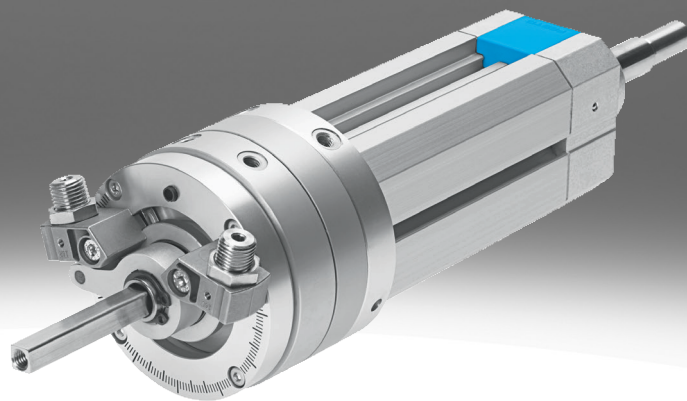


Swivel/linear unit DSL

FESTO



Characteristics

At a glance

- Linear motion up to strokes of 200 mm
- Swivel motion of up to 270°
- The mechanical gearing between the stop element and the semi-rotary drive prevents the stop systems from moving under load
- The two movements can be controlled individually or simultaneously
- Swivel angle can be infinitely and accurately set
- High repetition accuracy thanks to cushioning components with fixed stop
- High rotational energy during swivelling thanks to self-adjusting shock absorbers which can be directly mounted

Diagrams

Link [dsl-b](#)



The diagrams shown in this document are also available online. These can be used to display precise values.

End-position cushioning

[P] Elastic cushioning components at both ends

- For medium mass moments of inertia
- With fixed stop

[CC] Shock absorber at both ends

- For high mass moments of inertia
- With fixed stop

Piston rod type

[S20] Through, hollow piston rod

- The piston rod is hollow inside, so that it can be used to carry vacuum or compressed air

Guide

[] Plain-bearing guide

- Sturdy square guide
- Cost effective

[KF] Recirculating ball bearing guide

- Robust and precise guide

Type code

| | | |
|-----|-----------------------------------|--|
| 001 | Series | |
| DSL | Swivel linear unit, double-acting | |
| 002 | Size | |
| 16 | 16 | |
| 20 | 20 | |
| 25 | 25 | |
| 32 | 32 | |
| 40 | 40 | |
| 003 | Stroke [mm] | |
| ... | 10 ... 200 | |
| 004 | Swivel angle | |
| 270 | 270° | |

| | | |
|-----|--|--|
| 005 | End-position cushioning | |
| CC | Shock absorber at both ends | |
| P | Elastic cushioning components at both ends | |
| 006 | Position sensing | |
| A | For proximity sensor | |
| 007 | Piston rod type | |
| S2 | Through piston rod | |
| S20 | Through, hollow piston rod | |
| 008 | Guide | |
| KF | Recirculating ball bearing guide | |
| | Plain-bearing guide | |
| 009 | Generation | |
| B | Series B | |

Datasheet

General technical data for DSL-16/-20

| | | | | |
|--|---|--|---|--|
| Piston diameter | 16 mm | | 20 mm | |
| Cushioning | Elastic cushioning rings/plates on both sides [P] | Shock absorber at both ends, self-adjusting [CC] | Elastic cushioning rings/plates on both sides [P] | Shock absorber at both ends, self-adjusting [CC] |
| Pneumatic connection | M5 | | | |
| Design | Vane | | | |
| Swivel angle | 0 ... 272 deg | 0 ... 246 deg | 0 ... 272 deg | 0 ... 246 deg |
| Rotation angle adjustment range | 0 ... 270 deg | 0 ... 246 deg | 0 ... 270 deg | 0 ... 246 deg |
| Max. swivel frequency at 0.6 MPa (6 bar, 87 psi) ¹⁾ | 2 Hz | 1.5 Hz | 2 Hz | 1 Hz |
| Cushioning angle | – | 15 deg | – | 12 deg |
| Max. impact speed | 500 mm/s | | | |
| Repetition accuracy | 1 deg | 0.1 deg | 1 deg | 0.1 deg |
| Type of mounting | Either., Clamped in T-slot, Via male thread | | | |
| Mounting position | optional | | | |
| Position detection | Via proximity switch | | | |

1) With max. swivel angle

General technical data for DSL-16/-20

| | | | | |
|-------------------------------------|---------------------------------------|-------------------------|---------------------------------------|-------------------------|
| Piston diameter | 16 mm | | 20 mm | |
| Guide | Recirculating ball bearing guide [KF] | Plain-bearing guide [] | Recirculating ball bearing guide [KF] | Plain-bearing guide [] |
| Rotary angle backlash ¹⁾ | 0.05 deg | 2 deg | 0.05 deg | 2 deg |
| Stroke | 10 ... 100 mm | 10 ... 160 mm | 10 ... 100 mm | 10 ... 160 mm |

1) In new condition.

Important: Where there is an external, alternating force, the swivel angle play for the respective variant (plain-bearing guide GF or recirculating ball bearing guide KF) must be added to the swivel angle.

General technical data for DSL-25/-32

| | | | | |
|--|---|--|---|--|
| Piston diameter | 25 mm | | 32 mm | |
| Cushioning | Elastic cushioning rings/plates on both sides [P] | Shock absorber at both ends, self-adjusting [CC] | Elastic cushioning rings/plates on both sides [P] | Shock absorber at both ends, self-adjusting [CC] |
| Pneumatic connection | M5 | | G1/8 | |
| Design | Vane | | | |
| Swivel angle | 0 ... 272 deg | 0 ... 246 deg | 0 ... 272 deg | 0 ... 246 deg |
| Rotation angle adjustment range | 0 ... 270 deg | 0 ... 246 deg | 0 ... 270 deg | 0 ... 246 deg |
| Max. swivel frequency at 0.6 MPa (6 bar, 87 psi) ¹⁾ | 2 Hz | 1 Hz | 2 Hz | 0.7 Hz |
| Cushioning angle | – | 10 deg | – | 12 deg |
| Max. impact speed | 500 mm/s | | | |
| Repetition accuracy | 1 deg | 0.1 deg | 1 deg | 0.1 deg |
| Type of mounting | Either., Clamped in T-slot, Via male thread | | | |
| Mounting position | optional | | | |
| Position detection | Via proximity switch | | | |

1) With max. swivel angle

General technical data for DSL-25/-32

| | | | | |
|-------------------------------------|---------------------------------------|-------------------------|---------------------------------------|-------------------------|
| Piston diameter | 25 mm | | 32 mm | |
| Guide | Recirculating ball bearing guide [KF] | Plain-bearing guide [] | Recirculating ball bearing guide [KF] | Plain-bearing guide [] |
| Rotary angle backlash ¹⁾ | 0.05 deg | 2 deg | 0.05 deg | 2 deg |
| Stroke | 10 ... 100 mm | 10 ... 160 mm | 10 ... 100 mm | 10 ... 200 mm |

1) In new condition.

Important: Where there is an external, alternating force, the swivel angle play for the respective variant (plain-bearing guide GF or recirculating ball bearing guide KF) must be added to the swivel angle.

Datasheet

General technical data for DSL-40

| | | |
|--|---|--|
| Piston diameter | 40 mm | |
| Cushioning | Elastic cushioning rings/plates on both sides [P] | Shock absorber at both ends, self-adjusting [CC] |
| Pneumatic connection | G1/8 | |
| Design | Vane | |
| Swivel angle | 0 ... 272 deg | 0 ... 240 deg |
| Rotation angle adjustment range | 0 ... 270 deg | 0 ... 240 deg |
| Max. swivel frequency at 0.6 MPa (6 bar, 87 psi) ¹⁾ | 2 Hz | 0.7 Hz |
| Cushioning angle | – | 16 deg |
| Max. impact speed | 500 mm/s | |
| Repetition accuracy | 1 deg | 0.1 deg |
| Type of mounting | Either., Clamped in T-slot, Via male thread | |
| Mounting position | optional | |
| Position detection | Via proximity switch | |

1) With max. swivel angle

General technical data for DSL-40

| | | |
|-------------------------------------|---------------------------------------|-------------------------|
| Piston diameter | 40 mm | |
| Guide | Recirculating ball bearing guide [KF] | Plain-bearing guide [L] |
| Rotary angle backlash ¹⁾ | 0.05 deg | 2 deg |
| Stroke | 10 ... 160 mm | 10 ... 200 mm |

1) In new condition.

Important: Where there is an external, alternating force, the swivel angle play for the respective variant (plain-bearing guide GF or recirculating ball bearing guide KF) must be added to the swivel angle.

Operating and environmental conditions

| | | | | | |
|--|--|-------|-------|-------|-------|
| Piston diameter | 16 mm | 20 mm | 25 mm | 32 mm | 40 mm |
| Operating pressure | 35 ... 120 psi | | | | |
| Operating pressure | 2.5 ... 8 bar | | | | |
| Operating medium | Compressed air to ISO 8573-1:2010 [7:4:4] | | | | |
| Note on operating and pilot medium | Lubricated operation possible (in which case lubricated operation will always be required) | | | | |
| Ambient temperature | -10 ... 60°C | | | | |
| Corrosion resistance class CRC ¹⁾ | 1 - Low corrosion stress | | | | |

1) More information www.festo.com/x/topic/crc

Forces and torques

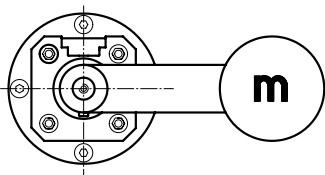
| | | | | | | | | | | |
|--|---------------------------------------|-------------------------|---------------------------------------|-------------------------|---------------------------------------|-------------------------|---------------------------------------|-------------------------|---------------------------------------|-------------------------|
| Piston diameter | 16 mm | | 20 mm | | 25 mm | | 32 mm | | 40 mm | |
| Guide | Recirculating ball bearing guide [KF] | Plain-bearing guide [L] | Recirculating ball bearing guide [KF] | Plain-bearing guide [L] | Recirculating ball bearing guide [KF] | Plain-bearing guide [L] | Recirculating ball bearing guide [KF] | Plain-bearing guide [L] | Recirculating ball bearing guide [KF] | Plain-bearing guide [L] |
| Theoretical torque at 0.6 MPa (6 bar, 87 psi) | 1.25 Nm | | 2.5 Nm | | 5 Nm | | 10 Nm | | 20 Nm | |
| Theoretical force at 0.6 MPa (6 bar, 87 psi), advance stroke | 103.5 N | 102.5 N | 158 N | 159 N | 248 N | 246 N | 403.5 N | 422.5 N | 603 N | 660 N |
| Theoretical force at 0.6 MPa (6 bar, 87 psi), return stroke | 73.5 N | | 120.5 N | | 173.5 N | | 294 N | | 495 N | |

Max. dynamic load torque (linear motion)

| | | | | | | | | | | |
|---------------------|---------------------------------------|-------------------------|---------------------------------------|-------------------------|---------------------------------------|-------------------------|---------------------------------------|-------------------------|---------------------------------------|-------------------------|
| Piston diameter | 16 mm | | 20 mm | | 25 mm | | 32 mm | | 40 mm | |
| Guide | Recirculating ball bearing guide [KF] | Plain-bearing guide [L] | Recirculating ball bearing guide [KF] | Plain-bearing guide [L] | Recirculating ball bearing guide [KF] | Plain-bearing guide [L] | Recirculating ball bearing guide [KF] | Plain-bearing guide [L] | Recirculating ball bearing guide [KF] | Plain-bearing guide [L] |
| Dynamic load torque | 0.17 Nm | 0.1 Nm | 0.35 Nm | 0.2 Nm | 0.7 Nm | 0.45 Nm | 1 Nm | 0.8 Nm | 5.4 Nm | 1.1 Nm |

Datasheet

Note on the max. dynamic load torque



The vane is not suitable for fixing the end position, i.e. the stop lever and stops must not be removed.

