#### **Short-stroke cylinders ADVC/AEVC**



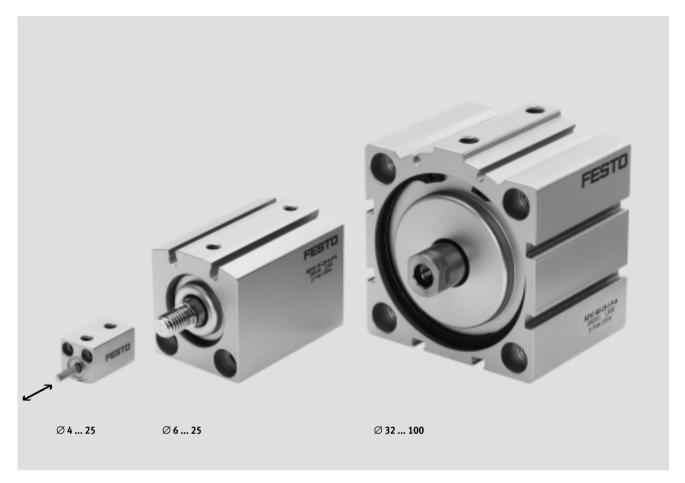


- Compact short-stroke cylinders with standard port pattern from  $\varnothing$  32 mm
- Optimised fitting space and height
- Adaptable housing and piston rod variants for individual applications

#### **Short-stroke cylinders ADVC/AEVC**

Key features





#### Brief description



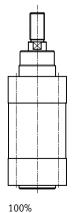
Stroke length 2.5 ... 25 mm

Short-stroke cylinders are ideal for clamping tasks with short strokes, e.g. in retaining devices.

The cylinders offer:

- Rapid response with applied pressure
- Large clamping forces in comparison to their size
- Minimal installation space
- Integrated sensor slots for contacting or contactless proximity sensors
- Mounting hole pattern to VDMA 24562 for  $\varnothing$  32 ... 100 mm

#### Fitting space comparison with 10 mm stroke



Standard cylinder DNC



45% Compact cylinder ADVU



33% Short-stroke cylinder ADVC

#### Sensor slots



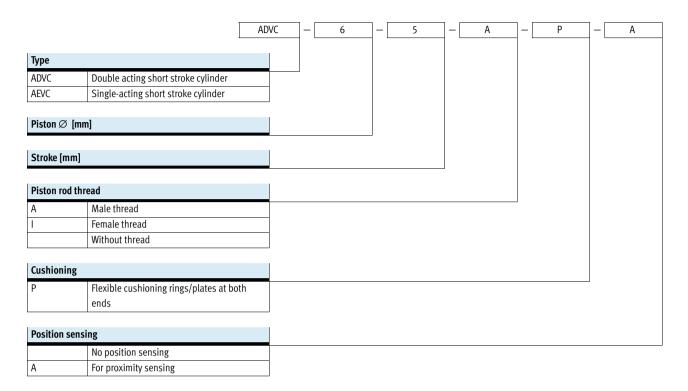
T-slot for proximity sensor SME/SMT-8



C-slot for proximity sensor SME/ SMT-10

# **Short-stroke cylinders ADVC/AEVC** Type codes





# Short-stroke cylinders ADVC/AEVC Product range overview



| Function | Version          | Туре                  | Piston $\varnothing$ [mm] | Stroke<br>[mm]    | Position sensing |
|----------|------------------|-----------------------|---------------------------|-------------------|------------------|
| Double-  | Without positio  | n sensing             |                           |                   |                  |
| acting   |                  | ADVC                  | 4                         | 2.5; 5            |                  |
|          |                  | Ø 4 25                | 6, 10, 12                 | 5, 10             | -                |
|          |                  |                       | 16, 20, 25                | 5, 10, 15, 20, 25 |                  |
|          |                  | <b>ADVC</b> Ø 32 100  | 32, 40                    | 5, 10, 15, 20, 25 | _                |
|          |                  | Ø 32 100              | 50, 63, 80, 100           | 10, 15, 20, 25    |                  |
|          | With position so | ensing                |                           |                   |                  |
|          |                  | <b>ADVCA</b> Ø 6 25   | 6, 10, 12                 | 5, 10             | _                |
|          |                  |                       | 16, 20, 25                | 5, 10, 15, 20, 25 | -                |
|          |                  | <b>ADVCA</b> Ø 32 100 | 32, 40                    | 5, 10, 15, 20, 25 |                  |
|          |                  | Ø 32 100              | 50, 63, 80, 100           | 10, 15, 20, 25    | _                |
| Single-  | Without positio  | n concing             |                           |                   |                  |
| acting   |                  | AEVC                  | 4                         | 2.5; 5            |                  |
|          |                  | Ø 4 25                | 6, 10, 12                 | 5, 10             | _                |
|          |                  | 1.5 7 25              | 16, 20, 25                | 5, 10, 25         |                  |
|          |                  | AEVC                  | 32                        | 5, 10, 25         |                  |
|          |                  | Ø 32 100              | 40, 50, 63, 80, 100       | 10, 25            |                  |
|          | With position se | ensing                |                           | ·                 | ·                |
|          |                  | AEVCA                 | 6, 10, 12                 | 5, 10             | _                |
|          |                  | Ø 6 25                | 16, 20, 25                | 5, 10, 25         | •                |
|          |                  | AEVCA                 | 32                        | 5, 10, 25         | _                |
|          |                  | Ø 32 100              | 40, 50, 63, 80, 100       | 10, 25            | •                |

## **Short-stroke cylinders ADVC/AEVC**Product range overview

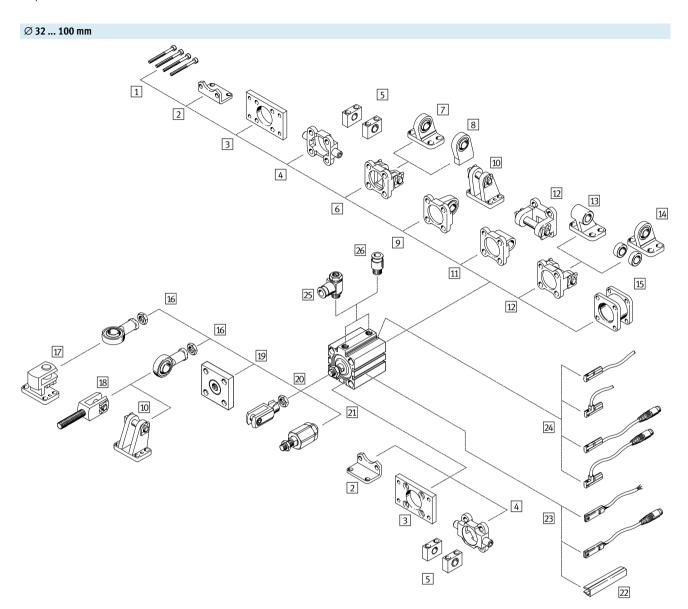


| Туре             | Piston rod       |                    |                | Cushioning | → Page/Internet |
|------------------|------------------|--------------------|----------------|------------|-----------------|
|                  | With male thread | With female thread | Without thread |            |                 |
| Without position | on sensing       |                    |                | ·          | ·               |
| ADVC             |                  | •                  | _              |            | 8               |
| Ø 4 25           | -                | From Ø 12          | Ø 4 12         | -          |                 |
| ADVC             |                  |                    |                |            | 8               |
| Ø 32 100         | •                | •                  | -              | •          |                 |
| With position s  | sensing          |                    |                |            |                 |
| ADVCA            |                  |                    | •              |            | 16              |
| Ø 6 25           | •                | From Ø 12          | Ø 6 12         | •          |                 |
| ADVCA            |                  |                    |                |            | 16              |
| Ø 32 100         | •                | •                  | -              | -          |                 |
| Without position | on sensing       |                    |                |            |                 |
| AEVC             |                  |                    |                |            | 24              |
| Ø 4 25           |                  | From Ø 12          | Ø 4 12         | •          |                 |
| AEVC             |                  |                    |                |            | 24              |
| Ø 32 100         |                  | -                  | -              | •          |                 |
| With position s  | sensing          |                    |                | 1          |                 |
| AEVCA            |                  | _                  | _              |            | 30              |
| Ø 6 25           | •                | <b>■</b> From Ø 12 | Ø 6 12         | -          |                 |
| AEVCA            |                  |                    |                |            | 30              |
| Ø 32 100         | -                | -                  | -              | -          |                 |

# Short-stroke cylinders ADVC/AEVC Peripherals overview







Ø 4 ... 25 mm Without position sensing Ø 6 ... 25 mm With position sensing





## **Short-stroke cylinders ADVC/AEVC**Peripherals overview



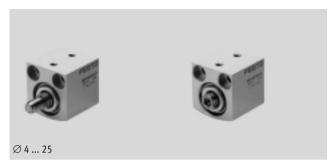
| Mou | nting attachments and access            |                                                                                               |                              |              |              |                 |
|-----|-----------------------------------------|-----------------------------------------------------------------------------------------------|------------------------------|--------------|--------------|-----------------|
|     |                                         | Description                                                                                   | $\mathbf{Piston}\varnothing$ | 1            | 1            | → Page/Internet |
|     |                                         |                                                                                               | 4, 6, 12                     | 10, 16 25    | 32 100       |                 |
| 1   | Mounting screws                         | Not included in scope of delivery                                                             | DIN 84                       | ■<br>DIN 912 | ■<br>DIN 912 | -               |
| 1   | Mounting screws for $\emptyset$ 80, 100 | Not included in scope of delivery                                                             | -                            | -            | •            | 45              |
| 2   | Foot mounting<br>HNC                    | For bearing and end caps                                                                      | -                            | -            | •            | 37              |
| 3   | Flange mounting<br>FNC                  | For bearing or end caps                                                                       | -                            | -            | •            | 38              |
| 4   | Trunnion flange ZNCF                    | For bearing or end caps                                                                       | -                            | -            |              | 39              |
| 5   | Trunnion support LNZG                   | -                                                                                             | _                            | _            | •            | 40              |
| 6   | Swivel flange<br>SNC                    | For end caps                                                                                  | _                            | _            |              | 41              |
| 7   | Clevis foot<br>LSNG                     | With spherical bearing                                                                        | _                            | _            | •            | 45              |
| 8   | Clevis foot<br>LSNSG                    | Weld-on, with spherical bearing                                                               | _                            | -            | •            | 45              |
| 9   | Swivel flange<br>SNCS                   | With spherical bearing for end caps                                                           | _                            | -            | •            | 43              |
| 10  | Clevis foot<br>LBG                      | -                                                                                             | _                            | _            | •            | 45              |
| 11  | Swivel flange<br>SNCL                   | For end caps                                                                                  | _                            | _            |              | 44              |
| 12  | Swivel flange<br>SNCB                   | For end caps                                                                                  | _                            | _            | •            | 42              |
| 13  | Clevis foot<br>LNG                      | -                                                                                             | _                            | _            | •            | 45              |
| 14  | Clevis foot<br>LSN                      | With spherical bearing                                                                        | _                            | _            | •            | 45              |
| 15  | Adapter kit DPNC                        | For connecting two cylinders with identical piston diameter to form a multi-position cylinder | -                            | -            | •            | 36              |
| 16  | Rod eye<br>SGS                          | With spherical bearing                                                                        | _                            | •            | •            | 46              |
| 17  | Right-angle clevis foot<br>LQG          | -                                                                                             | -                            | •            |              | 45              |
| 18  | Rod clevis<br>SGA                       | With male thread                                                                              | -                            | -            |              | 46              |
| 19  | Coupling piece<br>KSG                   | For compensating radial deviations                                                            | -                            | -            | •            | 46              |
| 20  | Rod clevis<br>SG                        | Permits a swivelling movement of the cylinder in one plane                                    | -                            | •            | •            | 46              |
| 21  | Self-aligning rod coupler<br>FK         | For compensating radial and angular deviations                                                | ■<br>Ø 12                    | •            |              | 46              |
| 22  | Slot cover<br>ABP-5-S                   | To protect the sensor cable and keep dirt out of the sensor slots                             | -                            | -            | •            | 47              |
| 23  | Proximity sensors SME/SMT-8             | Can be integrated in the cylinder profile barrel                                              | _                            | _            |              | 47              |
| 24  | Proximity sensors SME/SMT-10            | Can be integrated in the cylinder profile barrel                                              | -                            | •            | •            | 48              |
| 25  | One-way flow control valve GRLA         | To regulate speed                                                                             | •                            | •            | •            | 48              |
| 26  | Push-in fitting<br>QS                   | For connecting compressed air tubing with standard external diameters                         | •                            | •            | •            | quick star      |

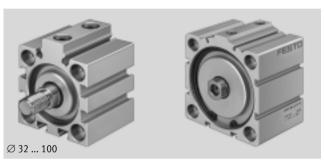
**FESTO** 



Diameter 4 ... 100 mm

Stroke length 2.5 ... 25 mm





| General technical data         |                                     |           |            |              |         |           |            |           |             |          |           |      |      |
|--------------------------------|-------------------------------------|-----------|------------|--------------|---------|-----------|------------|-----------|-------------|----------|-----------|------|------|
| $Piston\varnothing$            | 4                                   | 6         | 10         | 12           | 16      | 20        | 25         | 32        | 40          | 50       | 63        | 80   | 100  |
| Pneumatic connection           | M3                                  | М3        | M5         | M5           | M5      | M5        | M5         | G1/8      | G1/8        | G1/8     | G1/8      | G1/8 | G1/4 |
| Piston rod with female thread  | -                                   | -         | -          |              |         |           |            |           |             |          | -         |      |      |
| Piston rod with male thread    |                                     |           |            |              |         |           |            |           |             |          |           |      |      |
| Piston rod without thread      |                                     |           |            |              | -       | -         | -          | -         | -           | -        | -         | -    | -    |
| Operating medium               | Compi                               | essed air | in accord  | ance with    | ISO 857 | 3-1:2010  | [7:4:4]    |           |             |          |           |      |      |
| Note on operating/pilot medium | Opera                               | tion with | lubricated | l medium į   | ossible | (in which | case lubri | cated ope | ration will | always b | e require | d)   |      |
| Constructional design          | Piston                              |           |            |              |         |           |            |           |             |          |           |      |      |
|                                | Piston                              | rod       |            |              |         |           |            |           |             |          |           |      |      |
| Cushioning                     | Flexib                              | e cushior | ing rings, | /plates at l | oth end | S         |            |           |             |          |           |      |      |
| Type of mounting               | Via through-holes Via through-holes |           |            |              |         |           |            |           |             |          |           |      |      |
|                                | -                                   |           |            |              |         |           |            | Via acc   | essories    |          |           |      |      |
| Mounting position              | Any                                 |           |            |              |         |           |            |           |             |          |           |      |      |

| Operating conditions         |                   |       |       |     |      |    |    |    |        |    |    |    |    |     |
|------------------------------|-------------------|-------|-------|-----|------|----|----|----|--------|----|----|----|----|-----|
| $Piston\varnothing$          |                   | 4     | 6     | 10  | 12   | 16 | 20 | 25 | 32     | 40 | 50 | 63 | 80 | 100 |
| Operating pressure           | [bar]             | 2 8   | 1.5 8 | 1 8 | 1 10 |    |    |    | 0.6 10 | )  |    |    |    |     |
| Ambient temperature          | [°C]              | -20 · | +80   |     |      |    |    |    |        |    |    |    |    |     |
| Corrosion resistance class ( | CRC <sup>1)</sup> | 1     |       |     |      |    |    |    |        |    |    |    |    |     |

<sup>1)</sup> Corrosion resistance class CRC 1 to Festo standard FN 940070 Low corrosion stress. For dry indoor applications or transport and storage protection. Also applies to parts behind covers, in the non-visible interior area, and parts which are covered in the application (e.g. drive trunnions).



