

## Variable Area Flowmeter, Plastic

### Construction

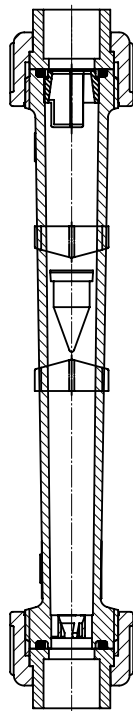
The flowmeter operates according to the variable area principle. Metering tubes are available in PA transparent or Polysulphone suitable for inert or corrosive\* media (PVC-U and PVDF tubes on request). Male threads moulded onto the ends of the metering tube allow for easy mounting of unions. O-ring seals at the faces of the tube ensure reliable sealing between metering tube and union and provide stress-free sealing. The floats are available in stainless steel 1.4571, PVC-U, PP or PVDF (depending on working medium and measuring range). The scale on the metering tube can be suited to the medium and is available e.g. in l/h, m<sup>3</sup>/h or %. Dovetail sections moulded onto the metering tube allow for easy mounting of adjustable visual flow indicators, limit switches and a continuous readout transmitter.

### Advantages

- Good level of accuracy, simple operation
- Corrosion resistant
- Over 500 standard scales and 13,000 special scales are available with further scales on request
- Clear and large size printed scale

\* see information on working medium on page 2

### Sectional drawing



**GEMÜ® 850**

851 / 855 / 857 / 861 / 865  
867 / 870 / 875 / 880 / 885

## Technical data

### Working medium

Corrosive and inert gaseous and liquid media which have no negative impact on the physical and chemical properties of the metering tube, float, seal and union materials.

### Operating pressure\*

|                                    |             |
|------------------------------------|-------------|
| Metering tubes with plastic unions | max. 10 bar |
| Metering tubes with metal unions   | max. 15 bar |

\*Operating pressure dependent on tube material and operating temperature

### Accuracy class

4 acc. to VDE/VDI 3513, sheet 2, i.e.  $\pm 1\%$  of end value and  $\pm 3\%$  of measured value.

### Version

| Type | Working medium    | Float material                       |
|------|-------------------|--------------------------------------|
| 851  | Liquids and gases | PVC-U, red                           |
| 861  | Liquids and gases | PVC-U, red (with magnet)             |
| 855  | Liquids and gases | PP, black                            |
| 865  | Liquids and gases | PP, black (with magnet)              |
| 857  | Liquids           | Stainless steel 1.4571               |
| 867  | Liquids           | Stainless steel 1.4571 with magnet   |
| 875  | Gases             | PP, black (only gases)               |
| 885  | Gases             | PP, black (with magnet) (only gases) |
| 870  | Liquids and gases | PVDF, white                          |
| 880  | Liquids and gases | PVDF, white (with magnet)            |

### Pressure / temperature correlation - Variable area flowmeter

|                           |                      | Temperature in °C | -20                      | -10 | ±0 | 5  | 10 | 20 | 25 | 30   | 40 | 50   | 60   | 70  | 80  | 90  | 100 | 110 | 120 |
|---------------------------|----------------------|-------------------|--------------------------|-----|----|----|----|----|----|------|----|------|------|-----|-----|-----|-----|-----|-----|
| Tube material             | Union material       | Code              | Operating pressure [bar] |     |    |    |    |    |    |      |    |      |      |     |     |     |     |     |     |
| PA transparent code 21    | PVC-U                | 1                 | -                        | -   | -  | 10 | 10 | 10 | 10 | 8.0  | 6  | 3.5  | 1.5  | -   | -   | -   | -   | -   | -   |
|                           | PP                   | 5                 | -                        | -   | -  | 10 | 10 | 10 | 10 | 8.5  | 7  | 5.5  | 4.0  | -   | -   | -   | -   | -   | -   |
|                           | PVDF                 | 20                | 10                       | 10  | 10 | 10 | 10 | 10 | 10 | 9.0  | 8  | 7.1  | 6.3  | -   | -   | -   | -   | -   | -   |
|                           | Malleable iron       | 6                 | 15                       | 15  | 15 | 15 | 15 | 15 | 15 | 13.5 | 12 | 10.7 | 9.5  | -   | -   | -   | -   | -   | -   |
|                           | Stainless steel      | 7                 | 15                       | 15  | 15 | 15 | 15 | 15 | 15 | 13.5 | 12 | 10.7 | 9.5  | -   | -   | -   | -   | -   | -   |
| Poly-sulphone code 22     | Stainless steel/PP   | 1V                | -                        | -   | -  | 10 | 10 | 10 | 10 | 8.5  | 7  | 5.5  | 4.0  | -   | -   | -   | -   | -   | -   |
|                           | PVC-U                | 1                 | -                        | -   | -  | 10 | 10 | 10 | 10 | 8.0  | 6  | 3.5  | 1.5  | -   | -   | -   | -   | -   | -   |
|                           | PP                   | 5                 | -                        | -   | -  | 10 | 10 | 10 | 10 | 8.5  | 7  | 5.5  | 4.0  | 2.7 | 1.5 | 0.8 | -   | -   | -   |
|                           | PVDF                 | 20                | -                        | -   | -  | 10 | 10 | 10 | 10 | 9.0  | 8  | 7.1  | 6.3  | 5.4 | 4.7 | 3.6 | 2.5 | -   | -   |
|                           | Malleable iron       | 6                 | -                        | -   | -  | 15 | 15 | 15 | 15 | 14.0 | 13 | 12.0 | 11.0 | 9.7 | 8.5 | 7.7 | 6.0 | -   | -   |
| PVC-U, transparent code 3 | Stainless steel      | 7                 | -                        | -   | -  | 15 | 15 | 15 | 15 | 14.0 | 13 | 12.0 | 11.0 | 9.7 | 8.5 | 7.7 | 6.0 | -   | -   |
|                           | Stainless steel/PP   | 1V                | -                        | -   | -  | 10 | 10 | 10 | 10 | 8.5  | 7  | 5.5  | 4.0  | 2.7 | 1.5 | 0.8 | -   | -   | -   |
|                           | PVC-U                | 1                 | -                        | -   | -  | 10 | 10 | 10 | 10 | 8.0  | 6  | 3.5  | -    | -   | -   | -   | -   | -   | -   |
|                           | Malleable iron       | 6                 | -                        | -   | -  | 10 | 10 | 10 | 10 | 8.0  | 6  | 3.5  | -    | -   | -   | -   | -   | -   | -   |
|                           | Stainless steel      | 7                 | -                        | -   | -  | 10 | 10 | 10 | 10 | 8.0  | 6  | 3.5  | -    | -   | -   | -   | -   | -   | -   |
| PVDF code 20              | Stainless steel/PVDF | 2V                | 10                       | 10  | 10 | 10 | 10 | 10 | 10 | 9.0  | 8  | 7.1  | 6.3  | 5.4 | 4.7 | 3.6 | 2.5 | 1.7 | 1.2 |
|                           | PVDF                 | 20                | 10                       | 10  | 10 | 10 | 10 | 10 | 10 | 9.0  | 8  | 7.1  | 6.3  | 5.4 | 4.7 | 3.6 | 2.5 | 1.7 | 1.2 |
|                           | Stainless steel      | 7                 | 10                       | 10  | 10 | 10 | 10 | 10 | 10 | 9.0  | 8  | 7.1  | 6.3  | 5.4 | 4.7 | 3.6 | 2.5 | 1.7 | 1.2 |