With plain-bearing guide: With eccentric attachment of the payload and horizontal installation, increased friction forces arise internally, reducing the effective force of the linear motion.

Weight – plain-bearing guide

| Piston diameter | 16 mm | | 20 mm | | 25 mm | | 32 mm | | 40 mm | |
|------------------------------------|--|--|--|--|--|--|--|--|--|--|
| Guide | Plain-bearing guide [] | | | | | | | | | |
| Cushioning | Elastic cushioning rings/ plates on both sides [P] | Shock absorber at both ends, self-adjusting [CC] | Elastic cushioning rings/ plates on both sides [P] | Shock absorber at both ends, self-adjusting [CC] | Elastic cushioning rings/ plates on both sides [P] | Shock absorber at both ends, self-adjusting [CC] | Elastic cushioning rings/ plates on both sides [P] | Shock absorber at both ends, self-adjusting [CC] | Elastic cushioning rings/ plates on both sides [P] | Shock absorber at both ends, self-adjusting [CC] |
| Basic weight for 0 mm stroke | 695 g | 697 g | 1,090 g | 1,130 g | 1,510 g | 1,605 g | 2,985 g | 3,020 g | 5,150 g | 5,205 g |
| Additional weight per 10 mm stroke | 33 g | | 52 g | | 67 g | | 109 g | | 170 g | |

Weight – recirculating ball bearing guide

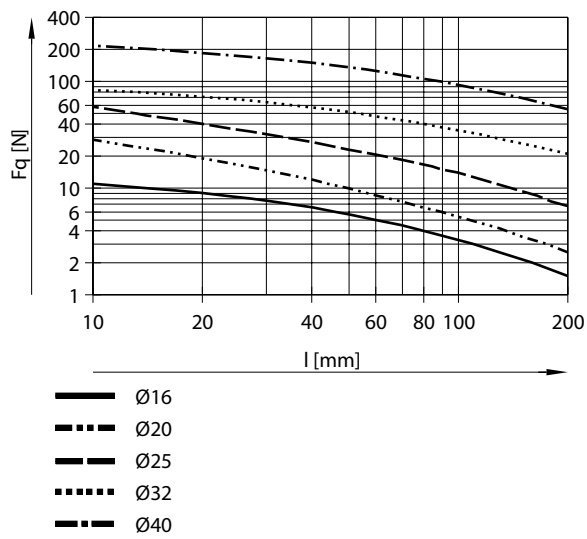
| Piston diameter | 16 mm | | 20 mm | | 25 mm | | 32 mm | | 40 mm | |
|------------------------------------|--|--|--|--|--|--|--|--|--|--|
| Guide | Recirculating ball bearing guide [KF] | | | | | | | | | |
| Cushioning | Elastic cushioning rings/ plates on both sides [P] | Shock absorber at both ends, self-adjusting [CC] | Elastic cushioning rings/ plates on both sides [P] | Shock absorber at both ends, self-adjusting [CC] | Elastic cushioning rings/ plates on both sides [P] | Shock absorber at both ends, self-adjusting [CC] | Elastic cushioning rings/ plates on both sides [P] | Shock absorber at both ends, self-adjusting [CC] | Elastic cushioning rings/ plates on both sides [P] | Shock absorber at both ends, self-adjusting [CC] |
| Basic weight for 0 mm stroke | 745 g | 747 g | 1,180 g | 1,220 g | 1,660 g | 1,755 g | 3,265 g | 3,300 g | 5,300 g | 5,355 g |
| Additional weight per 10 mm stroke | 33 g | | 52 g | | 67 g | | 109 g | | 175 g | |

Materials

| Piston diameter | 16 mm | | 20 mm | | 25 mm | | 32 mm | | 40 mm | |
|---------------------|--|-------------------------|---------------------------------------|-------------------------|---------------------------------------|-------------------------|---------------------------------------|-------------------------|---------------------------------------|--|
| Guide | Recirculating ball bearing guide [KF] | Plain-bearing guide [] | Recirculating ball bearing guide [KF] | Plain-bearing guide [] | Recirculating ball bearing guide [KF] | Plain-bearing guide [] | Recirculating ball bearing guide [KF] | Plain-bearing guide [] | Recirculating ball bearing guide [KF] | Plain-bearing guide [] |
| Material housing | Wrought aluminium alloy, Smooth anodised | | | | | | | | Aluminium, Smooth anodised | Wrought aluminium alloy, Smooth anodised |
| Material piston rod | Tempered steel | | | | | | | | | |
| Material cover | Wrought aluminium alloy, Anodised | | | | | | | | | |
| Material seals | TPE-U(PU) | | | | | | | | | |

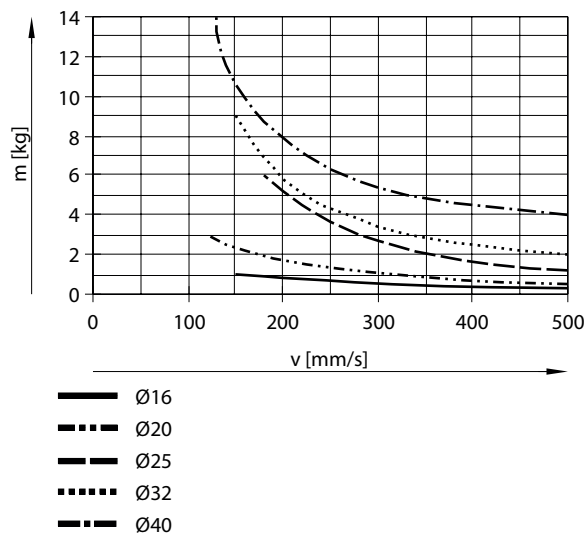
Datasheet

Lateral force F_q as a function of stroke length l

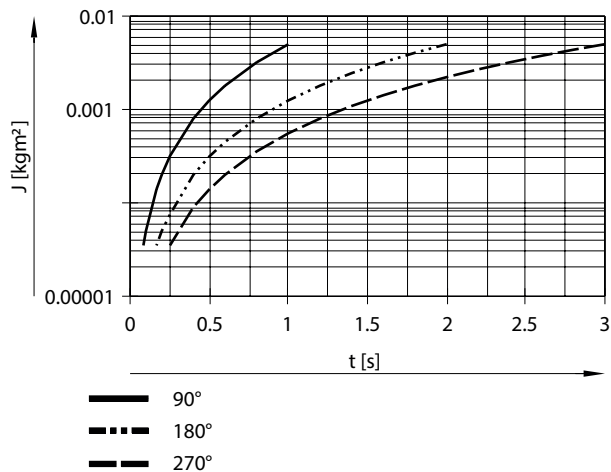


- Piston rod with bearings at both ends
- For high torques and lateral forces

Max. permissible payload as a function of piston speed v

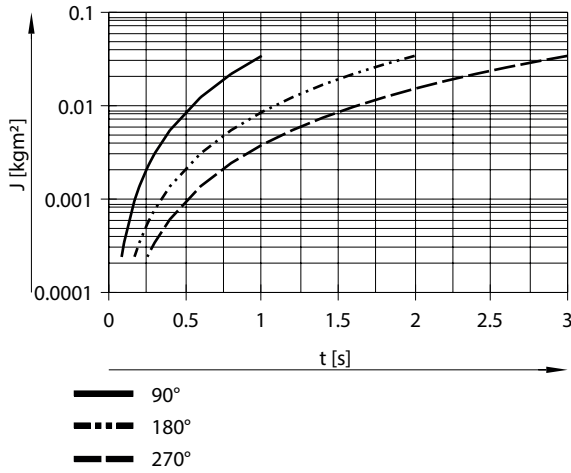


Max. permissible mass moment of inertia J as a function of swivelling time t for DSL-16-...-P



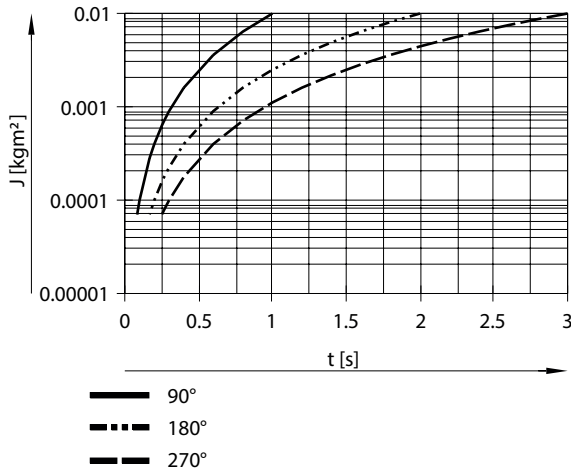
Datasheet

Max. permissible mass moment of inertia J as a function of swivelling time t for DSL-16-...-CC

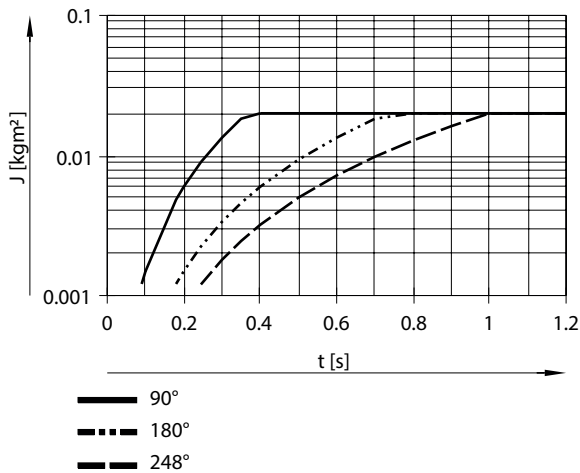


The swivel time up to the point where the stop lever meets the shock absorber is shown here. The cushioning time of the shock absorber must be added in order to obtain the total swivel time.

Max. permissible mass moment of inertia J as a function of swivelling time t for DSL-20-...-P

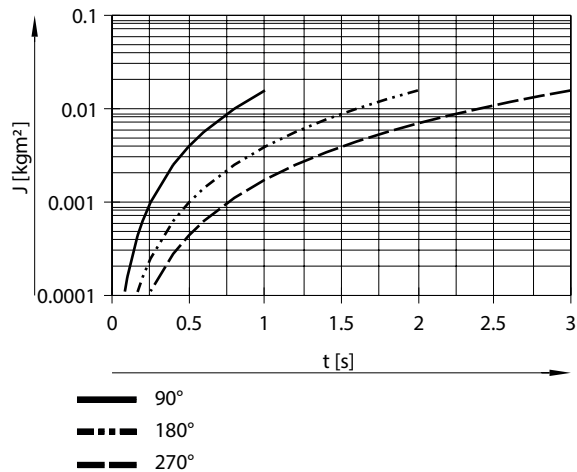
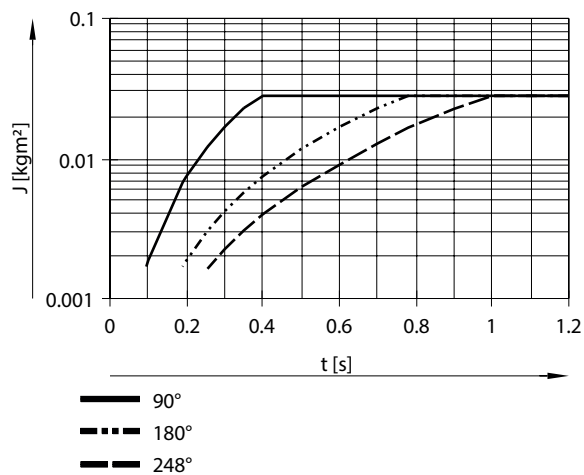


Max. permissible mass moment of inertia J as a function of swivelling time t for DSL-20-...-CC

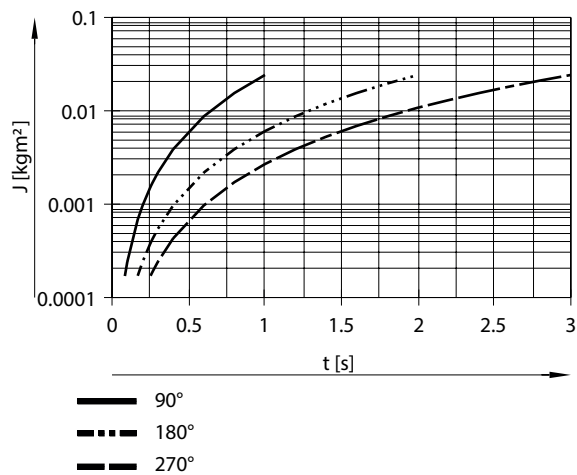


The swivel time up to the point where the stop lever meets the shock absorber is shown here. The cushioning time of the shock absorber must be added in order to obtain the total swivel time.

