

Euro system separator GENO-DK 2-Maxi GENO-DK-Maxi

Intended use

The Euro system separators GENO-DK 2-Maxi and GENO-DK-Maxi are safety devices to be installed in water pipes if special withdrawal points or appliances are connected to the drinking water supply.

The Euro system separators GENO-DK 2-Maxi and GENO-DK-Maxi prevent the back-flow, back-pressure and back-suction of modified drinking water into the drinking water network.

The BA design is for protection up to and including liquid category 4 as per DIN EN 1717.

In order to be able to correctly select and use the proper safety measures which differ with regard to their function and effectiveness, it is necessary to classify substances or micro-organisms that could get into the drinking water and might cause adverse effects or risks due to the modified drinking water into 5 liquid categories – irrespective of the concentration of such substances or micro-organisms.

If several substances or micro-organisms might get into the drinking water at the same time, the most hazardous substance or micro-organism shall determine the liquid category.

Liquid category 1

Drinking water that does not endanger health but can lead to complaints from owners/operating companies, e.g. due to temporary turbidity caused by air bubbles.

Example:

- Water which is under high pressure, e.g. pressure booster system

Protection by a non-return valve.

Liquid category 2

Liquid that does not represent a risk to human health.

Liquids that are suitable for human consumption – including water originating from a drinking water installation – that may exhibit modifications with regard to taste, smell, colour or temperature (heating up or cooling down).

Example:

- Heated drinking water

Liquid category 3

Liquid that represents a health risk due to the presence of one or several poisonous or highly poisonous substances.

Example:

- Ethylene glycol, copper sulphate solution, heating water without additives

Liquid category 4

Liquid that represents a health risk to human beings due to the presence of one or several poisonous or highly poisonous substances or one or several radioactive, mutagenic or carcinogenic substances.

Examples:

- Lindane, phosalone, parathion (insecticides), hydrazine

Liquid category 5

Liquid that represents a health risk to human beings due to the presence of microbial or viral pathogens of communicable diseases.

Examples:

- Hepatitis viruses, salmonellae

Function

The Euro system separator is divided into three pressure zones.

- Upstream pressure zone:
Area upstream of the non-return valve on the inlet side
- Intermediate pressure zone:
Area between the non-return valves
- Downstream pressure zone:
Area downstream of the non-return valve on the outlet side

The control unit closes (flow-through position) or opens (separation position) the drain valve subject to the pressure conditions in the upstream and intermediate pressure zone, thus preventing back-flow, back-pressure and back-suction. The non-return valve on the outlet side additionally secures this.

The Euro system separator does not require any energy supply such as an electrical or a compressed-air connection in order to function. The response values of the controller are fixed.

