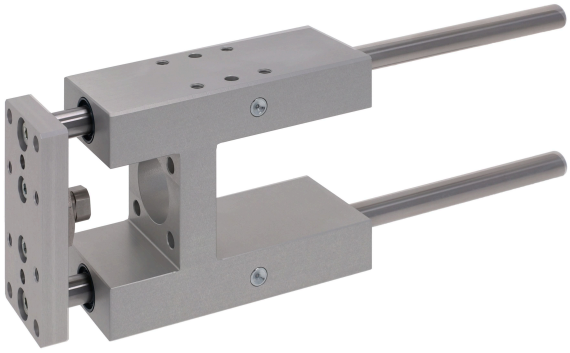
# Guide unit GH2, Series CG1

**0821401381**

**AVENTICS Guide units**



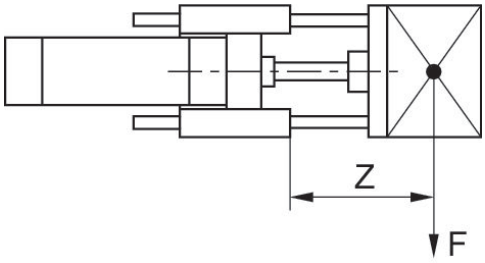
## Technical data

| | |
|---|---|
| Industry | Industrial |
| Piston Ø | 63 mm |
| Stroke | 100 mm |
| Bearing type | Linear ball bearing |
| For standard cylinders | ISO 15552 |
| Min. ambient temperature | -20 °C |
| Max. ambient temperature | 80 °C |
| Weight 0 mm stroke | 4.7 kg |
| Weight +10 mm stroke | 0.025 kg |

## Material

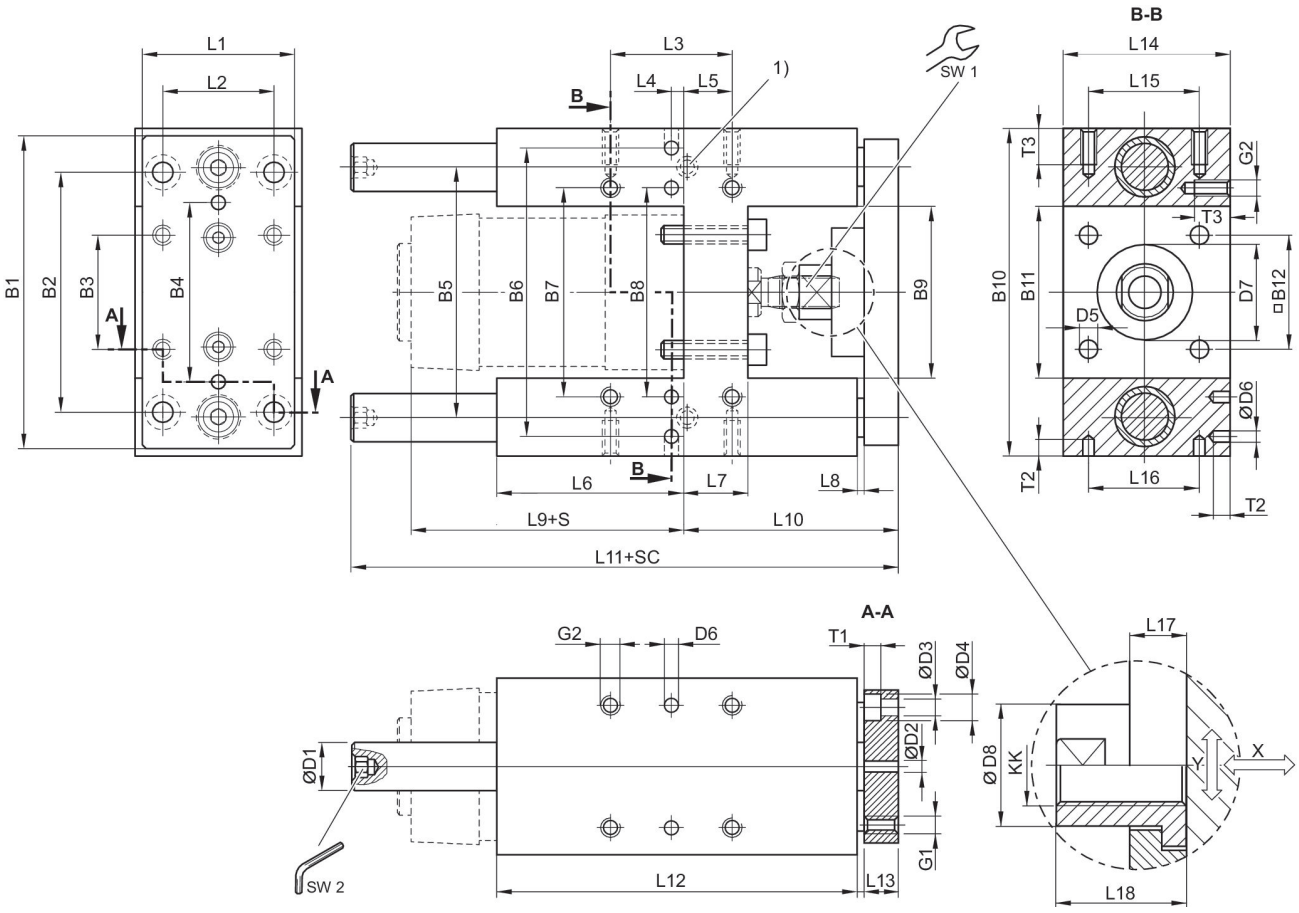
| | |
|---|---|
| Bearing housings | Aluminum |
| Surface bearing housing | colorless anodized |
| Bearing type | Steel, chrome-plated |
| Carrying plate | Aluminum |
| Surface carrying plate | colorless anodized |
| Material flexible coupling in carrying plate | Stainless Steel |
| Material guide rods | Hardened heat-treated steel |
| Part No. | 0821401381 |