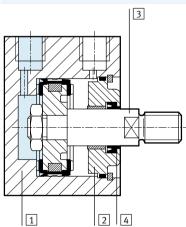
| Forces [N] and impact energy [J]      |       |       |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------------------|-------|-------|------|------|------|------|------|------|------|------|------|------|------|
| Piston Ø                              | 4     | 6     | 10   | 12   | 16   | 20   | 25   | 32   | 40   | 50   | 63   | 80   | 100  |
| Theoretical force at 6 bar, advancing | 7.5   | 17    | 47   | 68   | 121  | 189  | 295  | 483  | 754  | 1178 | 1870 | 3016 | 4712 |
| Theoretical force at 6 bar, returning | 5.7   | 13    | 40   | 51   | 91   | 141  | 247  | 415  | 686  | 1056 | 1750 | 2847 | 4418 |
| Max. impact energy at end positions   | 0.003 | 0.005 | 0.03 | 0.06 | 0.10 | 0.14 | 0.18 | 0.26 | 0.36 | 0.60 | 0.64 | 0.90 | 1.20 |

| Product weight [g] |        |      |    |    |     |     |     |     |     |     |     |      |      |
|--------------------|--------|------|----|----|-----|-----|-----|-----|-----|-----|-----|------|------|
| Stroke [mm]        | Piston | Ø    |    |    |     |     |     |     |     |     |     |      |      |
|                    | 4      | 6    | 10 | 12 | 16  | 20  | 25  | 32  | 40  | 50  | 63  | 80   | 100  |
| 2.5                | 4      | -    | -  | -  | -   | -   | -   | -   | -   | -   | -   | -    | -    |
| 5                  | 4.5    | 12.5 | 23 | 34 | 68  | 112 | 135 | 280 | 350 | -   | -   | -    | -    |
| 10                 | -      | 16   | 26 | 42 | 76  | 124 | 150 | 300 | 380 | 470 | 600 | 1570 | 2480 |
| 15                 | -      | -    | -  | -  | 84  | 136 | 165 | 320 | 410 | 505 | 650 | 1655 | 2570 |
| 20                 | -      | -    | -  | -  | 92  | 148 | 180 | 340 | 440 | 540 | 700 | 1740 | 2660 |
| 25                 | -      | -    | -  | -  | 100 | 160 | 195 | 360 | 470 | 575 | 750 | 1825 | 2750 |

| Moving load [g] |        |     |     |     |    |    |    |    |    |     |     |     |     |
|-----------------|--------|-----|-----|-----|----|----|----|----|----|-----|-----|-----|-----|
| Stroke [mm]     | Piston | Ø   |     |     |    |    |    |    |    |     |     |     |     |
|                 | 4      | 6   | 10  | 12  | 16 | 20 | 25 | 32 | 40 | 50  | 63  | 80  | 100 |
| 2.5             | 0.2    | -   | -   | -   | -  | -  | -  | -  | -  | -   | -   | -   | -   |
| 5               | 0.25   | 1.2 | 2.8 | 6.6 | 11 | 22 | 27 | 46 | 69 | -   | -   | -   | -   |
| 10              | _      | 1.5 | 3.3 | 7.7 | 13 | 25 | 30 | 51 | 74 | 127 | 178 | 339 | 719 |
| 15              | _      | -   | -   | -   | 15 | 28 | 33 | 56 | 79 | 135 | 186 | 351 | 739 |
| 20              | _      | -   | -   | -   | 17 | 31 | 36 | 61 | 84 | 143 | 194 | 363 | 759 |
| 25              | _      | -   | -   | -   | 19 | 34 | 39 | 66 | 89 | 151 | 202 | 375 | 779 |

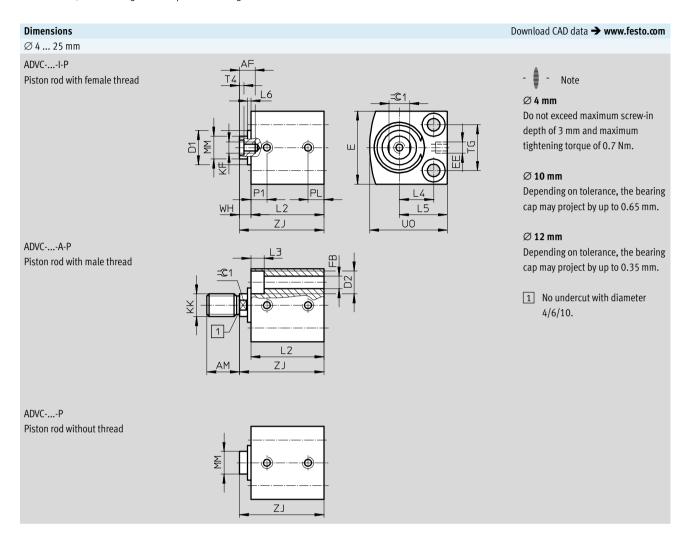
#### Materials

Sectional view



| Short-stro | oke cylinder  | Ø 4                     | Ø 6 100                 |
|------------|---------------|-------------------------|-------------------------|
| 1 Cylin    | nder barrel   | Anodised aluminium      | Anodised aluminium      |
| 2 Cove     | er cap        | Anodised aluminium      | Anodised aluminium      |
| 3 Pisto    | ton rod       | Anodised aluminium      | High-alloy steel        |
| 4 Rod      | l seal        | Nitrile rubber          | Polyurethane            |
| Note       | e on material | Free of copper and PTFE | Free of copper and PTFE |



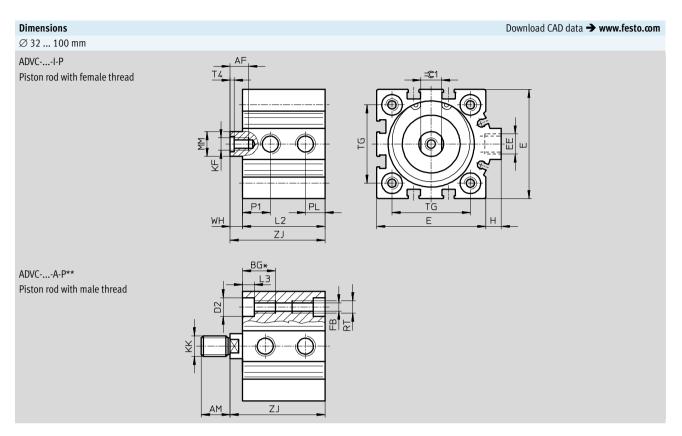




| Ø    | Stroke                    | AF   | AM   | D1<br>Ø | D2<br>Ø           | E    | EE | FB<br>Ø | KF | KK | L2                                   | L3  |
|------|---------------------------|------|------|---------|-------------------|------|----|---------|----|----|--------------------------------------|-----|
| [mm] | [mm]                      | min. | -0.5 | max.    |                   | max. |    |         |    |    | +0.2                                 |     |
| 4    | 2.5                       | _    | 6    | -       | 3.3 +0.1          | 10   | M3 | 1.8     | -  | M2 | 13<br>15.5                           | 1.8 |
| 6    | 5<br>10                   | _    | 6    | -       | 5 +0.1            | 13   | M3 | 2.9     | -  | M3 | 16<br>21                             | 2.9 |
| 10   | 5<br>10                   | _    | 8    | 7.5     | 5.8 +0.1          | 18   | M5 | 3.4     | -  | M4 | 21<br>24                             | 3.4 |
| 12   | 5<br>10                   | - 8  | 8    | 10.7    | 6 H13             | 20   | M5 | 3.4     | M3 | M5 | 23<br>28                             | 3.4 |
| 16   | 5<br>10<br>15<br>20<br>25 | 10   | 12   | -       | 8 H13             | 25   | M5 | 4.5     | M4 | M6 | 23<br>28<br>33<br>38<br>43           | 4.6 |
| 20   | 5<br>10<br>15<br>20<br>25 | 12   | 12   | -       | 10 <sup>H13</sup> | 32   | M5 | 5.5     | M5 | M8 | 27<br>32<br>37<br>42<br>47           | 5.7 |
| 25   | 5<br>10<br>15<br>20<br>25 | 12   | 12   | -       | 10 <sup>H13</sup> | 38   | M5 | 5.5     | M5 | M8 | 27.5<br>32.5<br>37.5<br>42.5<br>47.5 | 5.7 |

| Ø    | Stroke | L4   | L5   | L6   | MM<br>Ø | P1   | PL   | T4  | TG   | UO   | WH  | ZJ   | =©1 |
|------|--------|------|------|------|---------|------|------|-----|------|------|-----|------|-----|
| [mm] | [mm]   |      |      | max. | ~       |      |      |     | ±0.1 | max. |     | ±0.8 |     |
| 4    | 2.5    | 4    | 6.5  | _    | 2       | 3.7  | 3.2  | _   | 5.8  | 10   | 1   | 14   | _   |
|      | 5      |      |      |      |         |      |      |     |      |      |     | 16.5 |     |
| 6    | 5      | 6    | 9    | _    | 3       | 4.7  | 3    | _   | 7    | 14   | 1   | 17   | _   |
|      | 10     |      |      |      | ,       |      |      |     |      | - '  | -   | 22   |     |
| 10   | 5      | 8    | 11.5 | 0.7  | 4       | 5.2  | 5.2  | _   | 11   | 19   | 1.5 | 22.5 | _   |
|      | 10     | Ŭ    | 1115 | 01,  | ,       | 6    | 5.5  |     |      | /    | 113 | 25.5 |     |
| 12   | 5      | 9    | 13   | 0.4  | 6       | 5.75 | 5.75 | 1.5 | 13   | 22   | 4   | 27   | 5   |
|      | 10     |      | 15   | 0.4  | U       | 9    | 6    | 1.5 | 15   | 22   | 4   | 32   | ,   |
| 16   | 5      |      |      |      |         | 6    |      |     |      |      |     | 27   |     |
|      | 10     |      |      |      |         |      |      |     |      |      |     | 32   |     |
|      | 15     | 11.5 | 16.5 | -    | 8       | 7.5  | 6    | 2   | 15   | 27   | 4   | 37   | 7   |
|      | 20     |      |      |      |         | 7.5  |      |     |      |      |     | 42   |     |
|      | 25     |      |      |      |         |      |      |     |      |      |     | 47   |     |
| 20   | 5      |      |      |      |         |      |      |     |      |      |     | 32   |     |
|      | 10     |      |      |      |         |      |      |     |      |      |     | 37   |     |
|      | 15     | 15   | 21   | _    | 10      | 7.5  | 7    | 2   | 20   | 34   | 5   | 42   | 9   |
|      | 20     |      |      |      |         |      |      |     |      |      |     | 47   |     |
|      | 25     |      |      |      |         |      |      |     |      |      |     | 52   |     |
| 25   | 5      |      |      |      |         |      |      |     |      |      |     | 32.5 |     |
|      | 10     |      |      |      |         |      |      |     |      |      |     | 37.5 |     |
|      | 15     | 15.5 | 21.5 | _    | 10      | 8    | 6.5  | 2   | 26   | 37   | 5   | 42.5 | 9   |
|      | 20     |      |      |      |         |      |      |     |      |      |     | 47.5 |     |
|      | 25     |      |      |      |         |      |      |     |      |      |     | 52.5 |     |

**FESTO** 



| Ø    | AF   | AM   | BG*  | D2<br>Ø | E    | EE   | FB<br>Ø | Н   | KF  | KK       |
|------|------|------|------|---------|------|------|---------|-----|-----|----------|
| [mm] | min. | -0.5 | min. | F9      | max. |      |         |     |     |          |
| 32   | 12   | 14   | 21.7 | 9       | 45   | G1/8 | 5.2     | 7   | M6  | M10x1.25 |
| 40   | 12   | 14   | 21.7 | 9       | 53.5 | G1/8 | 5.2     | 7   | M6  | M10x1.25 |
| 50   | 16   | 16   | 22.8 | 11      | 63.5 | G1/8 | 6.8     | 7   | M8  | M12x1.25 |
| 63   | 16   | 16   | 22.8 | 11      | 75   | G1/8 | 6.8     | 7.5 | M8  | M12x1.25 |
| 80   | 20   | 22   | 25   | 14      | 93   | G1/8 | 8.5     | 7   | M10 | M16x1.5  |
| 100  | 24   | 28   | 25   | 14      | 113  | G1/4 | 8.5     | 13  | M12 | M20x1.5  |

Continuous thread with short overall length Nut for piston rod thread included in scope of delivery



| Ø    | Stroke | L2   | L3  | MM<br>Ø | P1   | PL   | RT   | T4  | TG   | WH | ZJ   | =©1 |
|------|--------|------|-----|---------|------|------|------|-----|------|----|------|-----|
| [mm] | [mm]   | +0.2 |     |         |      |      |      |     | ±0.1 |    | ±0.8 |     |
| 32   | 5      | 34   |     |         |      |      |      |     |      |    | 40   |     |
|      | 10     | 39   |     |         |      |      |      |     |      |    | 45   |     |
|      | 15     | 44   | 5.7 | 12      | 9    | 8.5  | M6   | 2.6 | 32.5 | 6  | 50   | 10  |
|      | 20     | 49   |     |         |      |      |      |     |      |    | 55   |     |
|      | 25     | 54   |     |         |      |      |      |     |      |    | 60   |     |
| 40   | 5      | 34.5 |     |         |      |      |      |     |      |    | 40.5 |     |
|      | 10     | 39.5 |     |         |      |      |      |     |      |    | 45.5 |     |
|      | 15     | 44.5 | 5.7 | 12      | 11   | 9    | M6   | 2.6 | 38   | 6  | 50.5 | 10  |
|      | 20     | 49.5 |     |         |      |      |      |     |      |    | 55.5 |     |
|      | 25     | 54.5 |     |         |      |      |      |     |      |    | 60.5 |     |
| 50   | 10     | 38   |     |         |      |      |      |     |      |    | 46   |     |
|      | 15     | 43   | 6.8 | 16      | 11.3 | 9.5  | M8   | 3.3 | 46.5 | 8  | 51   | 13  |
|      | 20     | 48   | 0.0 | 10      | 11.5 | 9.5  | IVIO | 5.5 | 40.5 | 0  | 56   | 1)  |
|      | 25     | 53   |     |         |      |      |      |     |      |    | 61   |     |
| 63   | 10     | 45   |     |         |      |      |      |     |      |    | 53   |     |
|      | 15     | 50   | 6.8 | 16      | 12.5 | 11.5 | M8   | 3.3 | 56.5 | 8  | 58   | 13  |
|      | 20     | 55   | 0.0 | 10      | 12.5 | 11.5 | IVIO | ر.ر | 50.5 | 0  | 63   | 1)  |
|      | 25     | 60   |     |         |      |      |      |     |      |    | 68   |     |
| 80   | 10     | 50   |     |         |      |      |      |     |      |    | 58   |     |
|      | 15     | 55   | 9   | 20      | 15   | 15   | M10  | 4.7 | 72   | 8  | 63   | 17  |
|      | 20     | 60   | , , | 20      | 15   | 15   | WITO | 4.7 | 12   | 0  | 68   | 1/  |
|      | 25     | 65   |     |         |      |      |      |     |      |    | 73   |     |
| 100  | 10     | 59   |     |         |      |      |      |     |      |    | 69   |     |
|      | 15     | 64   | 9   | 25      | 16.5 | 19   | M10  | 6.1 | 89   | 10 | 74   | 22  |
|      | 20     | 69   |     | 25      | 10.5 | 19   | MITO | 0.1 | 07   | 10 | 79   | 22  |
|      | 25     | 74   | 1   |         |      |      |      |     |      |    | 84   |     |



