BALANCING VALVE SOLUTIONS

RWV Hydronic Controls



951x series

Features

Fixed orifice for constant Cv and max. performance Fast & easy calibration Venturi insert for optimal accuracy ±3% PTFE seat guarantees positive shut-off function Integral Memory Stop Can be used as shut off without resetting position Wide range of flow available Intended for HVAC & domestic water use Fixed orifice valve

DZR brass construction - corrosion resistant 300WOG max. pressure 300psi at ambient conditions to 160°F 150psi max. pressure rating at 260°F

FNPT, MNPT, Solder, EzPress and PEX connections available Available in Lead Free configurations

Models

9517 --- FNPT ends 9519 --- Solder ends 9517AB --- FNPT ends LEAD FREE 9519AB --- Solder ends LEAD FREE **9517T-xx** --- Union ends with tailpieces

Certified LEAD FREE NSF/ANSI 61 & 372

provides

greater efficiency

than

a variable orifice

DZR

Dezincification

Resistant

9517T-PP

9517

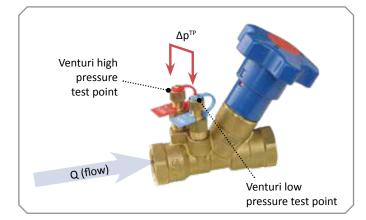
9517IBV-xy ----Union ends with tailpiece and Isolation Ball Valve

x can be ---- **M**: Male Tailpiece F: Female Tailpiece **S**: Solder Tailpiece P: EzPress Tailpiece E: PEX F1960 Tailpiece S: Solder IBV P: EzPress IBV

y can be ---- F: Female IBV

Flow Range

0.12 GPM - 55.63 GPM



Size	X-1 /2"	U-½"	L-1⁄2"	1⁄2"	³ ⁄4"	1"	1- ¹ / ₄ "	1- ½"	2"
Flow range (GPM)							8.56 - 19.81		

* 1/2" - 2" for 9517 and 9519

U-1/2" - 1" for 9517T





E: PEX F1960 IBV



Features

Variable orifice terminal balancing valve Globe design Can be used as shut off without resetting position Intended for HVAC & domestic water use

300WOG max. pressure

300psi at ambient conditions to 160°F 150psi maximum pressure rating at 260°F Threaded & Solder connections Lead Free standard Valve upstream and downstream test ports standard

Models

9527AB --- Threaded connections LEAD FREE 9529AB --- Solder connections LEAD FREE

Flow Range

0.49 GPM - 55.63 GPM

Size	L-1⁄2"	1/2"	³ /4"	1"	1 -¼"	1- ½"	2"
Flow range (GPM)	0.49-1.17	0.98-2.35	2.19-5.15	4.09-9.56	8.56-19.81	12.84-29.80	24.09-55.63

* 1/2" - 3/4" for 9529AB



The 9520 series can be utilized together with Vaurien series of linear actuators for ON/OFF operation. The actuator can be easily mounted to the valve for direct interface with the building management system.

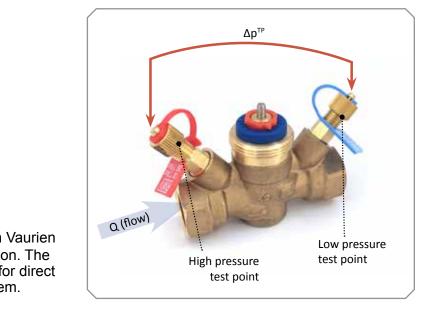
RWV Hydronic Controls®

Static Balancing Valves











9907 series

Features

Automatically maintains desired flow rate Efficient "in-line" body design Interchangeable flow cartridges Dezincification Stainless steel spring and piston Flow regulation accuracy ±5% Multiple connections Available with integral isolation ball valve for positive shut-off Valve upstream and downstream test ports standard

DZR brass construction - corrosion resistant 300WOG max. pressure 300psi at ambient conditions to 160°F 150psi maximum pressure rating at 260°F FNPT, MNPT, Solder, EzPress and PEX connections available Cartridge is DZR brass with stainless steel spring and piston