\* with K-No. 1123 (Float stoppers PVDF)

### Pressure loss on the float [mbar]

| Type                    | Nominal size |      |    |      |
|-------------------------|--------------|------|----|------|
|                         | 10           | 15   | 20 | 25   |
| 851                     | -            | 6.0  | 8  | 10.0 |
| 855, 861, 865, 870, 880 | 5            | 6.0  | 8  | 10.0 |
| 857, 867                | 10           | 12.0 | 17 | 19.0 |
| 875                     | 1            | 1.5  | 2  | 2.5  |
| 885                     | -            | -    | 11 | 13.0 |

Medium: Water, 20 °C

## Order data

| Version                                           |      |
|---------------------------------------------------|------|
| Float material                                    | Type |
| PVC-U, red                                        | 851  |
| PVC-U, red (with magnet)                          | 861  |
| PP, black                                         | 855  |
| PP, black (with magnet)                           | 865  |
| Stainless steel 1.4571 (only liquids)             | 857  |
| Stainless steel 1.4571 with magnet (only liquids) | 867  |
| PP, black (only gases)                            | 875  |
| PP, black (with magnet) (only gases)              | 885  |
| PVDF, white                                       | 870  |
| PVDF, white (with magnet)                         | 880  |

| 2 RoHS compliance | Code |
|-------------------|------|
| RoHS compliant    | R    |

| 3 Nominal size                                   | Code |
|--------------------------------------------------|------|
| Type                                             | DN   |
| 855, 857, 861, 865, 867, 870, 875, 880           | 10   |
| 851, 855, 857, 861, 865, 867, 870, 875, 880      | 15   |
| 851, 855, 857, 861, 865, 867, 870, 875, 880, 885 | 20   |
| 851, 855, 857, 861, 865, 867, 870, 875, 880, 885 | 25   |

| 4 Body configuration | Code |
|----------------------|------|
| Straight through     | D    |

| 5 Connection                                 | Code |
|----------------------------------------------|------|
| Union ends with DIN insert (socket)          | 7    |
| Union ends with inch insert (socket)         | 33   |
| Union ends with DIN insert (IR butt welding) | 78   |
| Union ends with insert (threaded socket Rp)  | 7R   |
| Spigots DIN                                  | 0    |
| Spigots DIN 11850, series 1                  | 16   |
| Spigots DIN 11850, series 2                  | 17   |
| Spigots DIN 11850, series 3                  | 18   |
| Spigots SMS 3008                             | 37   |
| Spigots ASME BPE                             | 59   |
| Spigots EN ISO 1127                          | 60   |
| Flanged connection on request                |      |

| 6 Tube material                             | Code |
|---------------------------------------------|------|
| PVC-U on request                            | 3    |
| PVDF (see datasheet 850 HP)                 | 20   |
| PA transparent temperature range 0 to 60°C* | 21   |
| Polysulphone temperature range 0 to 100°C*  | 22   |
| * Stated temperatures are valid for water   |      |

| 7 Seal material         | Code |
|-------------------------|------|
| O-ring FPM              | 4    |
| O-ring EPDM             | 14   |
| O-ring FEP encapsulated | 55   |

| 8 Union material                                                                       | Code |
|----------------------------------------------------------------------------------------|------|
| Insert PVC-U, union nut PP                                                             | 1    |
| Insert PP, union nut PP                                                                | 5    |
| Malleable iron                                                                         | 6    |
| Insert 1.4404 (threaded socket Rp) union nut stainless steel                           | 7    |
| Insert PVDF, union nut PVDF                                                            | 20   |
| Insert 1.4435 (butt weld spigot) union nut stainless steel                             | 41   |
| Insert 1.4435 (butt weld spigot) or Insert 1.4404 (threaded socket Rp), union nut PP   | 1V   |
| Insert 1.4435 (butt weld spigot) or Insert 1.4404 (threaded socket Rp), union nut PVDF | 2V   |
| * Other materials on request                                                           |      |

| 9 Tube size                 | Code |
|-----------------------------|------|
| See tables on pages 4 and 5 |      |

| 10 Measuring range                                            | Code |
|---------------------------------------------------------------|------|
| See tables on pages 4 and 5                                   |      |
| Always state the maximum measuring range value when ordering. |      |

### Note:

The scale divisions given on pages 4 and 5 correspond to the actual flows.