| ering data | Piston ∅ | Stroke | Piston rod  |                | Piston rod |                | Piston rod |              |
|------------|----------|--------|-------------|----------------|------------|----------------|------------|--------------|
|            |          |        | with male t | hread          | with femal |                | without th |              |
|            | [mm]     | [mm]   | Part No.    | Туре           | Part No.   | Туре           | Part No.   | Туре         |
|            | 4        | 2.5    | 188054      | ADVC-4-2,5-A-P | -          |                | 526897     | ADVC-4-2,5-P |
|            |          | 5      | 188055      | ADVC-4-5-A-P   |            |                | 526898     | ADVC-4-5-P   |
|            | 6        | 5      | 188066      | ADVC-6-5-A-P   | -          |                | 526899     | ADVC-6-5-P   |
|            |          | 10     | 188067      | ADVC-6-10-A-P  |            |                | 526900     | ADVC-6-10-P  |
|            | 10       | 5      | 188078      | ADVC-10-5-A-P  | -          |                | 526903     | ADVC-10-5-P  |
|            |          | 10     | 188079      | ADVC-10-10-A-P |            |                | 526904     | ADVC-10-10-P |
|            | 12       | 5      | 188094      | ADVC-12-5-A-P  | 188090     | ADVC-12-5-I-P  | 530568     | ADVC-12-5-P  |
|            |          | 10     | 188095      | ADVC-12-10-A-P | 188091     | ADVC-12-10-I-P | 530569     | ADVC-12-10-P |
|            | 16       | 5      | 188123      | ADVC-16-5-A-P  | 188113     | ADVC-16-5-I-P  |            |              |
|            | 10       | 10     | 188124      | ADVC-16-10-A-P | 188114     | ADVC-16-10-I-P | 1          |              |
|            |          | 15     | 188125      | ADVC-16-15-A-P | 188115     | ADVC-16-15-I-P |            |              |
|            |          | 20     | 188126      | ADVC-16-20-A-P | 188116     | ADVC-16-20-I-P |            |              |
|            |          | 25     | 188127      | ADVC-16-25-A-P | 188117     | ADVC-16-25-I-P |            |              |
|            | 20       | 5      | 188155      | ADVC-20-5-A-P  | 188145     | ADVC-20-5-I-P  |            |              |
|            |          | 10     | 188156      | ADVC-20-10-A-P | 188146     | ADVC-20-10-I-P | 1          |              |
|            |          | 15     | 188157      | ADVC-20-15-A-P | 188147     | ADVC-20-15-I-P | 1          |              |
|            |          | 20     | 188158      | ADVC-20-20-A-P | 188148     | ADVC-20-20-I-P | 1          |              |
|            |          | 25     | 188159      | ADVC-20-25-A-P | 188149     | ADVC-20-25-I-P |            |              |
|            | 25       | 5      | 188187      | ADVC-25-5-A-P  | 188177     | ADVC-25-5-I-P  |            |              |
|            |          | 10     | 188188      | ADVC-25-10-A-P | 188178     | ADVC-25-10-I-P | 1          |              |
|            |          | 15     | 188189      | ADVC-25-15-A-P | 188179     | ADVC-25-15-I-P | 1          |              |
|            |          | 20     | 188190      | ADVC-25-20-A-P | 188180     | ADVC-25-20-I-P | 1 1        |              |
|            |          | 25     | 188191      | ADVC-25-25-A-P | 188181     | ADVC-25-25-I-P | 7          |              |



| <b>Ordering da</b> t<br>Type | Piston Ø   | Stroke | Piston rod |                 |   | Piston rod |                 |
|------------------------------|------------|--------|------------|-----------------|---|------------|-----------------|
| ype                          | r istoii Ø | JUNE   | with male  |                 |   | with fema  |                 |
|                              | [mm]       | [mm]   | Part No.   | Туре            |   | Part No.   | Туре            |
| <i>∕</i> ⊗                   | 32         | 5      | 188219     | ADVC-32-5-A-P   |   | 188209     | ADVC-32-5-I-P   |
|                              |            | 10     | 188220     | ADVC-32-10-A-P  |   | 188210     | ADVC-32-10-I-P  |
|                              | 7          | 15     | 188221     | ADVC-32-15-A-P  |   | 188211     | ADVC-32-15-I-P  |
| Ť                            |            | 20     | 188222     | ADVC-32-20-A-P  |   | 188212     | ADVC-32-20-I-P  |
|                              |            | 25     | 188223     | ADVC-32-25-A-P  |   | 188213     | ADVC-32-25-I-P  |
|                              | 40         | 5      | 188247     | ADVC-40-5-A-P   |   | 188237     | ADVC-40-5-I-P   |
|                              | 40         | 10     | 188248     | ADVC-40-10-A-P  |   | 188238     | ADVC-40-10-I-P  |
|                              |            | 15     | 188249     | ADVC-40-15-A-P  |   | 188239     | ADVC-40-15-I-P  |
|                              |            | 20     | 188250     | ADVC-40-20-A-P  |   | 188240     | ADVC-40-20-I-P  |
|                              |            | 25     | 188251     | ADVC-40-25-A-P  |   | 188241     | ADVC-40-25-I-P  |
|                              |            |        |            |                 |   |            |                 |
|                              | 50         | 10     | 188272     | ADVC-50-10-A-P  |   | 188264     | ADVC-50-10-I-P  |
|                              |            | 15     | 188273     | ADVC-50-15-A-P  |   | 188265     | ADVC-50-15-I-P  |
|                              |            | 20     | 188274     | ADVC-50-20-A-P  |   | 188266     | ADVC-50-20-I-P  |
|                              |            | 25     | 188275     | ADVC-50-25-A-P  |   | 188267     | ADVC-50-25-I-P  |
|                              |            |        |            |                 |   |            |                 |
|                              | 63         | 10     | 188296     | ADVC-63-10-A-P  |   | 188288     | ADVC-63-10-I-P  |
|                              |            | 15     | 188297     | ADVC-63-15-A-P  |   | 188289     | ADVC-63-15-I-P  |
|                              |            | 20     | 188298     | ADVC-63-20-A-P  |   | 188290     | ADVC-63-20-I-P  |
|                              |            | 25     | 188299     | ADVC-63-25-A-P  |   | 188291     | ADVC-63-25-I-P  |
|                              | 80         | 10     | 188320     | ADVC-80-10-A-P  |   | 188312     | ADVC-80-10-I-P  |
|                              |            | 15     | 188321     | ADVC-80-15-A-P  |   | 188313     | ADVC-80-15-I-P  |
|                              |            | 20     | 188322     | ADVC-80-20-A-P  |   | 188314     | ADVC-80-20-I-P  |
|                              |            | 25     | 188323     | ADVC-80-25-A-P  |   | 188315     | ADVC-80-25-I-P  |
|                              |            |        |            |                 |   |            |                 |
|                              | 100        | 10     | 188344     | ADVC-100-10-A-P |   | 188336     | ADVC-100-10-I-P |
|                              |            | 15     | 188345     | ADVC-100-15-A-P |   | 188337     | ADVC-100-15-I-P |
|                              |            | 20     | 188346     | ADVC-100-20-A-P |   | 188338     | ADVC-100-20-I-P |
|                              |            | 25     | 188347     | ADVC-100-25-A-P | ] | 188339     | ADVC-100-25-I-P |

**FESTO** 

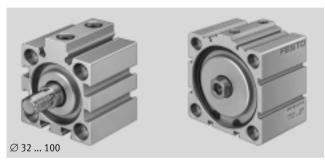




Diameter 6 ... 100 mm







| General technical data         |                                                                                                        |            |             |            |           |           |         |            |      |      |      |      |  |  |
|--------------------------------|--------------------------------------------------------------------------------------------------------|------------|-------------|------------|-----------|-----------|---------|------------|------|------|------|------|--|--|
| Piston Ø                       | 6                                                                                                      | 10         | 12          | 16         | 20        | 25        | 32      | 40         | 50   | 63   | 80   | 100  |  |  |
| Pneumatic connection           | M3                                                                                                     | M5         | M5          | M5         | M5        | M5        | G1/8    | G1/8       | G1/8 | G1/8 | G1/8 | G1/4 |  |  |
| Piston rod with female thread  | -                                                                                                      | -          |             |            |           |           |         |            |      |      |      |      |  |  |
| Piston rod with male thread    |                                                                                                        |            |             |            |           |           |         |            |      |      |      |      |  |  |
| Piston rod without thread      | ■ ■                                                                                                    |            |             |            |           |           |         |            |      |      |      |      |  |  |
| Operating medium               | Compre                                                                                                 | ssed air i | n accordan  | ce with IS | 0 8573-1: | 2010 [7:4 | :4]     | •          |      |      | •    |      |  |  |
| Note on operating/pilot medium | Operation with lubricated medium possible (in which case lubricated operation will always be required) |            |             |            |           |           |         |            |      |      |      |      |  |  |
| Constructional design          | Piston                                                                                                 |            |             |            |           |           |         |            |      |      |      |      |  |  |
|                                | Piston re                                                                                              | od         |             |            |           |           |         |            |      |      |      |      |  |  |
| Cushioning                     | Flexible                                                                                               | cushioni   | ng rings/pl | ates at bo | th ends   |           |         |            |      |      |      |      |  |  |
| Position sensing               | For prox                                                                                               | imity sen  | sing        |            |           |           |         |            |      |      |      |      |  |  |
| Type of mounting               | Via thro                                                                                               | ugh-hole:  | 5           |            |           |           | Via thr | ough-holes | 5    |      |      |      |  |  |
|                                | -                                                                                                      |            |             |            |           |           | Via acc | essories   |      |      |      |      |  |  |
| Mounting position              | Any                                                                                                    |            |             |            |           |           |         |            |      |      |      |      |  |  |

| Operating conditions       |       |        |            |             |            |            |       |        |    |    |    |    |     |
|----------------------------|-------|--------|------------|-------------|------------|------------|-------|--------|----|----|----|----|-----|
| Piston $\varnothing$       |       | 6      | 10         | 12          | 16         | 20         | 25    | 32     | 40 | 50 | 63 | 80 | 100 |
| Operating pressure         | [bar] | 1.5 8  | 1 8        | 1 10        |            |            |       | 0.6 10 | )  |    |    |    |     |
| Ambient temperature        | [°C]  | -20 +8 | 80 (note o | perating ra | nge of pro | ximity sen | sors) |        |    |    |    |    |     |
| Corrosion resistance class | 1     |        |            |             |            |            |       |        |    |    |    |    |     |

<sup>1)</sup> Corrosion resistance class CRC 1 to Festo standard FN 940070
Low corrosion stress. For dry indoor applications or transport and storage protection. Also applies to parts behind covers, in the non-visible interior area, and parts which are covered in the application (e.g. drive trunnions).



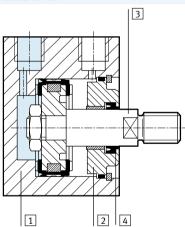
| Forces [N] and impact energy [J]      |       |      |      |      |      |      |      |      |      |      |      |      |
|---------------------------------------|-------|------|------|------|------|------|------|------|------|------|------|------|
| Piston ∅                              | 6     | 10   | 12   | 16   | 20   | 25   | 32   | 40   | 50   | 63   | 80   | 100  |
| Theoretical force at 6 bar, advancing | 17    | 47   | 68   | 121  | 189  | 295  | 483  | 754  | 1178 | 1870 | 3016 | 4712 |
| Theoretical force at 6 bar, returning | 13    | 40   | 51   | 91   | 141  | 247  | 415  | 686  | 1056 | 1750 | 2847 | 4418 |
| Max. impact energy at end positions   | 0.005 | 0.03 | 0.06 | 0.10 | 0.14 | 0.18 | 0.26 | 0.36 | 0.60 | 0.64 | 0.90 | 1.20 |

| Product weight [g] |        |    |    |     |     |     |     |     |     |     |      |      |
|--------------------|--------|----|----|-----|-----|-----|-----|-----|-----|-----|------|------|
| Stroke [mm]        | Piston | Ø  |    |     |     |     |     |     |     |     |      |      |
|                    | 6      | 10 | 12 | 16  | 20  | 25  | 32  | 40  | 50  | 63  | 80   | 100  |
| 5                  | 20     | 37 | 70 | 98  | 162 | 195 | 320 | 460 | -   | -   | -    | -    |
| 10                 | 23     | 45 | 79 | 106 | 174 | 210 | 340 | 490 | 630 | 710 | 1940 | 2970 |
| 15                 | -      | -  | -  | 114 | 186 | 225 | 360 | 520 | 665 | 760 | 2025 | 3060 |
| 20                 | -      | -  | -  | 122 | 198 | 240 | 380 | 550 | 700 | 810 | 2110 | 3150 |
| 25                 | -      | -  | -  | 130 | 210 | 255 | 400 | 580 | 735 | 860 | 2195 | 3240 |

| Moving load [g] |        |     |     |    |    |    |    |    |     |     |     |     |
|-----------------|--------|-----|-----|----|----|----|----|----|-----|-----|-----|-----|
| Stroke [mm]     | Piston | Ø   |     |    |    |    |    |    |     |     |     |     |
|                 | 6      | 10  | 12  | 16 | 20 | 25 | 32 | 40 | 50  | 63  | 80  | 100 |
| 5               | 1.7    | 3.2 | 8.5 | 15 | 26 | 32 | 50 | 66 | -   | -   | -   | -   |
| 10              | 2      | 3.7 | 9.6 | 17 | 29 | 35 | 55 | 71 | 116 | 158 | 289 | 555 |
| 15              | -      | -   | -   | 19 | 32 | 38 | 60 | 76 | 124 | 166 | 301 | 575 |
| 20              | -      | -   | -   | 21 | 35 | 41 | 65 | 81 | 132 | 174 | 313 | 595 |
| 25              | -      | -   | _   | 23 | 38 | 44 | 70 | 86 | 140 | 182 | 325 | 615 |

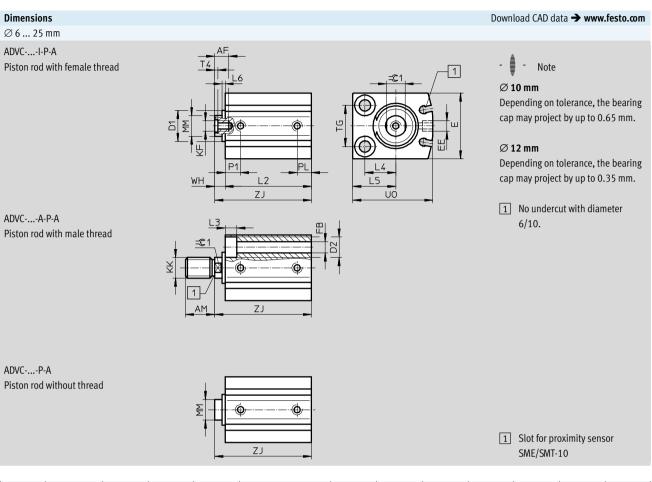
#### Materials

Sectional view



| Short-stroke cylinder |                         |
|-----------------------|-------------------------|
| Cylinder barrel       | Anodised aluminium      |
| 2 Cover cap           | Anodised aluminium      |
| 3 Piston rod          | High-alloy steel        |
| 4 Rod seal            | Polyurethane            |
| Note on material      | Free of copper and PTFE |