Models

9907T-xx --- Union ends with tailpieces 9907IBV-xy --- Union ends with tailpiece and isolation ball valve

x can be		F : Female Tailpiece E : PEX F1960 Tailpiece
y can be	F : Female IBV P : EzPress IBV	S : Solder IBV E : PEX F1960 IBV

Flow Range

1⁄2" - 3⁄4"-L	0.32 GPM - 3.17 GPM
³⁄₄" - 1-¹⁄₄"L	2.06 GPM - 15.1 GPM
1-1⁄4" - 2"	7.29 GPM - 41.2 GPM
2"-H	25.4 GPM - 154 GPM

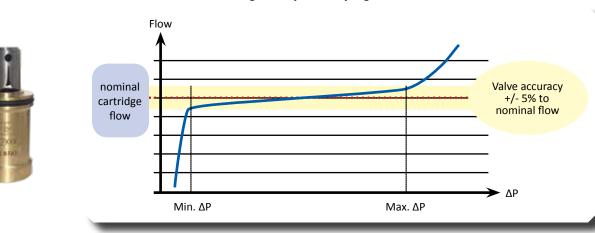


9907T-FF

S: Solder Tailpiece

Cartridges

Cartridges available in different ranges of working differential pressure, the minimum and maximum working ΔP therefore depend on the specific cartridge model. A numeric code is marked on the cartridge body identifying it.



DZR

Resistant

1/2" 3/4	″-L		3⁄4″ 1
Mini			Small (Stand
RWV Code	Flow (GPM)	Range∆P (psi)	RWV Co
KRR991202.1880	0.32	2.2-25	KRR992213
KRR991203.1880	0.48	2.3-32	KRR992215
KRR991204.1880	0.63	2.3-32	KRR992217
KRR991205.1880	0.79	2.3-32	KRR992219
KRR991206.1880	0.95	2.3-32	KRR992221
KRR991207.1880	1.11	2.3-32	KRR992224
KRR991208.1880	1.27	2.3-32	KRR992227
KRR991209.1880	1.43	2.3-32	KRR992230
KRR991210.1880	1.59	2.3-32	KRR992233
KRR991211.1880	1.74	2.5-32	KRR992236
KRR991212.1880	1.90	2.5-32	KRR992240

KRR991207.1880) 1.11	2.3-32	KRR992224
KRR991208.188) 1.27	2.3-32	KRR992227
KRR991209.188	0 1.43	2.3-32	KRR992230
KRR991210.188	0 1.59	2.3-32	KRR992233
KRR991211.1880) 1.74	2.5-32	KRR992236
KRR991212.188	0 1.90	2.5-32	KRR992240
KRR991213.188	2.06	2.5-32	KRR99224
KRR991214.188) 2.22	2.5-32	KRR992250
KRR991215.188	2.38	2.5-32	KRR99225
KRR991216.188	2.54	2.5-32	KRR992260
KRR991218.188	2.85	2.6-32	KRR992266

1¼" 1½" 2"

KRR991220.1880 3.17 2.8-32

Medium (Standard Pressure Range)

RWV Code	Flow (GPM)	Range∆P (psi)	RWV Co
KRR994246.1880	7.29	2.0-33	KRR994362
KRR994250.1880	7.93	2.0-33	KRR994368
KRR994255.1880	8.72	2.0-33	KRR994374
KRR994258.1880	9.19	2.0-33	KRR994379
KRR994262.1880	9.83	2.0-33	KRR994383
KRR994267.1880	10.6	2.2-33	KRR99439
KRR994274.1880	11.7	2.2-33	KRR994310
KRR994283.1880	13.2	2.2-33	KRR99431
KRR994290.1880	14.3	2.2-33	KRR994312
KRR994297.1880	15.4	2.2-33	KRR994313
KRR994210.1880	16.6	2.2-33	KRR994314
KRR994212.1880	19.0	2.2-33	KRR994316
KRR994213.1880	20.6	2.3-33	KRR994318
KRR994214.1880	22.8	2.5-33	KRR994319
KRR994216.1880	24.7	2.5-33	KRR99432
KRR994217.1880	26.6	2.6-33	KRR994322
KRR994218.1880	28.5	2.8-33	KRR994324
KRR994220.1880	31.1	2.8-33	KRR994326





