

# GEMÜ 8500DRN

Throttle plate

EN

## Assembly instructions



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## 1 General information

### 1.1 Information

- The descriptions and instructions apply to the standard versions. For special versions not described in this document the basic information contained herein applies in combination with any additional special documentation.
- Correct installation, operation, maintenance and repair work ensure faultless operation of the product.
- Should there be any doubts or misunderstandings, the German version is the authoritative document.
- Contact us at the address on the last page for staff training information.

### 1.2 Symbols used

The following symbols are used in this document:

Symbol	Meaning
●	Tasks to be performed
▶	Response(s) to tasks
-	Lists

### 1.3 Definition of terms

#### Working medium

The medium that flows through the GEMÜ product.

### 1.4 Warning notes

Wherever possible, warning notes are organised according to the following scheme:

SIGNAL WORD	
Possible symbol for the specific danger	<b>Type and source of the danger</b> <ul style="list-style-type: none"> <li>▶ Possible consequences of non-observance.</li> <li>● Measures for avoiding danger.</li> </ul>

Warning notes are always marked with a signal word and sometimes also with a symbol for the specific danger.

The following signal words and danger levels are used:

<b>⚠ DANGER</b>	
	<b>Imminent danger!</b> <ul style="list-style-type: none"> <li>▶ Non-observance can cause death or severe injury.</li> </ul>
<b>⚠ WARNING</b>	
	<b>Potentially dangerous situation!</b> <ul style="list-style-type: none"> <li>▶ Non-observance can cause death or severe injury.</li> </ul>
<b>⚠ CAUTION</b>	
	<b>Potentially dangerous situation!</b> <ul style="list-style-type: none"> <li>▶ Non-observance can cause moderate to light injury.</li> </ul>
<b>NOTICE</b>	
	<b>Potentially dangerous situation!</b> <ul style="list-style-type: none"> <li>▶ Non-observance can cause damage to property.</li> </ul>

## 2 Safety information

The safety information in this document refers only to an individual product. Potentially dangerous conditions can arise in combination with other plant components, which need to be considered on the basis of a risk analysis. The operator is responsible for the production of the risk analysis and for compliance with the resulting precautionary measures and regional safety regulations.

The document contains fundamental safety information that must be observed during commissioning, operation and maintenance. Non-compliance with these instructions may cause:

- Personal hazard due to electrical, mechanical and chemical effects.
- Hazard to nearby equipment.
- Failure of important functions.
- Hazard to the environment due to the leakage of dangerous materials.

The safety information does not take into account:

- Unexpected incidents and events, which may occur during installation, operation and maintenance.
- Local safety regulations which must be adhered to by the operator and by any additional installation personnel.

### Prior to commissioning:

1. Transport and store the product correctly.
2. Do not paint the bolts and plastic parts of the product.
3. Carry out installation and commissioning using trained personnel.
4. Provide adequate training for installation and operating personnel.
5. Ensure that the contents of the document have been fully understood by the responsible personnel.
6. Define the areas of responsibility.
7. Observe the safety data sheets.
8. Observe the safety regulations for the media used.

### During operation:

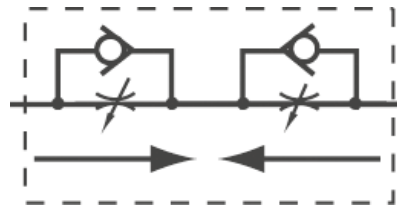
9. Keep this document available at the place of use.
10. Observe the safety information.
11. Operate the product in accordance with this document.
12. Operate the product in accordance with the specifications.
13. Maintain the product correctly.
14. Do not carry out any maintenance work and repairs not described in this document without consulting the manufacturer first.

### In cases of uncertainty:

15. Consult the nearest GEMÜ sales office.

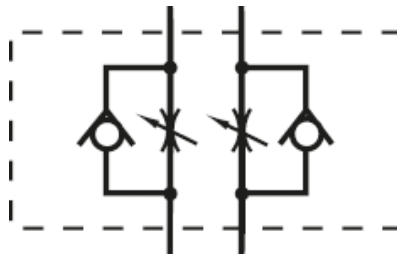
## 3 Product description

### 3.1 Type 850032NDRN 3 601, 850032NDRN 3 611



- For setting the actuating speed of single acting rotary actuators
- Using the two knurled/slot screws, the opening and closing speeds can be precisely adjusted independently of one another
- For installation between a customary rotary actuator and a 3/2-way NAMUR valve G1/4"

### 3.2 Type 850032NDRN 5 601, 850032NDRN 5 611



- For setting the actuating speed of double acting rotary actuators
- Using the two knurled/slot screws, the opening and closing speeds can be precisely adjusted independently of one another
- For installation between a customary rotary actuator and a 5/2-way NAMUR valve G1/4"

