



Braukmann R295SA

Mechanical disconnecter electrically actuated GB type according to EN 1717

APPLICATION

Mechanical disconnectors of this type are suitable for the protection of drinking water systems as required by EN 1717 "The technical regulation of drinking water systems".

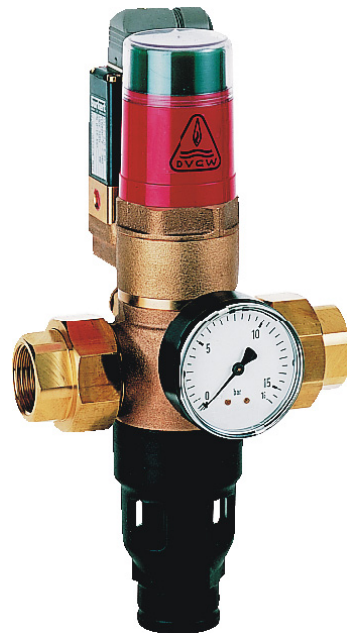
Their purpose is to protect systems against back pressure, back flow and back syphonage of non-potable water into the public water supply network.

Mechanical disconnectors of this type can be used to provide protection up to and including liquid category 4 (toxic, very toxic, carcinogenic and radioactive substances).

The changeover from shut-off to flow positions can be by means of an hydraulic or electrical/electronic actuator.

SPECIAL FEATURES

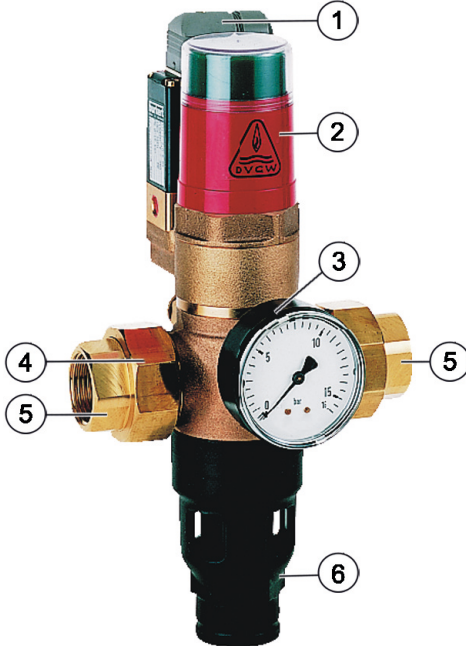
- Optimal protection of the drinking water supply system
- Enhanced protection against back pressure, back flow and back syphonage into the water supply network
- Shut-off position visually indicated on the spring bonnet
- Compact construction
- Standardised discharge connection
- All materials are KTW approved
- Low pressure loss



TECHNICAL DATA

Media	
Medium:	Cold drinking water
Connections/Sizes	
Connection size:	1/2" - 2"
Pressure values	
Max. inlet pressure:	10 bar
Opening pressure:	0.5, 1 or 1.5 bar as required
Min. inlet pressure:	Opening pressure + 1 bar
Operating temperatures	
Max. operating temperature medium:	40 °C
Specifications	
Installation position:	Horizontal with spring bonnet upwards
Electrical rating:	230 V ~/ 50 Hz (special design on request)

CONSTRUCTION

Overview			
	Components	Materials	
	1	Changeover valve/solenoid valve	-
	2	Spring bonnet	High-quality synthetic material
	3	Housing with pressure gauge	Red bronze
	4	Tail pieces	Red bronze
	5	Union nut	Brass
	6	Discharge connection	High-quality synthetic material
	Not depicted components:		
		Outlet check valve	High-quality synthetic material
		Valve insert with spring	Stainless steel valve stem and spring
	Spindle guide with double O-ring seal	NBR	
	Valve disc	High-quality synthetic material	
	Internal parts	High-grade corrosion resistant synthetic material	

METHOD OF OPERATION

When the electrically actuated changeover valve receives an electrical signal, for example from a pressure or flow switch or water level indicator, the mechanical disconnecter is hydraulically changed over to the flow position. This occurs because the exposure of the upper part of the piston in the mechanical disconnecter to atmospheric pressure is interrupted and the inlet pressure is then applied to it. This in turn pushes the piston so that it moves to the flow position.

