide variety of pressure limiting applications
- Dezincification resistant
- Meets Australian Standard for potable water supply
- Suitable for horizontal or vertical installation. Valve designed to work effectively in either orientation
- Available in fixed outlet pressure settings of 350kPa, 500kPa and 600kPa

Note

This valve is of a piston based design and needs a vent hole to ensure operation. If this valve is exposed to high inlet pressures (e.g. Poor water conditions or under water hammer conditions), damage to the valve can result in water leaking through the vent hole.

This hole should not be covered or filled in any way to prevent malfunction of this valve. It is recommended to not install this valve in enclosed spaces or areas where the venting of water has a potential to cause damage.

PS Range

Pressure Limiting Valves

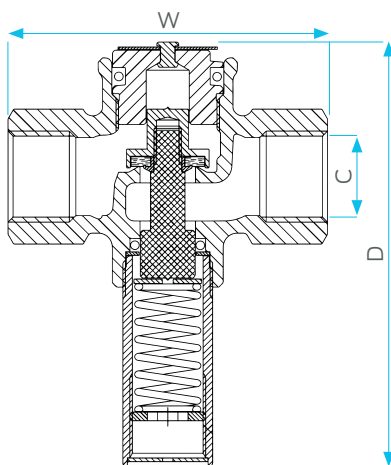
Specifications

Model	DN Size	Inlet/Outlet Fittings	Standard Pressure Settings Available (kPa)	Maximum Inlet Pressure (kPa)	Maximum Temperature
PS50-C	15	Compression	350, 500, 600	1400	40°C
PS50	15	BSP (FI)	350, 500, 600	1400	40°C
PS75	20	BSP (FI)	350, 500, 600	1400	40°C
PS100	25	BSP (FI)	350, 500, 600	1400	40°C

Dimensions

Model	Width (W)	Diameter (D)	Connection (C)
PS50	74	98	G½ Internal
PS50-C	80	98	G½ Male Compression
PS75	80	114	G¾ Internal
PS100	103	94	G1 Internal

Note: All measurements in mm unless otherwise stated.



Flow Rates

Nominal Diameter Flow Rate for 350kPa Set Pressure

15mm	45 l/min at 700kPa inlet
20mm	80 l/min at 700kPa inlet
25mm	150 l/min at 700kPa inlet

Colour Code

Pressure Setting Rating Plate Colour

350kPa	Yellow print and text
500kPa	Black print and text
600kPa	Blue print and text

Installation

Installation is subject to the requirements of the applicable regulatory authority, the National Construction Code Volume Three – Plumbing Code of Australia, associated reference standards as applicable at the time and AS/NZS 3500.1.

Standards and Approvals



AS 1357.2
WMKA0938

Warranty

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SOLAR TRANSFER VALVE



The Reliance Solar Transfer Valve is used to regulate the flow of water within a solar water heater system with a booster heater.

Catalogue Numbers

Solar Transfer Valve

MIX11091

The Reliance Solar Transfer Valve is suitable for domestic applications and has been specially engineered to withstand the extreme thermal demands of solar heating applications. When solar heated water is below a set temperature, the valve will redirect flow to a booster heater. Water that has reached the set temperature will be distributed through the system as normal.

Solar Transfer Valve is available in a 20 mm configuration.

Application

The Reliance Solar Transfer Valve should be installed in solar water heater installations where a booster heater is included to ensure that water is heated to a minimum temperature. The Reliance Solar Transfer Valve redirects water which has not been heated adequately to a booster heater, while allowing water which has reached a set minimum temperature to enter the supply line.



