



R295H

Mechanical disconnecter hydraulic 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).

SPECIAL FEATURES

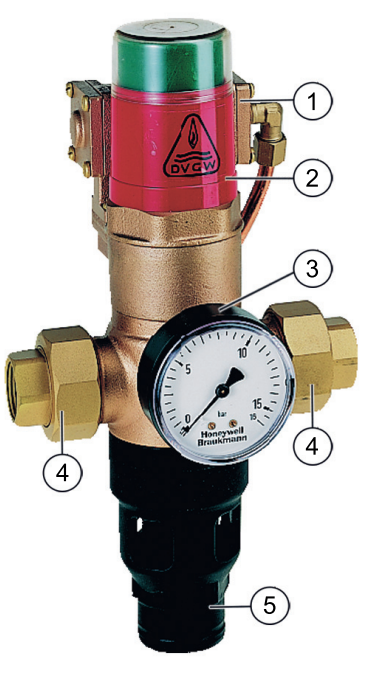
- Optimal protection of the drinking water supply system
- Enhanced protection against back pressure, backflow and back syphonage into the water supply network
- Shut-off position visually indicated on the spring bonnet
- Compact construction
- Standardised discharge connection
- All materials are KTW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



TECHNICAL DATA

Media	
Medium:	Cold drinking water
Connections/Sizes	
Connection size:	1/2" - 2"
Pressure values	
Inlet pressure range:	1.5 bar - 10.0 bar
Operating temperatures	
Max. operating temperature medium:	40 °C
Specifications	
Installation position:	Horizontal with spring bonnet upwards
Min. flow rate:	1.0 l/min

CONSTRUCTION

Overview	Components	Materials	
	1	Hydraulically controlled pilot valve	Red bronze
	2	Spring bonnet	High-quality synthetic material
	3	Housing with pressure gauge	Red bronze
	4	Threaded union connections	Red bronze (Brass for 2")
	5	Discharge connection	High-quality synthetic material
Not depicted components:			
	Outlet differential pressure transducer	Brass	
	Valve insert with spring	Stainless steel valve stem and spring	
	Spindle guide with double O-ring seal	NBR	
	Connection nut	Brass	
	Internal parts	High-grade corrosion resistant synthetic material	
	Pressure shock damper	Brass	

METHOD OF OPERATION

Mechanical disconnecters this type are normally in the shut-off position.

When the outlet pressure drops due to water consumption, the differential pressure in the disconnecter rises. If the differential pressure rises above 0.5 bar, the hydraulic operator causes the control valve to changeover the mechanical disconnecters into the flow position. When the water consumption stops, the differential pressure decreases and the differential pressure transducer transmits a signal to the control valve, which then returns the disconnecter to the normal 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 % *

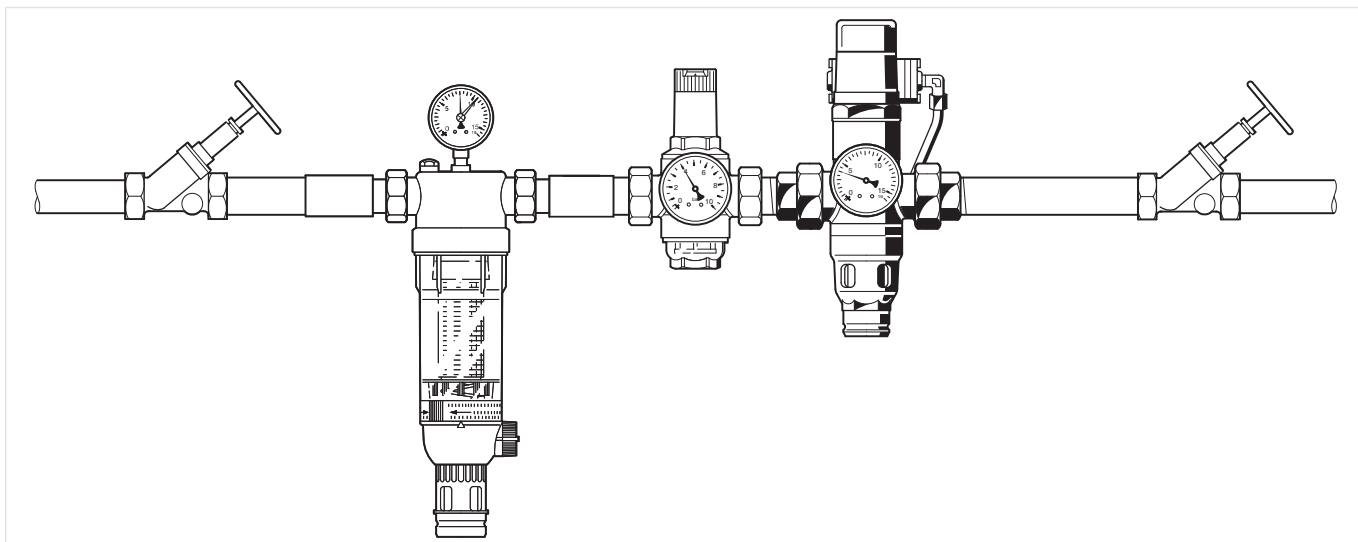
*non condensing

INSTALLATION GUIDELINES

Setup requirements

- Install shut-off valves
- Install in horizontal pipework with spring bonnet directed upwards
 - This position ensures optimum filter efficiency
- 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:	2.5	3.5	4.0	10.0	14.0	16.0
ξ -value:	13.0	20.9	39.0	16.8	20.9	39.0