When the draw off stops, the signal operates the electronic actuator in the reverse direction. The upper side of the piston is then depressurised and the spring pushes the piston back to the shut-off position.

TRANSPORTATION AND STORAGE

Keep parts in their original packaging and unpack them shortly before use.

The following parameters apply during transportation and storage:

Parameter	Value
Environment:	clean, dry and dust free
Min. ambient temperature:	5 °C
Max. ambient temperature:	55 °C
Min. ambient relative humidity:	25 % *
Max. ambient relative humidity:	85 % *

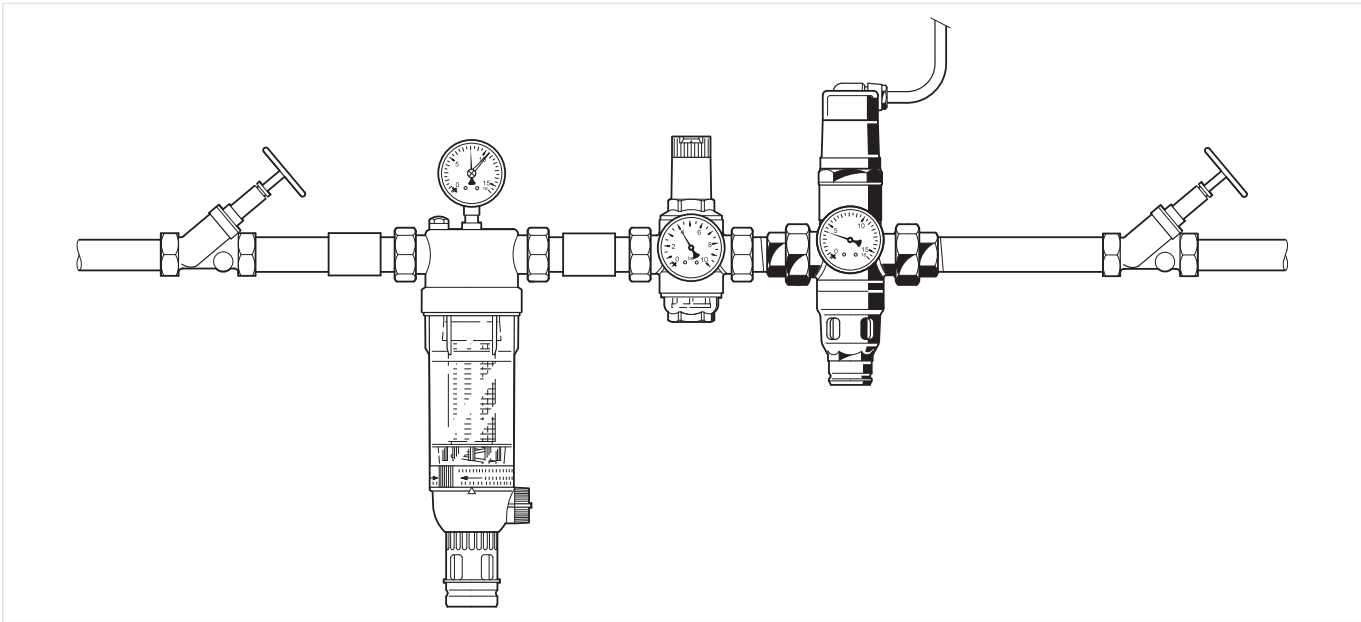
*non condensing

INSTALLATION GUIDELINES

Setup requirements

- Install shut-off valves
- Install in horizontal pipework with spring bonnet directed upwards
- Ensure good access
 - Pressure gauge can be read off easily
 - Simplifies maintenance and inspection
- Install a strainer upstream of the mechanical disconnecter
 - To protect the mechanical disconnecter from dirt
- Mechanical disconnecters must not be fitted in any areas or ducts where poisonous gases or vapours may be present or where flooding can occur
- If pressure shock is anticipated in the outlet side of the disconnecter, a pressure shock damper or expansion vessel must be fitted on the system downstream of the disconnecter
- In order to avoid flooding, it is recommended to arrange a permanent, professionally dimensioned wastewater connection
- These armatures need to be maintained regularly