Datasheet

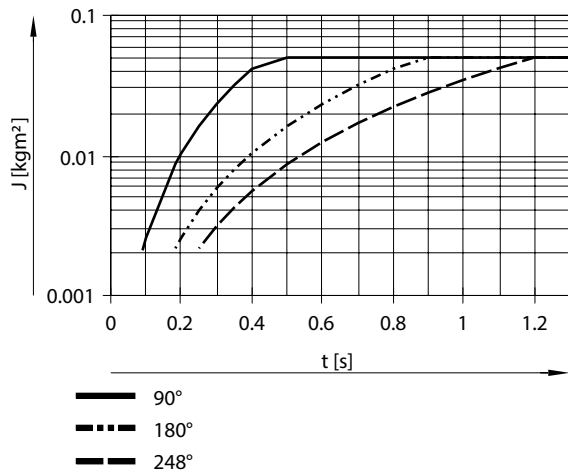
Max. permissible mass moment of inertia J as a function of swivelling time t for DSL-25-...-PMax. permissible mass moment of inertia J as a function of swivelling time t for DSL-25-...-CC

The swivel time up to the point where the stop lever meets the shock absorber is shown here. The cushioning time of the shock absorber must be added in order to obtain the total swivel time.

Max. permissible mass moment of inertia J as a function of swivelling time t for DSL-32-...-P

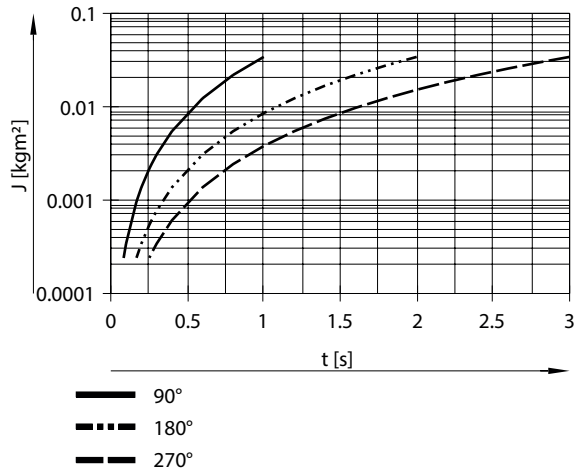
Datasheet

Max. permissible mass moment of inertia J as a function of swivelling time t for DSL-32-...-CC

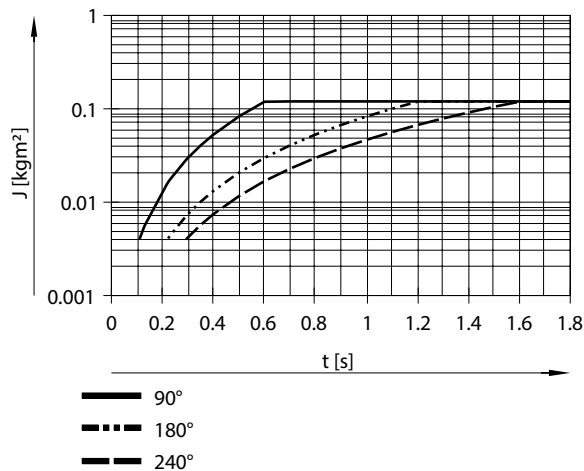


The swivel time up to the point where the stop lever meets the shock absorber is shown here. The cushioning time of the shock absorber must be added in order to obtain the total swivel time.

Max. permissible mass moment of inertia J as a function of swivelling time t for DSL-40-...-P



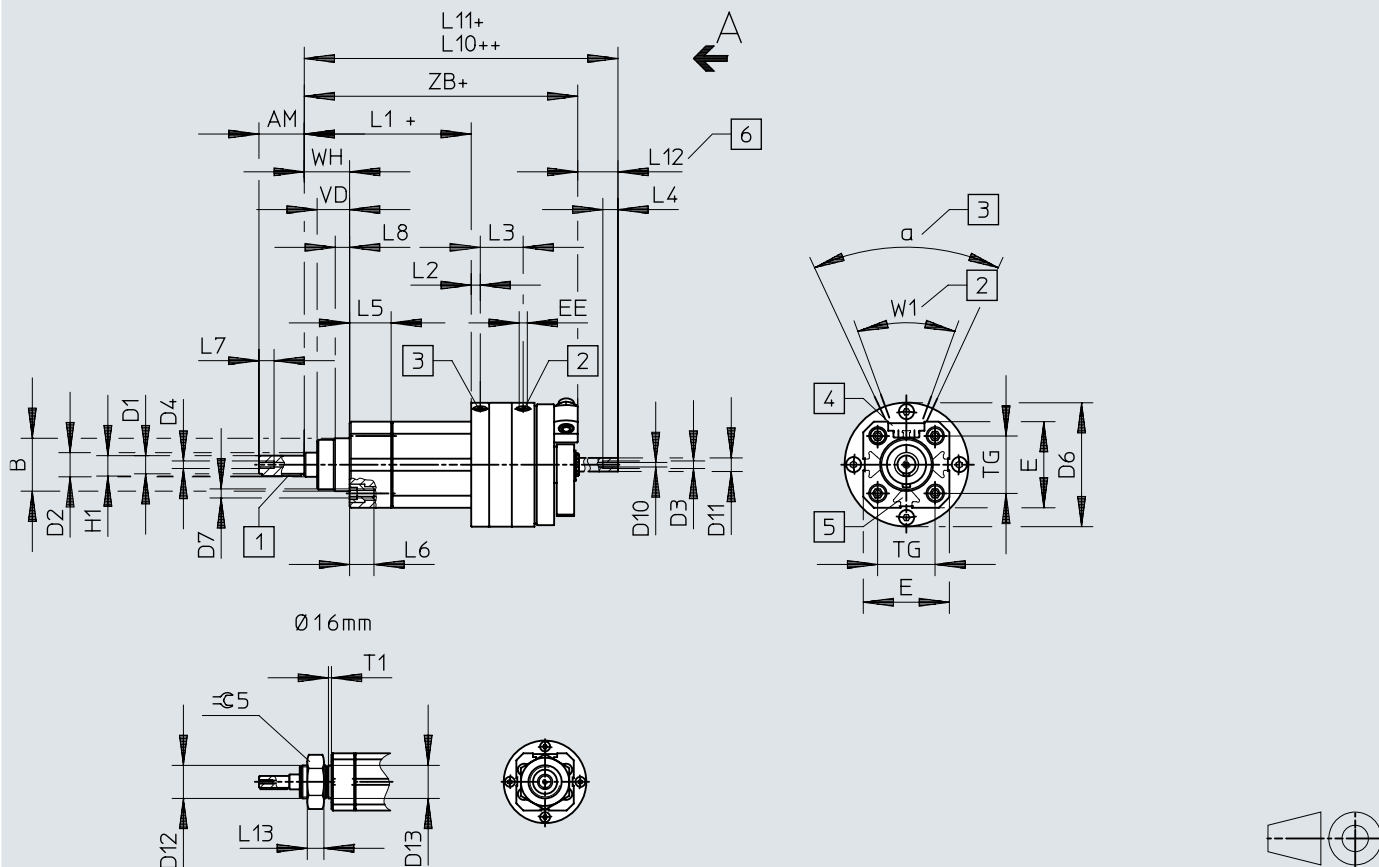
Max. permissible mass moment of inertia J as a function of swivelling time t for DSL-40-...-CC



The swivel time up to the point where the stop lever meets the shock absorber is shown here. The cushioning time of the shock absorber must be added in order to obtain the total swivel time.

Dimensions

Dimensions – Basic version

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- [1] Featherkey position at 0°
- [2] Compressed air connection, swivel part
- [3] Compressed air connection, linear part
- [4] Sensor slot for proximity switch SME/SMT-8
- [5] Mounting slots
- [6] Projection of piston rod: occurs with some variants in combination with S2, always with S20
- [7] + = plus stroke length
- [8] ++ = plus 2x stroke length

Dimensions

| | AM | B ∅ d11 | D1 ∅ g7 | D2 ∅ f8 | D3 ²⁾ | | D4 | | D6 ∅ ±0,2 | D7 |
|----------|--------|---------------|---------------|---------------|------------------|-----|----|-----|-----------------|----|
| | | | | | S2 | S20 | S2 | S20 | | |
| DSL-B-16 | 20±0,2 | – | 8 | 10 | M3 | M3 | M3 | M3 | 58 | – |
| DSL-B-20 | 23±0,2 | 30 | 10 | 12 | M5 | M5 | M5 | M5 | 69 | M6 |
| DSL-B-25 | 30±0,2 | 35 | 12 | 16 | M5 | M5 | M5 | M5 | 82 | M6 |
| DSL-B-32 | 40±0,3 | 40 | 16 | 20 | M5 | M5 | M5 | M5 | 104 | M8 |
| DSL-B-40 | 50±0,3 | 45 | 20 | 25 | M6 | M7 | M6 | M7 | 128 | M8 |

| | E | EE | H1 max. | L1 ²⁾ | L2 ±0,2 | L3 | L4 |
|----------|------|------|------------|------------------|------------|----------|--------------------|
| | | | | | | | |
| DSL-B-20 | 50 | M5 | 11,2 | 95+1,1/-1,3 | 6 | 26,2±0,6 | 10 ⁺¹ |
| DSL-B-25 | 57 | M5 | 13,5 | 100,5+1,2/-1,3 | 6 | 29,5±0,6 | 10 ⁺¹ |
| DSL-B-32 | 72 | G1/8 | 18 | 111+1,3/-1,4 | 9 | 39,5±0,6 | 12,5 ⁺² |
| DSL-B-40 | 83,5 | G1/8 | 22,5 | 132+1,3/-1,4 | 9 | 44,7±0,6 | 6,5 ⁺² |

| | L5 | L6 +2 | L7 | L8 ±0,3 | L10 ²⁾ | TG | VD | WH |
|----------|----------------------|----------|--------------------|------------|-------------------|------|----------|-------------|
| | | | | | | | | |
| DSL-B-20 | 26 _{-0,2} | 17 | 10 ⁺¹ | 10,5 | 175+0,8/-0,1 | 32,5 | 19±0,2 | 26+1,3/-1,7 |
| DSL-B-25 | 27,5 _{-0,2} | 17 | 10 ⁺¹ | 10,5 | 186,5+0,8/-0,1 | 38 | 21,5±0,2 | 30+1,4/-1,7 |
| DSL-B-32 | 28,5 _{-0,2} | 21 | 12,5 ⁺² | 12 | 224+0,6/-0,2 | 46,5 | 28,5±0,3 | 37+1,4/-1,8 |
| DSL-B-40 | 35 _{-0,2} | 18 | 14 ⁺² | 15 | 263+0,6/-0,2 | 56,5 | 34,7±0,3 | 46+1,4/-1,8 |

