



Braukmann R295

Mechanical disconnecter with union connectors
direct actuated GA 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 can be used to provide protection up to and including liquid category 3 (slightly toxic substances).

Mechanical disconnectors therefore offer better protection than check valves.

SPECIAL FEATURES

- Low pressure loss and high flow rate
- 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



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, 1.5 or 2 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

CONSTRUCTION

Overview			
	1	Spring bonnet	High-quality synthetic material
	2	Housing with pressure gauge	Red bronze
	3	Threaded union connections	Red bronze (Brass for 2")
	4	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
		Connection nut	Brass
		Valve disc	High-quality synthetic material
		Internal parts	High-grade corrosion resistant synthetic material

METHOD OF OPERATION

GA-type mechanical disconnectors are safety valves that remain in the flow position and change to the shut-off position only when the inlet pressure falls below the design opening pressure.

The inlet pressure operates on the annular surface of the valve piston and pushes it against the force of the spring bringing the piston to the open position. If the supply pressure falls below the opening pressure needed to overcome the spring force (for example because of a broken pipe or during service work by the supply undertaking) then the integral spring pushes the valve into the closed 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 % *

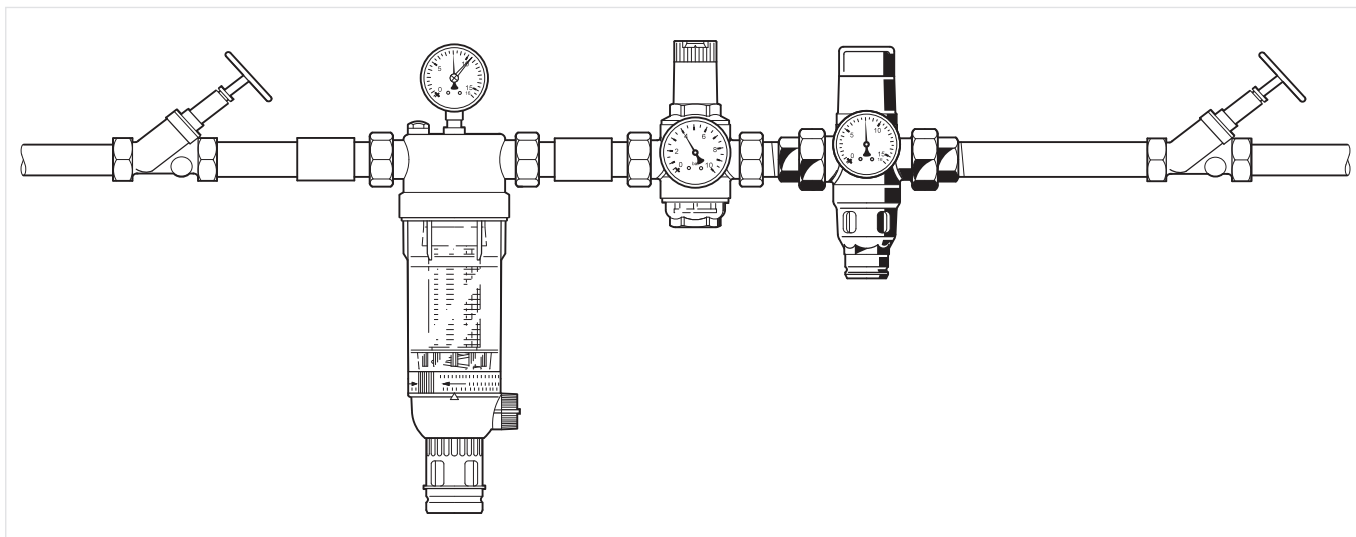
*non condensing

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
- No further unprotected mains water supply may be connected downstream of the mechanical disconnecter
- Mechanical disconnectors must not be fitted in any areas or ducts where poisonous gases or vapours may be present or where flooding can occur
- 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	13.0	12.5	14.0