850032NDRN 3 601 – operation with knurled screw

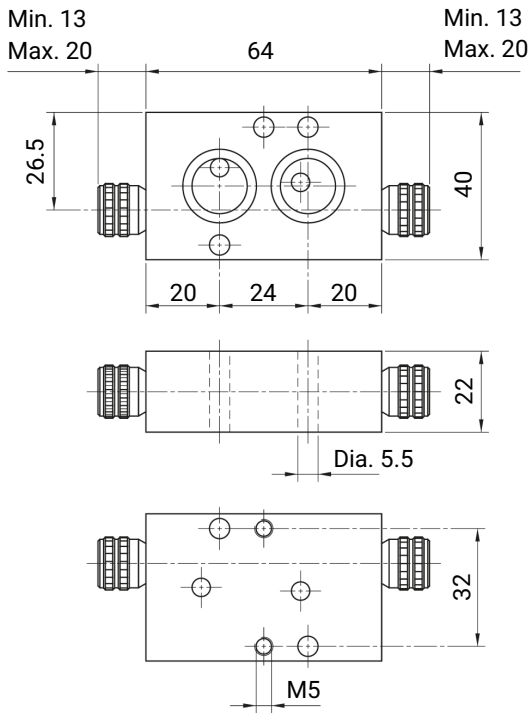
850032NDRN 3 611 – operation with screwdriver

850032NDRN 5 601 – operation with knurled screw

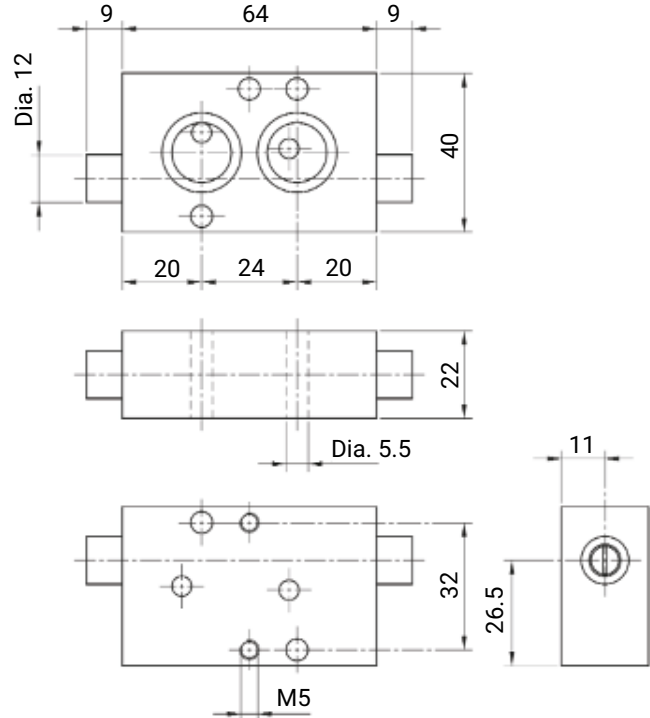
850032NDRN 5 611 – operation with screwdriver