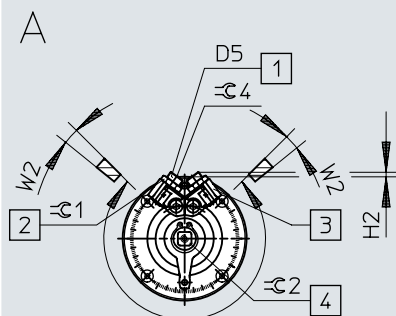
| | ZB ²⁾ | a | W1 | 3) | D10 min. ∅ S20 |
|----------|------------------|-----|---------|-----|----------------------|
| | | | | | |
| DSL-B-20 | 161,8+1,4/-1,5 | 50° | A3x3x18 | 3,2 | |
| DSL-B-25 | 173,4+1,4/-1,2 | 50° | A4x4x25 | 4,2 | |
| DSL-B-32 | 205+1,5/-1,9 | 50° | A5x5x36 | 4,2 | |
| DSL-B-40 | 243,5+1,5/-1,9 | 50° | A6x6x45 | 5,6 | |

| DSL-...-KF-... | L1 ¹⁾ | D3 S20 | D11 ∅ h7 | L1 | L11 | | | ZB |
|----------------|-----------------------|-----------|----------------|--------------|-------------------------------|-------------------------------|-------------------|----------------|
| | | | | | S2 ⁴⁾ +0,8/-0,1 | S2 ⁵⁾ +0,8/-0,1 | S20 +0,8/-0,1 | |
| | | | | | DSL-B-16 | 25 ≤ 50 > 50 | M3 | |
| DSL-B-20 | ≤ 50 > 50 | M5 | 8 | 111+1,1/-1,3 | 6) 225 | 225 | 241 291 | 177,7+1,4/-1,5 |
| DSL-B-25 | ≤ 50 > 50 | M5 | 10 | 129+1,2/-1,3 | 6) 238 | 238 | 266 316 | 201,2+1,4/-1,2 |
| DSL-B-32 | ≤ 50 > 50 | M7 | 13 | 143+1,3/-1,4 | 6) 253 | 253 | 305 355 | 237+1,5/-1,9 |
| DSL-B-40 | ≤ 50 > 50 > 100 | G1/8 | 16 | 182+1,3/-1,4 | 6) 352 | 352 | 364 414 464 | 293,5+1,5/-1,9 |

- 1) Stroke
- 2) Dimensions for the version with plain-bearing guide. See below for different dimensions for the version with recirculating ball bearing guide.
- 3) Feather key according to DIN 6885
- 4) Dimensions for standard strokes
- 5) Dimensions for X-strokes (see ordering data)
- 6) Profile rod does not protrude beyond the drive unit

Dimensions

Dimensions – View A – Variant P

Download CAD data www.festo.com

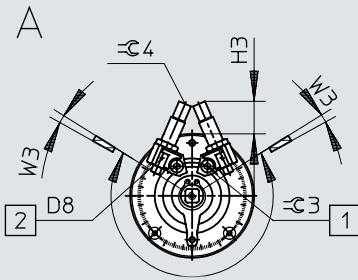
- [1] End-position adjustment
- [2] Lock nut for end-position adjustment
- [3] Infinitely adjustable fixed stops
- [4] Manual override (square)

| | D5 | H2 | W2 | $\approx C1$ | $\approx C2$ | $\approx C4$ |
|----------|-------|-----|-----|--------------|--------------|--------------|
| DSL-B-16 | M8x1 | 4,6 | -6° | 10 | 5,5 | 2,5 |
| DSL-B-20 | M10x1 | 8,1 | | 13 | 7 | 3 |
| DSL-B-25 | M10x1 | 4 | | 13 | 9 | 3 |
| DSL-B-32 | M12x1 | 6 | | 15 | 10 | 4 |
| DSL-B-40 | M16x1 | 5,7 | | 19 | 12 | 5 |

Dimensions

Dimensions – View A – Variant CC

Download CAD data www.festo.com

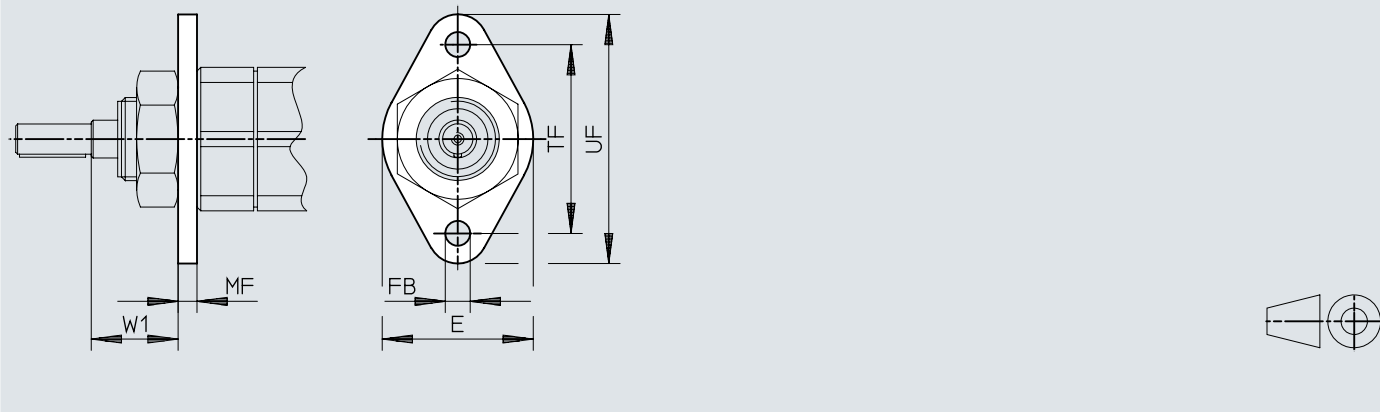


- [1] Locking screw for clamping the stop
- [2] Mounting thread for sensor bracket

| | D8 | H3 | W3 | ∅3 | ∅4 |
|----------|----|------|-----|-----|-----|
| DSL-B-16 | M2 | 23,7 | -3° | 2,5 | 2,5 |
| DSL-B-20 | M2 | 27,7 | | 3 | 3 |
| DSL-B-25 | M2 | 22 | | 4 | 3 |
| DSL-B-32 | M2 | 30,5 | | 5 | 4 |
| DSL-B-40 | M2 | 45,5 | | 8 | 5 |

Dimensions

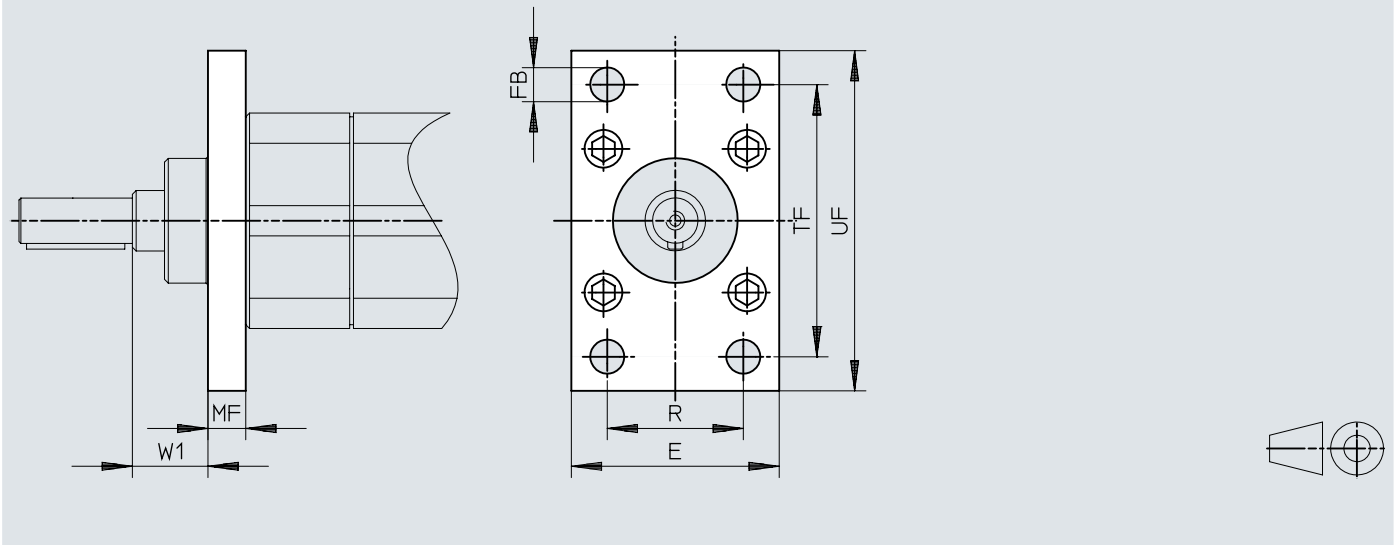
Dimensions – Flange mounting FBN

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| | | E | FB ∅ H13 | MF | TF | UF | W1 |
|-----------|----------|----|----------------|----|----|----|----|
| FBN-20/25 | DSL-B-16 | 40 | 6,6 | 5 | 50 | 66 | 23 |

Dimensions

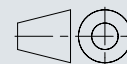
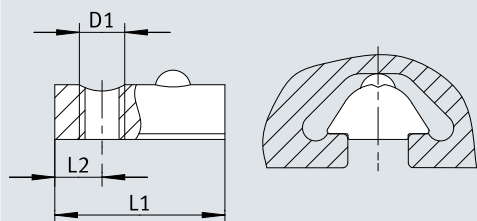
Dimensions – Flange mounting FNC

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| | | E | FB ∅ H13 | MF | R | TF | UF | W1 |
|--------|----------|----|----------------|----|----|-----|-----|----|
| FNC-32 | DSL-B-20 | 45 | 7 | 10 | 32 | 64 | 80 | 16 |
| FNC-40 | DSL-B-25 | 54 | 9 | 10 | 36 | 72 | 90 | 20 |
| FNC-50 | DSL-B-32 | 65 | 9 | 12 | 45 | 90 | 110 | 25 |
| FNC-63 | DSL-B-40 | 75 | 9 | 12 | 50 | 100 | 120 | 34 |

Dimensions

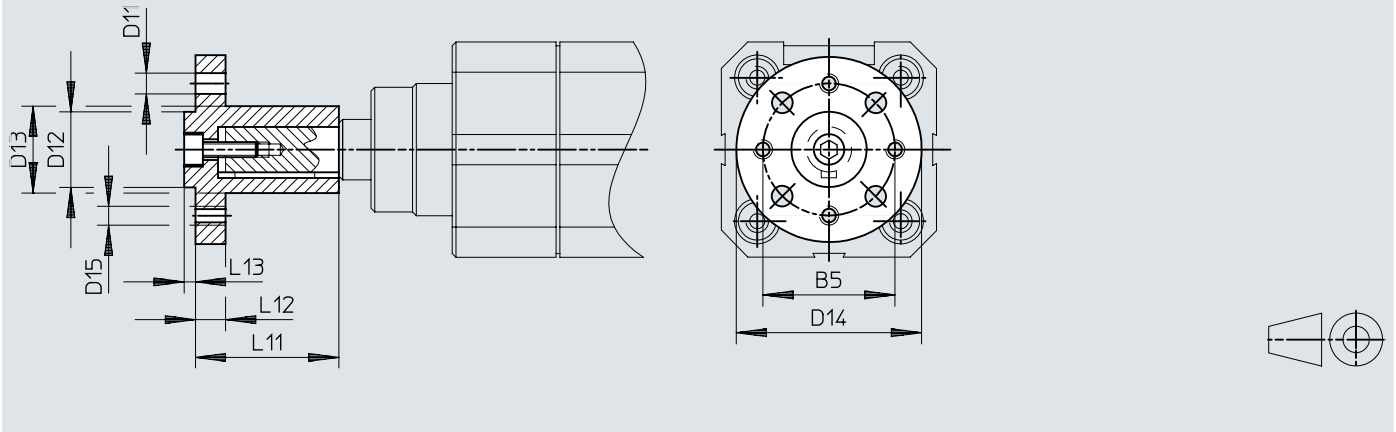
Dimensions – Slot nut NST

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| | | D1 | L1 | L2 |
|----------|----------|----|------|------|
| | | | ±0,5 | |
| NST-5-M5 | DSL-B-16 | M5 | 12 | 4 |
| | DSL-B-20 | | | |
| NST-8-M6 | DSL-B-25 | M6 | 22,5 | 6,25 |
| | DSL-B-32 | | | |
| | DSL-B-40 | | | |