Pressure drop characteristics

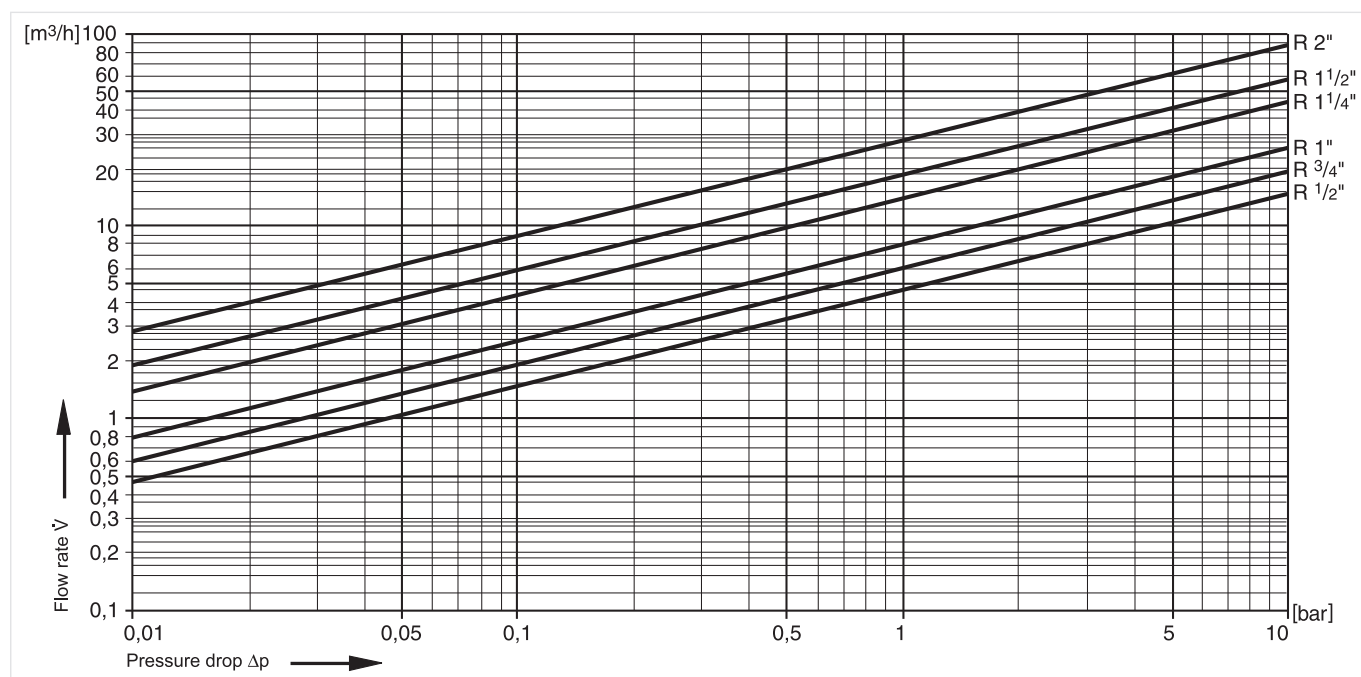
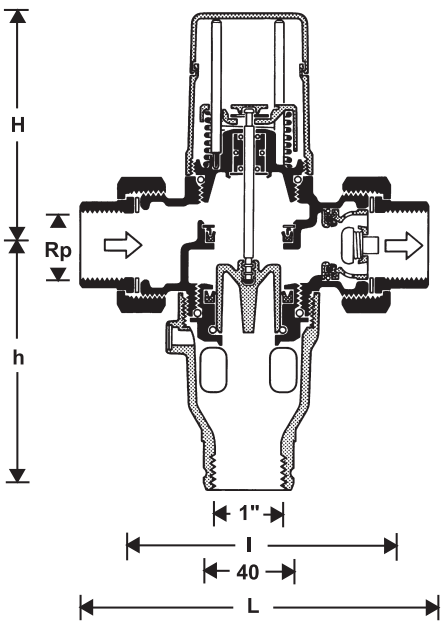


Fig. 1 Pressure drop within the valve in dependency of the flow rate and the used connection size

DIMENSIONS

Overview



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
	I	124	122	122	157	158	165
	H	105	107	107	162	161	154
	h	105	105	105	150	160	165
Nominal flow rate at $\Delta p = 0.3$ bar:	m ³ /h	2.5	3.3	4.5	7.0	10.0	15.0

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: $\frac{1}{2}$ ", $\frac{3}{4}$ ", 1", $1\frac{1}{4}$ ", $1\frac{1}{2}$ " and 2".

- standard
- not available

		R295-...A	R295-...B	R295-...C	R295-...D
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	-	-	•	-
	With internal threaded union connectors, 2.0 bar opening pressure	-	-	-	•

Note: ... = space holder for connection size

Note: Ordering number example for $\frac{1}{2}$ " and type A valve: R295-1/2A

Accessories

	Description	Dimension	Part No.
	M07M Pressure gauge		
	Housing diameter 63 mm, rear connection thread G $\frac{1}{4}$ "		
	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

Spare Parts

Mechanical disconnecter R295 backflow preventer

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"	0901055
		1 1/4" - 2"	0901056
	3 Hexagon-plug with copper sealing-ring R1/4" (5 pcs.)		
			S06M-1/4
	4 Union seal washer		
		1/2"	5351200
		3/4"	5351300
		1"	5166300
		1 1/4"	5162900
		1 1/2"	5163000
		2"	5163100
	5 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
	6 Drain connection complete		
		1/2" - 1"	0901340
		1 1/4" - 2"	0901341



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