Holding unit, HU1



AVENTICS™ Holding unit, HU1





Holding unit, Series HU1

- Ø 20-25 mm

- hold: spring force, release: compressed air



| Function | Hold with clamping jaws | | | | | | | |
|-------------------------------|-------------------------|--|--|--|--|--|--|--|
| Release pressure | 4 8 bar | | | | | | | |
| Ambient temperature min./max. | -10 60 °C | | | | | | | |
| Medium temperature min./max. | -10 60 °C | | | | | | | |
| Medium | Compressed air | | | | | | | |
| Max. particle size | 5 µm | | | | | | | |
| Oil content of compressed air | 0 5 mg/m ³ | | | | | | | |
| Weight | 0.11 kg | | | | | | | |



Technical data

| Part No. | Piston Ø | suitable piston rod Ø | Piston rod extension | Compressed air connection | Static holding force |
|------------|----------|-----------------------|----------------------|---------------------------|----------------------|
| 0821401163 | 20 mm | 8 mm | 54 mm | M5 | 300 N |
| 0821401164 | 25 mm | 10 mm | 51 mm | M5 | 400 N |

Holding force at 0 bar

Technical information

Warning: The holding unit may not be used for the following applications:

1) for dynamic holding

2) in or as safety equipment

Holding unit may only be unlocked when turned off.

Make sure that the load direction does not change during a holding interval. A change in the direction of force, as well as external forces such as impacts, strong vibrations, or torsional forces, will briefly release the piston rod and may destroy the HU1 holding unit. When clamped, there must be no residual pressure on the holding unit (0 bar). Note:

The minimum control pressure is >= the working pressure of the cylinder!

Technical information

| Material | |
|----------|--------------------------|
| Housing | Aluminum, black anodized |



Dimensions

Dimensions



- 1) air connection
- 2) Holding cartridge
- S = stroke

Dimensions

| Piston Ø | ØD1 | D2 | ØD3 | ØD4 | D5 | L1 | L2 | L3 | L4 | L5 | L6 | L7 | SW | WH | XC | ZN |
|----------|-----|---------|-----|-----|----|----|----|----|----|----|----|----|----|----|-----|-------|
| 20 mm | 8 | M22x1,5 | 38 | 20 | M5 | 58 | 35 | 24 | 27 | 12 | 21 | 7 | 30 | 78 | 149 | 163.5 |
| 25 mm | 10 | M22x1,5 | 38 | 20 | M5 | 58 | 35 | 24 | 27 | 12 | 21 | 7 | 30 | 79 | 155 | 170.5 |



Holding unit, Series HU1

- Ø 32-100 mm

- hold: spring force, release: compressed air



| Function | Hold with clamping jaws | | | | | | | |
|-------------------------------|-------------------------|--|--|--|--|--|--|--|
| Release pressure | 4 8 bar | | | | | | | |
| Ambient temperature min./max. | -10 60 °C | | | | | | | |
| Medium temperature min./max. | -10 60 °C | | | | | | | |
| Medium | Compressed air | | | | | | | |
| Max. particle size | 5 µm | | | | | | | |
| Oil content of compressed air | 0 5 mg/m ³ | | | | | | | |
| Weight | See table below | | | | | | | |



Technical data

| Part No. | Piston Ø | suitable piston rod Ø | Piston rod extension | Compressed air connection | Static holding force | Weight |
|------------|----------|-----------------------|----------------------|---------------------------|----------------------|---------|
| 0821401165 | 32 mm | 12 mm | 42 mm | M5 | 650 N | 0.2 kg |
| 0821401166 | 40 mm | 16 mm | 45 mm | G 1/8 | 1100 N | 0.27 kg |
| 0821401167 | 50 mm | 20 mm | 57 mm | G 1/8 | 1600 N | 0.57 kg |
| 0821401168 | 63 mm | 20 mm | 57 mm | G 1/8 | 2500 N | 0.8 kg |
| 0821401169 | 80 mm | 25 mm | 77 mm | G 1/8 | 4000 N | 1.85 kg |
| 0821401170 | 100 mm | 25 mm | 77 mm | G 1/8 | 6300 N | 2.9 kg |

Holding force at 0 bar

Technical information

Warning: The holding unit may not be used for the following applications:

1) for dynamic holding

2) in or as safety equipment

Holding unit may only be unlocked when turned off.

Make sure that the load direction does not change during a holding interval. A change in the direction of force, as well as external forces such as impacts, strong vibrations, or torsional forces, will briefly release the piston rod and may destroy the HU1 holding unit. When clamped, there must be no residual pressure on the holding unit (0 bar). Note:

The minimum control pressure is >= the working pressure of the cylinder!



Technical information

| Material | |
|----------|--------------------------|
| Housing | Aluminum, black anodized |

Dimensions

Dimensions



1) air connection

2) Holding cartridge

3) mounting screws 4x

S = stroke



Dimensions

| Part No. | Piston Ø | Ø D1 | Ø D2 | Ø D3 | Ø D4 | D5 | L1 | L2 | L3 | L4 | L5 | L6 | L7 | L8 | L9 | G |
|------------|----------|------|------|------|------|-------|-----|-----|------|----|-----|----------|-----|------|------|-----|
| 0821401165 | 32 mm | 12 | 30 | 35 | 25 | M5 | 58 | 48 | 34 | 8 | 13 | 20.5 | 45 | 32.5 | 25.5 | M6 |
| 0821401166 | 40 mm | 16 | 35 | 40 | 28 | G 1/8 | 65 | 55 | 38 | 8 | 13 | 22.5 | 50 | 38 | 30 | M6 |
| 0821401167 | 50 mm | 20 | 40 | 50 | 35 | G 1/8 | 82 | 70 | 48 | 15 | 16 | 29.5 | 60 | 46.5 | 36 | M8 |
| 0821401168 | 63 mm | 20 | 45 | 60 | 38 | G 1/8 | 82 | 70 | 49.5 | 15 | 16 | 29.5 | 70 | 56.5 | 40 | M8 |
| 0821401169 | 80 mm | 25 | 45 | 80 | 48 | G 1/8 | 110 | 90 | 61 | 18 | 20 | 35 | 90 | 72 | 50 | M10 |
| 0821401170 | 100 mm | 25 | 55 | 100 | 58 | G 1/8 | 115 | 100 | 69 | 18 | 20 | - | 105 | 89 | 58 | M10 |
| | | | | | | | | | | | | | | | | |
| | | WH | | | | ZJ | | | | | | | | | | |
| | | 68 | | | | 162 | | | | | | | | | | |
| | | 75 | | | | 180 | | | | | | | | | | |
| | | 94 | | | | 200 | | | | | | | | | | |
| 94 | | | | | | | | | | | 215 | , | | | | |
| 123 | | | | | | | | | | | 251 | | | | | |
| 128 | | | | | | | | | | | 266 | 5 | | | | |

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