Installation Example



TECHNICAL CHARACTERISTICS

kvs-Values

Connection sizes:	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
k _{VS} -value:	4.5	6.0	8.0	13.0	18.0	27.0
ξ-value:	4.0	7.0	10.0	10.0	12.5	14.0

Pressure drop characteristics

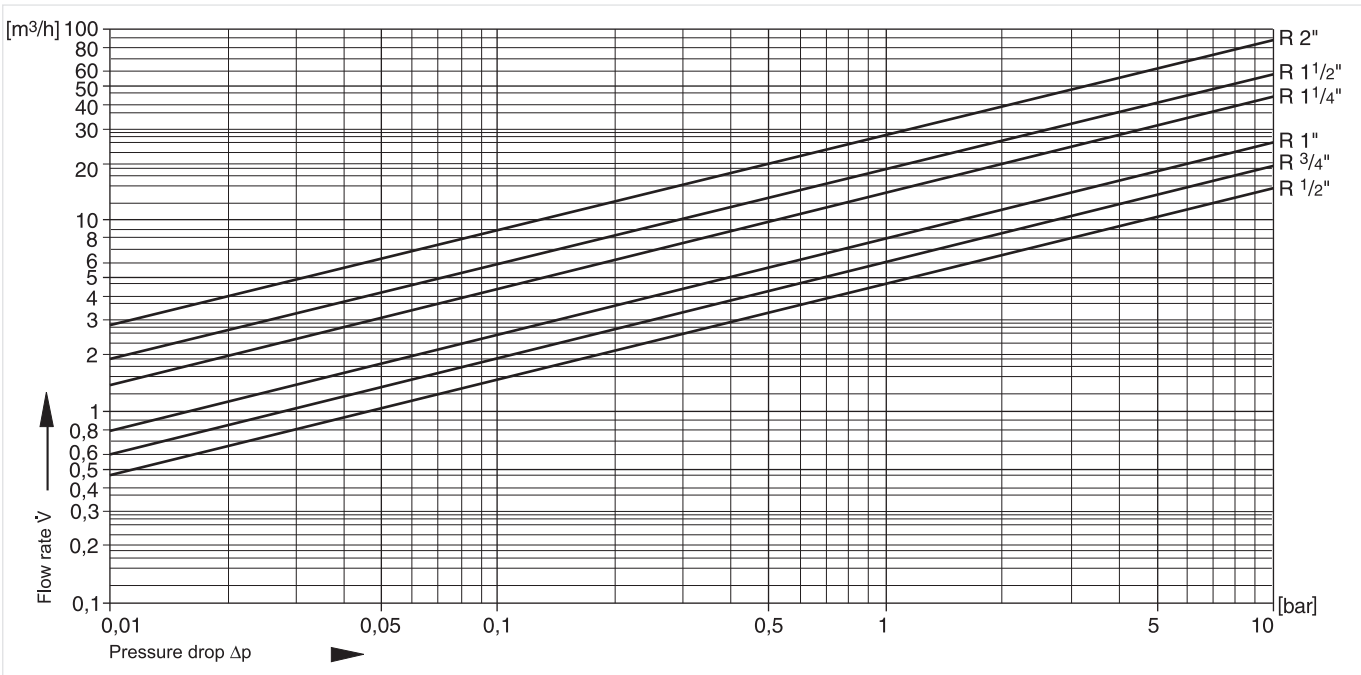
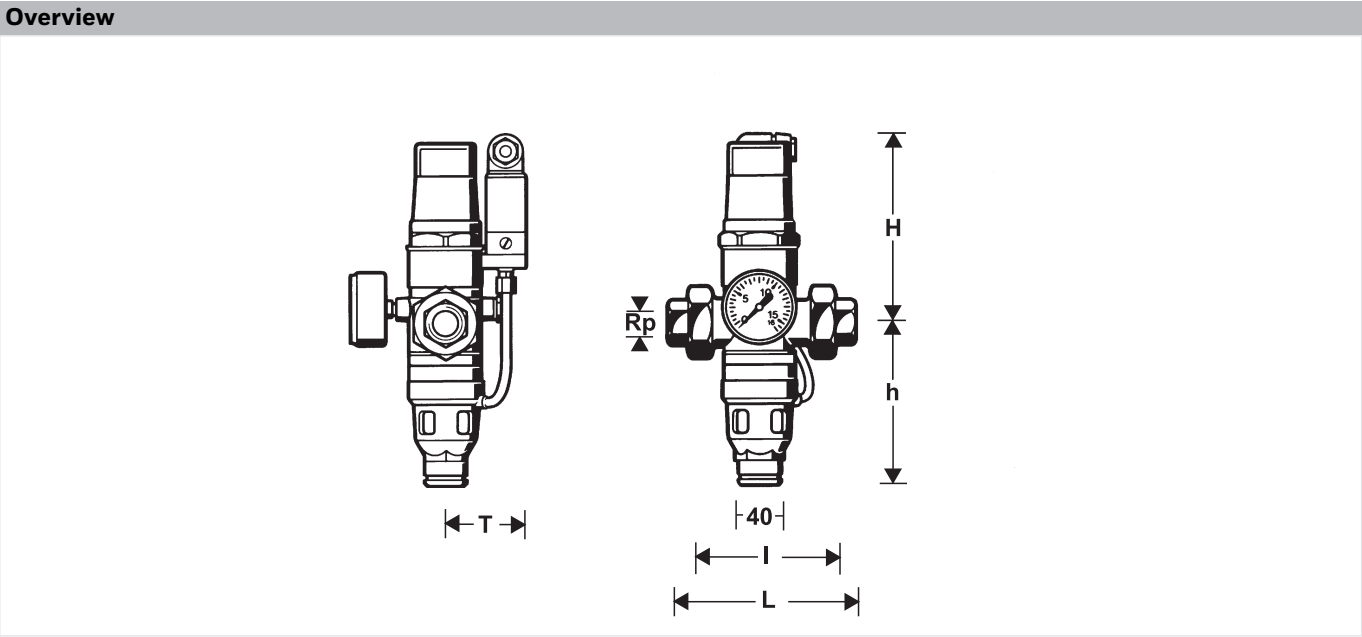