**4 Dimensions**

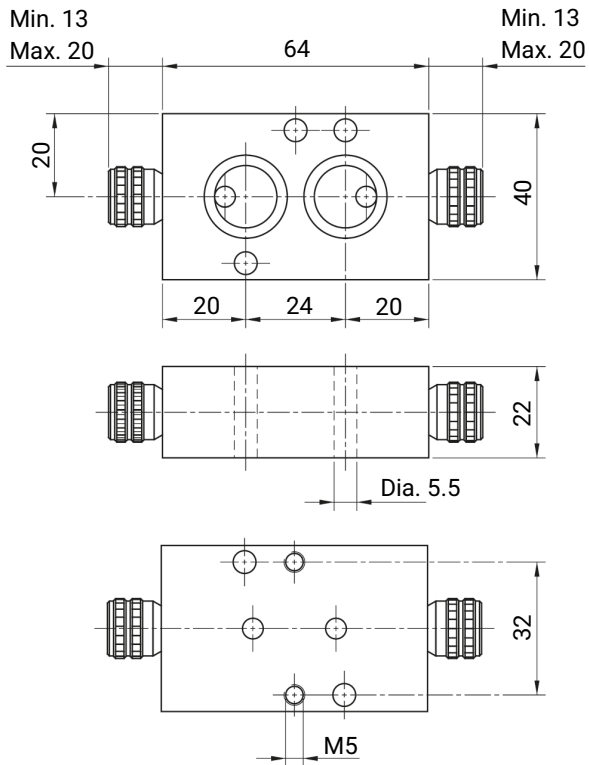
**850032NDRN 3 601**



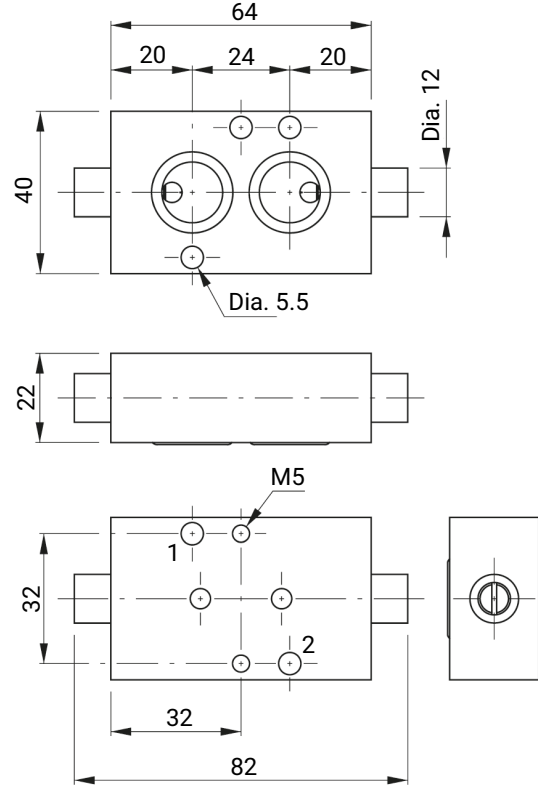
**850032NDRN 3 611**



**850032NDRN 5 601**



**850032NDRN 5 611**



1, 2 = mounting holes for installation

## 5 Installation

### ⚠ WARNING

#### The equipment is subject to pressure!

- ▶ Risk of severe injury or death.
- Depressurize the plant.
- Completely drain the plant.

### NOTICE

- ▶ After removing the packaging, make sure that no contaminants get into the product.

### NOTICE

- ▶ Only use suitable unions, which do not cause contamination of the valve interior.

### NOTICE

- ▶ Before installing the system, make sure that there are no contaminants in the piping.

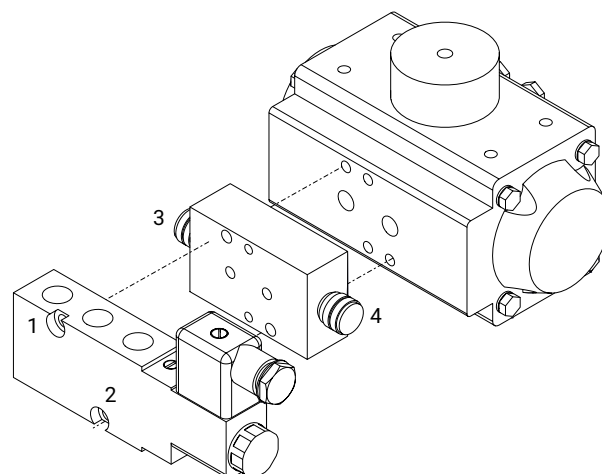
### NOTICE

- ▶ Avoid bending the air supply lines sharply.

### NOTICE

- ▶ Installation may only be carried out by trained personnel in line with relevant regulations.

### Installation of the throttle plate and NAMUR valve on the actuator



1. Use the enclosed coding pin. This is to be screwed into the actuator. It ensures that the combination of actuator and valve connections is correct.
2. Insert valve attachment bolts into bolt holes 1 and 2 (dia. 5.5 mm) (see NAMUR standard EN 15714-3 for 1/8" and 1/4")
3. Pay attention to the connection designations on the actuator and valve, the intended rotational direction and the operating instructions for the actuator.
4. Install the devices so that they are accessible for regular cleaning.
5. Close off unused openings with blanking plugs.
6. Only use the solenoid coil that is supplied with the product; obtain replacement coils from your supplier.

### Connecting and adjusting the control medium

### NOTICE

- ▶ Use suitable connectors. Connect the control medium lines tension-free and without any bends or knots.

Connection according to NAMUR standard (VDI/VDE 3845)

7. The control air supply can be adjusted continuously by turning adjusting screws 3 and 4 in both the "OPEN" (anti-clockwise rotation) and "CLOSED" (clockwise rotation) directions.

## 6 Operation

### CAUTION

#### Exceeding the maximum permissible pressure.

- ▶ Damage to the product.
- Provide precautionary measures against exceeding the maximum permitted pressures caused by pressure surges (water hammer).

### CAUTION

#### Use as step.

- ▶ Damage to the product.
  - ▶ Risk of slipping-off.
  - Choose the installation location so that the product cannot be used as a foothold.
  - Do not use the product as a step or a foothold.
1. Only cleaned and oiled or non-oiled compressed air from purity class 5 in accordance with ISO 8573-1 is considered as a permissible medium. Other media (liquids and gases) do not come under the intended use.
  2. The medium and ambient temperature must be in the range from -10 °C to +70 °C. At temperatures below 0 °C, dried air must be used.
  3. The permissible operating pressure is min. 0.5 bar and max. 10 bar.
  4. Regularly check that the product is functioning correctly, but at the very latest every six months or after five million switching cycles.





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Subject to alteration

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