Features and Benefits

- High thermal endurance
- Will endure the extreme temperatures present in solar installations
- Performance and safety
- Ensures that water will always be heated to a minimum temperature
- Integrated non-return valves
- Prevents cross-flow of water through outlet lines
- Union Connections
- Valve easy to install and easy to remove for servicing of strainers
- Strainers upstream of checks
- Protects valve and check valves from impurities in the water supply
- Tamper-proof adjustment
- Special adjuster key eliminates chances of accidental adjustment
- Dezincification resistant
- Meets Australian Standard for potable water supply



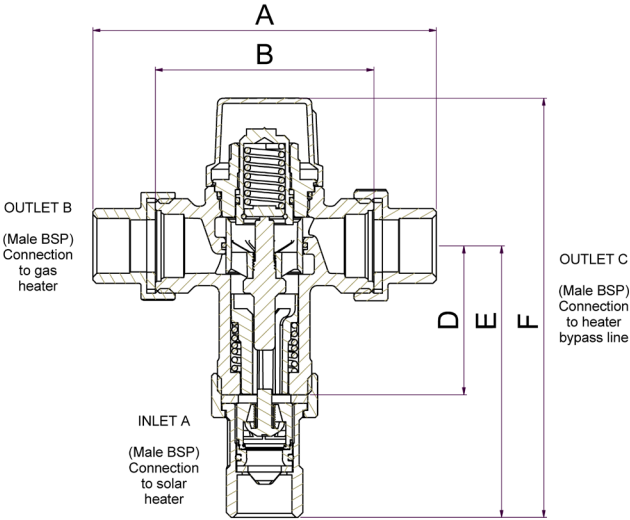
SOLAR TRANSFER VALVE



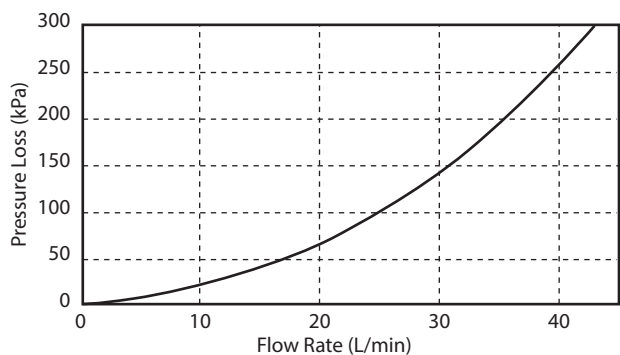
Transfer temperature range:	50°C - 70°C
Hot temperature supply range:	60°C - 99°C
Factory set transfer temperature:	60°C
Transition Zone: (Where water flows through both outlets)	±3° either side of set transfer temperature
Supply pressure, static:	1600 kPa maximum
Minimum flow rate:	4 litres/min.
Maximum flow rate:	43 litres/min.
Fittings supplied:	¾" Male BSP Thread

Dimensions

Model	A	B	C	D	E	F
Solar Transfer Valve	118	77	42	53	95	146



Flow Characteristics



Materials

Body:	Forged Brass
Internal Components:	DZR Brass
Seals:	Viton
Springs:	Stainless Steel
Piston:	Polysulfone
Fittings:	DZR Brass
Strainers:	Stainless Steel
Non-Return Cartridges:	PPO-GF (Noryl®)/EPDM

Y-STRAINERS



RMC's Y-Strainers provide downstream protection from dirt and debris. Available with female threaded connections.

Model	Size	Catalogue Number
DN15	15mm	7191
DN20	20mm	7192
DN25	25mm	7193
DN32	32mm	7194
DN40	40mm	7195
DN50	50mm	7196

Application

The RMC Y-Strainers can be installed upstream of any valve that requires protection from dirt and debris. The Y-Strainer should be installed with the arrow marking on the body in line with the system's flow direction. Easy access to the strainer cap is required for removal and cleaning.

Technical Specifications

Temperature range	0°C - 99°C
Max. working pressure	2000 kPa
Mesh size	500 microns

Materials

Body	DZR Brass
Cap	DZR Brass
Strainer	Stainless Steel
Seals	EPDM



Features and Benefits

- Robust DZR brass body
- Easily removable cap for strainer access and cleaning
- 500 micron mesh to catch debris and impurities in the water
- Meets Australian Standard for potable water supply
- Every valve is tested to ensure high quality and performance

Dimensions

Model	A	B	C
7191	G 1/2" Female	39	67
7192	G 3/4" Female	50	81
7193	G 1" Female	55	97
7194	G 1 1/4" Female	66	104
7195	G 1 1/2" Female	75	118
7196	G 2" Female	90	145