Fig. 1 Pressure drop within the valve in dependency of the flow rate and the used connection size

DIMENSIONS



Parameter		Values					
Connection size:	R	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
Weight:	kg	1.4	1.6	1.8	4.3	4.9	5.3
Dimensions:	L	151	153	159	216	228	241
	l	105	105	105	150	160	165
	H	160	162	162	232	231	224
	h	125	123	123	158	159	166
	T	72	72	72	90	90	90
Nominal flow rate at Δp = 0.8 bar:	m³/h	4.0	5.4	7.6	11.6	16.1	24.1

Note: All dimensions in mm unless stated otherwise.

ORDERING INFORMATION

The following tables contain all the information you need to make an order of an item of your choice. When ordering, please always state the type, the ordering or the part number.

Options



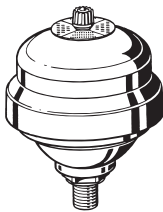
The armatures are available in the following sizes: 1/2", 3/4", 1", 1 1/4", 1 1/2" and 2".

- standard
- not available

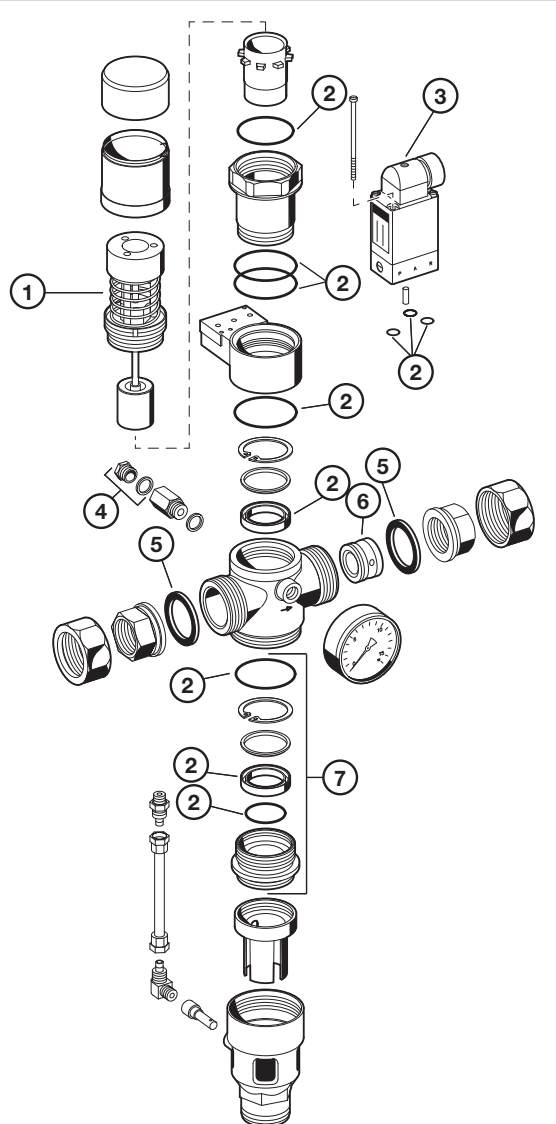
		R295SA-...A	R295SA-...B	R295SA-...C
Connection type:	With internal threaded union connectors, 0.5 bar opening pressure	•	-	-
	With internal threaded union connectors, 1.0 bar opening pressure	-	•	-
	With internal threaded union connectors, 1.5 bar opening pressure	-	-	•

Note: ... = space holder for connection size
Note: Ordering number example for 1" and type A valve: R295SA-1A

Accessories

	Description		Dimension	Part No.
	M07M	Pressure gauge		
		Housing diameter 63 mm, rear connection thread G 1/4"		
		Range: 0 - 4 bar		M07M-A4
		Range: 0 - 10 bar		M07M-A10
		Range: 0 - 16 bar		M07M-A16
		Range: 0 - 25 bar		M07M-A25
	ZT295A	Soldered union connectors (pack of 2)		
		Available for diameters from 15 - 54 mm		
			15 mm	ZT295A-1/2
			22 mm	ZT295A-3/4
			25 mm	ZT295A-1
			35 mm	ZT295A-1 1/4
			42 mm	ZT295A-1 1/2
			54 mm	ZT295A-2
	5626200	Pressure shock damper		
		Bottom connection, G 1/4"		
			85 mm	5626200

Spare Parts

Overview	Description	Dimension	Part No.
	1 Valve insert complete		
	0.5 bar	1/2" - 1"	R295A-3/4A
	0.5 bar	1 1/4" - 2"	R295A-11/4A
	1.0 bar	1/2" - 1"	R295A-3/4B
	1.0 bar	1 1/4" - 2"	R295A-11/4B
	1.5 bar	1/2" - 1"	R295A-3/4C
	1.5 bar	1 1/4" - 2"	R295A-11/4C
	2.0 bar	1/2" - 1"	R295A-3/4D
	2.0 bar	1 1/4" - 2"	R295A-11/4D
	2 Seal ring set		
		1/2" - 1"	0901015
		1 1/4" - 2"	0901016
	3 Changeover/Solenoid valve		
			0901407
	4 Hexagon-plug with copper sealing-ring R1/4" (5 pcs.)		
			S06M-1/4
	5 Union seal washer		
		1/2"	5351200
		3/4"	5351300
		1"	5166300
		1 1/2"	5163000
		1 1/4"	5162900
		2"	5163100
	6 Check valve		
		1/2"	RV282E-3/4A
		3/4"	RV282E-1A
		1"	RV282E-1A
		1 1/4"	RV276-11/4
		1 1/2"	RV276-11/2
		2"	RV276-2
	7 Drain connection complete		
		1/2" - 1"	0901340
		1 1/4" - 2"	0901341



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