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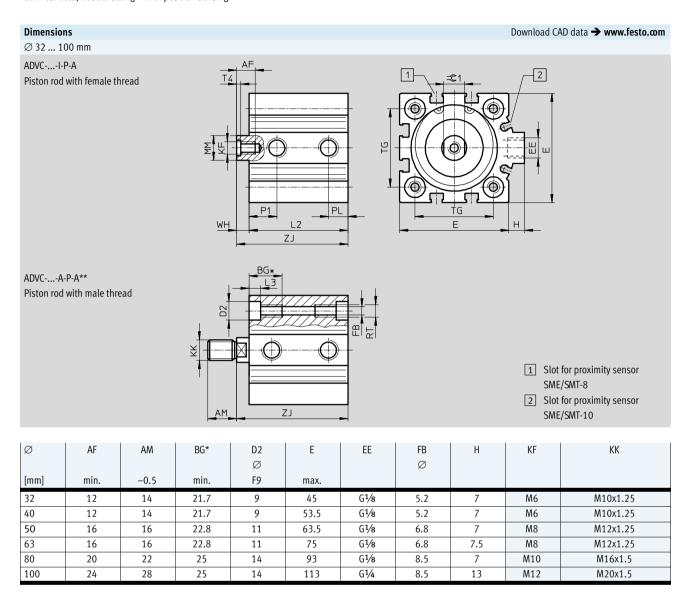


| Ø    | Stroke | AF   | AM   | D1<br>Ø | D2<br>Ø  | E    | EE   | FB<br>∅ | KF   | KK   | L2   | L3  |
|------|--------|------|------|---------|----------|------|------|---------|------|------|------|-----|
| [mm] | [mm]   | min. | -0.5 | max.    |          | max. |      |         |      |      | +0.2 |     |
| 6    | 5      |      |      |         | F . O 1  | 1.6  | Ma   | 2.0     |      | Ma   | 25.5 | 2.0 |
|      | 10     | _    | 6    | _       | 5 +0.1   | 16   | M3   | 2.9     | _    | M3   | 30.5 | 2.9 |
| 10   | 5      | _    | 8    | 7.5     | 5.8 +0.1 | 21   | M5   | 3.4     | _    | M4   | 27   | 3.4 |
|      | 10     |      | 0    | 7.5     | 5.6 +0.1 | 21   | IVI  | 5.4     | _    | 1414 | 32   | 7.4 |
| 12   | 5      | 8    | 8    | 10.7    | 6 H13    | 24   | M5   | 3.4     | M3   | M5   | 36   | 3.4 |
|      | 10     | 0    | 0    | 10.7    | 01115    | 24   | IVID | 2.4     | IVID | IVID | 41   | 7.4 |
| 16   | 5      |      |      |         |          |      |      |         |      |      | 35   |     |
|      | 10     |      |      |         |          |      |      |         |      |      | 40   |     |
|      | 15     | 10   | 12   | -       | 8 H13    | 28   | M5   | 4.5     | M4   | M6   | 45   | 4.6 |
|      | 20     |      |      |         |          |      |      |         |      |      | 50   |     |
|      | 25     |      |      |         |          |      |      |         |      |      | 55   |     |
| 20   | 5      |      |      |         |          |      |      |         |      |      | 37   |     |
|      | 10     |      |      |         |          |      |      |         |      |      | 42   |     |
|      | 15     | 12   | 12   | -       | 10 H13   | 32   | M5   | 5.5     | M5   | M8   | 47   | 5.7 |
|      | 20     |      |      |         |          |      |      |         |      |      | 52   |     |
|      | 25     |      |      |         |          |      |      |         |      |      | 57   |     |
| 25   | 5      |      |      |         |          |      |      |         |      |      | 37   |     |
|      | 10     |      |      |         |          |      |      |         |      |      | 42   |     |
|      | 15     | 12   | 12   | -       | 10 H13   | 38   | M5   | 5.5     | M5   | M8   | 47   | 5.7 |
|      | 20     |      |      |         |          |      |      |         |      |      | 52   |     |
|      | 25     |      |      |         |          |      |      |         |      |      | 57   |     |



| Ø    | Stroke | L4   | L5   | L6   | MM<br>Ø | P1  | PL | T4  | TG   | UO   | WH  | ZJ   | =©1 |
|------|--------|------|------|------|---------|-----|----|-----|------|------|-----|------|-----|
| [mm] | [mm]   |      |      | max. |         |     |    |     | ±0.1 | max. |     | ±0.8 |     |
| 6    | 5      | 5    | 8    |      | 2       | F 2 | 2  |     | 10   | 1.6  | 1   | 26.5 |     |
|      | 10     | )    | 8    | _    | 3       | 5.2 | 3  | _   | 10   | 16   | 1   | 31.5 | _   |
| 10   | 5      | 7    | 10.5 | 0.7  | 4       | 6   | 6  | _   | 14   | 22   | 1.5 | 28.5 | _   |
|      | 10     | ,    | 10.5 | 0.7  | 4       | U   | U  |     | 14   | 22   | 1.5 | 33.5 |     |
| 12   | 5      | 8    | 12   | 0.4  | 6       | 7   | 6  | 1.5 | 16   | 26   | 4   | 40   | - 5 |
|      | 10     | · ·  | 12   | 0.4  | U       | ,   | U  | 1.5 | 10   | 20   | 4   | 45   | ,   |
| 16   | 5      |      |      |      |         |     |    |     |      |      |     | 39   |     |
|      | 10     |      |      |      |         |     |    |     |      |      |     | 44   |     |
|      | 15     | 12   | 17   | -    | 8       | 8   | 6  | 2   | 18   | 32   | 4   | 49   | 7   |
|      | 20     |      |      |      |         |     |    |     |      |      |     | 54   |     |
|      | 25     |      |      |      |         |     |    |     |      |      |     | 59   |     |
| 20   | 5      |      |      |      |         |     |    |     |      |      |     | 42   |     |
|      | 10     |      |      |      |         |     |    |     |      |      |     | 47   |     |
|      | 15     | 15   | 21   | -    | 10      | 7.5 | 7  | 2   | 20   | 39   | 5   | 52   | 9   |
|      | 20     |      |      |      |         |     |    |     |      |      |     | 57   |     |
|      | 25     |      |      |      |         |     |    |     |      |      |     | 62   |     |
| 25   | 5      |      |      |      |         |     |    |     |      |      |     | 42   |     |
|      | 10     |      |      |      |         |     |    |     |      |      |     | 47   |     |
|      | 15     | 15.5 | 21.5 | -    | 10      | 10  | 6  | 2   | 26   | 42   | 5   | 52   | 9   |
|      | 20     |      |      |      |         |     |    |     |      |      |     | 57   |     |
|      | 25     |      |      |      |         |     |    |     |      |      |     | 62   |     |

**FESTO** 



Continuous thread with short overall length

<sup>\*\*</sup> Nut for piston rod thread included in scope of delivery



| Ø    | Stroke | L2   | L3  | MM<br>Ø | P1   | PL   | RT  | T4  | TG   | WH | ZJ   | =©1 |
|------|--------|------|-----|---------|------|------|-----|-----|------|----|------|-----|
| [mm] | [mm]   | +0.2 |     |         |      |      |     |     | ±0.1 |    | ±0.8 |     |
| 32   | 5      | 38   | 5.7 | 12      | 9    | 8.5  | M6  | 2.6 | 32.5 | 6  | 44   | 10  |
|      | 10     | 43   |     |         |      |      |     |     |      |    | 49   |     |
|      | 15     | 48   |     |         |      |      |     |     |      |    | 54   |     |
|      | 20     | 53   |     |         |      |      |     |     |      |    | 59   |     |
|      | 25     | 58   |     |         |      |      |     |     |      |    | 64   |     |
| 40   | 5      | 43   | 5.7 | 12      | 13.5 | 9.5  | M6  | 2.6 | 38   | 6  | 49   | 10  |
|      | 10     | 48   |     |         |      |      |     |     |      |    | 54   |     |
|      | 15     | 53   |     |         |      |      |     |     |      |    | 59   |     |
|      | 20     | 58   |     |         |      |      |     |     |      |    | 64   |     |
|      | 25     | 63   |     |         |      |      |     |     |      |    | 69   |     |
| 50   | 10     | 48   | 6.8 | 16      | 11.3 | 9.5  | M8  | 3.3 | 46.5 | 8  | 56   | 13  |
|      | 15     | 53   | -   |         |      |      |     |     |      |    | 61   |     |
|      | 20     | 58   | -   |         |      |      |     |     |      |    | 66   |     |
|      | 25     | 63   | -   |         |      |      |     |     |      |    | 71   |     |
| 63   | 10     | 51   | 6.8 | 16      | 12.5 | 10.5 | M8  | 3.3 | 56.5 | 8  | 59   | 13  |
|      | 15     | 56   |     |         |      |      |     |     |      |    | 64   |     |
|      | 20     | 61   | -   |         |      |      |     |     |      |    | 69   |     |
|      | 25     | 66   |     |         |      |      |     |     |      |    | 74   |     |
| 80   | 10     | 59   | 9   | 20      | 15   | 8.5  | M10 | 4.7 | 72   | 8  | 67   | 17  |
|      | 15     | 64   | -   |         |      |      |     |     |      |    | 72   |     |
|      | 20     | 69   | -   |         |      |      |     |     |      |    | 77   |     |
|      | 25     | 74   |     |         |      |      |     |     |      |    | 82   |     |
| 100  | 10     | 68   | 9   | 25      | 16.5 | 10.5 | M10 | 6.1 | 89   | 10 | 78   | 22  |
|      | 15     | 73   |     |         |      |      |     |     |      |    | 83   |     |
|      | 20     | 78   | 1   |         |      |      |     |     |      |    | 88   | 1   |
|      | 25     | 83   | 1   |         |      |      |     |     |      |    | 93   | 1   |



| Ordering data |          |        |            |                  |            |                  |            |                |
|---------------|----------|--------|------------|------------------|------------|------------------|------------|----------------|
| Гуре          | Piston ∅ | Stroke | Piston rod |                  | Piston rod |                  | Piston roo | ł              |
|               |          |        | with male  | thread           | with fema  | e thread         | without th | ıread          |
|               | [mm]     | [mm]   | Part No.   | Туре             | Part No.   | Туре             | Part No.   | Туре           |
| <i>₽</i>      | 6        | 5      | 188064     | ADVC-6-5-A-P-A   | -          |                  | 526901     | ADVC-6-5-P-A   |
|               |          | 10     | 188065     | ADVC-6-10-A-P-A  |            |                  | 526902     | ADVC-6-10-P-A  |
|               | 8        |        |            |                  |            |                  |            |                |
|               | 10       | 5      | 188076     | ADVC-10-5-A-P-A  | -          |                  | 526905     | ADVC-10-5-P-A  |
|               |          | 10     | 188077     | ADVC-10-10-A-P-A |            |                  | 526906     | ADVC-10-10-P-A |
|               |          |        |            |                  | 1 - 1      |                  |            |                |
|               | 12       | 5      | 188092     | ADVC-12-5-A-P-A  | 188088     | ADVC-12-5-I-P-A  | 530572     | ADVC-12-5-P-A  |
|               |          | 10     | 188093     | ADVC-12-10-A-P-A | 188089     | ADVC-12-10-I-P-A | 530573     | ADVC-12-10-P-A |
|               |          |        |            |                  | T          |                  | T          |                |
|               | 16       | 5      | 188118     | ADVC-16-5-A-P-A  | 188108     | ADVC-16-5-I-P-A  | -          |                |
|               |          | 10     | 188119     | ADVC-16-10-A-P-A | 188109     | ADVC-16-10-I-P-A |            |                |
|               |          | 15     | 188120     | ADVC-16-15-A-P-A | 188110     | ADVC-16-15-I-P-A |            |                |
|               |          | 20     | 188121     | ADVC-16-20-A-P-A | 188111     | ADVC-16-20-I-P-A |            |                |
|               |          | 25     | 188122     | ADVC-16-25-A-P-A | 188112     | ADVC-16-25-I-P-A |            |                |
|               |          |        |            |                  |            |                  |            |                |
|               | 20       | 5      | 188150     | ADVC-20-5-A-P-A  | 188140     | ADVC-20-5-I-P-A  | -          |                |
|               |          | 10     | 188151     | ADVC-20-10-A-P-A | 188141     | ADVC-20-10-I-P-A |            |                |
|               |          | 15     | 188152     | ADVC-20-15-A-P-A | 188142     | ADVC-20-15-I-P-A |            |                |
|               |          | 20     | 188153     | ADVC-20-20-A-P-A | 188143     | ADVC-20-20-I-P-A |            |                |
|               |          | 25     | 188154     | ADVC-20-25-A-P-A | 188144     | ADVC-20-25-I-P-A |            |                |
|               | 25       | -      | 400400     | ADVC OF FARA     | 400470     | ADVC OF FIDA     |            |                |
|               | 25       | 5      | 188182     | ADVC-25-5-A-P-A  | 188172     | ADVC-25-5-I-P-A  | -          |                |
|               |          | 10     | 188183     | ADVC-25-10-A-P-A | 188173     | ADVC-25-10-I-P-A |            |                |
|               |          | 15     | 188184     | ADVC-25-15-A-P-A | 188174     | ADVC-25-15-I-P-A |            |                |
|               |          | 20     | 188185     | ADVC-25-20-A-P-A | 188175     | ADVC-25-20-I-P-A |            |                |
|               |          | 25     | 188186     | ADVC-25-25-A-P-A | 188176     | ADVC-25-25-I-P-A |            |                |



| Ordering da<br>Type | Piston Ø  | Stroke   | Piston rod  |                   |          | Piston rod |                   |
|---------------------|-----------|----------|-------------|-------------------|----------|------------|-------------------|
| урс                 | 1131011 2 | Stroke   | with male t | thread            |          | with fema  | -                 |
|                     | [mm]      | [mm]     | Part No.    | Туре              |          | Part No.   | Туре              |
| <i>∕</i> %          | 32        | 5        | 188214      | ADVC-32-5-A-P-A   |          | 188204     | ADVC-32-5-I-P-A   |
|                     |           | 10       | 188215      | ADVC-32-10-A-P-A  |          | 188205     | ADVC-32-10-I-P-A  |
|                     | 7         | 15       | 188216      | ADVC-32-15-A-P-A  |          | 188206     | ADVC-32-15-I-P-A  |
|                     |           | 20       | 188217      | ADVC-32-20-A-P-A  |          | 188207     | ADVC-32-20-I-P-A  |
|                     |           | 25       | 188218      | ADVC-32-25-A-P-A  |          | 188208     | ADVC-32-25-I-P-A  |
|                     | 40        | 5        | 188242      | ADVC-40-5-A-P-A   |          | 188232     | ADVC-40-5-I-P-A   |
|                     |           | 10       | 188243      | ADVC-40-10-A-P-A  |          | 188233     | ADVC-40-10-I-P-A  |
|                     |           | 15       | 188244      | ADVC-40-15-A-P-A  |          | 188234     | ADVC-40-15-I-P-A  |
|                     |           | 20       | 188245      | ADVC-40-20-A-P-A  |          | 188235     | ADVC-40-20-I-P-A  |
|                     |           | 25       | 188246      | ADVC-40-25-A-P-A  |          | 188236     | ADVC-40-25-I-P-A  |
|                     |           | <u> </u> |             |                   | <u> </u> | •          |                   |
|                     | 50        | 10       | 188268      | ADVC-50-10-A-P-A  |          | 188260     | ADVC-50-10-I-P-A  |
|                     |           | 15       | 188269      | ADVC-50-15-A-P-A  |          | 188261     | ADVC-50-15-I-P-A  |
|                     |           | 20       | 188270      | ADVC-50-20-A-P-A  |          | 188262     | ADVC-50-20-I-P-A  |
|                     |           | 25       | 188271      | ADVC-50-25-A-P-A  |          | 188263     | ADVC-50-25-I-P-A  |
|                     | 63        | 10       | 188292      | ADVC-63-10-A-P-A  |          | 188284     | ADVC-63-10-I-P-A  |
|                     | 0.5       | 15       | 188293      | ADVC-63-15-A-P-A  |          | 188285     | ADVC-63-15-I-P-A  |
|                     |           | 20       | 188294      | ADVC-63-20-A-P-A  |          | 188286     | ADVC-63-20-I-P-A  |
|                     |           | 25       | 188295      | ADVC-63-25-A-P-A  |          | 188287     | ADVC-63-25-I-P-A  |
|                     |           |          |             |                   |          |            |                   |
|                     | 80        | 10       | 188316      | ADVC-80-10-A-P-A  |          | 188308     | ADVC-80-10-I-P-A  |
|                     |           | 15       | 188317      | ADVC-80-15-A-P-A  |          | 188309     | ADVC-80-15-I-P-A  |
|                     |           | 20       | 188318      | ADVC-80-20-A-P-A  |          | 188310     | ADVC-80-20-I-P-A  |
|                     |           | 25       | 188319      | ADVC-80-25-A-P-A  |          | 188311     | ADVC-80-25-I-P-A  |
|                     | 100       | 10       | 400075      | ADVC 400 40 A D A | 1        | 400000     | ADVC 400 40 LD A  |
|                     | 100       | 10       | 188340      | ADVC-100-10-A-P-A |          | 188332     | ADVC-100-10-I-P-A |
|                     |           | 15       | 188341      | ADVC-100-15-A-P-A |          | 188333     | ADVC-100-15-I-P-A |
|                     |           | 20       | 188342      | ADVC-100-20-A-P-A |          | 188334     | ADVC-100-20-I-P-A |
|                     |           | 25       | 188343      | ADVC-100-25-A-P-A |          | 188335     | ADVC-100-25-I-P-A |