1" 1¼"-L

Standard Pressure Range)

RWV Code	Flow	Range∆P
	(GPM)	(psi)
KRR992213.1880	2.06	2.5-35
KRR992215.1880	2.38	2.5-35
KRR992217.1880	2.69	2.5-35
KRR992219.1880	3.01	2.5-35
KRR992221.1880	3.33	2.6-35
KRR992224.1880	3.80	2.6-35
KRR992227.1880	4.28	2.6-35
KRR992230.1880	4.76	2.6-35
KRR992233.1880	5.23	2.6-35
KRR992236.1880	5.71	2.6-35
KRR992240.1880	6.34	2.6-35
KRR992245.1880	7.13	2.8-35
KRR992250.1880	7.93	2.8-35
KRR992255.1880	8.72	3.0-35
KRR992260.1880	9.51	3.2-35
KRR992266.1880	10.5	3.5-35
KRR992272.1880	11.4	3.5-35

³ ⁄ ₄ " 1" 1′⁄ ₄ "	-L
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Small (High Pressure Range)

RWV Code	Flow (GPM)	Range∆P (psi)
KRR992318.1880	2.85	4.2-64
KRR992320.1880	3.17	4.6-64
KRR992323.1880	3.65	4.8-64
KRR992327.1880	3.96	4.8-64
KRR992329.1880	4.60	4.8-64
KRR992332.1880	5.07	4.8-64
KRR992336.1880	5.71	4.8-64
KRR992340.1880	6.34	4.8-64
KRR992345.1880	7.13	4.8-64
KRR992350.1880	7.93	4.8-64
KRR992355.1880	8.72	4.9-64
KRR992361.1880	9.67	5.2-64
KRR992368.1880	10.8	5.2-64
KRR992375.1880	11.9	5.2-64
KRR992380.1880	12.7	5.2-64
KRR992386.1880	13.6	5.8-64
KRR992395.1880	15.1	5.8-64

1¼" 1½" 2″

Medium (High Pressure Range)

Code	Flow (GPM)	Range∆P (psi)
52.1880	9.83	3.9-61
58.1880	10.8	3.9-61
74.1880	11.7	3.9-61
79.1880	12.5	3.9-61
33.1880	13.2	3.9-61
91.1880	14.4	4.1-61
10.1880	15.9	4.1-61
11.1880	17.6	4.1-61
12.1880	19.0	4.2-61
13.1880	20.6	4.2-61
14.1880	22.0	4.2-61
16.1880	26.0	4.4-61
18.1880	27.7	4.5-61
19.1880	30.1	4.5-61
21.1880	32.7	4.6-61
22.1880	35.4	4.9-61
24.1880	38.0	5.1-61
26.1880	41.2	5.5-61

2"-H

Large

RWV Code	Flow (GPM)	Range∆P (psi)
KRR996216.1880	25.4	2.0-33
KRR996218.1880	28.5	2.0-33
KRR996220.1880	31.7	2.0-33
KRR996222.1880	34.9	2.2-33
KRR996224.1880	38.0	2.2-33
KRR996227.1880	42.8	2.2-33
KRR996230.1880	47.6	2.3-33
KRR996233.1880	52.3	2.3-33
KRR996236.1880	57.1	2.3-33
KRR996240.1880	63.4	2.5-33
KRR996245.1880	71.3	2.5-33
KRR996250.1880	79.3	2.8-33
KRR996255.1890	87.2	2.8-33
KRR996260.1880	95.1	3.0-33
KRR996266.1880	105	3.0-33
KRR996273.1880	116	3.6-33
KRR996280.1880	127	4.1-33
KRR996288.1880	139	5.1-33
KRR996297.1880	154	5.8-33