When ordering, the flow ranges should be stated as follows:

Liquid media: l/h

Gaseous media: Nm<sup>3</sup>/h

### Ordering information:

The following data are necessary:

1. Type of medium
2. Concentration of medium (%)
3. Required flow range (l/h, m<sup>3</sup>/h, kg/h)
4. Operating pressure, relative or absolute (bar)
5. Temperature of medium (°C)
6. Viscosity of medium
7. Medium density
8. Float with or without magnet

| Order example | 1   | 2 | 3  | 4 | 5 | 6  | 7  | 8 | 9  | 10 |
|---------------|-----|---|----|---|---|----|----|---|----|----|
| Code          | 855 | R | 10 | D | 7 | 21 | 14 | 1 | 13 | 60 |

| Selection of scales */** (liquid media)                                                                                                       |                                                              |                             |                                    |                                 |                                 |                                 |             |        |                   |      |
|-----------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|-----------------------------|------------------------------------|---------------------------------|---------------------------------|---------------------------------|-------------|--------|-------------------|------|
| Type                                                                                                                                          | Nominal size                                                 | Water<br>H <sub>2</sub> O   | Hydrochloric<br>acid<br>HCl 30-33% | Sodium<br>hydroxide<br>NaOH 30% | Sodium<br>hydroxide<br>NaOH 45% | Sodium<br>hydroxide<br>NaOH 50% | Tube size   | Weight |                   |      |
|                                                                                                                                               |                                                              | Tube                        |                                    |                                 |                                 |                                 |             | Union  |                   |      |
|                                                                                                                                               |                                                              | PA transp./<br>Polysulphone | Poly-<br>sulphone                  | PA transparent / Polysulphone   |                                 |                                 |             | PVC-U  | Malleable<br>iron |      |
|                                                                                                                                               | DN                                                           | l/h                         |                                    |                                 |                                 |                                 |             | Code   | [kg]              |      |
| 851 without magnet<br>(DN 15-25)<br>861 with magnet<br>Float material PVC-U<br><br>855 without magnet<br>865 with magnet<br>Float material PP | 10                                                           | 2 - 25                      | 1 - 20                             | 0.25 - 3.75                     | 0.05 - 0.85                     | 0.025 - 0.60                    | 11          | 0.07   | 0.18              |      |
|                                                                                                                                               |                                                              | 2 - 40                      | 2 - 32                             | 0.50 - 8.00                     | 0.10 - 2.00                     | 0.05 - 1.45                     | 12          |        |                   |      |
|                                                                                                                                               |                                                              | 5 - 60                      | 2 - 54                             | 1.00 - 20.0                     | 0.25 - 4.75                     | 0.25 - 3.25                     | 13          |        |                   |      |
|                                                                                                                                               |                                                              | 10 - 100                    | 5 - 90                             | 2.50 - 45.0                     | 0.50 - 12.5                     | 0.50 - 9.00                     | 14          |        |                   |      |
|                                                                                                                                               |                                                              | 15 - 160                    | 10 - 150                           | 5.00 - 80.0                     | 1.00 - 30.0                     | 1.00 - 22.0                     | 15          |        |                   |      |
|                                                                                                                                               | 15                                                           | 5 - 60                      | 2.5 - 50                           | 1.0 - 15.0                      | 0.25 - 3.25                     | 0.10 - 2.40                     | 21          | 0.12   | 0.30              |      |
|                                                                                                                                               |                                                              | 10 - 100                    | 5.0 - 80                           | 2.0 - 34.0                      | 0.50 - 8.00                     | 0.25 - 5.50                     | 22          |        |                   |      |
|                                                                                                                                               |                                                              | 15 - 160                    | 10 - 130                           | 2.5 - 67.5                      | 1.00 - 8.00                     | 0.50 - 13.5                     | 23          |        |                   |      |
|                                                                                                                                               |                                                              | 20 - 250                    | 20 - 220                           | 5.0 - 130                       | 2.50 - 45.0                     | 2.00 - 32.0                     | 24          |        |                   |      |
|                                                                                                                                               |                                                              | 30 - 320                    | 20 - 260                           | 10.0 - 170                      | 2.50 - 65.0                     | 2.50 - 47.5                     | 25          |        |                   |      |
|                                                                                                                                               | 20                                                           | 10 - 160                    | 10 - 135                           | 2.5 - 62.5                      | 1.0 - 15.0                      | 0.5 - 11                        | 31          | 0.21   | 0.48              |      |
|                                                                                                                                               |                                                              | 20 - 250                    | 20 - 210                           | 5.0 - 115.0                     | 2.0 - 32.5                      | 1.0 - 24                        | 32          |        |                   |      |
|                                                                                                                                               |                                                              | 40 - 400                    | 25 - 325                           | 10 - 190.0                      | 2.5 - 70.0                      | 2.5 - 50                        | 33          |        |                   |      |
|                                                                                                                                               |                                                              | 40 - 640                    | 50 - 550                           | 25 - 375.0                      | 10.0 - 180                      | 5.0 - 130                       | 34          |        |                   |      |
|                                                                                                                                               |                                                              | 20 - 250                    | 20 - 200                           | 5 - 110                         | 2.0 - 29                        | 1.0 - 20                        | 41          |        |                   |      |
|                                                                                                                                               | 25                                                           | 40 - 400                    | 30 - 340                           | 10 - 200                        | 2.5 - 70                        | 2.5 - 50                        | 42          | 0.29   | 0.61              |      |
|                                                                                                                                               |                                                              | 60 - 640                    | 50 - 550                           | 20 - 380                        | 10 - 150                        | 5 - 120                         | 43          |        |                   |      |
|                                                                                                                                               |                                                              | 100 - 1000                  | 100 - 900                          | 25 - 650                        | 25 - 350                        | 10 - 260                        | 44          |        |                   |      |
|                                                                                                                                               |                                                              |                             |                                    |                                 |                                 |                                 |             |        |                   |      |
|                                                                                                                                               | 870 without magnet<br>880 with magnet<br>Float material PVDF | 10                          | 2 - 25                             | 1 - 20                          | -                               | -                               | -           | 11     | 0.07              | 0.18 |
| 2 - 40                                                                                                                                        |                                                              |                             | 2 - 32                             | -                               | -                               | -                               | 12          |        |                   |      |
| 5 - 60                                                                                                                                        |                                                              |                             | 2 - 54                             | -                               | -                               | -                               | 13          |        |                   |      |
| 10 - 100                                                                                                                                      |                                                              |                             | 5 - 90                             | -                               | -                               | -                               | 14          |        |                   |      |
| 15 - 160                                                                                                                                      |                                                              |                             | 10 - 150                           | -                               | -                               | -                               | 15          |        |                   |      |
| 15                                                                                                                                            |                                                              | 5 - 60                      | 2.5 - 50                           | -                               | -                               | -                               | 21          | 0.12   | 0.30              |      |