Dimensions

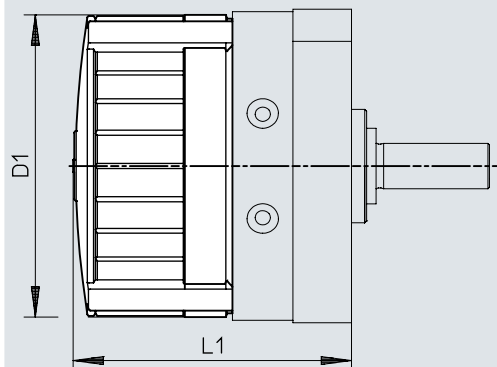
Dimensions – Push-on flange FWSR

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| | | B5 | D11 ∅ H13 | D12 ∅ f8 | D13 ∅ | D14 ∅ | D15 | L11 | L12 | L13 |
|------------|----------|----|-----------------|----------------|----------|----------|-----|-----|-----|-----|
| FWSR-12 | DSL-B-16 | 25 | 3,4 | 14 | 15 | 35 | M3 | 25 | 3 | 3 |
| FWSR-16-M5 | DSL-B-20 | 28 | 4,5 | 16 | 17 | 40 | M4 | 28 | 5 | 6 |
| FWSR-25-M5 | DSL-B-25 | 35 | 5,5 | 20 | 23 | 50 | M5 | 38 | 8 | 3 |
| FWSR-32 | DSL-B-32 | 45 | 6,6 | 28 | 28 | 60 | M6 | 48 | 10 | 4 |
| FWSR-40 | DSL-B-40 | 54 | 9 | 36 | 38 | 70 | M8 | 60 | 11 | 5 |

Dimensions

Dimensions – Cover cap AKM

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| | | D1 ∅ | L1 |
|--------|----------|---------|-----------|
| AKM-12 | DSL-B-16 | 59 | 56,2±1,2 |
| AKM-16 | DSL-B-20 | 70 | 68±1,2 |
| AKM-25 | DSL-B-25 | 83 | 73,4±1,2 |
| AKM-32 | DSL-B-32 | 105 | 89,7±1,5 |
| AKM-40 | DSL-B-40 | 130 | 107,1±1,5 |

Ordering data

| DSL with plain-bearing guide and through piston rod | | | | | | |
|---|-----------------|--|-------------------------|--------------------------|-------------------------|------------------------|
| End-position cushioning | Piston diameter | Stroke | Part no. | Type | | |
| Shock absorber at both ends | 16 mm | 10 ... 160 mm | 556421 | DSL-16- -270-CC-A-S2-B | | |
| | | 25 mm | 556391 | DSL-16-25-270-CC-A-S2-B | | |
| | | 40 mm | 556397 | DSL-16-40-270-CC-A-S2-B | | |
| | | 50 mm | 556403 | DSL-16-50-270-CC-A-S2-B | | |
| | | 80 mm | 556409 | DSL-16-80-270-CC-A-S2-B | | |
| | | 100 mm | 556415 | DSL-16-100-270-CC-A-S2-B | | |
| | 20 mm | 10 ... 160 mm | 556457 | DSL-20- -270-CC-A-S2-B | | |
| | | 25 mm | 556427 | DSL-20-25-270-CC-A-S2-B | | |
| | | 40 mm | 556433 | DSL-20-40-270-CC-A-S2-B | | |
| | | 50 mm | 556439 | DSL-20-50-270-CC-A-S2-B | | |
| | | 80 mm | 556445 | DSL-20-80-270-CC-A-S2-B | | |
| | | 100 mm | 556451 | DSL-20-100-270-CC-A-S2-B | | |
| | 25 mm | 10 ... 160 mm | 556493 | DSL-25- -270-CC-A-S2-B | | |
| | | 25 mm | 556463 | DSL-25-25-270-CC-A-S2-B | | |
| | | 40 mm | 556469 | DSL-25-40-270-CC-A-S2-B | | |
| | | 50 mm | 556475 | DSL-25-50-270-CC-A-S2-B | | |
| | | 80 mm | 556481 | DSL-25-80-270-CC-A-S2-B | | |
| | | 100 mm | 556487 | DSL-25-100-270-CC-A-S2-B | | |
| | 32 mm | 10 ... 200 mm | 556529 | DSL-32- -270-CC-A-S2-B | | |
| | | 25 mm | 556499 | DSL-32-25-270-CC-A-S2-B | | |
| | | 40 mm | 556505 | DSL-32-40-270-CC-A-S2-B | | |
| | | 50 mm | 556511 | DSL-32-50-270-CC-A-S2-B | | |
| | | 80 mm | 556517 | DSL-32-80-270-CC-A-S2-B | | |
| | | 100 mm | 556523 | DSL-32-100-270-CC-A-S2-B | | |
| | 40 mm | 10 ... 200 mm | 556577 | DSL-40- -270-CC-A-S2-B | | |
| | | 25 mm | 556535 | DSL-40-25-270-CC-A-S2-B | | |
| | | 40 mm | 556541 | DSL-40-40-270-CC-A-S2-B | | |
| | | 50 mm | 556547 | DSL-40-50-270-CC-A-S2-B | | |
| | | 80 mm | 556553 | DSL-40-80-270-CC-A-S2-B | | |
| | | 100 mm | 556559 | DSL-40-100-270-CC-A-S2-B | | |
| | | 125 mm | 556565 | DSL-40-125-270-CC-A-S2-B | | |
| | | 160 mm | 556571 | DSL-40-160-270-CC-A-S2-B | | |
| | | Elastic cushioning components at both ends | 16 mm | 10 ... 160 mm | 556420 | DSL-16- -270-P-A-S2-B |
| | | | | 25 mm | 556390 | DSL-16-25-270-P-A-S2-B |
| | 40 mm | | | 556396 | DSL-16-40-270-P-A-S2-B | |
| | 50 mm | | | 556402 | DSL-16-50-270-P-A-S2-B | |
| | 80 mm | | | 556408 | DSL-16-80-270-P-A-S2-B | |
| | 100 mm | | | 556414 | DSL-16-100-270-P-A-S2-B | |
| | 20 mm | | 10 ... 160 mm | 556456 | DSL-20- -270-P-A-S2-B | |
| | | | 25 mm | 556426 | DSL-20-25-270-P-A-S2-B | |
| 40 mm | | | 556432 | DSL-20-40-270-P-A-S2-B | | |
| 50 mm | | | 556438 | DSL-20-50-270-P-A-S2-B | | |
| 80 mm | | | 556444 | DSL-20-80-270-P-A-S2-B | | |
| 100 mm | | | 556450 | DSL-20-100-270-P-A-S2-B | | |
| 25 mm | 10 ... 160 mm | | 556492 | DSL-25- -270-P-A-S2-B | | |
| | 25 mm | | 556462 | DSL-25-25-270-P-A-S2-B | | |
| | 40 mm | | 556468 | DSL-25-40-270-P-A-S2-B | | |
| | 50 mm | | 556474 | DSL-25-50-270-P-A-S2-B | | |
| | 80 mm | | 556480 | DSL-25-80-270-P-A-S2-B | | |
| | 100 mm | | 556486 | DSL-25-100-270-P-A-S2-B | | |
| 32 mm | 10 ... 200 mm | | 556528 | DSL-32- -270-P-A-S2-B | | |
| | 25 mm | | 556498 | DSL-32-25-270-P-A-S2-B | | |
| | 40 mm | 556504 | DSL-32-40-270-P-A-S2-B | | | |
| | 50 mm | 556510 | DSL-32-50-270-P-A-S2-B | | | |
| | 80 mm | 556516 | DSL-32-80-270-P-A-S2-B | | | |
| | 100 mm | 556522 | DSL-32-100-270-P-A-S2-B | | | |
| 40 mm | 10 ... 200 mm | 556576 | DSL-40- -270-P-A-S2-B | | | |
| | 25 mm | 556534 | DSL-40-25-270-P-A-S2-B | | | |
| | 40 mm | 556540 | DSL-40-40-270-P-A-S2-B | | | |
| | 50 mm | 556546 | DSL-40-50-270-P-A-S2-B | | | |

Ordering data

| DSL with plain-bearing guide and through piston rod | | | | |
|---|-----------------|--------|----------|-------------------------|
| End-position cushioning | Piston diameter | Stroke | Part no. | Type |
| Elastic cushioning components at both ends | 40 mm | 80 mm | 556552 | DSL-40-80-270-P-A-S2-B |
| | | 100 mm | 556558 | DSL-40-100-270-P-A-S2-B |
| | | 125 mm | 556564 | DSL-40-125-270-P-A-S2-B |
| | | 160 mm | 556570 | DSL-40-160-270-P-A-S2-B |