9707 series

Features

Pressure independent control valve (PICV) Threaded M/M for union ends (ASME B1.20.1 - NPSM) Max. ΔP working pressure 60psi 100% full stroke modulation, independent of valve setting M30x1.5 threads for linear actuator Available with integral isolation ball valve for positive shut-off Valve upstream and downstream test ports standard

DZR brass construction 300WOG FNPT, MNPT, and Solder tailpieces available

DZR Dezincification Resistant



Working conditions

Water: 15°F - 260°F below 32°F only for water with added antifreezing fluids over 212°F only for water with added anti-boiling fluids (Ethylene-glycolic and propylene-glycolic mixtures up to 50% may be used)



Model

9707R --- PICV 9707T --- PICV with tailpieces 9707IBV --- PICV with isolation ball valve and tailpiece

Flow Range

0.12 GPM - 15.9 GPM



The 9707R can be utilized together with Vaurien series of linear actuators for ON/OFF or Modulating (0-10V) operations. The actuator can be easily mounted to the valve for direct interface with the building management system.

5

RWV

Vaurien-M

Features

Modulating electromechanical linear actuator Suitable for RWV 9707 valve M30x1.5 threaded connection With 78in electric wire Enclosure protection IP54 Power supply 50Hz/60Hz, 24V AC/DC, power 1.5W Max stroke 0.236in, auto stroke detection Auto-zero self calibration Auto-stroke detection Stroke time 2sec/0.01in, thrust 29lbf CE compliant

0-10V control signal

(adjustable for 0-5VDC, 5-10VDC, 2-10VDC, 0-20mA or 4-20mA) Linear charactreristic (adjustable for equal-percentage characteristic) Working ambient temperature: 32° to +122°F Working fluid temperature: 32° to +203°F

Vaurien-1 / Vaurien-2

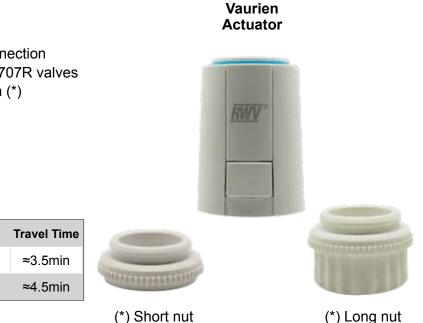
Features

ON/OFF linear actuator with threaded connection Suitable for RWV 9520 series and RWV 9707R valves M30x1.5 threaded nut with fast connection (*) With 40in electric wire Enclosure protection IP54/NEMA3 Power supply 50Hz/60Hz Normally closed (NC) Working temperature: 32°F to +140°F

Model	Power supply	Thrust	Stroke	
Vaurien 1	24VDC	22.5lbf	0.15in	
Vaurien 2	24VDC	28.1lbf	0.25in	

Linear Actuators for Balancing Valves







Standard Kit Configuration

Coil Hook Up Kits

Supplied with:

Balancing Valves:

CKS - 9517/9519 Static, Fixed Orifice (Venturi Insert)

CKM - 9527AB/9529AB Variable Orifice

CKA - 9907IBV Automatic

CKP - 9707IBV Pressure Independent Control

Accessories:

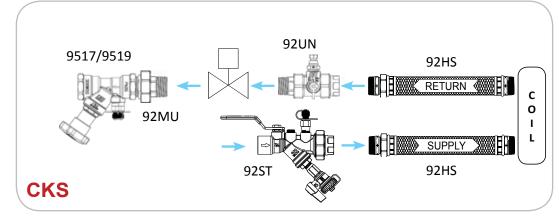
92HS Stainless Steel Braided Hoses (2)

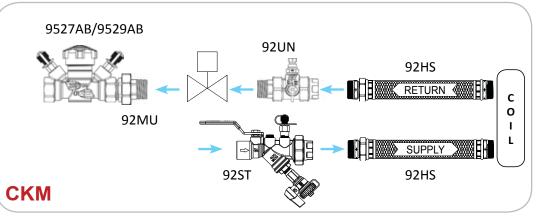
92ST Strainer with Shut off, or 92UDT Union Ball Valve