|                                                                                                                                               |                                                              | 10 - 100                    | 5.0 - 80                           | -                               | -                               | -                               | 22          |        |                   |      |
|                                                                                                                                               |                                                              | 15 - 160                    | 10 - 130                           | -                               | -                               | -                               | 23          |        |                   |      |
|                                                                                                                                               |                                                              | 20 - 250                    | 20 - 220                           | -                               | -                               | -                               | 24          |        |                   |      |
|                                                                                                                                               |                                                              | 30 - 320                    | 20 - 260                           | -                               | -                               | -                               | 25          |        |                   |      |
| 20                                                                                                                                            |                                                              | 10 - 160                    | 10 - 135                           | -                               | -                               | -                               | 31          | 0.21   | 0.48              |      |
|                                                                                                                                               |                                                              | 20 - 250                    | 20 - 210                           | -                               | -                               | -                               | 32          |        |                   |      |
|                                                                                                                                               |                                                              | 40 - 400                    | 25 - 325                           | -                               | -                               | -                               | 33          |        |                   |      |
|                                                                                                                                               |                                                              | 40 - 640                    | 50 - 550                           | -                               | -                               | -                               | 34          |        |                   |      |
|                                                                                                                                               |                                                              | 20 - 250                    | 20 - 200                           | -                               | -                               | -                               | 41          |        |                   |      |
| 25                                                                                                                                            |                                                              | 40 - 400                    | 30 - 340                           | -                               | -                               | -                               | 42          | 0.29   | 0.61              |      |
|                                                                                                                                               |                                                              | 60 - 640                    | 50 - 550                           | -                               | -                               | -                               | 43          |        |                   |      |
|                                                                                                                                               |                                                              | 100 - 1000                  | 100 - 900                          | -                               | -                               | -                               | 44          |        |                   |      |
|                                                                                                                                               |                                                              |                             |                                    |                                 |                                 |                                 |             |        |                   |      |
| 857 without magnet<br>867 with magnet<br>Float material 1.4571                                                                                |                                                              | 10                          | 4 - 40                             | -                               | 0.5 - 8.5                       | 0.10 - 2.0                      | 0.05 - 1.40 | 11     | 0.08              | 0.19 |
|                                                                                                                                               | 5 - 60                                                       |                             | -                                  | 1.0 - 19.0                      | 0.25 - 4.5                      | 0.25 - 3.25                     | 12          |        |                   |      |
|                                                                                                                                               | 10 - 100                                                     |                             | -                                  | 2.5 - 40.0                      | 0.50 - 11                       | 0.5 - 8.00                      | 13          |        |                   |      |
|                                                                                                                                               | 15 - 160                                                     |                             | -                                  | 5.0 - 85.0                      | 1.00 - 28                       | 1.0 - 21.0                      | 14          |        |                   |      |
|                                                                                                                                               | 20 - 250                                                     |                             | -                                  | 10.0 - 150                      | 2.50 - 60                       | 2.5 - 47.5                      | 15          |        |                   |      |
|                                                                                                                                               | 15                                                           | 10 - 100                    | -                                  | 2.5 - 37.5                      | 0.5 - 9.0                       | 0.25 - 6.5                      | 21          | 0.13   | 0.31              |      |
|                                                                                                                                               |                                                              | 20 - 160                    | -                                  | 5.0 - 75.0                      | 1.0 - 22                        | 1.00 - 15                       | 22          |        |                   |      |
|                                                                                                                                               |                                                              | 20 - 250                    | -                                  | 5.0 - 140                       | 2.5 - 50                        | 2.00 - 36                       | 23          |        |                   |      |
|                                                                                                                                               |                                                              | 40 - 400                    | -                                  | 10.0 - 250                      | 5.0 - 110                       | 5.00 - 85                       | 24          |        |                   |      |
|                                                                                                                                               |                                                              | 50 - 500                    | -                                  | 20.0 - 300                      | 10 - 160                        | 5.00 - 120                      | 25          |        |                   |      |
|                                                                                                                                               | 20                                                           | 20 - 250                    | -                                  | 5 - 135                         | 2.5 - 42.5                      | 2.0 - 30                        | 31          | 0.24   | 0.51              |      |
|                                                                                                                                               |                                                              | 30 - 400                    | -                                  | 10 - 230                        | 5.0 - 90.0                      | 2.5 - 65                        | 32          |        |                   |      |
|                                                                                                                                               |                                                              | 60 - 600                    | -                                  | 25 - 350                        | 10 - 180                        | 5.0 - 135                       | 33          |        |                   |      |
|                                                                                                                                               |                                                              | 100 - 1000                  | -                                  | 25 - 650                        | 25 - 400                        | 20 - 320                        | 34          |        |                   |      |
|                                                                                                                                               |                                                              | 40 - 400                    | -                                  | 10 - 220                        | 5.0 - 75                        | 2.5 - 55                        | 41          |        |                   |      |
|                                                                                                                                               | 25                                                           | 50 - 650                    | -                                  | 20 - 380                        | 10 - 180                        | 5 - 135                         | 42          | 0.34   | 0.66              |      |
|                                                                                                                                               |                                                              | 100 - 1000                  | -                                  | 25 - 650                        | 25 - 400                        | 20 - 300                        | 43          |        |                   |      |
|                                                                                                                                               |                                                              | 150 - 1600                  | -                                  | 50 - 1100                       | 50 - 750                        | 25 - 650                        | 44          |        |                   |      |
|                                                                                                                                               |                                                              |                             |                                    |                                 |                                 |                                 |             |        |                   |      |