| DSL with recirculating ball bearing guide and through piston rod | | | | | |
|--|--|---------------|---------------|-----------------------------|----------------------------|
| End-position cushioning | Piston diameter | Stroke | Part no. | Type | |
| Shock absorber at both ends | 16 mm | 10 ... 100 mm | 556613 | DSL-16- -270-CC-A-S2-KF-B | |
| | | 25 mm | 556583 | DSL-16-25-270-CC-A-S2-KF-B | |
| | | 40 mm | 556589 | DSL-16-40-270-CC-A-S2-KF-B | |
| | | 50 mm | 556595 | DSL-16-50-270-CC-A-S2-KF-B | |
| | | 80 mm | 556601 | DSL-16-80-270-CC-A-S2-KF-B | |
| | | 100 mm | 556607 | DSL-16-100-270-CC-A-S2-KF-B | |
| | 20 mm | 10 ... 100 mm | 556649 | DSL-20- -270-CC-A-S2-KF-B | |
| | | 25 mm | 556619 | DSL-20-25-270-CC-A-S2-KF-B | |
| | | 40 mm | 556625 | DSL-20-40-270-CC-A-S2-KF-B | |
| | | 50 mm | 556631 | DSL-20-50-270-CC-A-S2-KF-B | |
| | | 80 mm | 556637 | DSL-20-80-270-CC-A-S2-KF-B | |
| | | 100 mm | 556643 | DSL-20-100-270-CC-A-S2-KF-B | |
| | 25 mm | 10 ... 100 mm | 556685 | DSL-25- -270-CC-A-S2-KF-B | |
| | | 25 mm | 556655 | DSL-25-25-270-CC-A-S2-KF-B | |
| | | 40 mm | 556661 | DSL-25-40-270-CC-A-S2-KF-B | |
| | | 50 mm | 556667 | DSL-25-50-270-CC-A-S2-KF-B | |
| | | 80 mm | 556673 | DSL-25-80-270-CC-A-S2-KF-B | |
| | | 100 mm | 556679 | DSL-25-100-270-CC-A-S2-KF-B | |
| | 32 mm | 10 ... 100 mm | 556721 | DSL-32- -270-CC-A-S2-KF-B | |
| | | 25 mm | 556691 | DSL-32-25-270-CC-A-S2-KF-B | |
| | | 40 mm | 556697 | DSL-32-40-270-CC-A-S2-KF-B | |
| | | 50 mm | 556703 | DSL-32-50-270-CC-A-S2-KF-B | |
| | | 80 mm | 556709 | DSL-32-80-270-CC-A-S2-KF-B | |
| | | 100 mm | 556715 | DSL-32-100-270-CC-A-S2-KF-B | |
| | 40 mm | 10 ... 160 mm | 556769 | DSL-40- -270-CC-A-S2-KF-B | |
| | | 25 mm | 556727 | DSL-40-25-270-CC-A-S2-KF-B | |
| | | 40 mm | 556733 | DSL-40-40-270-CC-A-S2-KF-B | |
| | | 50 mm | 556739 | DSL-40-50-270-CC-A-S2-KF-B | |
| | | 80 mm | 556745 | DSL-40-80-270-CC-A-S2-KF-B | |
| | | 100 mm | 556751 | DSL-40-100-270-CC-A-S2-KF-B | |
| | | 125 mm | 556757 | DSL-40-125-270-CC-A-S2-KF-B | |
| | | 160 mm | 556763 | DSL-40-160-270-CC-A-S2-KF-B | |
| | Elastic cushioning components at both ends | 16 mm | 10 ... 100 mm | 556612 | DSL-16- -270-P-A-S2-KF-B |
| | | | 25 mm | 556582 | DSL-16-25-270-P-A-S2-KF-B |
| | | | 40 mm | 556588 | DSL-16-40-270-P-A-S2-KF-B |
| | | | 50 mm | 556594 | DSL-16-50-270-P-A-S2-KF-B |
| | | | 80 mm | 556600 | DSL-16-80-270-P-A-S2-KF-B |
| | | | 100 mm | 556606 | DSL-16-100-270-P-A-S2-KF-B |
| | | 20 mm | 10 ... 100 mm | 556648 | DSL-20- -270-P-A-S2-KF-B |
| | | | 25 mm | 556618 | DSL-20-25-270-P-A-S2-KF-B |
| | | | 40 mm | 556624 | DSL-20-40-270-P-A-S2-KF-B |
| | | | 50 mm | 556630 | DSL-20-50-270-P-A-S2-KF-B |
| | | | 80 mm | 556636 | DSL-20-80-270-P-A-S2-KF-B |
| | | | 100 mm | 556642 | DSL-20-100-270-P-A-S2-KF-B |
| | | 25 mm | 10 ... 100 mm | 556684 | DSL-25- -270-P-A-S2-KF-B |
| | | | 25 mm | 556654 | DSL-25-25-270-P-A-S2-KF-B |
| | | | 40 mm | 556660 | DSL-25-40-270-P-A-S2-KF-B |
| | | | 50 mm | 556666 | DSL-25-50-270-P-A-S2-KF-B |
| 80 mm | | | 556672 | DSL-25-80-270-P-A-S2-KF-B | |
| 100 mm | | | 556678 | DSL-25-100-270-P-A-S2-KF-B | |
| 32 mm | | 10 ... 100 mm | 556720 | DSL-32- -270-P-A-S2-KF-B | |
| | | 25 mm | 556690 | DSL-32-25-270-P-A-S2-KF-B | |

Ordering data

| DSL with recirculating ball bearing guide and through piston rod | | | | |
|--|-----------------|---------------|----------|----------------------------|
| End-position cushioning | Piston diameter | Stroke | Part no. | Type |
| Elastic cushioning components at both ends | 32 mm | 40 mm | 556696 | DSL-32-40-270-P-A-S2-KF-B |
| | | 50 mm | 556702 | DSL-32-50-270-P-A-S2-KF-B |
| | | 80 mm | 556708 | DSL-32-80-270-P-A-S2-KF-B |
| | | 100 mm | 556714 | DSL-32-100-270-P-A-S2-KF-B |
| | 40 mm | 10 ... 160 mm | 556768 | DSL-40- -270-P-A-S2-KF-B |
| | | 25 mm | 556726 | DSL-40-25-270-P-A-S2-KF-B |
| | | 40 mm | 556732 | DSL-40-40-270-P-A-S2-KF-B |
| | | 50 mm | 556738 | DSL-40-50-270-P-A-S2-KF-B |
| | | 80 mm | 556744 | DSL-40-80-270-P-A-S2-KF-B |
| | | 100 mm | 556750 | DSL-40-100-270-P-A-S2-KF-B |
| | | 125 mm | 556756 | DSL-40-125-270-P-A-S2-KF-B |
| | | 160 mm | 556762 | DSL-40-160-270-P-A-S2-KF-B |

| DSL with plain-bearing guide and hollow through piston rod | | | | | | |
|--|-----------------|--|---------------|---------------------------|--------------------------|-------------------------|
| End-position cushioning | Piston diameter | Stroke | Part no. | Type | | |
| Shock absorber at both ends | 16 mm | 10 ... 160 mm | 556424 | DSL-16- -270-CC-A-S20-B | | |
| | | 25 mm | 556394 | DSL-16-25-270-CC-A-S20-B | | |
| | | 40 mm | 556400 | DSL-16-40-270-CC-A-S20-B | | |
| | | 50 mm | 556406 | DSL-16-50-270-CC-A-S20-B | | |
| | | 80 mm | 556412 | DSL-16-80-270-CC-A-S20-B | | |
| | | 100 mm | 556418 | DSL-16-100-270-CC-A-S20-B | | |
| | 20 mm | 10 ... 160 mm | 556460 | DSL-20- -270-CC-A-S20-B | | |
| | | 25 mm | 556430 | DSL-20-25-270-CC-A-S20-B | | |
| | | 40 mm | 556436 | DSL-20-40-270-CC-A-S20-B | | |
| | | 50 mm | 556442 | DSL-20-50-270-CC-A-S20-B | | |
| | | 80 mm | 556448 | DSL-20-80-270-CC-A-S20-B | | |
| | | 100 mm | 556454 | DSL-20-100-270-CC-A-S20-B | | |
| | 25 mm | 10 ... 160 mm | 556496 | DSL-25- -270-CC-A-S20-B | | |
| | | 25 mm | 556466 | DSL-25-25-270-CC-A-S20-B | | |
| | | 40 mm | 556472 | DSL-25-40-270-CC-A-S20-B | | |
| | | 50 mm | 556478 | DSL-25-50-270-CC-A-S20-B | | |
| | | 80 mm | 556484 | DSL-25-80-270-CC-A-S20-B | | |
| | | 100 mm | 556490 | DSL-25-100-270-CC-A-S20-B | | |
| | 32 mm | 10 ... 200 mm | 556532 | DSL-32- -270-CC-A-S20-B | | |
| | | 25 mm | 556502 | DSL-32-25-270-CC-A-S20-B | | |
| | | 40 mm | 556508 | DSL-32-40-270-CC-A-S20-B | | |
| | | 50 mm | 556514 | DSL-32-50-270-CC-A-S20-B | | |
| | | 80 mm | 556520 | DSL-32-80-270-CC-A-S20-B | | |
| | | 100 mm | 556526 | DSL-32-100-270-CC-A-S20-B | | |
| | 40 mm | 10 ... 200 mm | 556580 | DSL-40- -270-CC-A-S20-B | | |
| | | 25 mm | 556538 | DSL-40-25-270-CC-A-S20-B | | |
| | | 40 mm | 556544 | DSL-40-40-270-CC-A-S20-B | | |
| | | 50 mm | 556550 | DSL-40-50-270-CC-A-S20-B | | |
| | | 80 mm | 556556 | DSL-40-80-270-CC-A-S20-B | | |
| | | 100 mm | 556562 | DSL-40-100-270-CC-A-S20-B | | |
| | | 125 mm | 556568 | DSL-40-125-270-CC-A-S20-B | | |
| | | 160 mm | 556574 | DSL-40-160-270-CC-A-S20-B | | |
| | | Elastic cushioning components at both ends | 16 mm | 10 ... 160 mm | 556423 | DSL-16- -270-P-A-S20-B |
| | | | | 25 mm | 556393 | DSL-16-25-270-P-A-S20-B |
| | | | | 40 mm | 556399 | DSL-16-40-270-P-A-S20-B |
| | | | | 50 mm | 556405 | DSL-16-50-270-P-A-S20-B |
| | 80 mm | | | 556411 | DSL-16-80-270-P-A-S20-B | |
| | 100 mm | | | 556417 | DSL-16-100-270-P-A-S20-B | |
| | 20 mm | | 10 ... 160 mm | 556459 | DSL-20- -270-P-A-S20-B | |
| | | | 25 mm | 556429 | DSL-20-25-270-P-A-S20-B | |
| 40 mm | | | 556435 | DSL-20-40-270-P-A-S20-B | | |
| 50 mm | | | 556441 | DSL-20-50-270-P-A-S20-B | | |
| 80 mm | | | 556447 | DSL-20-80-270-P-A-S20-B | | |
| 100 mm | | | 556453 | DSL-20-100-270-P-A-S20-B | | |

Ordering data

| DSL with plain-bearing guide and hollow through piston rod | | | | |
|--|-----------------|---------------|----------|--------------------------|
| End-position cushioning | Piston diameter | Stroke | Part no. | Type |
| Elastic cushioning components at both ends | 25 mm | 10 ... 160 mm | 556495 | DSL-25- -270-P-A-S20-B |
| | | 25 mm | 556465 | DSL-25-25-270-P-A-S20-B |
| | | 40 mm | 556471 | DSL-25-40-270-P-A-S20-B |
| | | 50 mm | 556477 | DSL-25-50-270-P-A-S20-B |
| | | 80 mm | 556483 | DSL-25-80-270-P-A-S20-B |
| | | 100 mm | 556489 | DSL-25-100-270-P-A-S20-B |
| | 32 mm | 10 ... 200 mm | 556531 | DSL-32- -270-P-A-S20-B |
| | | 25 mm | 556501 | DSL-32-25-270-P-A-S20-B |
| | | 40 mm | 556507 | DSL-32-40-270-P-A-S20-B |
| | | 50 mm | 556513 | DSL-32-50-270-P-A-S20-B |
| | | 80 mm | 556519 | DSL-32-80-270-P-A-S20-B |
| | | 100 mm | 556525 | DSL-32-100-270-P-A-S20-B |
| | 40 mm | 10 ... 200 mm | 556579 | DSL-40- -270-P-A-S20-B |
| | | 25 mm | 556537 | DSL-40-25-270-P-A-S20-B |
| | | 40 mm | 556543 | DSL-40-40-270-P-A-S20-B |
| | | 50 mm | 556549 | DSL-40-50-270-P-A-S20-B |
| | | 80 mm | 556555 | DSL-40-80-270-P-A-S20-B |
| | | 100 mm | 556561 | DSL-40-100-270-P-A-S20-B |
| | | 125 mm | 556567 | DSL-40-125-270-P-A-S20-B |
| | | 160 mm | 556573 | DSL-40-160-270-P-A-S20-B |