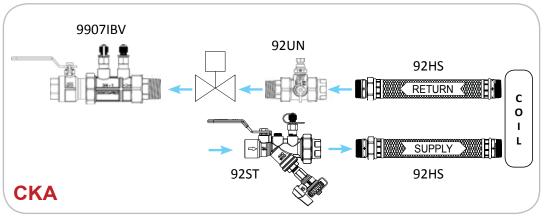
92UN Union with Air Vent

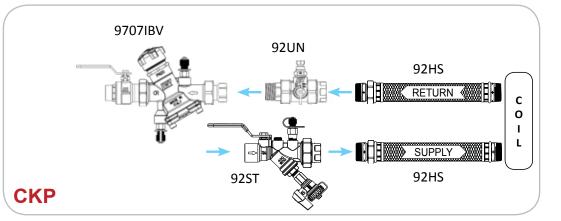
92MU Male Micro Union

* Additional components as required * Vacuum sealed to corrugated backing









T650RWV



Features

Memory capacity up to 2,000 records Anti-freeze media correction AAA battery type Ergonomic device case Interface to sensor through smart device Dedicated app for iOS/Android Simple valve detection by valve image 24-bit pressure sensor IP65 cover

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95INSL / 99INSL

Features

Polyethylene Foam Insulation Self-sealing wrap

Working temperature: -76°F - 200°F



Digital Differential Pressure Manometer / Clamshell

Project measuring with the possibility of export and transfer projects via email

* Used with 951x Fixed Orifice Manual Balancing Valves enables flow rate reading in real time without the need of











9574P

Features

Variable orifice cast iron balancing valve Precision Adjustable Handwheel Flat face flange ends to ANSI B16.10 Flanges drilled according to ASME B16.1 class 125 Acrylic painted surface Valve accuracy ±5% to nominal Cv value Threaded and capped test ports PT ports included with valves (not mounted)

Flow Range 24.09 GPM - 4057 GPM

Size	2"	2- ½"	3"	4"	5"	6"	8"	10"	12"
Flow range	24.09 -	47.9 -	101 -	172 -	267 -	376 -	664 -	1055 -	1493 -
(GPM)	55.63	110	244	413	630	902	1593	2485	4057

9450A

Stainless steel wafer orifice plate For ANSI 125 or ANSI 150 flanges Design according to BS7350

The orifice plate can be installed together with the same size of 9574P.

9407

DZR Brass metering station **FNPT x MNPT** Design according to BS7350

Venturi insert for optimal accuracy +/- 3% (test according to BS7350)





9957W

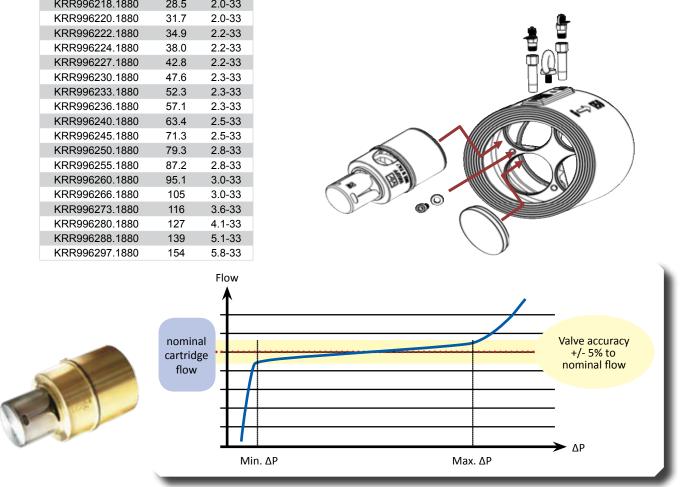
Features

Ductile iron wafer automatic balancing valve For ASME B16.42 class 150 flanges Provided with eyebolt for DN≥4" Wide range of flows available (see cartridge section) Test points with extension included (not mounted) Class 150

