

## 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 downstream withdrawal points or appliances are connected to the drinking water supply.

The BA design system separator in accordance with DIN EN 12729 protect drinking water from impurities up to and including liquid category 4 (according to DIN EN 1717, Part 5.2).

The system separators prevent the back-flow, back-pressure and back-suction of modified drinking water into the drinking water network.

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

Water for human consumption withdrawn directly from a drinking water installation.

### 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).

### Liquid category 3

Liquid that poses a health risk due to toxic substances.

### Liquid category 4

Liquid that poses a health risk due to toxic substances or radioactive, mutagenic or carcinogenic substances.

### Liquid category 5

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

### 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.

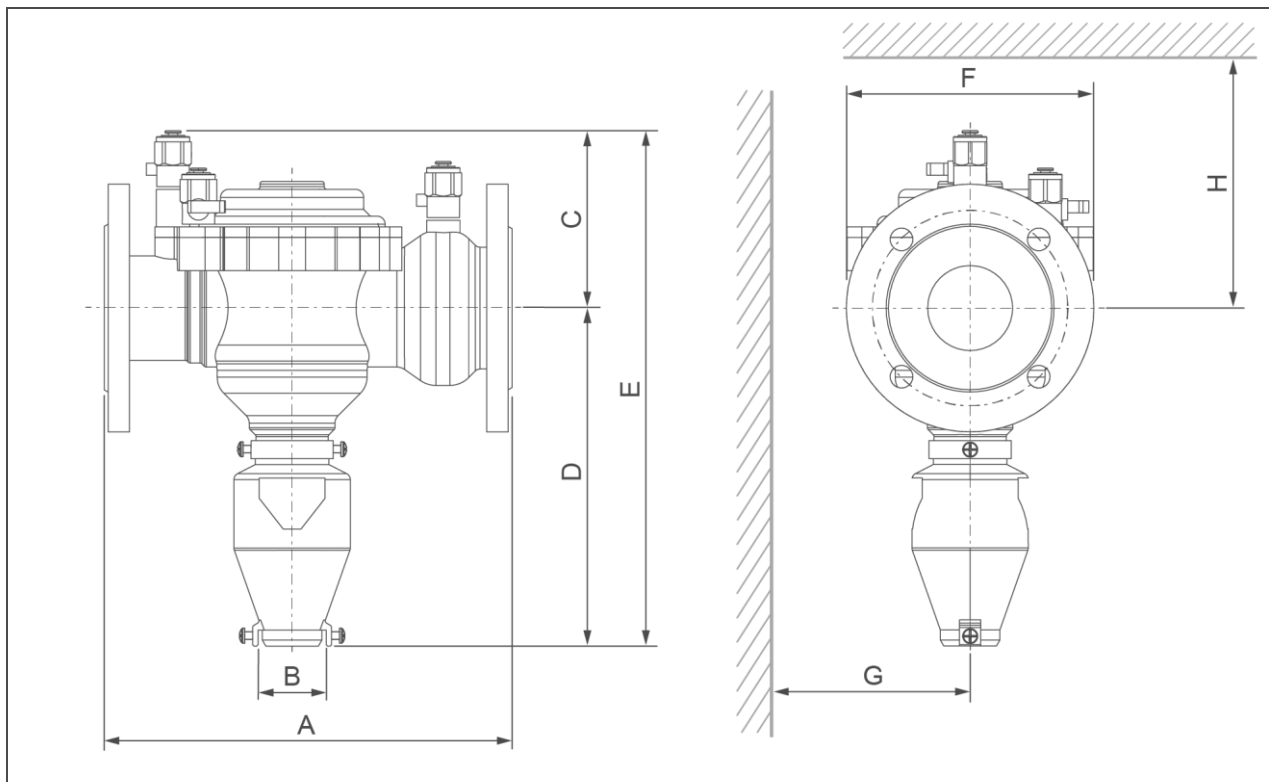
### Design

- Housing with test connections at every pressure zone 1/8"
- Strainer insert as coarse dirt filter 500 µm in upstream pressure zone
- Two non-return valves
- Relief 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
- Strainer insert

## 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            |
| <b>Order no.</b>       |  |                | <b>132 460</b> | <b>132 465</b> | <b>132 470</b> | <b>132 475</b> | <b>132 720</b> | <b>132 725</b> | <b>132 730</b> |