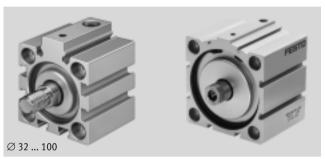
**FESTO** 



Diameter 4 ... 100 mm

Stroke length 2.5 ... 25 mm





| General technical data         |                                               |                                                                                                        |    |    |    |    |    |         |           |      |      |      |      |  |
|--------------------------------|-----------------------------------------------|--------------------------------------------------------------------------------------------------------|----|----|----|----|----|---------|-----------|------|------|------|------|--|
| Piston Ø                       | 4                                             | 6                                                                                                      | 10 | 12 | 16 | 20 | 25 | 32      | 40        | 50   | 63   | 80   | 100  |  |
| Pneumatic connection           | M3                                            | M3                                                                                                     | M5 | M5 | M5 | M5 | M5 | G1/8    | G1/8      | G1/8 | G1/8 | G1/8 | G1/4 |  |
| Piston rod with female thread  | -                                             | -                                                                                                      | -  |    |    |    |    | -       |           |      |      |      |      |  |
| Piston rod with male thread    |                                               |                                                                                                        |    |    |    |    |    | -       |           |      |      |      | •    |  |
| Piston rod without thread      |                                               |                                                                                                        |    |    | -  | -  | -  | -       | -         | -    | -    | -    | -    |  |
| Operating medium               | Comp                                          | Compressed air in accordance with ISO 8573-1:2010 [7:4:4]                                              |    |    |    |    |    |         |           |      |      |      |      |  |
| Note on operating/pilot medium | Opera                                         | Operation with lubricated medium possible (in which case lubricated operation will always be required) |    |    |    |    |    |         |           |      |      |      |      |  |
| Constructional design          | Piston                                        |                                                                                                        |    |    |    |    |    |         |           |      |      |      |      |  |
|                                | Piston rod                                    |                                                                                                        |    |    |    |    |    |         |           |      |      |      |      |  |
| Cushioning                     | Flexible cushioning rings/plates at both ends |                                                                                                        |    |    |    |    |    |         |           |      |      |      |      |  |
| Type of mounting               | Via th                                        | rough-hol                                                                                              | es |    |    |    |    | Via thr | ough-hole | es   |      |      |      |  |
|                                | -                                             |                                                                                                        |    |    |    |    |    | Via acc | cessories |      |      |      |      |  |
| Mounting position              | Any                                           |                                                                                                        |    |    |    |    |    | 1       |           |      |      |      |      |  |

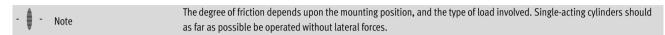
| Operating conditions          |       |       |     |       |        |    |    |    |      |    |    |    |    |     |
|-------------------------------|-------|-------|-----|-------|--------|----|----|----|------|----|----|----|----|-----|
| Piston $\varnothing$          |       | 4     | 6   | 10    | 12     | 16 | 20 | 25 | 32   | 40 | 50 | 63 | 80 | 100 |
| Operating pressure            | [bar] | 2.5 8 | 2 8 | 1.5 8 | 1.5 10 | 0  |    |    | 1 10 |    |    | ı  |    |     |
| Ambient temperature           | [°C]  | -20 + | 80  |       |        |    |    |    |      |    |    |    |    |     |
| Corrosion resistance class CR | 1     |       |     |       |        |    |    |    |      |    |    |    |    |     |

<sup>1)</sup> Corrosion resistance class CRC 1 to Festo standard FN 940070  $\,$ Low corrosion stress. For dry indoor applications or transport and storage protection. Also applies to parts behind covers, in the non-visible interior area, and parts which are covered in the application (e.g. drive trunnions).



| Forces [N] and impact energy [J]      |       |       |      |      |      |                  |      |      |      |      |      |      |      |
|---------------------------------------|-------|-------|------|------|------|------------------|------|------|------|------|------|------|------|
| Piston ∅                              | 4     | 6     | 10   | 12   | 16   | 20               | 25   | 32   | 40   | 50   | 63   | 80   | 100  |
| Theoretical force at 6 bar, advancing | 5     | 11    | 41   | 59   | 105  | 170              | 270  | 450  | 700  | 1120 | 1800 | 2900 | 4500 |
| Theoretical force at 6 bar, returning | 1     | 3     | 3    | 4    | 5    | 10 <sup>1)</sup> | 15   | 22   | 28   | 40   | 50   | 85   | 140  |
| Max. impact energy at end positions   | 0.003 | 0.005 | 0.03 | 0.06 | 0.10 | 0.14             | 0.18 | 0.26 | 0.36 | 0.60 | 0.64 | 0.90 | 1.20 |

1) AEVC-20-5-... = 5 N

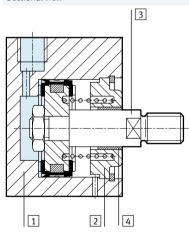


| Product weight [g] |          |    |    |    |     |     |     |     |     |     |     |      |      |
|--------------------|----------|----|----|----|-----|-----|-----|-----|-----|-----|-----|------|------|
| Stroke [mm]        | Piston ( | Ø  |    |    |     |     |     |     |     |     |     |      |      |
|                    | 4        | 6  | 10 | 12 | 16  | 20  | 25  | 32  | 40  | 50  | 63  | 80   | 100  |
| 2.5                | 3.7      | -  | -  | -  | -   | -   | -   | -   | -   | -   | -   | -    | -    |
| 5                  | 4.5      | 12 | 17 | 24 | 60  | 85  | 130 | 220 | -   | -   | -   | -    | -    |
| 10                 | -        | 18 | 24 | 40 | 80  | 130 | 160 | 290 | 370 | 410 | 490 | 1900 | 2850 |
| 25                 | -        | -  | -  | -  | 150 | 200 | 250 | 400 | 560 | 680 | 770 | 2400 | 3500 |

| Moving load [g] |        |     |     |     |    |    |    |    |    |     |     |     |     |
|-----------------|--------|-----|-----|-----|----|----|----|----|----|-----|-----|-----|-----|
| Stroke [mm]     | Piston | Ø   |     |     |    |    |    |    |    |     |     |     |     |
|                 | 4      | 6   | 10  | 12  | 16 | 20 | 25 | 32 | 40 | 50  | 63  | 80  | 100 |
| 2.5             | 0.15   | -   | -   | -   | -  | -  | -  | -  | -  | -   | -   | -   | -   |
| 5               | 0.2    | 1   | 2   | 4.4 | 8  | 14 | 22 | 40 | -  | -   | -   | -   | -   |
| 10              | -      | 1.4 | 2.6 | 6.9 | 11 | 21 | 25 | 48 | 65 | 105 | 157 | 327 | 678 |
| 25              | -      | -   | -   | -   | 19 | 32 | 37 | 62 | 83 | 140 | 191 | 365 | 739 |

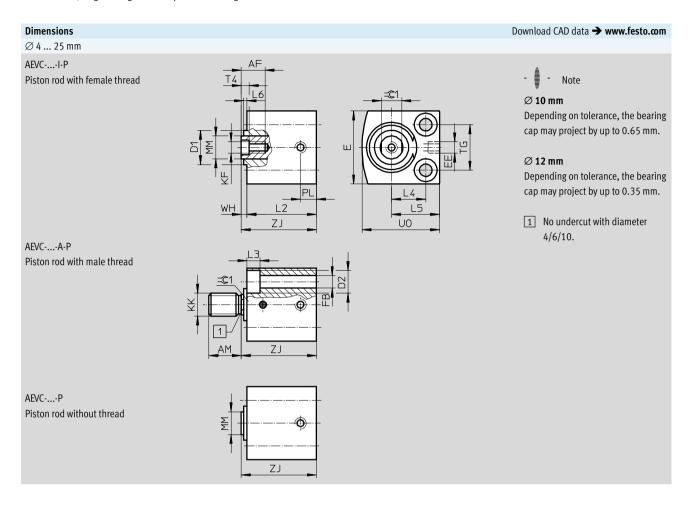
#### Materials

Sectional view



| Short-stroke cylinder | Ø 4                     | Ø 6 100                 |
|-----------------------|-------------------------|-------------------------|
| Cylinder barrel       | Anodised aluminium      | Anodised aluminium      |
| 2 Cover cap           | Anodised aluminium      | Anodised aluminium      |
| 3 Piston rod          | Anodised aluminium      | High-alloy steel        |
| 4 Rod seal            | Nitrile rubber          | Polyurethane            |
| Note on material      | Free of copper and PTFE | Free of copper and PTFE |

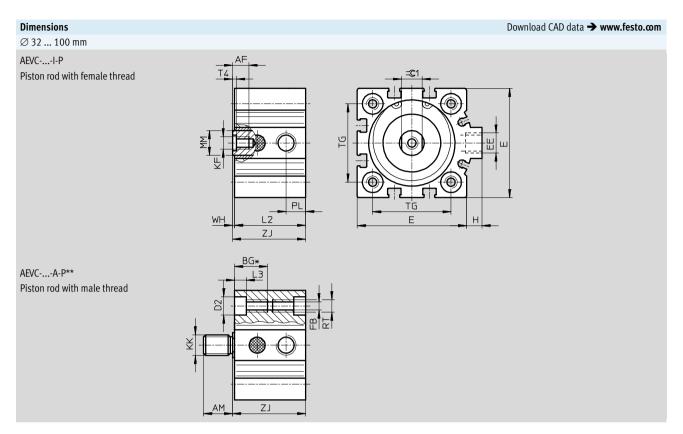






| Ø    | Stroke        | AF   | AM   | D1 Ø | D2<br>Ø           | E    | EE       | FB<br>Ø | KF   | KK | L2                   | L3  |
|------|---------------|------|------|------|-------------------|------|----------|---------|------|----|----------------------|-----|
| [mm] | [mm]          | min. | -0.5 | max. |                   | max. |          |         |      |    | +0.2                 |     |
| 4    | 2.5<br>5      |      | 6    | -    | 3.3+0.1           | 10   | M3       | 1.8     | -    | M2 | 13<br>15.5           | 1.8 |
| 6    | 5<br>10       | -    | 6    | _    | 5+0.1             | 13   | M3       | 2.9     | -    | M3 | 16<br>23.4           | 2.9 |
| 10   | 5<br>10       | _    | 8    | 7.5  | 5.8+0.1           | 18   | M5       | 3.4     | -    | M4 | 16<br>23             | 3.4 |
| 12   | 5<br>10       | - 8  | 8    | 10.7 | 6 H13             | 20   | M5       | 3.4     | M3   | M5 | 16<br>27.5           | 3.4 |
| 16   | 5<br>10<br>25 | 10   | 12   | _    | 8 H13             | 25   | M5       | 4.5     | M4   | M6 | 20<br>27.5<br>47     | 4.6 |
| 20   | 5<br>10<br>25 | 8 12 | 12   | _    | 10 H13            | 32   | M5       | 5.5     | M5   | M8 | 20<br>30.5<br>48.5   | 5.7 |
| 25   | 5<br>10<br>25 | 12   | 12   | -    | 10 <sup>H13</sup> | 38   | M5       | 5.5     | M5   | M8 | 26.1<br>31.1<br>50.2 | 5.7 |
|      |               | "    | '    | 1    | '                 |      | <u>'</u> |         | 1    |    |                      | 1   |
| Ø    | Stroke        | L4   | L5   | L6   | MM<br>Ø           | PL   | T4       | TG      | UO   | WH | ZJ                   | =©1 |
| [mm] | [mm]          |      |      | max. |                   |      |          | ±0.1    | max. |    | ±0.8                 |     |
| 4    | 2.5           | 4    | 6.5  | -    | 2                 | 3.2  | _        | 5.8     | 10   | 1  | 14<br>16.5           | _   |
| 6    | 5<br>10       | - 6  | 9    | -    | 3                 | 3    | -        | 7       | 14   | 1  | 17<br>24.4           | -   |
| 10   | 5<br>10       | - 8  | 11.5 | 0.7  | 4                 | 5.5  | -        | 11      | 19   | 1  | 17<br>24             | -   |
| 12   | 5<br>10       | 9    | 13   | 0.4  | 6                 | 6    | 1.5      | 13      | 22   | 1  | 17<br>28.5           | -   |
| 16   | 5<br>10<br>25 | 11.5 | 16.5 | -    | 8                 | 6    | 2        | 15      | 27   | 1  | 21<br>28.5<br>48     | 7   |
| 20   | 5<br>10<br>25 | 15   | 21   | _    | 10                | 7    | 2        | 20      | 34   | 1  | 21<br>31.5<br>49.5   | 9   |
| 25   | 5<br>10<br>25 | 15.5 | 21.5 | -    | 10                | 6.5  | 2        | 26      | 37   | 1  | 27.1<br>32.1<br>51.2 | 9   |