\* All scales in this data sheet are based on a medium temperature of 20 °C.

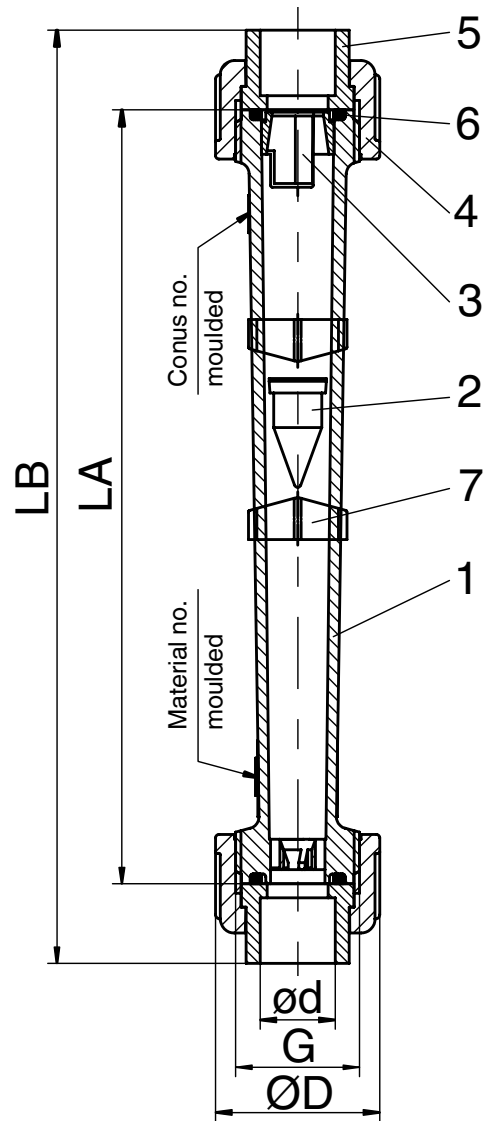
\*\* For smaller or larger flow ranges see data sheets GEMU 800, 840.

Other ranges available on request.