## Useful load




F = Useful load, Z = Projection

## Dimensions




1) Lube nipple
S = stroke
SC = cylinder stroke
X = max. play (axial)
Y = min. play (radial)
Hexagon in guide rod

| Piston Ø | B1 | B2 | B3 | B4 | B5 | B6 | B7 | B8 | B9 | B10 |
|---|---|---|---|---|---|---|---|---|---|---|
| 32 | 90 | 78 | 32.5 | 50 | 74 | 81 | 61 | 61 | 50.2 | 97 |
| 40 | 110 | 84 | 38 | 54 | 87 | 99 | 69 | 69 | 58.2 | 115 |
| 50 | 130 | 100 | 46.5 | 72 | 104 | 119 | 85 | 85 | 70.2 | 137 |
| 63 | 145 | 105 | 56.5 | 82 | 119 | 132 | 100 | 100 | 85.2 | 152 |
| 80 | 180 | 130 | 72 | 106 | 148 | 166 | 130 | 130 | 105.4 | 189 |
| 100 | 200 | 150 | 89 | 131 | 172 | 190 | 150 | 150 | 130.4 | 213 |

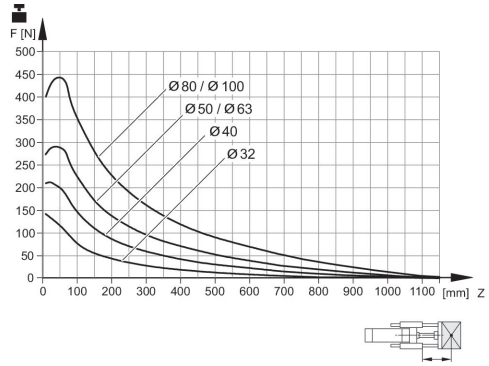
| Piston Ø | B11 | B12 | D1 | D2 H7 | D3 | D4 | D5 | D6 H7 | D7 M8 | D8 |
|---|---|---|---|---|---|---|---|---|---|---|
| 32 | 50.2 | 32.5 | 12 | 6 | 6.6 | 11 | 6.6 | 6 | 30 | 14.5 |
| 40 | 58.2 | 38 | 16 | 6 | 6.6 | 11 | 6.6 | 6 | 35 | 18 |
| 50 | 70.2 | 46.5 | 20 | 6 | 9 | 15 | 9 | 6 | 40 | 24 |
| 63 | 85.2 | 56.5 | 20 | 6 | 9 | 15 | 9 | 6 | 45 | 24 |
| 80 | 105.4 | 72 | 25 | 6 | 11 | 18 | 11 | 6 | 45 | 30 |
| 100 | 130.4 | 89 | 25 | 6 | 11 | 18 | 11 | 6 | 55 | 30 |

| Piston Ø | G1 | G2 | KK | L1 | L2 | L3 | L4 | L5 | L6 | L7 |
|---|---|---|---|---|---|---|---|---|---|---|
| 32 | M6 | M6 | M10x1,25 | 45 | 32.5 | 32.5 | 12 | 4.25 | 76 | 17 |
| 40 | M6 | M6 | M12x1,25 | 54 | 38 | 38 | 8 | 11 | 81 | 21 |
| 50 | M8 | M8 | M16x1,5 | 63 | 46.5 | 46.5 | 4.5 | 18.75 | 79 | 26 |
| 63 | M8 | M8 | M16x1,5 | 80 | 56.5 | 56.5 | 13 | 15.25 | 111 | 26 |
| 80 | M10 | M10 | M20x1,5 | 100 | 72 | 72 | 15 | 21 | 128 | 34 |
| 100 | M10 | M10 | M20x1,5 | 120 | 89 | 89 | 20 | 24.5 | 128 | 39 |

| Piston Ø | L8 | L9 | L10 | L11 | L12 | L13 | L14 | L15 | L16 | L17 |
|---|---|---|---|---|---|---|---|---|---|---|
| 32 | 3 | 94 | 64 | 177.5 | 125 | 12 | 50 | 32.5 | 32.5 | 6 |
| 40 | 3 | 105 | 74 | 192.5 | 140 | 12 | 58 | 38 | 38 | 14 |
| 50 | 3 | 106 | 89 | 237 | 150 | 15 | 70 | 46.5 | 46.5 | 14 |
| 63 | 3 | 121 | 89 | 237 | 182 | 15 | 85 | 56.5 | 56.5 | 14 |
| 80 | 3 | 128 | 110 | 280 | 215 | 20 | 105 | 72 | 72 | 14 |
| 100 | 3 | 138 | 115 | 280 | 220 | 20 | 130 | 89 | 89 | 14 |