Flow Range

25.4GPM to 154GPM for 2¹/₂" and 3" (single cartridge) Higher flows available with the multi cartridge system for DN≥4" Minimum working ΔP depending on cartridge configuration

	Size	2- ¹ / ₂ "	3"		4'	,	5'
Fl	ow range (GPM)	25.4 - 154	25.4 154		25.4 308	-	25.4 462
	RWV	Code	Flow (GPM)		nge∆P [psi)		
	KRR9962	216.1880	25.4	2	.0-33		
	KRR9962	218.1880	28.5	2	.0-33		
	KRR9962	220.1880	31.7	2	.0-33		
	KRR9962	222.1880	34.9	2	.2-33		
	KRR9962	224.1880	38.0	2	.2-33		
	KRR9962	27.1880	42.8	2	.2-33		
	KRR9962	230.1880	47.6	2	.3-33		
	KRR9962	233.1880	52.3	2	.3-33		
	KRR9962	236.1880	57.1	2	.3-33		
	KRR9962	240.1880	63.4	2	.5-33		
	KRR9962	245.1880	71.3	2	.5-33		
	KRR9962	250.1880	79.3	2	.8-33		
	KRR9962	255.1880	87.2	2	.8-33		
	KRR9962	260.1880	95.1	3	.0-33		
	KRR9962	266.1880	105	3	.0-33		
	KRR9962	273.1880	116	3	.6-33		
	KRR9962	280.1880	127	4	1-33		
	KRR9962	288.1880	139	5	.1-33		
	KRR9962	297.1880	154	5	.8-33		





RWV Hydronic Controls®

Iron Automatic Balancing Valve



5"	6"	8"	10"	12"
25.4 -	25.4 -	25.4 -	25.4 -	25.4 -
462	616	1078	1540	2156



92UN

Features

DZR brass union body with manual air vent and test point Body available:

FNPT (ASME B1.20.1 - NPT) Solder (ASME B16.22) EzPress Tailpiece available: **FNPT** (ASME B1.20.1 - NPT) **MNPT** (ASME B1.20.1 - NPT) Solder (ASME B16.22) **PEX** (ASME F1960)



400WOG

Working conditions:

Water: from 15°F to 260°F below 32°F only for water with added antifreezing fluids

over 212°F only for water with added anti-boiling fluids

Dezincification Resistant

92MU

Features

DZR brass union Body end MNPT (ASME B1.20.1) Tailpiece available: **FNPT** (ASME B1.20.1 - NPT) **MNPT** (ASME B1.20.1 - NPT) Solder (ASME B16.22) **PEX** (ASME F1960)

400WOG

Working conditions:

Water: from 15°F to 260°F below 32°F only for water with added antifreezing fluids over 212°F only for water with added anti-boiling fluids





92UBT / 92UBS / 92UBP

Features

DZR brass union ball valve Blow-out proof stem Adjustable packing nut Full port Three tapped 1/4" port

600WOG @ 160°F

Working conditions: Water: from 15°F to 260°F below 32°F only for water with added antifreezing fluids over 212°F only for water with added anti-boiling fluids

92UDT / 92UDS / 92UDP

Features

DZR brass union ball valve with drain Blow-out proof stem Adjustable packing nut Full port Blow down valve with capped 3/4" hose end One installed test point One additional tapped ¹/₄" port

600WOG @ 160°F

Working conditions: Water: from 15°F to 260°F below 32°F only for water with added antifreezing fluids over 212°F only for water with added anti-boiling fluids

Models	
92UBT & 92UDT	Threaded end (ASME B1.2
	FNPT tailpiece standard, M
92UBS & 92UDS	- Solder end (ASME B16.22
	Solder tailpiece standard, F
92UBP & 92UDP	- EzPress end with union en
	EzPress tailpiece standard