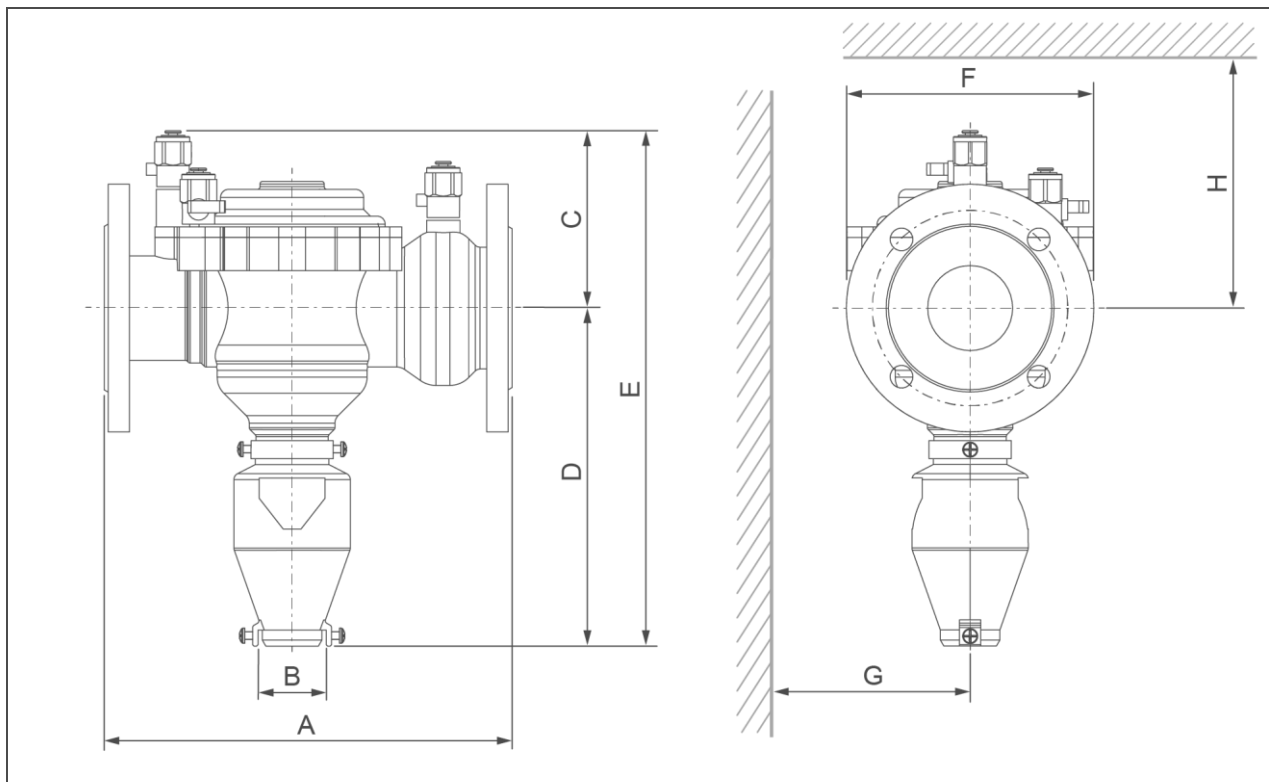
Design

- Housing with test connections at every pressure zone 1/8"
- Coarse dirt filter 500 µm in upstream pressure zone
- 2 Non-return valves
- Draining valve
- Drain connection acc. to DIN EN 1717
- Connection flange acc. to DIN EN 1092-1

Scope of supply

- Euro system separator
 - without counter-flanges
 - without seals
- Operation manual

Technical specifications I



Dimensions and weights		GENO-DK 2-Maxi				GENO-DK-Maxi			
		DN 50	DN 65	DN 80	DN 100	DN 150	DN 200	DN 250	
A	Installation length without counter-flanges	mm	302	305	470		600	780	930
B	Ø Drain connection	mm	50		80		90		
C	Height above centre of pipe connection	mm	129	132.5	170		310	350	
D	Height below centre of pipe connection	mm	253	252.5	314		529	572	
E	Total height	mm	382	385	484		839	922	
F	Total width	mm	166	185	200	220	294	370	436
G	Min. distance to wall	mm	140	150	150	160	200	240	270
H	Space required above centre of pipe connection (e.g. for maintenance work)	mm	330	330	370		510	550	
	Empty weight	kg	13.2	17.0	26.5	28.0	103	111	142
	Operating weight, approx.	kg	16	19.8	33.1	34.2	123	150	201
Order no.			132 460	132 465	132 470	132 475	132 720	132 725	132 730