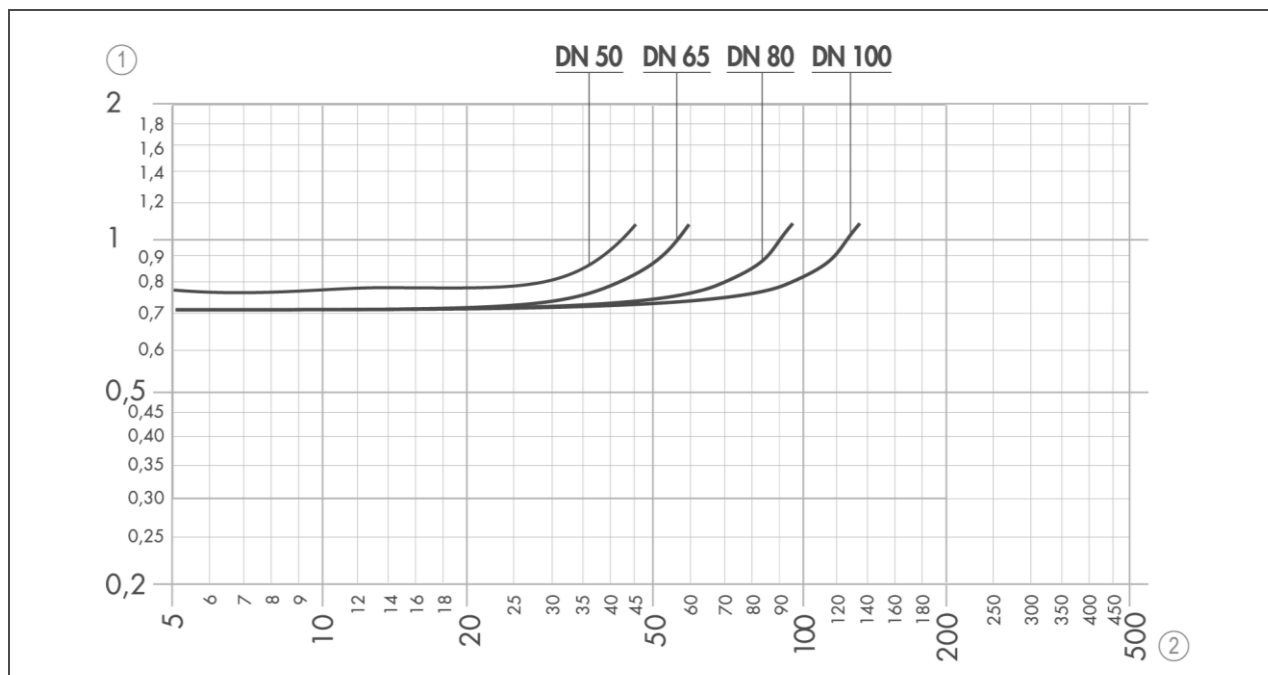
## Technical specifications II

| 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 <sub>v</sub> 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 |

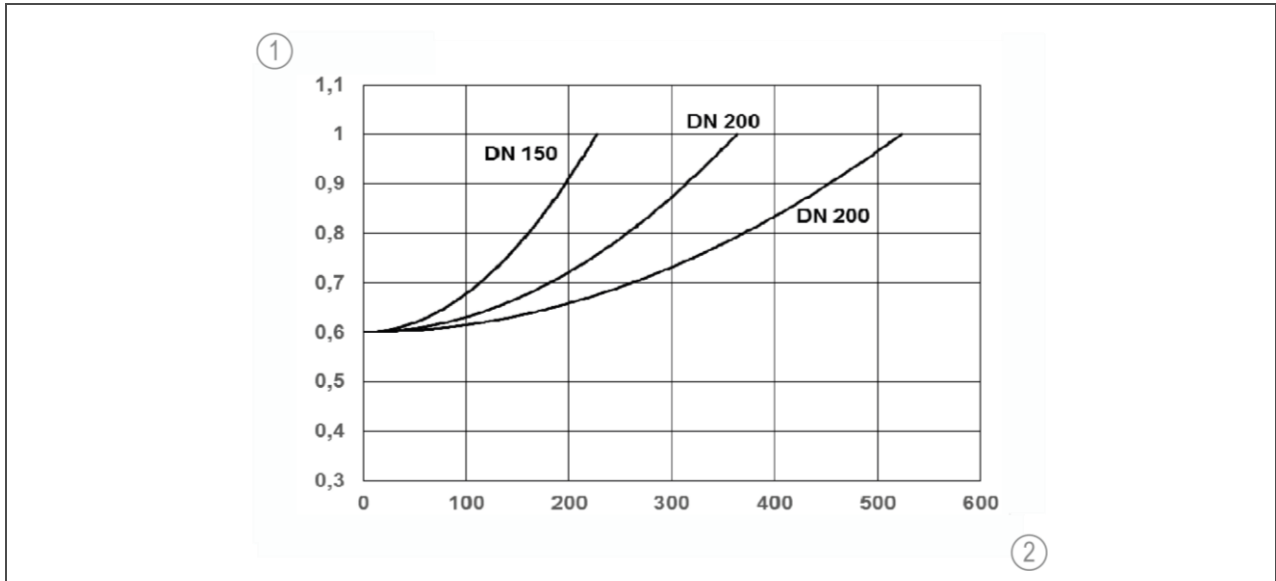
| General data             | GENO-DK 2-Maxi |         |         |         | GENO-DK-Maxi |         |         |
|--------------------------|----------------|---------|---------|---------|--------------|---------|---------|
| Media temperature        | °C 5 – 65      |         |         |         | °C 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