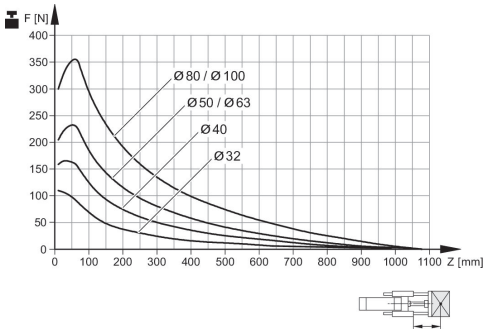
| Piston Ø | L18 | T1 | T2 | T3 | SW1 | SW2 |
|---|---|---|---|---|---|---|
| 32 | 17 | 6.5 | 10 | 15 | 13 | 5 |
| 40 | 22 | 6.5 | 10 | 15 | 15 | 6 |
| 50 | 26 | 9 | 10 | 16 | 22 | 6 |
| 63 | 26 | 9 | 10 | 16 | 22 | 6 |
| 80 | 32 | 11 | 10 | 20 | 27 | 8 |
| 100 | 32 | 11 | 10 | 20 | 27 | 8 |

## Useful load



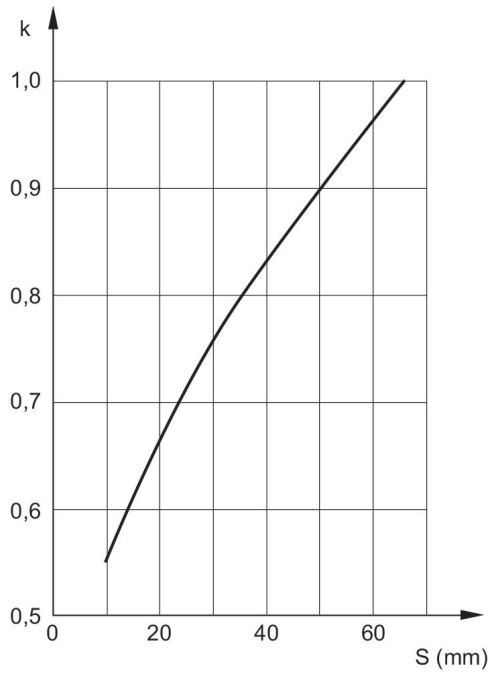

Service life 2x10⁶ m
F = Useful load, Z = Projection

## Useful load



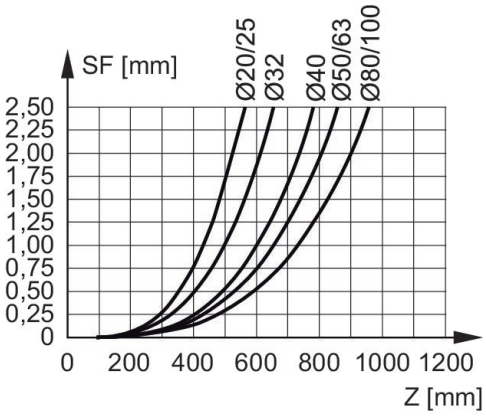

Service life 5x10⁶ m
F = Useful load, Z = Projection

## Reduction of useful load for short-stroke



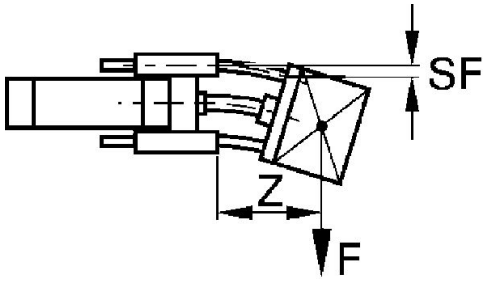

S = stroke
k=correction factor: normal=1, shock loaded=2 With a short stroke, the useful load figures determined from the diagram must be multiplied by the correction factor k. These short-stroke adjustments are already included in the load diagram for a displacement of up to 60 mm.

## Bending due to own load




F = useful load (at the load center), SF = bending, Z = projection

## Bending due to 10 N load

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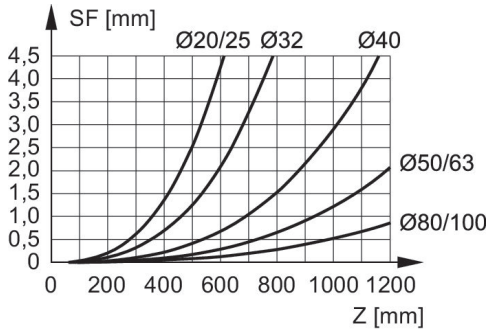
## Bending due to 10 N load




F = useful load (at the load center), SF = bending, Z = projection