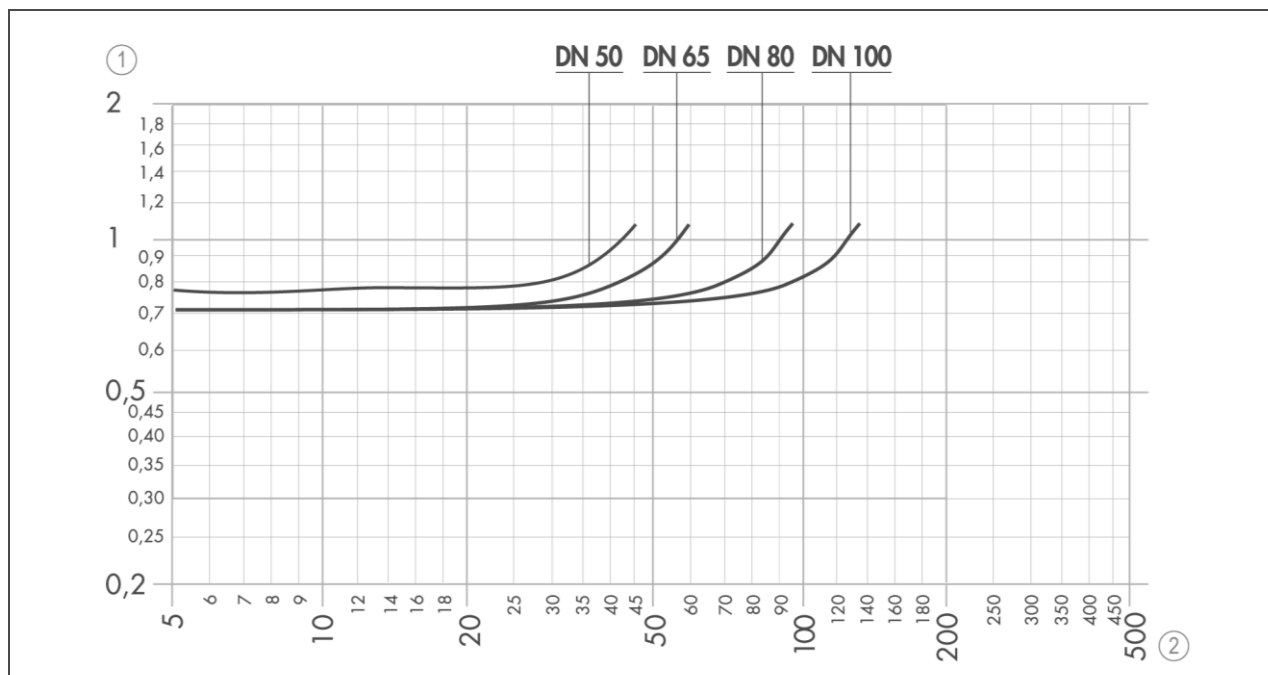
Technical specifications II

Connection data	GENO-DK 2-Maxi				GENO-DK-Maxi		
Nominal connection diameter	DN 50	DN 65	DN 80	DN 100	DN 150	DN 200	DN 250
Connection diameter	2"	2½"	3"	4"	6"	8"	10"

Performance data	GENO-DK 2-Maxi				GENO-DK-Maxi		
Nominal pressure	PN 10						
Min. flow pressure	bar 1						
Max. flow	m³/h 25	m³/h 35	m³/h 50	m³/h 80	m³/h 227	m³/h 363	m³/h 523
K _v value (Δp = 1 bar)	m³/h 42	m³/h 55	m³/h 88	m³/h 122	m³/h 227	m³/h 363	m³/h 523

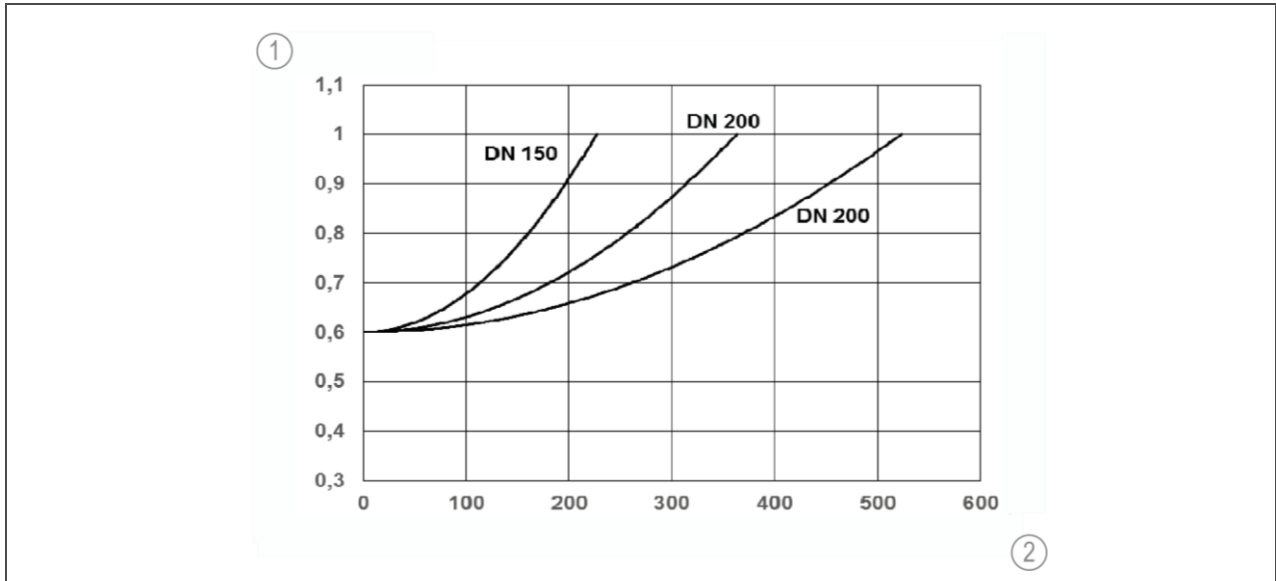
General data	GENO-DK 2-Maxi				GENO-DK-Maxi		
Water temperature	°C 5 – 65				°C 5 – 60		
Ambient temperature	°C 5 – 70						
DVGW registration number	NW-6305BR0345						
Order no.	132 460	132 465	132 470	132 475	132 720	132 725	132 730