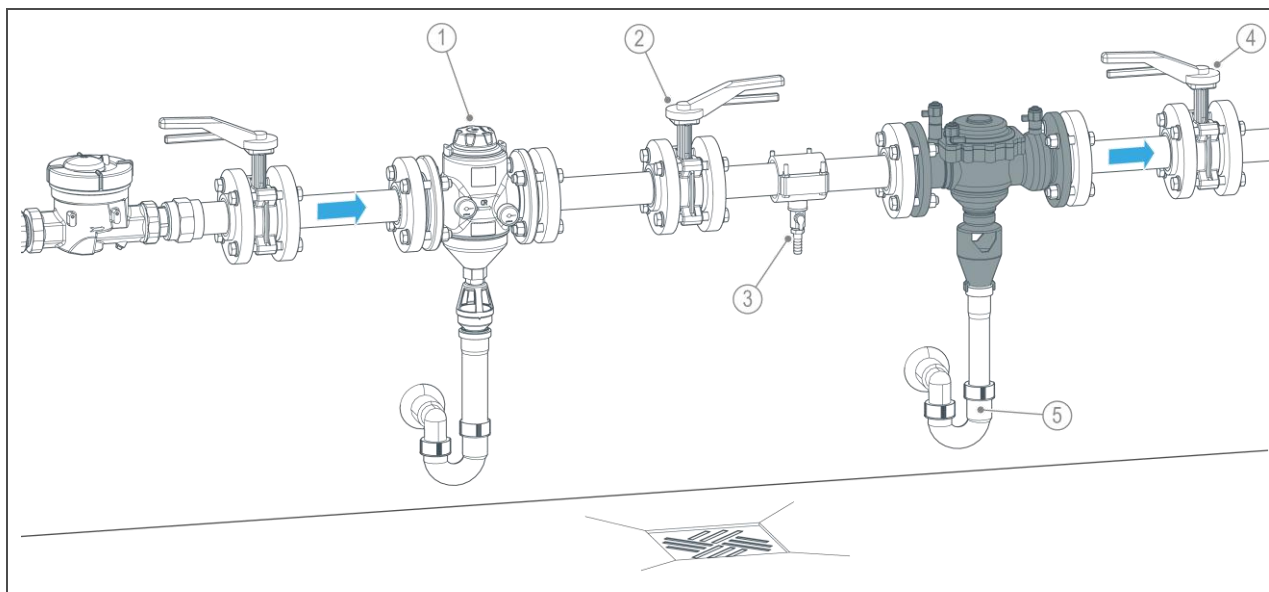
| Item | Designation                  | Item | Designation       |
|------|------------------------------|------|-------------------|
| 1    | Differential pressure in bar | 2    | Flow rate in m³/h |

**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. MR | 2    | Inlet butterfly valve  |
| 3    | Draining valve                 | 4    | Outlet butterfly valve |
| 5    | Drain connection               |      |                        |

### Requirements for the installation site

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

- Protection from frost and severe heat exposure
- Protection from chemicals, dyes, solvents and their vapours
- Ambient temperature and radiation temperature in the immediate vicinity  $\leq 60\text{ °C}$
- Access for maintenance work (take required space into consideration)
- Sufficiently illuminated as well as aerated and ventilated
- Pipe with sufficient load-bearing capacity to support the operating weight of the product

### Water installation

- Drinking water filter installed upstream
- Floor drain or safety device to prevent water damage

- Drain connection appropriate for the size of the system separator
- Butterfly valves upstream and downstream of the product
- Discharge valve in front of the product

### Accessories

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

### Contact

Grünbeck AG  
Josef-Grünbeck-Str. 1  
89420 Hoehstaedt  
GERMANY

☎ +49 9074 41-0

✉ +49 9074 41-100

info@gruenbeck.com  
www.gruenbeck.com