**FESTO** 



| Ø        | Stroke   | AF       | AM   | BG*     | D2      | E    | EE   | FB  | Н        | KF    | KK         | L2   | L3  | MM | PL   | RT   | T4  | TG   | WH  | ZJ   | =©1 |
|----------|----------|----------|------|---------|---------|------|------|-----|----------|-------|------------|------|-----|----|------|------|-----|------|-----|------|-----|
| [mm]     | [mm]     | min.     | -0.5 | min.    | Ø<br>F9 | may  |      | Ø   |          |       |            | +0.2 |     | Ø  |      |      |     | ±0.1 |     | ±0.8 |     |
| [IIIIII] | [IIIIII] | 1111111. | -0.5 | 111111. | 17      | max. |      |     |          |       |            | +0.2 |     |    |      |      |     | ±0.1 |     | ±0.0 |     |
| 32       | 5        |          |      |         |         |      |      |     |          |       |            | 26   |     |    |      |      |     |      |     | 27   |     |
|          | 10       | 12       | 14   | 21.7    | 9       | 45   | G1/8 | 5.2 | 7        | M6    | M10x1.25   | 35   | 5.7 | 12 | 9.5  | M6   | 2.6 | 32.5 | 1   | 36   | 10  |
|          | 25       |          |      |         |         |      |      |     |          |       |            | 50   |     |    |      |      |     |      |     | 51   |     |
| 40       | 10       | 12       | 14   | 21.7    | 9       | 53.5 | G1/8 | 5.2 | 7        | M6    | M10x1.25   | 34.5 | 5.7 | 12 | 9.5  | M6   | 2.6 | 38   | 1   | 35.5 | 10  |
|          | 25       | 12       | 14   | 21./    | ,       | )).) | U78  | 3.2 | <b>'</b> | MO    | WIUXI.23   | 54.5 | 5.7 | 12 | 9.5  | MO   | 2.0 | 70   | 1   | 55.5 | 10  |
| 50       | 10       | 16       | 16   | 22.8    | 11      | 63.5 | G1/8 | 6.8 | 7        | M8    | M12x1.25   | 30.6 | 6.8 | 16 | 9.5  | M8   | 3.3 | 46.5 | 0.5 | 31.1 | 13  |
|          | 25       | 10       | 10   | 22.0    | 11      | 05.5 | 078  | 0.0 | ′        | IVIO  | INITZXI.Z) | 53   | 0.0 | 10 | 9.5  | IVIO | ر.ر | 40.5 | 0.5 | 53.5 | 1)  |
| 63       | 10       | 16       | 16   | 22.8    | 11      | 75   | G1/8 | 6.8 | 7.5      | M8    | M12x1.25   | 35   | 6.8 | 16 | 11.5 | M8   | 3.3 | 56.5 | 1   | 36   | 13  |
|          | 25       | 10       | 10   | 22.0    | 11      | 75   | 078  | 0.0 | 7.5      | IVIO  | INITZXI.Z) | 57   | 0.0 | 10 | 11.5 | IVIO | ر.ر | 50.5 | 1   | 58   | 1)  |
| 80       | 10       | 20       | 22   | 25      | 14      | 93   | G1/8 | 8.5 | 7        | M10   | M16x1.5    | 52   | 9   | 20 | 15   | M10  | 4.7 | 72   | 1   | 53   | 17  |
|          | 25       | 20       | 22   | 20      | 14      | 7)   | U-/8 | 0.5 | /        | MITO  | MITOX1.5   | 67   | )   | 20 | 10   | MITO | 4./ | 12   | 1   | 68   | 1/  |
| 100      | 10       | 24       | 28   | 25      | 14      | 113  | G1/4 | 8.5 | 13       | M12   | M20x1.5    | 59   | 9   | 25 | 19   | M10  | 6.1 | 89   | 1   | 60   | 22  |
|          | 25       | 24       | 20   | 20      | 14      | 113  | U-74 | 0.5 | 13       | IVIIZ | INIZUX1.5  | 74   | 9   | 25 | 19   | MITO | 0.1 | 09   | 1   | 75   | 22  |

Continuous thread with short overall length Nut for piston rod thread included in scope of delivery



| Piston Ø | Stroke | Piston rod   |                                 | Piston rod |                | Piston rod |              |
|----------|--------|--------------|---------------------------------|------------|----------------|------------|--------------|
|          |        | with male th | nread                           | with fema  | le thread      | without th | read         |
| [mm]     | [mm]   | Part No.     | Туре                            | Part No.   | Туре           | Part No.   | Туре         |
| 4        | 2.5    | 188052       | AEVC-4-2,5-A-P                  | -          |                | 188050     | AEVC-4-2,5-P |
|          | 5      | 188053       | AEVC-4-5-A-P                    |            |                | 188051     | AEVC-4-5-P   |
| 6        | 5      | 188062       | AEVC-6-5-A-P                    | 1 1_       |                | 188058     | AEVC-6-5-P   |
| O        | 10     |              | AEVC-6-10-A-P                   | -          |                | 188059     | AEVC-6-10-P  |
|          | 10     | 100005       | ALVC-0-10-A-F                   |            |                | 100033     | ALVC-0-10-F  |
| 10       | 5      | 188074       | AEVC-10-5-A-P                   | -          |                | 188070     | AEVC-10-5-P  |
|          | 10     | 188075       | AEVC-10-10-A-P                  |            |                | 188071     | AEVC-10-10-P |
|          |        |              |                                 |            |                |            |              |
| 12       | 5      | 188086       | AEVC-12-5-A-P                   | 188082     | AEVC-12-5-I-P  | 530566     | AEVC-12-5-P  |
|          | 10     | 188087       | AEVC-12-10-A-P                  | 188083     | AEVC-12-10-I-P | 530567     | AEVC-12-10-P |
| 16       | -      | 188105       | AEVC-16-5-A-P                   | 188099     | AEVC-16-5-I-P  |            |              |
| 16       | 5      |              | AEVC-16-5-A-P<br>AEVC-16-10-A-P |            | AEVC-16-5-1-P  | -          |              |
|          | 10     |              |                                 | 188100     |                | 4          |              |
|          | 25     | 188107       | AEVC-16-25-A-P                  | 188101     | AEVC-16-25-I-P |            |              |
| 20       | 5      | 188137       | AEVC-20-5-A-P                   | 188131     | AEVC-20-5-I-P  | -          |              |
|          | 10     | 188138       | AEVC-20-10-A-P                  | 188132     | AEVC-20-10-I-P |            |              |
|          | 25     | 188139       | AEVC-20-25-A-P                  | 188133     | AEVC-20-25-I-P |            |              |
|          |        |              |                                 | ·          |                | •          |              |
| 25       | 5      | 188169       | AEVC-25-5-A-P                   | 188163     | AEVC-25-5-I-P  | -          |              |
|          | 10     | 188170       | AEVC-25-10-A-P                  | 188164     | AEVC-25-10-I-P |            |              |
|          | 25     | 188171       | AEVC-25-25-A-P                  | 188165     | AEVC-25-25-I-P |            |              |

| Ordering data |          |        |                        |                        |
|---------------|----------|--------|------------------------|------------------------|
| Туре          | Piston Ø | Stroke | Piston rod             | Piston rod             |
|               |          |        | with male thread       | with female thread     |
|               | [mm]     | [mm]   | Part No. Type          | Part No. Type          |
| /%            | 32       | 5      | 188201 AEVC-32-5-A-P   | 188195 AEVC-32-5-I-P   |
|               |          | 10     | 188202 AEVC-32-10-A-P  | 188196 AEVC-32-10-I-P  |
|               |          | 25     | 188203 AEVC-32-25-A-P  | 188197 AEVC-32-25-I-P  |
|               |          | •      |                        |                        |
|               | 40       | 10     | 188230 AEVC-40-10-A-P  | 188226 AEVC-40-10-I-P  |
|               |          | 25     | 188231 AEVC-40-25-A-P  | 188227 AEVC-40-25-I-P  |
|               |          |        |                        |                        |
|               | 50       | 10     | 188258 AEVC-50-10-A-P  | 188254 AEVC-50-10-I-P  |
|               |          | 25     | 188259 AEVC-50-25-A-P  | 188255 AEVC-50-25-I-P  |
|               |          |        |                        |                        |
|               | 63       | 10     | 188282 AEVC-63-10-A-P  | 188278 AEVC-63-10-I-P  |
|               |          | 25     | 188283 AEVC-63-25-A-P  | 188279 AEVC-63-25-I-P  |
|               |          |        |                        |                        |
|               | 80       | 10     | 188306 AEVC-80-10-A-P  | 188302 AEVC-80-10-I-P  |
|               |          | 25     | 188307 AEVC-80-25-A-P  | 188303 AEVC-80-25-I-P  |
|               |          |        |                        |                        |
|               | 100      | 10     | 188330 AEVC-100-10-A-P | 188326 AEVC-100-10-I-P |
|               |          | 25     | 188331 AEVC-100-25-A-P | 188327 AEVC-100-25-I-P |

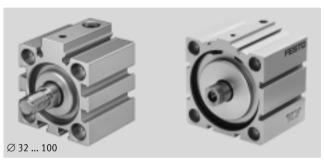
**FESTO** 



Diameter 6 ... 100 mm

Stroke length 5 ... 25 mm





| General technical data         |          |                                                           |             |            |              |            |            |           |            |             |      |      |
|--------------------------------|----------|-----------------------------------------------------------|-------------|------------|--------------|------------|------------|-----------|------------|-------------|------|------|
| Piston ∅                       | 6        | 10                                                        | 12          | 16         | 20           | 25         | 32         | 40        | 50         | 63          | 80   | 100  |
| Pneumatic connection           | M3       | M5                                                        | M5          | M5         | M5           | M5         | G1/8       | G1/8      | G1/8       | G1/8        | G1/8 | G1/4 |
| Piston rod with female thread  | -        | -                                                         |             |            |              |            |            | -         |            |             |      |      |
| Piston rod with male thread    |          |                                                           |             |            |              |            |            |           |            |             |      |      |
| Piston rod without thread      |          |                                                           |             | -          | -            | -          | -          | -         | -          | -           | -    | -    |
| Operating medium               | Compre   | Compressed air in accordance with ISO 8573-1:2010 [7:4:4] |             |            |              |            |            |           |            |             |      |      |
| Note on operating/pilot medium | Operati  | on with lu                                                | bricated m  | nedium po  | ssible (in v | vhich case | lubricated | operation | will alway | s be requii | red) |      |
| Constructional design          | Piston   |                                                           |             |            |              |            |            |           |            |             |      |      |
|                                | Piston r | rod                                                       |             |            |              |            |            |           |            |             |      |      |
| Cushioning                     | Flexible | cushioni                                                  | ng rings/pl | ates at bo | th ends      |            |            |           |            |             |      |      |
| Position sensing               | For prox | ximity sen                                                | sing        |            |              |            |            |           |            |             |      |      |
| Type of mounting               | Via thro | Via through-holes Via through-holes                       |             |            |              |            |            |           |            |             |      |      |
|                                | -        |                                                           |             |            |              |            | Via acc    | essories  |            |             |      |      |
| Mounting position              | Any      | Any                                                       |             |            |              |            |            |           |            |             |      |      |

| Operating conditions         |       |        |                                                     |        |    |    |    |      |    |    |    |    |     |  |
|------------------------------|-------|--------|-----------------------------------------------------|--------|----|----|----|------|----|----|----|----|-----|--|
| Piston ∅                     |       | 6      | 10                                                  | 12     | 16 | 20 | 25 | 32   | 40 | 50 | 63 | 80 | 100 |  |
| Operating pressure           | [bar] | 2 8    | 1.5 8                                               | 1.5 10 | )  |    |    | 1 10 |    |    |    |    |     |  |
| Ambient temperature          | [°C]  | -20 +8 | -20 +80 (note operating range of proximity sensors) |        |    |    |    |      |    |    |    |    |     |  |
| Corrosion resistance class C | 1     |        |                                                     |        |    |    |    |      |    |    |    |    |     |  |

<sup>1)</sup> Corrosion resistance class CRC 1 to Festo standard FN 940070
Low corrosion stress. For dry indoor applications or transport and storage protection. Also applies to parts behind covers, in the non-visible interior area, and parts which are covered in the application (e.g. drive trunnions).



| Forces [N] and impact energy [J]      |       |      |      |      |                  |      |      |      |      |      |      |      |
|---------------------------------------|-------|------|------|------|------------------|------|------|------|------|------|------|------|
| Piston $\varnothing$                  | 6     | 10   | 12   | 16   | 20               | 25   | 32   | 40   | 50   | 63   | 80   | 100  |
| Theoretical force at 6 bar, advancing | 11    | 41   | 59   | 105  | 170              | 270  | 450  | 700  | 1120 | 1800 | 2900 | 4500 |
| Theoretical force at 6 bar, returning | 3     | 3    | 4    | 5    | 10 <sup>1)</sup> | 15   | 22   | 28   | 40   | 50   | 85   | 140  |
| Max. impact energy at end positions   | 0.005 | 0.03 | 0.06 | 0.10 | 0.14             | 0.18 | 0.26 | 0.36 | 0.60 | 0.64 | 0.90 | 1.20 |

1) AEVC-20-5-... = 5 N



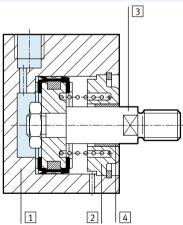
The degree of friction depends upon the mounting position, and the type of load involved. Single-acting cylinders should as far as possible be operated without lateral forces.

| Product weight [g]               |    |    |    |     |     |     |     |     |     |     |      |      |
|----------------------------------|----|----|----|-----|-----|-----|-----|-----|-----|-----|------|------|
| Stroke [mm] Piston $\varnothing$ |    |    |    |     |     |     |     |     |     |     |      |      |
|                                  | 6  | 10 | 12 | 16  | 20  | 25  | 32  | 40  | 50  | 63  | 80   | 100  |
| 5                                | 19 | 37 | 70 | 95  | 160 | 195 | 320 | -   | -   | -   | -    | -    |
| 10                               | 23 | 44 | 79 | 105 | 170 | 205 | 340 | 490 | 630 | 720 | 1940 | 2970 |
| 25                               | -  | -  | -  | 130 | 200 | 250 | 390 | 580 | 730 | 870 | 3290 | 3220 |

| Moving load [g] |          |     |     |    |    |    |    |    |     |     |     |     |
|-----------------|----------|-----|-----|----|----|----|----|----|-----|-----|-----|-----|
| Stroke [mm]     | Piston ( | Ø   |     |    |    |    |    |    |     |     |     |     |
|                 | 6        | 10  | 12  | 16 | 20 | 25 | 32 | 40 | 50  | 63  | 80  | 100 |
| 5               | 1.5      | 3   | 8.5 | 15 | 26 | 32 | 49 | -  | -   | -   | -   | -   |
| 10              | 1.8      | 3.5 | 9.5 | 17 | 29 | 35 | 54 | 70 | 116 | 155 | 284 | 546 |
| 25              | -        | -   | -   | 26 | 40 | 47 | 67 | 83 | 140 | 179 | 321 | 604 |

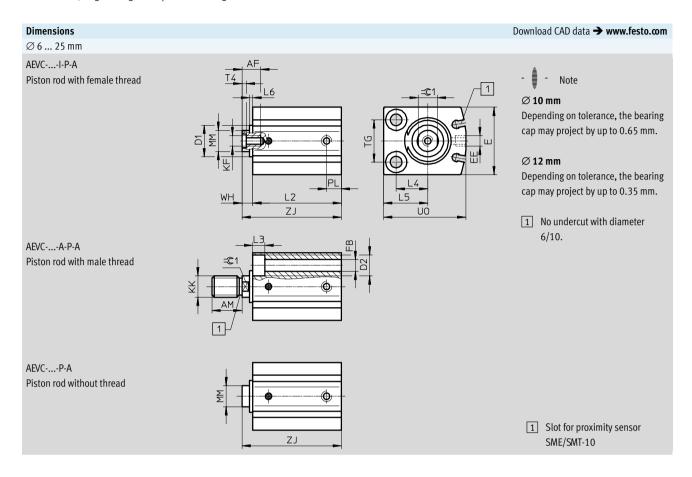
#### Materials

Sectional view



| Shor | t-stroke cylinder |                         |
|------|-------------------|-------------------------|
| 1    | Cylinder barrel   | Anodised aluminium      |
| 2    | Cover cap         | Anodised aluminium      |
| 3    | Piston rod        | High-alloy steel        |
| 4    | Rod seal          | Polyurethane            |
|      | Note on material  | Free of copper and PTFE |