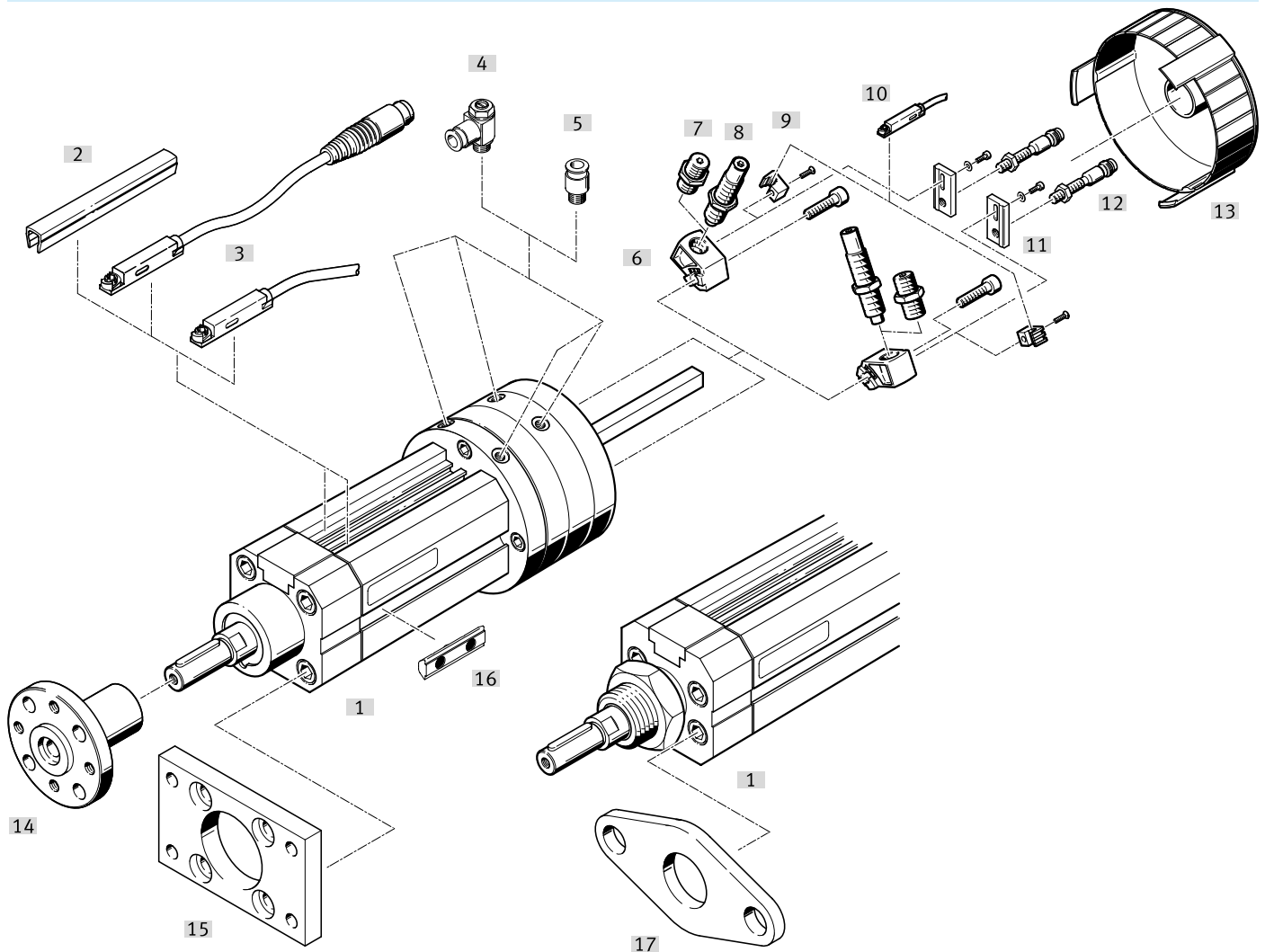
| DSL with recirculating ball bearing guide and hollow through piston rod | | | | | |
|---|--|---------------|---------------|------------------------------|----------------------------|
| End-position cushioning | Piston diameter | Stroke | Part no. | Type | |
| Shock absorber at both ends | 16 mm | 10 ... 100 mm | 556616 | DSL-16- -270-CC-A-S20-KF-B | |
| | | 25 mm | 556586 | DSL-16-25-270-CC-A-S20-KF-B | |
| | | 40 mm | 556592 | DSL-16-40-270-CC-A-S20-KF-B | |
| | | 50 mm | 556598 | DSL-16-50-270-CC-A-S20-KF-B | |
| | | 80 mm | 556604 | DSL-16-80-270-CC-A-S20-KF-B | |
| | | 100 mm | 556610 | DSL-16-100-270-CC-A-S20-KF-B | |
| | 20 mm | 10 ... 100 mm | 556652 | DSL-20- -270-CC-A-S20-KF-B | |
| | | 25 mm | 556622 | DSL-20-25-270-CC-A-S20-KF-B | |
| | | 40 mm | 556628 | DSL-20-40-270-CC-A-S20-KF-B | |
| | | 50 mm | 556634 | DSL-20-50-270-CC-A-S20-KF-B | |
| | | 80 mm | 556640 | DSL-20-80-270-CC-A-S20-KF-B | |
| | | 100 mm | 556646 | DSL-20-100-270-CC-A-S20-KF-B | |
| | 25 mm | 10 ... 100 mm | 556688 | DSL-25- -270-CC-A-S20-KF-B | |
| | | 25 mm | 556658 | DSL-25-25-270-CC-A-S20-KF-B | |
| | | 40 mm | 556664 | DSL-25-40-270-CC-A-S20-KF-B | |
| | | 50 mm | 556670 | DSL-25-50-270-CC-A-S20-KF-B | |
| | | 80 mm | 556676 | DSL-25-80-270-CC-A-S20-KF-B | |
| | | 100 mm | 556682 | DSL-25-100-270-CC-A-S20-KF-B | |
| | 32 mm | 10 ... 100 mm | 556724 | DSL-32- -270-CC-A-S20-KF-B | |
| | | 25 mm | 556694 | DSL-32-25-270-CC-A-S20-KF-B | |
| | | 40 mm | 556700 | DSL-32-40-270-CC-A-S20-KF-B | |
| | | 50 mm | 556706 | DSL-32-50-270-CC-A-S20-KF-B | |
| | | 80 mm | 556712 | DSL-32-80-270-CC-A-S20-KF-B | |
| | | 100 mm | 556718 | DSL-32-100-270-CC-A-S20-KF-B | |
| | 40 mm | 10 ... 160 mm | 556772 | DSL-40- -270-CC-A-S20-KF-B | |
| | | 25 mm | 556730 | DSL-40-25-270-CC-A-S20-KF-B | |
| | | 40 mm | 556736 | DSL-40-40-270-CC-A-S20-KF-B | |
| | | 50 mm | 556742 | DSL-40-50-270-CC-A-S20-KF-B | |
| | | 80 mm | 556748 | DSL-40-80-270-CC-A-S20-KF-B | |
| | | 100 mm | 556754 | DSL-40-100-270-CC-A-S20-KF-B | |
| | | 125 mm | 556760 | DSL-40-125-270-CC-A-S20-KF-B | |
| | | 160 mm | 556766 | DSL-40-160-270-CC-A-S20-KF-B | |
| | Elastic cushioning components at both ends | 16 mm | 10 ... 100 mm | 556615 | DSL-16- -270-P-A-S20-KF-B |
| | | | 25 mm | 556585 | DSL-16-25-270-P-A-S20-KF-B |
| | | | 40 mm | 556591 | DSL-16-40-270-P-A-S20-KF-B |
| | | | 50 mm | 556597 | DSL-16-50-270-P-A-S20-KF-B |

Ordering data

| DSL with recirculating ball bearing guide and hollow through piston rod | | | | |
|---|-----------------|---------------|----------|-----------------------------|
| End-position cushioning | Piston diameter | Stroke | Part no. | Type |
| Elastic cushioning components at both ends | 16 mm | 80 mm | 556603 | DSL-16-80-270-P-A-S20-KF-B |
| | | 100 mm | 556609 | DSL-16-100-270-P-A-S20-KF-B |
| | 20 mm | 10 ... 100 mm | 556651 | DSL-20- -270-P-A-S20-KF-B |
| | | 25 mm | 556621 | DSL-20-25-270-P-A-S20-KF-B |
| | | 40 mm | 556627 | DSL-20-40-270-P-A-S20-KF-B |
| | | 50 mm | 556633 | DSL-20-50-270-P-A-S20-KF-B |
| | | 80 mm | 556639 | DSL-20-80-270-P-A-S20-KF-B |
| | | 100 mm | 556645 | DSL-20-100-270-P-A-S20-KF-B |
| | 25 mm | 10 ... 100 mm | 556687 | DSL-25- -270-P-A-S20-KF-B |
| | | 25 mm | 556657 | DSL-25-25-270-P-A-S20-KF-B |
| | | 40 mm | 556663 | DSL-25-40-270-P-A-S20-KF-B |
| | | 50 mm | 556669 | DSL-25-50-270-P-A-S20-KF-B |
| | | 80 mm | 556675 | DSL-25-80-270-P-A-S20-KF-B |
| | | 100 mm | 556681 | DSL-25-100-270-P-A-S20-KF-B |
| | 32 mm | 10 ... 100 mm | 556723 | DSL-32- -270-P-A-S20-KF-B |
| | | 25 mm | 556693 | DSL-32-25-270-P-A-S20-KF-B |
| | | 40 mm | 556699 | DSL-32-40-270-P-A-S20-KF-B |
| | | 50 mm | 556705 | DSL-32-50-270-P-A-S20-KF-B |
| | | 80 mm | 556711 | DSL-32-80-270-P-A-S20-KF-B |
| | | 100 mm | 556717 | DSL-32-100-270-P-A-S20-KF-B |
| | 40 mm | 10 ... 160 mm | 556771 | DSL-40- -270-P-A-S20-KF-B |
| | | 25 mm | 556729 | DSL-40-25-270-P-A-S20-KF-B |
| | | 40 mm | 556735 | DSL-40-40-270-P-A-S20-KF-B |
| | | 50 mm | 556741 | DSL-40-50-270-P-A-S20-KF-B |
| | | 80 mm | 556747 | DSL-40-80-270-P-A-S20-KF-B |
| | | 100 mm | 556753 | DSL-40-100-270-P-A-S20-KF-B |
| | | 125 mm | 556759 | DSL-40-125-270-P-A-S20-KF-B |
| | | 160 mm | 556765 | DSL-40-160-270-P-A-S20-KF-B |


Peripherals

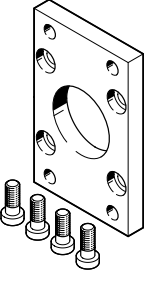
Peripherals overview

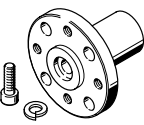


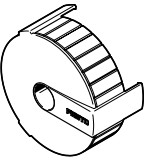
| Accessories | | → Link |
|-------------------------------------|---|-----------------------|
| Type/order code | Description | |
| [1] Swivel/linear drive unit DSL-B | | dsl-b |
| [2] Slot cover ABP | To protect the proximity switch cable and keep dirt out of the sensor/profile slots | 29 |
| [3] Proximity switch SME-8 | For sensing the linear position | 28 |
| [3] Proximity switch SMT-8 | For sensing the linear position | 28 |
| [4] One-way flow control valve GRLA | For regulating speed | grla |
| [5] Push-in fitting QS | For connecting compressed air tubing with standard O.D. | qs |
| [6] Cushioning mount DSM-B | <ul style="list-style-type: none"> For mounting elastic cushioning components or shock absorbers For swivel/linear unit DSL-...-P/CC, included in the scope of delivery | 27 |
| [7] Cushioning kit DSM-...-P-B | <ul style="list-style-type: none"> Elastic cushioning components with fixed stop For swivel/linear unit DSL-...-P, included in the scope of delivery | 26 |
| [8] Shock absorber DYSC | <ul style="list-style-type: none"> Self-adjusting shock absorbers with fixed stop For swivel/linear unit DSL-...-CC, included in the scope of delivery | 26 |
| [9] Sensor bracket SL-DSM-B | For mounting the proximity switches SME/SMT-10 | 27 |
| [10] Proximity switch SME-10 | For sensing the swivelling position | 28 |
| [10] Proximity switch SMT-10 | For sensing the swivelling position | 27 |
| [12] Sensor bracket SL-DSM-S | For mounting the inductive proximity sensor SIEN | 27 |
| [12] Proximity switch SIEN | For sensing the swivelling position | 28 |
| [13] Cover cap AKM | <ul style="list-style-type: none"> Reduces the risk of injury in the swivel range of the stop lever Cannot be used in combination with inductive proximity sensor SIEN | 26 |
| [14] Push-on flange FWSR | For retrofitting the swivel/linear unit DSL | 26 |
| [15] Flange mounting FNC | For bearing cap of swivel/linear unit DSL-20 ... 40 | 26 |
| [16] Slot nut NST | For mounting the drive via the linear part | 27 |
| [17] Flange mounting FBN | | 26 |