Pressure drop characteristics

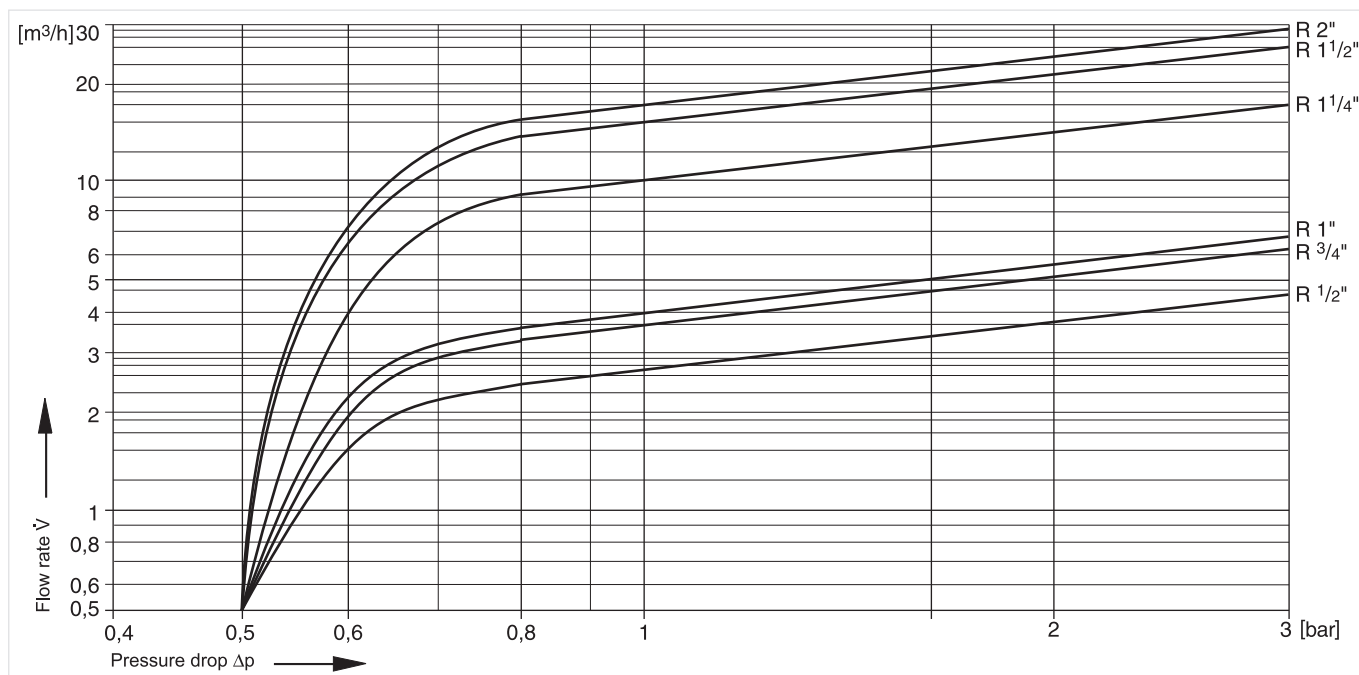
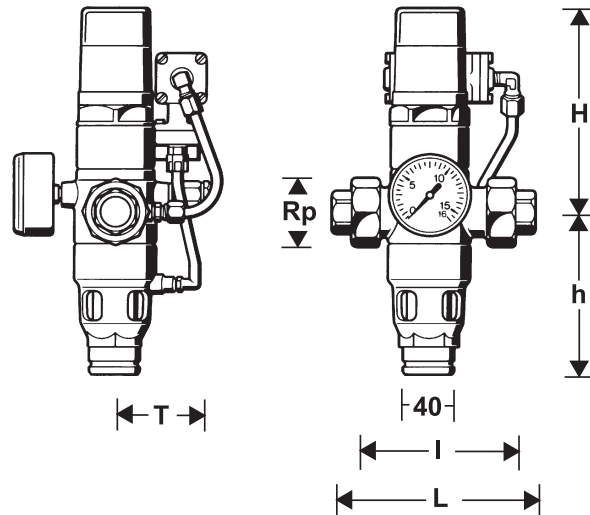


Fig. 1 Pressure drop within the valve in dependency of the flow rate and the used connection size

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	105	105	105	150	160	165
	H	153	155	155	232	231	224
	h	125	123	123	155	159	166
	T	76	80	80	93	93	98
Nominal flow rate at $\Delta p = 0.8$ bar:	m ³ /h	2.2	3.1	3.6	8.9	12.5	14.3

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".



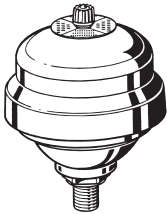
- standard
- not available

		R295H-...A
Connection type:	With female threaded union connectors, differential pressure 0.5 bar, self-adjusting	•

Note: ... = space holder for connection size

Note: Ordering number example for 1/2" and type A valve: R295H-1/2A

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-11/4
		42 mm	ZT295A-11/2
	54 mm	ZT295A-2	
	5626200 Pressure shock damper		
	Bottom connection, G 1/4"	85 mm	5626200

Spare Parts

Mechanical disconnecter R295H backflow preventer

Overview	Description	Dimension	Part No.
	1 Valve insert complete		
		1/2" - 1"	R295HA-1A
		1 1/4" - 2"	R295HA-2A
	2 Seal ring set		
		1/2" - 1"	0901015
		1 1/4" - 2"	0901016
	3 Pilot valve		
		1/2" - 2"	2184100
	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 1/4"	5162900
		1 1/2"	5163000
		2"	5163100
	6 Pressure control unit		
		1/2"	R295HR-1/2A
		3/4"	R295HR-3/4A
		1"	R295HR-3/4A
	1 1/4"	R295HR-11/4A	
	1 1/2"	R295HR-11/2A	
	2"	R295HR-2A	
7 Drain connection complete			
	1/2" - 1"	0901340	
	1 1/4" - 2"	0901341	

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