**FESTO** 



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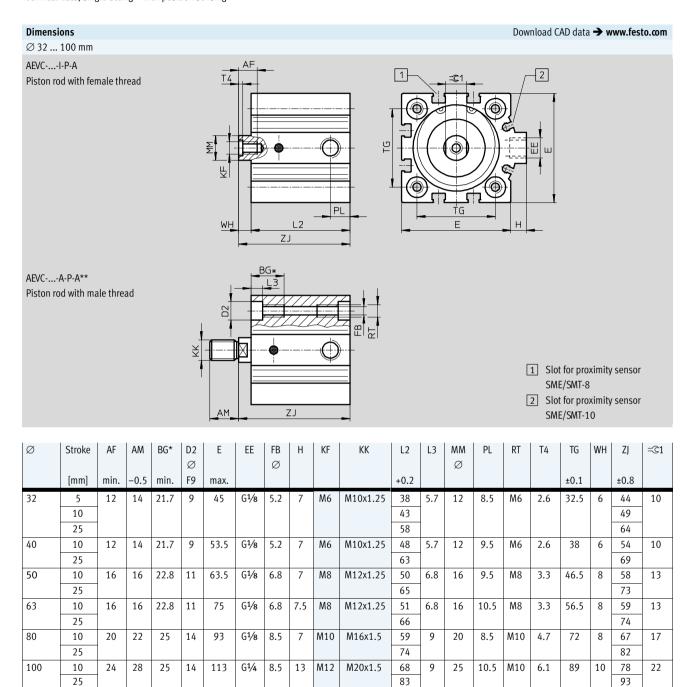


| Ø    | Stroke        | AF   | AM   | D1<br>Ø | D2<br>Ø  | E    | EE  | FB<br>∅ | KF   | KK  | L2               | L3  |
|------|---------------|------|------|---------|----------|------|-----|---------|------|-----|------------------|-----|
| [mm] | [mm]          | min. | -0.5 | max.    |          | max. |     |         |      |     | +0.2             |     |
| 6    | 5             | _    | 6    | -       | 5 +0.1   | 16   | M3  | 2.9     | -    | M3  | 25.5<br>30.5     | 2.9 |
| 10   | 5<br>10       | _    | 8    | 7.5     | 5.8 +0.1 | 21   | M5  | 3.4     | -    | M4  | 27<br>32         | 3.4 |
| 12   | 5<br>10       | - 8  | 8    | 10.7    | 6 н13    | 24   | M5  | 3.4     | M3   | M5  | 36<br>41         | 3.4 |
| 16   | 5<br>10<br>25 | 10   | 12   | _       | 8 H13    | 28   | M5  | 4.5     | M4   | M6  | 35<br>40<br>59.5 | 4.6 |
| 20   | 5<br>10<br>25 | 12   | 12   | -       | 10 н13   | 32   | M5  | 5.5     | M5   | M8  | 37<br>42<br>60   | 5.7 |
| 25   | 5<br>10<br>25 | 12   | 12   | _       | 10 н13   | 38   | M5  | 5.5     | M5   | M8  | 37<br>42<br>61.1 | 5.7 |
|      |               |      |      |         |          |      |     |         |      |     |                  |     |
| Ø    | Stroke        | L4   | L5   | L6      | MM<br>Ø  | PL   | T4  | TG      | UO   | WH  | ZJ               | =©1 |
| [mm] | [mm]          |      |      | max.    |          |      |     | ±0.1    | max. |     | ±0.8             |     |
| 6    | 5<br>10       | - 5  | 8    | -       | 3        | 3    | -   | 10      | 16   | 1   | 26.5<br>31.5     | _   |
| 10   | 5<br>10       | 7    | 10.5 | 0.7     | 4        | 6    | -   | 14      | 22   | 1.5 | 28.5<br>33.5     | _   |
| 12   | 5 10          | - 8  | 12   | 0.4     | 6        | 6    | 1.5 | 16      | 26   | 4   | 40<br>45         | 5   |
| 16   | 5<br>10<br>25 | 12   | 17   | -       | 8        | 6    | 2   | 18      | 32   | 4   | 39<br>44<br>63.5 | 7   |
| 20   | 5<br>10<br>25 | 15   | 21   | -       | 10       | 7    | 2   | 20      | 39   | 5   | 42<br>47<br>65   | 9   |
| 25   | 5             | 15.5 | 21.5 | _       | 10       | 6    | 2   | 26      | 42   | 5   | 42<br>47         | 9   |

#### **Short-stroke cylinders AEVC**

**FESTO** 

Technical data, single-acting – with position sensing



Continuous thread with short overall length

<sup>\*\*</sup> Nut for piston rod thread included in scope of delivery



| pe  | Piston Ø | Stroke | Piston rod<br>with male | thread           | Piston rod |                  | Piston rod<br>without th |                |
|-----|----------|--------|-------------------------|------------------|------------|------------------|--------------------------|----------------|
|     | [mm]     | [mm]   | Part No.                | Туре             | Part No.   | Туре             | Part No.                 | Туре           |
| 120 | 6        | 5      | 188060                  | AEVC-6-5-A-P-A   | -          |                  | 188056                   | AEVC-6-5-P-A   |
|     |          | 10     | 188061                  | AEVC-6-10-A-P-A  |            |                  | 188057                   | AEVC-6-10-P-A  |
| Ţ   | 10       | 5      | 188072                  | AEVC-10-5-A-P-A  | -          |                  | 188068                   | AEVC-10-5-P-A  |
|     |          | 10     | 188073                  | AEVC-10-10-A-P-A |            |                  | 188069                   | AEVC-10-10-P-A |
|     | 12       | 5      | 188084                  | AEVC-12-5-A-P-A  | 188080     | AEVC-12-5-I-P-A  | 530570                   | AEVC-12-5-P-A  |
|     | 12       | 10     | 188085                  | AEVC-12-10-A-P-A | 188081     | AEVC-12-10-I-P-A | 530571                   | AEVC-12-10-P-A |
|     |          |        | ,                       |                  |            |                  |                          |                |
|     | 16       | 5      | 188102                  | AEVC-16-5-A-P-A  | 188096     | AEVC-16-5-I-P-A  | -                        |                |
|     |          | 10     | 188103                  | AEVC-16-10-A-P-A | 188097     | AEVC-16-10-I-P-A |                          |                |
|     |          | 25     | 188104                  | AEVC-16-25-A-P-A | 188098     | AEVC-16-25-I-P-A |                          |                |
|     | 20       | 5      | 188134                  | AEVC-20-5-A-P-A  | 188128     | AEVC-20-5-I-P-A  | -                        |                |
|     |          | 10     | 188135                  | AEVC-20-10-A-P-A | 188129     | AEVC-20-10-I-P-A |                          |                |
|     |          | 25     | 188136                  | AEVC-20-25-A-P-A | 188130     | AEVC-20-25-I-P-A |                          |                |
|     | 25       | 5      | 188166                  | AEVC-25-5-A-P-A  | 188160     | AEVC-25-5-I-P-A  | _                        |                |
|     | 25       | 10     | 188167                  | AEVC-25-30-A-P-A | 188161     | AEVC-25-10-I-P-A |                          |                |
|     |          | 25     | 188168                  | AEVC-25-25-A-P-A | 188162     | AEVC-25-25-I-P-A |                          |                |

| Ordering data | 3        |        |                          |                          |
|---------------|----------|--------|--------------------------|--------------------------|
| Туре          | Piston ∅ | Stroke | Piston rod               | Piston rod               |
|               |          |        | with male thread         | with female thread       |
|               | [mm]     | [mm]   | Part No. Type            | Part No. Type            |
|               | 32       | 5      | 188198 AEVC-32-5-A-P-A   | 188192 AEVC-32-5-I-P-A   |
|               |          | 10     | 188199 AEVC-32-10-A-P-A  | 188193 AEVC-32-10-I-P-A  |
|               |          | 25     | 188200 AEVC-32-25-A-P-A  | 188194 AEVC-32-25-I-P-A  |
|               |          |        |                          |                          |
|               | 40       | 10     | 188228 AEVC-40-10-A-P-A  | 188224 AEVC-40-10-I-P-A  |
|               |          | 25     | 188229 AEVC-40-25-A-P-A  | 188225 AEVC-40-25-I-P-A  |
|               |          |        |                          |                          |
|               | 50       | 10     | 188256 AEVC-50-10-A-P-A  | 188252 AEVC-50-10-I-P-A  |
|               |          | 25     | 188257 AEVC-50-25-A-P-A  | 188253 AEVC-50-25-I-P-A  |
|               |          |        |                          |                          |
|               | 63       | 10     | 188280 AEVC-63-10-A-P-A  | 188276 AEVC-63-10-I-P-A  |
|               |          | 25     | 188281 AEVC-63-25-A-P-A  | 188277 AEVC-63-25-I-P-A  |
|               |          |        |                          |                          |
|               | 80       | 10     | 188304 AEVC-80-10-A-P-A  | 188300 AEVC-80-10-I-P-A  |
|               |          | 25     | 188305 AEVC-80-25-A-P-A  | 188301 AEVC-80-25-I-P-A  |
|               |          | 1      |                          |                          |
|               | 100      | 10     | 188328 AEVC-100-10-A-P-A | 188324 AEVC-100-10-I-P-A |
|               |          | 25     | 188329 AEVC-100-25-A-P-A | 188325 AEVC-100-25-I-P-A |

#### **Short-stroke cylinders ADVC/AEVC**

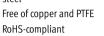
Accessories

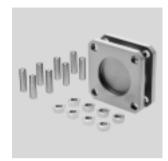
**FESTO** 

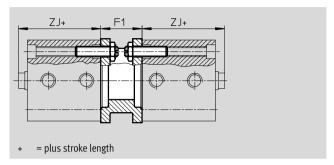
#### Adapter kit DPNC

Material:

Flange: Wrought aluminium alloy
Threaded studs, hex nuts: Galvanised
steel
Free of copper and PTFF







| Dimensi           | ons and ordering dat | a  |              |              |               |            |        |          |          |
|-------------------|----------------------|----|--------------|--------------|---------------|------------|--------|----------|----------|
| For $\varnothing$ | Stroke               | F1 |              | Z            | IJ            |            | Weight | Part No. | Туре     |
|                   |                      |    | without posi | tion sensing | with position | on sensing |        |          |          |
| [mm]              | [mm]                 |    | ADVC         | AEVC         | ADVC          | AEVC       | [g]    |          |          |
| 32                | 5                    | 27 | 35           | 22           | 39            | 39         | 292    | 174418   | DPNC-32  |
|                   | 10, 15, 20, 25       |    |              | 26           |               |            |        |          |          |
| 40                | 5, 10                | 27 | 35.5         | 25.5         | 44            | 44         | 410    | 174419   | DPNC-40  |
|                   | 15, 20, 25           |    |              | 30.5         |               |            |        |          |          |
| 50                | 10                   | 32 | 36           | 21.1         | 46            | 48         | 335    | 174420   | DPNC-50  |
|                   | 15, 20, 25           |    |              | 28.5         |               |            |        |          |          |
| 63                | 10                   | 28 | 43           | 26           | 49            | 49         | 390    | 174421   | DPNC-63  |
|                   | 15, 20, 25           |    |              | 33           |               |            |        |          |          |
| 80                | 10, 15, 20, 25       | 38 | 48           | 43           | 57            | 57         | 847    | 174422   | DPNC-80  |
| 100               | 10, 15, 20, 25       | 38 | 59           | 50           | 68            | 68         | 1200   | 174423   | DPNC-100 |

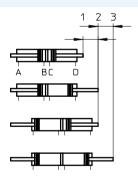
#### Connecting two cylinders with identical piston $\varnothing$ as a 3 or 4-position cylinder

A 3 or 4-position cylinder consists of two separate cylinders whose piston rods advance in opposing directions. This means that depending upon actuation and stroke pattern, this type of cylinder can assume up to four

positions. In each case the cylinder is driven precisely against a stop. Note that when one end of the piston rod is fixed, the cylinder barrel executes the movement. The cylinder must be connected with flexible line connections.

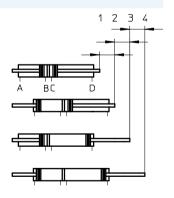
#### To achieve 3 positions

Two cylinders with identical stroke length must be connected together.



#### To achieve 4 positions

Two cylinders with different stroke lengths must be connected together.

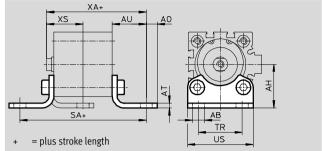




#### Foot mounting HNC

Material: Galvanised steel Free of copper and PTFE





| Dimensi | ons and ordering dat | a       |    |      |    |    |      |                                           |      |            |    |     |
|---------|----------------------|---------|----|------|----|----|------|-------------------------------------------|------|------------|----|-----|
| For Ø   | Stroke               | AB<br>∅ | АН | AO   | AT | AU |      | SA without position with position sensing |      | on sensing | TR | US  |
| [mm]    | [mm]                 |         |    |      |    |    | ADVC | AEVC                                      | ADVC | AEVC       |    |     |
| 32      | 5<br>10, 15, 20, 25  | 7       | 32 | 6.5  | 4  | 24 | 77   | 69<br>73                                  | 81   | 81         | 32 | 45  |
| 40      | 5, 10<br>15, 20, 25  | 10      | 36 | 9    | 4  | 28 | 85.5 | 80.5<br>85.5                              | 94   | 94         | 36 | 54  |
| 50      | 10<br>15, 20, 25     | 10      | 45 | 9.5  | 5  | 32 | 92   | 84.6<br>92                                | 102  | 104        | 45 | 64  |
| 63      | 10<br>15, 20, 25     | 10      | 50 | 12.5 | 5  | 32 | 99   | 89<br>96                                  | 105  | 105        | 50 | 75  |
| 80      | 10, 15, 20, 25       | 12      | 63 | 15   | 6  | 41 | 122  | 124                                       | 131  | 131        | 63 | 93  |
| 100     | 10, 15, 20, 25       | 14.5    | 71 | 17.5 | 6  | 41 | 131  | 131                                       | 140  | 140        | 75 | 110 |

| For Ø | Stroke         |         | XA       | ١       |         |         | XS       | ;       |         | CRC <sup>1)</sup> | Weight | Part No. | Туре    |
|-------|----------------|---------|----------|---------|---------|---------|----------|---------|---------|-------------------|--------|----------|---------|
|       |                | without | position | with po | osition | without | position | with po | osition |                   |        |          |         |
|       |                | sen     | sing     | sens    | sing    | sens    | sing     | sen     | sing    |                   |        |          |         |
| [mm]  | [mm]           | ADVC    | AEVC     | ADVC    | AEVC    | ADVC    | AEVC     | ADVC    | AEVC    |                   | [g]    |          |         |
| 32    | 5              | 59      | 46       | 63      | 63      | 26      | 21       | 26      | 26      | 2                 | 144    | 174369   | HNC-32  |
|       | 10, 15, 20, 25 |         | 50       |         |         |         |          |         |         |                   |        |          |         |
| 40    | 5, 10          | 63.5    | 53.5     | 72      | 72      | 30      | 25       | 30      | 30      | 2                 | 193    | 174370   | HNC-40  |
|       | 15, 20, 25     |         | 58.5     |         |         |         |          |         |         |                   |        |          |         |
| 50    | 10             | 68      | 53.1     | 78      | 80      | 35      | 27.5     | 35      | 35      | 2                 | 353    | 174371   | HNC-50  |
|       | 15, 20, 25     |         | 60.5     |         |         |         |          |         |         |                   |        |          |         |
| 63    | 10             | 75      | 58       | 81      | 81      | 35      | 28       | 35      | 35      | 2                 | 436    | 174372   | HNC-63  |
|       | 15, 20, 25     |         | 65       |         |         |         |          |         |         |                   |        |          |         |
| 80    | 10, 15, 20, 25 | 89      | 84       | 98      | 98      | 43      | 36       | 43      | 43      | 2                 | 829    | 174373   | HNC-80  |
| 100   | 10, 15, 20, 25 | 100     | 91       | 109     | 109     | 45      | 36       | 45      | 45      | 2                 | 1009   | 174374   | HNC-100 |

<sup>1)</sup> Corrosion resistance class CRC 2 to Festo standard FN 940070 Moderate corrosion stress, indoor applications in which condensation may occur. External visible parts with primarily decorative requirements for the surface and which are in direct contact with the ambient atmosphere typical for industrial applications.