Tubes in PVC-U and PVDF on request

| Selection of scales (gaseous media)                                                                                                                                                                 |              |                                                                       |           |        |                |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-----------------------------------------------------------------------|-----------|--------|----------------|
| Type                                                                                                                                                                                                | Nominal size | Medium air<br>At 1 bar abs. and 20°C<br>PA transparent / Polysulphone | Tube size | Weight |                |
|                                                                                                                                                                                                     |              |                                                                       |           | Union  |                |
|                                                                                                                                                                                                     |              |                                                                       |           | PVC-U  | Malleable iron |
|                                                                                                                                                                                                     | DN           | Nm³/h                                                                 | Code      | [kg]   |                |
| 875 without magnet<br>Float material PP                                                                                                                                                             | 10           | 0.02 - 0.36                                                           | 11        | 0.07   | 0.18           |
|                                                                                                                                                                                                     |              | 0.05 - 0.55                                                           | 12        |        |                |
|                                                                                                                                                                                                     |              | 0.10 - 0.90                                                           | 13        |        |                |
|                                                                                                                                                                                                     |              | 0.15 - 1.50                                                           | 14        |        |                |
|                                                                                                                                                                                                     |              | 0.20 - 2.40                                                           | 15        |        |                |
|                                                                                                                                                                                                     | 15           | 0.10 - 0.90                                                           | 21        | 0.11   | 0.29           |
|                                                                                                                                                                                                     |              | 0.15 - 1.50                                                           | 22        |        |                |
|                                                                                                                                                                                                     |              | 0.20 - 2.40                                                           | 23        |        |                |
|                                                                                                                                                                                                     |              | 0.40 - 3.80                                                           | 24        |        |                |
|                                                                                                                                                                                                     |              | 0.40 - 4.80                                                           | 25        |        |                |
|                                                                                                                                                                                                     | 20           | 0.20 - 2.50                                                           | 31        | 0.19   | 0.46           |
|                                                                                                                                                                                                     |              | 0.25 - 3.75                                                           | 32        |        |                |
|                                                                                                                                                                                                     |              | 0.50 - 5.50                                                           | 33        |        |                |
|                                                                                                                                                                                                     |              | 1.00 - 10.0                                                           | 34        |        |                |
|                                                                                                                                                                                                     | 25           | 0.4 - 4.0                                                             | 41        | 0.25   | 0.57           |
|                                                                                                                                                                                                     |              | 0.5 - 6.0                                                             | 42        |        |                |
| 1.0 - 10.0                                                                                                                                                                                          |              | 43                                                                    |           |        |                |
| 1.0 - 16.0                                                                                                                                                                                          |              | 44                                                                    |           |        |                |
| 885 with magnet<br>Float material PP                                                                                                                                                                | 20           | 0.75 - 6.5                                                            | 31        | 0.19   | 0.46           |
|                                                                                                                                                                                                     |              | 1.0 - 10.0                                                            | 32        |        |                |
|                                                                                                                                                                                                     |              | 1.5 - 14.5                                                            | 33        |        |                |
|                                                                                                                                                                                                     |              | 2.0 - 24.0                                                            | 34        |        |                |
|                                                                                                                                                                                                     | 25           | 1.0 - 10.0                                                            | 41        | 0.25   | 0.57           |
|                                                                                                                                                                                                     |              | 2.0 - 16.0                                                            | 42        |        |                |
|                                                                                                                                                                                                     |              | 3.0 - 24.0                                                            | 43        |        |                |
|                                                                                                                                                                                                     |              | 5.0 - 37.5                                                            | 44        |        |                |
| To types 875/885:<br>Caution! With gaseous media the scaling alters according to operating pressure. Please state when ordering.                                                                    |              |                                                                       |           |        |                |
| Special scales:<br>For other media and operating requirements differing from those given for standard versions, special scales are available.<br>Please note the ordering information (see page 3). |              |                                                                       |           |        |                |

## Dimensions [mm]

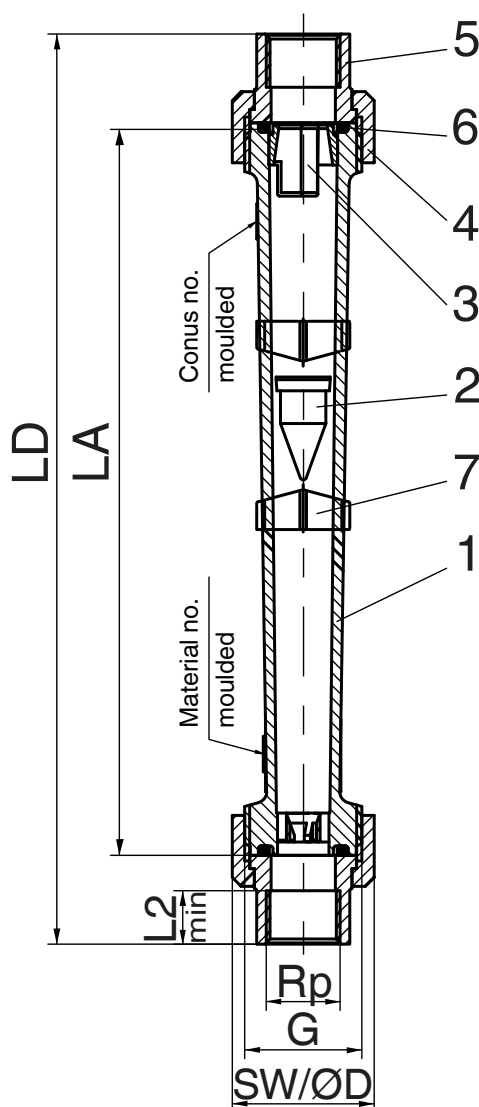


| Item | Designation        | Pieces |
|------|--------------------|--------|
| 1    | Tube               | 1      |
| 2    | Float              | 1      |
| 3    | Float stop         | 2      |
| 4    | Union nut          | 2      |
| 5    | Union              | 2      |
| 6    | O-ring (see table) | 2      |
| 7    | Flow indicator     | 2      |

| Plastic union       |         |     |            |    |    |     |     |     |      |      |     |
|---------------------|---------|-----|------------|----|----|-----|-----|-----|------|------|-----|
| Connection code     |         |     |            | øD | 7  |     |     |     | NPS  | 33   |     |
| DN                  | G       | LA  | O-ring     |    | ød | LB  |     |     |      | ød   | LB  |
| Union material code |         |     |            |    |    | 1   | 5   | 20  |      | 1    |     |
| 10                  | G 3/4   | 165 | 15.5 x 2.6 | 35 | 16 | 199 | 199 | 199 | 3/8“ | 17.3 | 209 |
| 15                  | G 1     | 170 | 20.2 x 3.5 | 43 | 21 | 208 | 205 | 208 | 1/2“ | 21.4 | 208 |
| 20                  | G 1 1/4 | 185 | 28.0 x 3.5 | 53 | 25 | 229 | 223 | 227 | 3/4“ | 26.7 | 229 |
| 25                  | G 1 1/2 | 200 | 33.0 x 3.5 | 60 | 32 | 250 | 242 | 246 | 1“   | 33.6 | 250 |

