R402001003

AVENTICS Series GSU Guided slide units

2024-03-18

#### **Series GSU**

AVENTICS Series GSU cylinders are the ideal basis for many handling systems. Stroke length and stroke position can be set variably along the entire length of the guided slide unit – individually from both sides, underscoring the great flexibility during installation. Their very low height and the option of ventilation from one side improve their integration capacity.





### Technical data

 $\begin{array}{ccc} \text{Industry} & \text{Industrial} \\ \text{Piston } \varnothing & 25 \text{ mm} \\ \text{Stroke} & 1000 \text{ mm} \\ \text{Ports} & \text{G 1/8} \\ \end{array}$ 

Functional principle Double-acting

Magnetic piston with magnetic piston

Guide ball rail guide

Easy2Combine capable
Piston force 309 N

Pressure for determining piston forces 6,3 bar

Cushioning length 12.5 mm
Cushioning energy 3.3 J

adjustable end stops adjustable end stops

Cushioning hydraulic

Cushioning non-adjustable

Max. speed 1.5 m/s
Stroke max. 1000 mm
Min. working pressure 1.5 bar
Max. working pressure 8 bar

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0°C Min. ambient temperature 2024-03-18 Max. ambient temperature 60 °C

Medium Compressed air

Min. oil content of compressed air 0 mg/m<sup>3</sup> Max. oil content of compressed air 1 mg/m<sup>3</sup> Max. particle size 5 µm 7.37 kg Weight

#### Material

Material cylinder tube **Aluminum** Surface cylinder tube anodized Material front cover **Aluminum** Surface cover anodized Seal material Polyurethane Material sealing strips Polvurethane Stainless Steel

**Aluminum** 

Material guide rail Surface ball rail table anodized

Material guide shuttle Steel, chrome-plated Material guide rail Steel, chrome-plated

Surface guide rail hardened Part No. R402001003

### Technical information

The pressure dew point must be at least 15 °C less than ambient and medium temperature and may not exceed 3 °C.

The oil content of compressed air must remain constant during the life cycle.

Use only the approved oils from AVENTICS. Further information can be found in the "Technical information" document (available in https://www.emerson.com/en-us/support).

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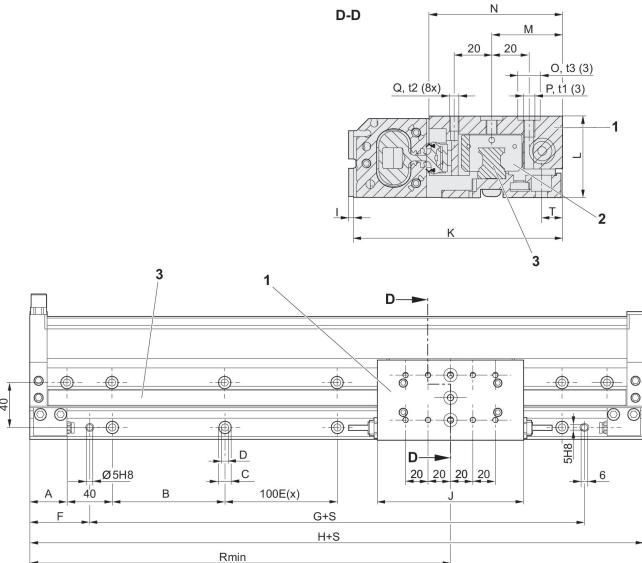
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### **Dimensions**

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S = stroke

### Weight [kg]

| Piston Ø | Stroke | 200 | 300 | 400 | 500 | 600 | 700 | 800 | 900 |
|----------|--------|-----|-----|-----|-----|-----|-----|-----|-----|
| 16       | E(x)   | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   |
| 25       | E(x)   | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   |

| Piston Ø | 1000 |
|----------|------|
| 16       | 9    |
| 25       | 9    |



t1, t2 = depth of thread t3 = sinkhole depth
1) Ball rail table

<sup>2)</sup> Guide shuttle

<sup>3)</sup> Guide rail

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| Piston Ø | А  | В   | С     | D     | F  | G   | Н   | ı   | J   |
|----------|----|-----|-------|-------|----|-----|-----|-----|-----|
| 16       | 25 | 92  | Ø 9,5 | Ø 5,5 | 45 | 124 | 214 | 3.6 | 110 |
| 25       | 33 | 100 | Ø 11  | Ø 6,6 | 53 | 140 | 246 | 2.5 | 130 |

| Piston Ø | К      |      | М     | N     | 0       | t3       |    | t1 | Q  |
|----------|--------|------|-------|-------|---------|----------|----|----|----|
| 16       | 99     | 29   | 33.5  | 69    | Ø 9 H8  | 2,1 +0,2 | M5 | 9  | M4 |
| 25       | 111.65 | 43.5 | 37.85 | 71.15 | Ø 12 H8 | 2,1 +0,2 | M6 | 9  | M5 |

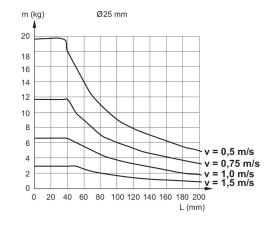
| Piston Ø | t2 | R 1) |       |  |  |
|----------|----|------|-------|--|--|
| 16       | 8  | 107  | 7.5   |  |  |
| 25       | 8  | 123  | 11.35 |  |  |

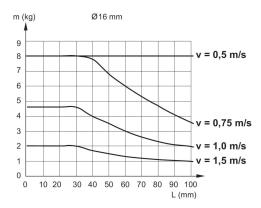
1) Min.

### dynamic



 $\ensuremath{\mathsf{L}}$  indicates the distance between the mounting plate center and the center of mass of the attached parts.





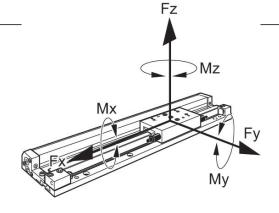
Permissible forces Fx, Fy, Fz and torques Mx, My, Mz

static

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| Piston Ø | Fx [N] | Fy [N] | Fz [N] | Mx [Nm] | My [Nm] | Mz [Nm] |
|----------|--------|--------|--------|---------|---------|---------|
| 16       | 880    | 880    | 1500   | 20      | 40      | 40      |
| 25       | 1070   | 1070   | 2500   | 55      | 65      | 65      |