Pressure loss curve of Euro system separator GENO-DK 2-Maxi



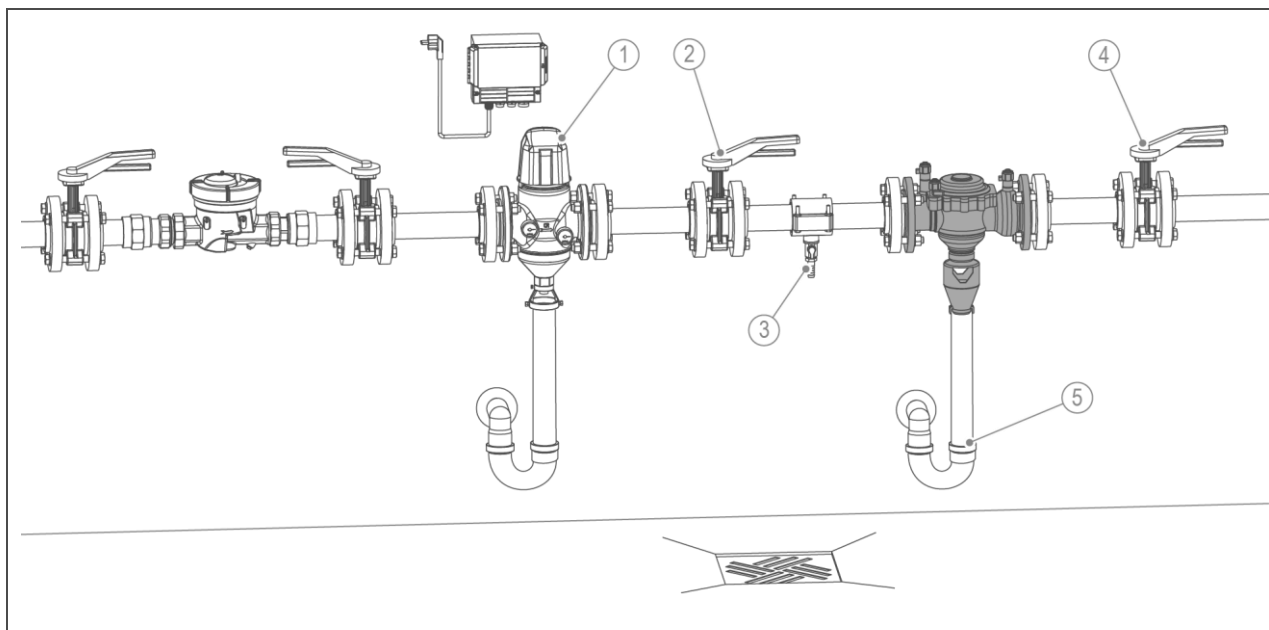
Item	Designation	Item	Designation
1	Differential pressure in bar	2	Flow rate in m³/h

Pressure loss curve of Euro system separator GENO-DK-Maxi



Item	Designation	Item	Designation
1	Differential pressure in bar	2	Flow rate in m³/h

Installation example



Item	Designation	Item	Designation
1	Drinking water filter, e.g. MXA	2	Shut-off valve (inlet side)
3	Deaeration	4	Shut-off valve (outlet side)
5	Drain connection		

Installation requirements

Obey the local installation directives, general guidelines and technical specifications.

The installation site must be accessible for maintenance work and be flood and frost-proof and it must ensure the system's protection from chemicals, dyes, solvents and their vapours.

For maintenance and inspection work, shut-off valves must be provided on the inlet and outlet side.

A draining valve must be installed downstream of the shut-off valve on the inlet side.

According to DIN 806-2, quick-closing shut-off fittings that might cause positive or negative water hammer may only be used for continuous actuation in water installations if the max. admissible water hammer pressure and operating pressure are taken into account. Exceptions apply to fittings that are used for test purposes and are operated by qualified personnel.

A drain connection must be installed to discharge the "dripping water". The waste water pipe must guarantee discharge without back-pressure.

Accessories

Service case to check the pressure zone as per W/TPW 135
Service kit
Order no.132 095

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