Accessories


| Flange mounting FBN | | | | | |
|--|-------------|-------------------|----------------|----------|-----------|
| | Description | Material mounting | Product weight | Part no. | Type |
|  | For size 16 | Steel, Galvanised | 52 g | 5131 | FBN-20/25 |

| Flange mounting FNC | | | | | |
|--|-------------|-------------------|----------------|----------|--------|
| | Description | Material mounting | Product weight | Part no. | Type |
|  | For size 20 | Steel, Galvanised | 221 g | 174376 | FNC-32 |
| | For size 25 | | 291 g | 174377 | FNC-40 |
| | For size 32 | | 536 g | 174378 | FNC-50 |
| | For size 40 | | 679 g | 174379 | FNC-63 |


| Push-on flange FWSR | | | | | |
|--|-------------|----------------|-------------------------|----------|------------|
| | Description | Product weight | Material housing | Part no. | Type |
|  | For size 16 | 19 g | Wrought aluminium alloy | 14659 | FWSR-12 |
| | For size 20 | 32 g | | 170153 | FWSR-16-M5 |
| | For size 25 | 70 g | | 170154 | FWSR-25-M5 |
| | For size 32 | 120 g | | 13241 | FWSR-32 |
| | For size 40 | 240 g | | 14656 | FWSR-40 |

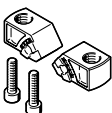
| Cover cap AKM | | | | | |
|--|-------------|--------------------|------------------------------|----------|--------|
| | Description | Material cover cap | Product weight ¹⁾ | Part no. | Type |
|  | For size 16 | PA-reinforced | 12 g | 549194 | AKM-12 |
| | For size 20 | | 16 g | 549195 | AKM-16 |
| | For size 25 | | 22 g | 549196 | AKM-25 |
| | For size 32 | | 36 g | 549197 | AKM-32 |
| | For size 40 | | 62 g | 549198 | AKM-40 |


1) Cannot be used in combination with inductive proximity sensor SIEN.


| Cushioning kit DSM....-P | | | | | |
|--|------------------|----------------|----------|---------------|--|
| | Description | Product weight | Part no. | Type | |
|  | For size 16 | 10 g | 550657 | DSM-12-P-B | |
| | For sizes 20, 25 | 25 g | 550658 | DSM-16/25-P-B | |
| | For size 32 | 50 g | 550659 | DSM-32-P-B | |
| | For size 40 | 115 g | 550660 | DSM-40-P-B | |

Accessories


| Shock absorber DYSC Link dysc | | | | | |
|---|------------------|----------------|----------|----------------|--|
| | Description | Product weight | Part no. | Type | |
|  | For size 32 | 36 g | 548013 | DYSC-8-8-Y1F | |
| | For size 40 | 81 g | 548014 | DYSC-12-12-Y1F | |
| | For size 16 | 9 g | 548011 | DYSC-5-5-Y1F | |
| | For sizes 20, 25 | 17 g | 548012 | DYSC-7-5-Y1F | |

| Cushioning mount DSM-...-B | | | | | |
|---|-------------|----------------------------|----------------|----------|----------|
| | Description | Material stops | Product weight | Part no. | Type |
|  | For size 16 | High-alloy stainless steel | 35 g | 547901 | DSM-16-B |
| | For size 20 | | 25 g | 547900 | DSM-12-B |
| | For size 25 | | 57 g | 547902 | DSM-25-B |
| | For size 32 | | 125 g | 547903 | DSM-32-B |
| | For size 40 | | 185 g | 547904 | DSM-40-B |

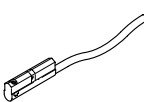
| Slot nut NST | | | | | | |
|---|----------------------|-------------------|--------------|----------------|----------|------------|
| | Description | Material slot nut | Size of pack | Product weight | Part no. | Type |
|  | For sizes 16, 20 | Tempered steel | 1 | 1.8 g | 150914 | NST-5-M5-1 |
| | For sizes 25, 32, 40 | | | 10 g | 150915 | NST-8-M6-1 |

| Sensor bracket SL-DSM for proximity switch SME-/SMT-10 | | | | | |
|---|--------------------|------------------------------|----------|----------|--|
| | Description | Product weight ¹⁾ | Part no. | Type | |
|  | For size 16 ... 40 | 2 g | 550661 | SL-DSM-B | |

1) Packaging unit: 2 pieces

| Sensor bracket SL-DSM for inductive proximity switches SIEN | | | | | |
|---|--------------------|------------------------------|----------|---------------|--|
| | Description | Product weight ¹⁾ | Part no. | Type | |
|  | For size 16 ... 40 | 4 g | 1130882 | SL-DSM-S-M5-B | |
| | | | 1132360 | SL-DSM-S-M8-B | |

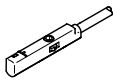
1) Packaging unit: 2 pieces

| Proximity sensor SMT for T-slot, magneto-resistive – for DSL-16, 25, 32, 40 (not suitable for DSL-20) Link smt | | | | | | |
|---|--|----------------------------|-----------------------|--------------|----------|----------------------------|
| | Type of mounting ¹⁾ | Switching element function | Electrical connection | Cable length | Part no. | Type |
|  | Screw-clamped, Insertable in the slot from above | N/O contact | Open end | 2.5 m | 551373 | SMT-10M-PS-24V-E-2,5-L-OE |
| | | | Plug M8, A-coded | 0.3 m | 551375 | SMT-10M-PS-24V-E-0,3-L-M8D |

1) For DRVS-6 ... 8: With mounting kit WSM-...-SME-10
For DRVS-12 ... 40: With sensor bracket SL-DSM-B

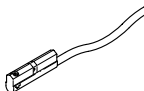
Accessories

Proximity switch SME for round slot, magnetic reed – For DSL-16 ... 40 Link [sme](#)

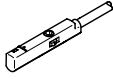
| | Type of mounting ¹⁾ | Switching output | Electrical connection | Cable length | Part no. | Type |
|--|--|--------------------|-----------------------|--------------|----------|----------------------------|
|  | Screw-clamped, Insertable in the slot from above | 3-wire N/O contact | Open end | 2.5 m | 551365 | SME-10M-DS-24V-E-2,5-L-OE |
| | | | Plug M8, A-coded | 0.3 m | 551367 | SME-10M-DS-24V-E-0,3-L-M8D |

1) With sensor bracket SL-DSM-B

Proximity sensor SMT for T-slot, magneto-resistive – for DSL-16... 40 (linear motion) Link [smt](#)

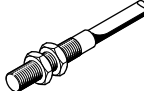
| | Type of mounting ¹⁾ | Switching element function | Electrical connection | Cable length | Part no. | Type |
|--|--|----------------------------|-----------------------|--------------|----------|---------------------------|
|  | Screw-clamped, Insertable in the slot from above | N/O contact | Open end | 2.5 m | 574338 | SMT-8M-A-NS-24V-E-2,5-OE |
| | | | | 0.3 m | 574335 | SMT-8M-A-PS-24V-E-2,5-OE |
| | | | Plug M8, A-coded | 0.3 m | 574334 | SMT-8M-A-PS-24V-E-0,3-M8D |
| | | | | 0.3 m | 574339 | SMT-8M-A-NS-24V-E-0,3-M8D |

1) For DRVS-6 ... 8: With mounting kit WSM-...-SME-10
For DRVS-12 ... 40: With sensor bracket SL-DSM-BProximity switch SME for round slot, magnetic reed – for DSL-16 ... 40 (linear movement) Link [sme](#)

| | Type of mounting ¹⁾ | Switching output | Electrical connection | Cable length | Part no. | Type |
|---|--|--------------------|-----------------------|--------------|----------|-------------------------|
|  | Screw-clamped, Insertable in the slot from above | 3-wire N/O contact | Open end | 2.5 m | 543862 | SME-8M-DS-24V-K-2,5-OE |
| | | | | 5 m | 543863 | SME-8M-DS-24V-K-5,0-OE |
| | | | Plug M8, A-coded | 0.3 m | 543861 | SME-8M-DS-24V-K-0,3-M8D |
| | | | | 2.5 m | 543872 | SME-8M-ZS-24V-K-2,5-OE |

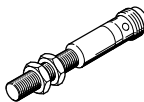
1) With sensor bracket SL-DSM-B

Proximity switch SIEN, inductive, with cable – for DSL-16 ... 40 Link [sien](#)

| | Type of mounting ¹⁾ | Switching output | Electrical connection | Cable length | Part no. | Type |
|--|--------------------------------|------------------|-----------------------|--------------|----------|-----------------|
|  | Via lock nut | PNP | Open end | 2.5 m | 150386 | SIEN-M8B-PS-K-L |
| | | | | | 150370 | SIEN-M5B-PS-K-L |

1) With sensor bracket SL-DSM-S

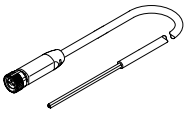
Proximity switch SIEN, inductive, with plug – For DSL-16 ... 40 Link [sien](#)

| | Type of mounting ¹⁾ | Switching output | Electrical connection | Part no. | Type |
|--|--------------------------------|------------------|-----------------------|----------|-----------------|
|  | Via lock nut | PNP | Plug M8, A-coded | 150387 | SIEN-M8B-PS-S-L |
| | | | | 150371 | SIEN-M5B-PS-S-L |

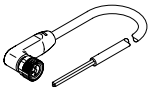
1) With sensor bracket SL-DSM-S

Accessories

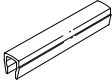
Connecting cables NEBA, straight

| | Electrical connection 1, connector system | Electrical connection 2, connector system | Electrical connection 2, number of connections/cores | Cable length | Part no. | Type |
|---|---|---|--|--------------|----------|-----------------------|
|  | M8x1, A-coded, to EN 61076-2-104 | Open end | 3 | 2.5 m | 8078223 | NEBA-M8G3-U-2.5-N-LE3 |
| | | | | 5 m | 8078224 | NEBA-M8G3-U-5-N-LE3 |

Connecting cables NEBA, angled

| | Electrical connection 1, connector system | Electrical connection 2, connector system | Electrical connection 2, number of connections/cores | Cable length | Part no. | Type |
|---|---|---|--|--------------|----------|-----------------------|
|  | M8x1, A-coded, to EN 61076-2-104 | Open end | 3 | 2.5 m | 8078230 | NEBA-M8W3-U-2.5-N-LE3 |
| | | | | 5 m | 8078231 | NEBA-M8W3-U-5-N-LE3 |

Slot cover ABP for T-slot

| | Description ¹⁾ | Packaging quantity [pieces] | Part no. | Type |
|--|---------------------------|-----------------------------|----------|---------|
|  | For size 16, 20 | 2 | 151681 | ABP-5 |
| | For size 25 ... 40 | | 151682 | ABP-8 |
| | For size 16 ... 40 | | 151680 | ABP-5-S |

1) ABP-... for profile slot
ABP-5-S for sensor slot