Tube material PVDF = LA/LB -3 mm

## Dimensions [mm]



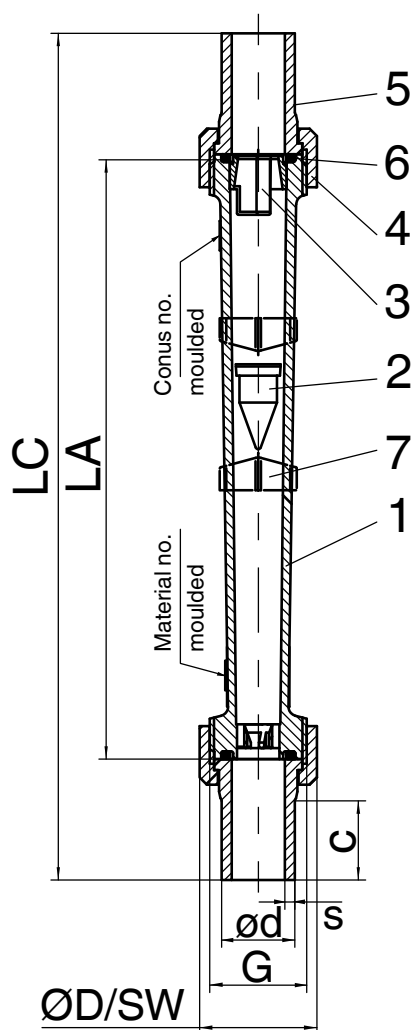
| Item | Designation        | Pieces |
|------|--------------------|--------|
| 1    | Tube               | 1      |
| 2    | Float              | 1      |
| 3    | Float stop         | 2      |
| 4    | Union nut          | 2      |
| 5    | Union              | 2      |
| 6    | O-ring (see table) | 2      |
| 7    | Flow indicator     | 2      |

| Metal and plastic union |         |     |            |           |      |                 |        |     |           |     |
|-------------------------|---------|-----|------------|-----------|------|-----------------|--------|-----|-----------|-----|
| Connection code         |         |     |            | 7R        |      |                 |        |     |           |     |
| DN                      | G       | LA  | O-ring     | ød        | SW   | Rp              | L2 min | LD  |           |     |
| Union material code     |         |     |            | 1, 1V, 2V | 6, 7 | 1, 6, 7, 1V, 2V | 1      | 6   | 7, 1V, 2V |     |
| 10                      | G 3/4   | 165 | 15.5 x 2.6 | 35        | 32   | RP 3/8          | 11.4   | 213 | 209       | 203 |
| 15                      | G 1     | 170 | 20.2 x 3.5 | 43        | 41   | RP 1/2          | 15.0   | 222 | 214       | 212 |
| 20                      | G 1 1/4 | 185 | 28.0 x 3.5 | 53        | 50   | RP 3/4          | 16.3   | 243 | 229       | 239 |
| 25                      | G 1 1/2 | 200 | 33.0 x 3.5 | 60        | 55   | RP 1            | 19.1   | 264 | 252       | 256 |

Tube material PVDF = LA/LB -3 mm

## Dimensions [mm]

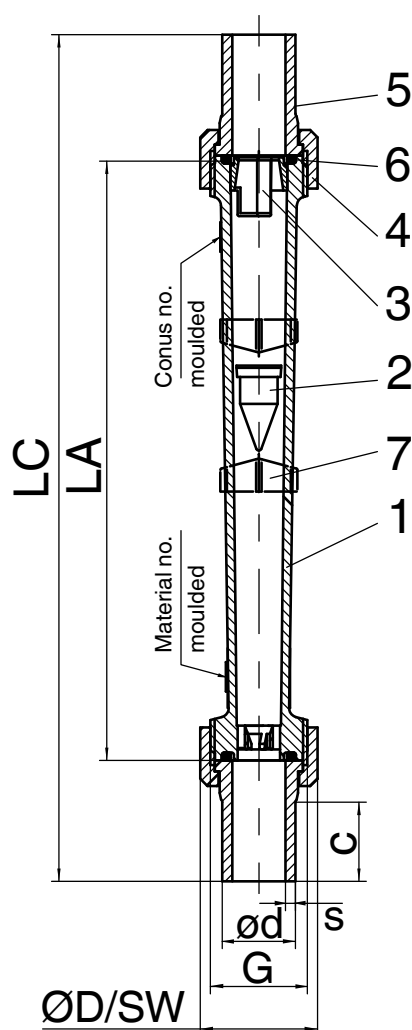
| Item | Designation        | Pieces |
|------|--------------------|--------|
| 1    | Tube               | 1      |
| 2    | Float              | 1      |
| 3    | Float stop         | 2      |
| 4    | Union nut          | 2      |
| 5    | Union              | 2      |
| 6    | O-ring (see table) | 2      |
| 7    | Flow indicator     | 2      |



| Plastic union       |         |     |            |    |    |     |     |    |     |
|---------------------|---------|-----|------------|----|----|-----|-----|----|-----|
| Connection code     |         |     |            | ØD | 78 |     |     |    |     |
| DN                  | G       | LA  | O-ring     |    | Ød | s   |     | c  |     |
| Union material code |         |     |            |    |    | 5   | 20  | 5  | 20  |
| 10                  | G 3/4   | 165 | 15.5 x 2.6 | 35 | -  | -   | -   | -  | -   |
| 15                  | G 1     | 170 | 20.2 x 3.5 | 43 | 20 | 1.9 | 1.9 | 37 | 276 |
| 20                  | G 1 1/4 | 185 | 28.0 x 3.5 | 53 | 25 | 2.3 | 1.9 | 39 | 297 |
| 25                  | G 1 1/2 | 200 | 33.0 x 3.5 | 60 | 32 | 2.9 | 2.4 | 40 | 318 |