RWV Hydronic Controls®

Bypass Valve / Union Ball Valve





20.1 - NPT) with union end

MNPT, Solder, EzPress and PEX (F1960) options available 2) with union end

FNPT, MNPT, EzPress and PEX (F1960) options available nd

d, FNPT, MNPT, Solder and PEX (F1960) options available



92ST / 92SS / 92SP

Features

DZR brass ball valve - wye strainer combination Blow-out proof stem Adjustable packing nut Full port Y pattern strainer Stainless steel screen (20 mesh) Blow down valve with 3/4" hose end One installed test point One additional tapped 1/4" port



400WOG @ 160°F

Working conditions:

Water: from 15°F to 260°F

below 32°F only for water with added antifreezing fluids over 212°F only for water with added anti-boiling fluids

DZR

Dezincification Resistant

92ST-BY / 92SS-BY / 92SP-BY

Features

DZR brass ball valve - wye strainer combination $\frac{1}{2}$ " port for bypass Blow-out proof stem Adjustable packing nut Full port Y pattern strainer Stainless steel screen (20 mesh)

400WOG @ 160°F

Working conditions: Water: from 15°F to 260°F below 32°F only for water with added antifreezing fluids over 212°F only for water with added anti-boiling fluids

Models

92ST & 92ST-BY --- Threaded end (ASME B1.20.1 - NPT) with union end FNPT tailpiece standard, MNPT tailpiece option available 92SS & 92SS-BY --- Solder end (ASME B16.22) with union end Solder tailpiece standard, FNPT and MNPT tailpiece options available 92SP & 92SP-BY --- EzPress end with union end EzPress tailpiece standard, FNPT and MNPT tailpiece options available

DZR Dezincification Resistant

92STC / 92SSC / 92SEC

Features

DZR brass ball valve - wye strainer combination Blow-out proof stem Adjustable packing nut Regular port Y pattern strainer Stainless steel screen (20 mesh) Blow down valve with ³/₄" hose end One installed test point Two additional tapped 1/4" port

400WOG @ 160°F

Working conditions: Water: from 15°F to 260°F below 32°F only for water with added antifreezing fluids over 212°F only for water with added anti-boiling fluids

Models

92STC --- Threaded end (ASME B1.20.1 - NPT) with union end, FNPT tailpiece 92SSC ---- Solder end (ASME B16.22) with union end, Solder tailpiece 92SEC --- PEX end (F1960) with union end, PEX, FNPT or Solder tailpiece options available

92HS



Features Flexible hose EPDM hose, fire retardant stainless steel braided

Models

92HS-MM --- MNPT end with swivel MNPT end 92HS-MS ---- MNPT end with swivel Solder end 92HS-MF --- MNPT end with swivel FNPT end

92T

Features DZR brass tee



400WOG @ 160°F

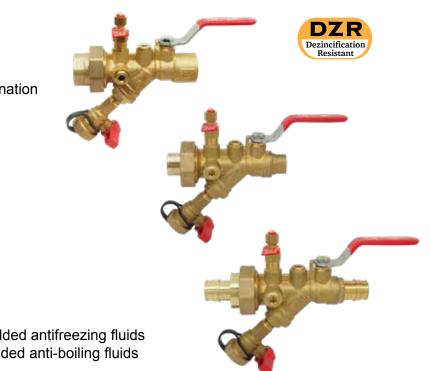


13

RWV Hydronic Controls®

RWV Hydronic Controls®

Combination Strainer / Hose / Tee / Air Vent





9380N

Features Cast iron high capacity automatic air vent

200 CWP / 125 WSP

9390N

Features Brass automatic air vent

150 CWP





Leaders In Valve Technology

TITLE



US Locations

Headquarters 🕒 🔶	
Lake Forest, California	800.222.RWVC
Warehouse Locations	
Menlo Park, California	650.566.9260
Arvada, Colorado	303.375.1515
Lakeville, Minnesota	952.469.2191
Cartersville, Georgia	770.475.3006
Nashville, Tennessee	615.350.8334
Houston, Texas	281.448.1782
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