Tube material PVDF = LA/LB -3 mm

## Dimensions [mm]



| Item | Designation        | Pieces |
|------|--------------------|--------|
| 1    | Tube               | 1      |
| 2    | Float              | 1      |
| 3    | Float stop         | 2      |
| 4    | Union nut          | 2      |
| 5    | Union              | 2      |
| 6    | O-ring (see table) | 2      |
| 7    | Flow indicator     | 2      |

| Metal union         |         |     |            |    |        |            |    |    |     |    |     |       |      |      |     |
|---------------------|---------|-----|------------|----|--------|------------|----|----|-----|----|-----|-------|------|------|-----|
| Connection code     |         |     |            | SW | øD     | LC         | c  | 0  |     | 16 |     | 17    |      | 18   |     |
| DN                  | G       | LA  | O-ring     |    |        |            |    | ød | s   | ød | s   | ød    | s    | ød   | s   |
| Union material code |         |     |            | 41 | 1V, 2V | 41, 1V, 2V |    |    |     |    |     |       |      |      |     |
| 10                  | G 3/4   | 165 | 15.5 x 2.6 | 32 | 35     | 240        | 34 | -  | -   | 12 | 1   | 13    | 1.5  | 14   | 2   |
| 15                  | G 1     | 170 | 20.2 x 3.5 | 41 | 43     | 246        | 34 | 18 | 1.5 | 18 | 1   | 19    | 1.5  | 20   | 2   |
| 20                  | G 1 1/4 | 185 | 28.0 x 3.5 | 50 | 53     | 261        | 34 | 22 | 1.5 | 22 | 1   | 23    | 1.5  | 24   | 2   |
| 25                  | G 1 1/2 | 200 | 33.0 x 3.5 | 55 | 60     | 279        | 34 | 28 | 1.5 | 28 | 1   | 29    | 1.5  | 30   | 2   |
| Connection code     |         |     |            | SW | øD     | LC         | c  | 17 |     | 37 |     | 59    |      | 60   |     |
| DN                  | G       | LA  | O-ring     |    |        |            |    | ød | s   | ød | s   | ød    | s    | ød   | s   |
| Union material code |         |     |            | 41 | 1V, 2V | 41, 1V, 2V |    |    |     |    |     |       |      |      |     |
| 10                  | G 3/4   | 165 | 15.5 x 2.6 | 32 | 35     | 240        | 34 | 13 | 1.5 | -  | -   | 9.53  | 0.89 | 17.2 | 1.6 |
| 15                  | G 1     | 170 | 20.2 x 3.5 | 41 | 43     | 246        | 34 | 19 | 1.5 | -  | -   | 12.70 | 1.65 | 21.3 | 1.6 |
| 20                  | G 1 1/4 | 185 | 28.0 x 3.5 | 50 | 53     | 261        | 34 | 23 | 1.5 | -  | -   | 19.05 | 1.65 | 26.9 | 1.6 |
| 25                  | G 1 1/2 | 200 | 33.0 x 3.5 | 55 | 60     | 279        | 34 | 29 | 1.5 | 25 | 1.2 | 25.40 | 1.65 | 33.7 | 1.6 |

Tube material PVDF = LA/LB -3 mm

## Overview GEMÜ 850

| Union material  | 1 |    |    | 5 |    | 6  | 7, 1V, 2V | 20 |    | 41, 1V, 2V |    |    |    |
|-----------------|---|----|----|---|----|----|-----------|----|----|------------|----|----|----|
| Connection code | 7 | 7R | 33 | 7 | 78 | 7R | 7R        | 7  | 78 | 17         | 37 | 59 | 60 |
| DN 10           | X | X  | X  | X | -  | X  | X         | X  | -  | X          | -  | X  | X  |
| DN 15           | X | X  | X  | X | X  | X  | X         | X  | X  | X          | -  | X  | X  |
| DN 20           | X | X  | X  | X | X  | X  | X         | X  | X  | X          | -  | X  | X  |
| DN 25           | X | X  | X  | X | X  | X  | X         | X  | X  | X          | X  | X  | X  |

## Accessories for variable area flowmeter series GEMÜ 850

To increase the versatility of the GEMÜ 850 flowmeter, numerous accessories have been developed which can be retrofitted onto the tube without modification.

The float, however, must be one containing a magnet, in order for these accessories to function.



### GEMÜ 1250 for DN 25

Change-over contact  
(Switching duty of magnetic switch 10 VA)

### GEMÜ 1256 for DN 10, 15, 20

Limit switch (max.)  
(Switching duty of magnetic switch 10 VA)

### GEMÜ 1251 for DN 25

Limit switch (max.)  
(Switching duty of magnetic switch 10 VA)

### GEMÜ 1257 for DN 10, 15, 20

Limit switch (min.)  
(Switching duty of magnetic switch 10 VA)

### GEMÜ 1252 for DN 25

Limit switch (min.)  
(Switching duty of magnetic switch 10 VA)



### GEMÜ 1276

Digital display unit Versions:  
With or without switch points.



### GEMÜ 1271

Instrument sensor for continuous  
flow readout (resistance 0 - 10 kΩ).

### GEMÜ 1273

Instrument sensor for continuous  
flow readout via output signal  
4-20 mA from an integrated 2-wire  
measuring transducer

Separate data sheets are available for the above accessories on request.

### Other products from our product range:

- Plastic valves, pneumatically, electrically and manually operated.
- Metal valves, pneumatically, electrically and manually operated.

For further flowmeters, accessories and other products,  
please see our Product Range catalogue and Price List.  
Contact GEMÜ.

**GEMÜ®** VALVES, MEASUREMENT  
AND CONTROL SYSTEMS