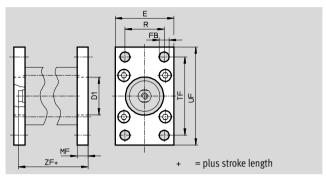




#### Flange mounting FNC

Material: Galvanised steel Free of copper and PTFE RoHS-compliant





| Dimensi | ons and ordering dat | a       |     |         |    |    |     |     |
|---------|----------------------|---------|-----|---------|----|----|-----|-----|
| For Ø   | Stroke               | D1<br>Ø | E   | FB<br>∅ | MF | R  | TF  | UF  |
| [mm]    | [mm]                 | H11     |     | H13     |    |    |     |     |
| 32      | 5                    | 30      | 45  | 7       | 10 | 32 | 64  | 80  |
|         | 10, 15, 20, 25       |         |     |         |    |    |     |     |
| 40      | 5, 10                | 35      | 54  | 9       | 10 | 36 | 72  | 90  |
|         | 15, 20, 25           |         |     |         |    |    |     |     |
| 50      | 10                   | 40      | 65  | 9       | 12 | 45 | 90  | 110 |
|         | 15, 20, 25           |         |     |         |    |    |     |     |
| 63      | 10                   | 45      | 75  | 9       | 12 | 50 | 100 | 120 |
|         | 15, 20, 25           |         |     |         |    |    |     |     |
| 80      | 10, 15, 20, 25       | 45      | 93  | 12      | 16 | 63 | 126 | 150 |
| 100     | 10, 15, 20, 25       | 55      | 110 | 14      | 16 | 75 | 150 | 175 |

| For Ø | Stroke         |              | Z            | F             |            | CRC <sup>1)</sup> | Weight | Part No. | Туре    |
|-------|----------------|--------------|--------------|---------------|------------|-------------------|--------|----------|---------|
|       |                | without posi | tion sensing | with position | on sensing |                   |        |          |         |
| [mm]  | [mm]           | ADVC         | AEVC         | ADVC          | AEVC       |                   | [g]    |          |         |
| 32    | 5              | 45           | 32           | 49            | 49         | 1                 | 221    | 174376   | FNC-32  |
|       | 10, 15, 20, 25 |              | 36           |               |            |                   |        |          |         |
| 40    | 5, 10          | 45.5         | 35.5         | 54            | 54         | 1                 | 291    | 174377   | FNC-40  |
|       | 15, 20, 25     |              | 40.5         |               |            |                   |        |          |         |
| 50    | 10             | 48           | 33.5         | 58            | 60         | 1                 | 536    | 174378   | FNC-50  |
|       | 15, 20, 25     |              | 40.5         |               |            |                   |        |          |         |
| 63    | 10             | 55           | 38           | 61            | 61         | 1                 | 679    | 174379   | FNC-63  |
|       | 15, 20, 25     |              | 45           |               |            |                   |        |          |         |
| 80    | 10, 15, 20, 25 | 64           | 59           | 73            | 73         | 1                 | 1495   | 174380   | FNC-80  |
| 100   | 10, 15, 20, 25 | 75           | 66           | 84            | 84         | 1                 | 2041   | 174381   | FNC-100 |

Corrosion resistance class CRC 1 to Festo standard FN 940070 Low corrosion stress. For dry indoor applications or transport and storage protection. Also applies to parts behind covers, in the non-visible interior area, and parts which are covered in the application (e.g. drive trunnions).



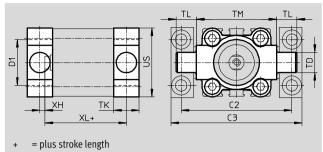
Screws with special lengths are required to fit the sizes  $\varnothing$  80 mm and  $\varnothing$  100 mm.  $\rightarrow$  45

**FESTO** 

#### Trunnion flange ZNCF

Material: Special steel casting Free of copper and PTFE RoHS-compliant





| Dimensi | ons and ordering dat | a   |     |         |      |    |    |     |     |    |
|---------|----------------------|-----|-----|---------|------|----|----|-----|-----|----|
| For Ø   | Stroke               | C2  | C3  | D1<br>Ø | TD Ø | TK | TL | TM  | US  | XH |
| [mm]    | [mm]                 |     |     | H11     | e9   |    |    |     |     |    |
| 32      | 5                    | 71  | 86  | 30      | 12   | 16 | 12 | 50  | 45  | 2  |
|         | 10, 15, 20, 25       |     |     |         |      |    |    |     |     |    |
| 40      | 5, 10                | 87  | 105 | 35      | 16   | 20 | 16 | 63  | 54  | 4  |
|         | 15, 20, 25           |     |     |         |      |    |    |     |     |    |
| 50      | 10                   | 99  | 117 | 40      | 16   | 24 | 16 | 75  | 64  | 4  |
|         | 15, 20, 25           |     |     |         |      |    |    |     |     |    |
| 63      | 10                   | 116 | 136 | 45      | 20   | 24 | 20 | 90  | 75  | 4  |
|         | 15, 20, 25           |     |     |         |      |    |    |     |     |    |
| 80      | 10, 15, 20, 25       | 136 | 156 | 45      | 20   | 28 | 20 | 110 | 93  | 6  |
| 100     | 10, 15, 20, 25       | 164 | 189 | 55      | 25   | 38 | 25 | 132 | 110 | 9  |

| For $\varnothing$ | Stroke         |              | Х            | L             |            | CRC <sup>1)</sup> | Weight | Part No. | Туре     |
|-------------------|----------------|--------------|--------------|---------------|------------|-------------------|--------|----------|----------|
|                   |                | without posi | tion sensing | with position | on sensing |                   |        |          |          |
| [mm]              | [mm]           | ADVC         | AEVC         | ADVC          | AEVC       |                   | [g]    |          |          |
| 32                | 5              | 43           | 30           | 47            | 47         | 2                 | 150    | 174411   | ZNCF-32  |
|                   | 10, 15, 20, 25 |              | 34           |               |            |                   |        |          |          |
| 40                | 5, 10          | 45.5         | 35.5         | 54            | 54         | 2                 | 285    | 174412   | ZNCF-40  |
|                   | 15, 20, 25     |              | 40.5         |               |            |                   |        |          |          |
| 50                | 10             | 48           | 33.1         | 58            | 60         | 2                 | 473    | 174413   | ZNCF-50  |
|                   | 15, 20, 25     |              | 40.5         |               |            |                   |        |          |          |
| 63                | 10             | 55           | 38           | 61            | 61         | 2                 | 687    | 174414   | ZNCF-63  |
|                   | 15, 20, 25     |              | 45           |               |            |                   |        |          |          |
| 80                | 10, 15, 20, 25 | 62           | 57           | 71            | 71         | 2                 | 1296   | 174415   | ZNCF-80  |
| 100               | 10, 15, 20, 25 | 78           | 69           | 87            | 87         | 2                 | 2254   | 174416   | ZNCF-100 |

<sup>1)</sup> Corrosion resistance class CRC 2 to Festo standard FN 940070 Moderate corrosion stress. Indoor applications in which condensation may occur. External visible parts with primarily decorative requirements for the surface and which are in direct contact with the ambient atmosphere typical for industrial applications.

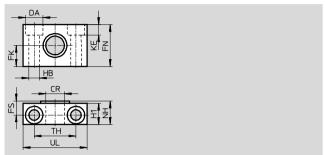


**FESTO** 

#### Trunnion support LNZG

Material: Trunnion support: Anodised aluminium Plain bearing: Plastic Free of copper and PTFE RoHS-compliant





| Dimensions a | Dimensions and ordering data |     |      |    |      |      |     |     |      |      |    |                   |        |          |              |
|--------------|------------------------------|-----|------|----|------|------|-----|-----|------|------|----|-------------------|--------|----------|--------------|
| For Ø        | CR                           | DA  | FK   | FN | FS   | H1   | HB  | KE  | NH   | TH   | UL | CRC <sup>1)</sup> | Weight | Part No. | Туре         |
|              | Ø                            | Ø   | Ø    |    |      |      | Ø   |     |      |      |    |                   |        |          |              |
| [mm]         | D11                          | H13 | ±0.1 |    |      |      | H13 |     |      | ±0.2 |    |                   | [g]    |          |              |
| 32           | 12                           | 11  | 15   | 30 | 10.5 | 15   | 6.6 | 6.8 | 18   | 32   | 46 | 2                 | 83     | 32959    | LNZG-32      |
| 40, 50       | 16                           | 15  | 18   | 36 | 12   | 18   | 9   | 9   | 21   | 36   | 55 | 2                 | 129    | 32960    | LNZG-40/50   |
| 63, 80       | 20                           | 18  | 20   | 40 | 13   | 20   | 11  | 11  | 23   | 42   | 65 | 2                 | 178    | 32961    | LNZG-63/80   |
| 100          | 25                           | 20  | 25   | 50 | 16   | 24.5 | 14  | 13  | 28.5 | 50   | 75 | 2                 | 306    | 32962    | LNZG-100/125 |

<sup>1)</sup> Corrosion resistance class CRC 2 to Festo standard FN 940070 Moderate corrosion stress. Indoor applications in which condensation may occur. External visible parts with primarily decorative requirements for the surface and which are in direct contact with the ambient atmosphere typical for industrial applications.

#### **Short-stroke cylinders ADVC/AEVC**

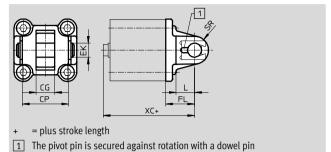
**FESTO** 

Accessories

#### Swivel flange SNC

Material: Die-cast aluminium Free of copper and PTFE ROHS-compliant



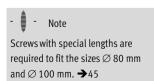


| Dimensi | ons and ordering dat | a   |     |         |      |    |    |
|---------|----------------------|-----|-----|---------|------|----|----|
| For Ø   | Stroke               | CG  | СР  | EK<br>Ø | FL   | L  | SR |
| [mm]    | [mm]                 | H14 | h14 | h9      | ±0.2 |    |    |
| 32      | 5                    | 14  | 34  | 10      | 22   | 13 | 10 |
|         | 10, 15, 20, 25       |     |     |         |      |    |    |
| 40      | 5, 10                | 16  | 40  | 12      | 25   | 16 | 12 |
|         | 15, 20, 25           |     |     |         |      |    |    |
| 50      | 10                   | 21  | 45  | 16      | 27   | 16 | 12 |
|         | 15, 20, 25           |     |     |         |      |    |    |
| 63      | 10                   | 21  | 51  | 16      | 32   | 21 | 16 |
|         | 15, 20, 25           | =   |     |         |      |    |    |
| 80      | 10, 15, 20, 25       | 25  | 65  | 20      | 36   | 22 | 16 |
| 100     | 10, 15, 20, 25       | 25  | 75  | 20      | 41   | 27 | 20 |

| For $\varnothing$ | Stroke         |              | X            | С           |            | CRC <sup>1)</sup> | Weight | Part No. | Туре    |
|-------------------|----------------|--------------|--------------|-------------|------------|-------------------|--------|----------|---------|
|                   |                | without posi | tion sensing | with positi | on sensing |                   |        |          |         |
| [mm]              | [mm]           | ADVC         | AEVC         | ADVC        | AEVC       |                   | [g]    |          |         |
| 32                | 5              | 57           | 44           | 61          | 61         | 2                 | 93     | 174383   | SNC-32  |
|                   | 10, 15, 20, 25 |              | 48           |             |            |                   |        |          |         |
| 40                | 5, 10          | 60.5         | 50.5         | 69          | 69         | 2                 | 140    | 174384   | SNC-40  |
|                   | 15, 20, 25     |              | 55.5         |             |            |                   |        |          |         |
| 50                | 10             | 63           | 48.1         | 73          | 75         | 2                 | 234    | 174385   | SNC-50  |
|                   | 15, 20, 25     |              | 55.5         |             |            |                   |        |          |         |
| 63                | 10             | 75           | 58           | 81          | 81         | 2                 | 331    | 174386   | SNC-63  |
|                   | 15, 20, 25     |              | 65           |             |            |                   |        |          |         |
| 80                | 10, 15, 20, 25 | 84           | 79           | 93          | 93         | 2                 | 618    | 174387   | SNC-80  |
| 100               | 10, 15, 20, 25 | 100          | 91           | 109         | 109        | 2                 | 865    | 174388   | SNC-100 |

<sup>1)</sup> Corrosion resistance class CRC 2 to Festo standard FN 940070

Moderate corrosion stress. Indoor applications in which condensation may occur. External visible parts with primarily decorative requirements for the surface and which are in direct contact with the ambient atmosphere typical for industrial applications.

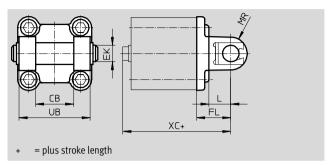




#### Swivel flange SNCB

Material: Die-cast aluminium Free of copper and PTFE RoHS-compliant





| Dimensi | ons and ordering dat | a   |         |      |    |     |     |     |
|---------|----------------------|-----|---------|------|----|-----|-----|-----|
| For Ø   | Stroke               | СВ  | EK<br>Ø | FL   | L  | ML  | MR  | UB  |
| [mm]    | [mm]                 | H14 | e8      | ±0.2 |    |     |     | h14 |
| 32      | 5                    | 26  | 10      | 22   | 13 | 55  | 8.5 | 45  |
|         | 10, 15, 20, 25       |     |         |      |    |     |     |     |
| 40      | 5, 10                | 28  | 12      | 25   | 16 | 63  | 12  | 52  |
|         | 15, 20, 25           |     |         |      |    |     |     |     |
| 50      | 10                   | 32  | 12      | 27   | 16 | 71  | 12  | 60  |
|         | 15, 20, 25           |     |         |      |    |     |     |     |
| 63      | 10                   | 40  | 16      | 32   | 21 | 83  | 16  | 70  |
|         | 15, 20, 25           |     |         |      |    |     |     |     |
| 80      | 10, 15, 20, 25       | 50  | 16      | 36   | 22 | 103 | 16  | 90  |
| 100     | 10, 15, 20, 25       | 60  | 20      | 41   | 27 | 127 | 20  | 110 |

| For Ø | Stroke         |              | Х            | С             |            | CRC <sup>1)</sup> | Weight | Part No. | Туре     |
|-------|----------------|--------------|--------------|---------------|------------|-------------------|--------|----------|----------|
|       |                | without posi | tion sensing | with position | on sensing |                   |        |          |          |
| [mm]  | [mm]           | ADVC         | AEVC         | ADVC          | AEVC       |                   | [g]    |          |          |
| 32    | 5              | 57           | 44           | 61            | 61         | 2                 | 103    | 174390   | SNCB-32  |
|       | 10, 15, 20, 25 |              | 48           |               |            |                   |        |          |          |
| 40    | 5, 10          | 60.5         | 50.5         | 69            | 69         | 2                 | 155    | 174391   | SNCB-40  |
|       | 15, 20, 25     |              | 55.5         |               |            |                   |        |          |          |
| 50    | 10             | 63           | 48.1         | 73            | 75         | 2                 | 232    | 174392   | SNCB-50  |
|       | 15, 20, 25     |              | 55.5         |               |            |                   |        |          |          |
| 63    | 10             | 75           | 58           | 81            | 81         | 2                 | 375    | 174393   | SNCB-63  |
|       | 15, 20, 25     |              | 65           |               |            |                   |        |          |          |
| 80    | 10, 15, 20, 25 | 84           | 79           | 93            | 93         | 2                 | 636    | 174394   | SNCB-80  |
| 100   | 10, 15, 20, 25 | 100          | 91           | 109           | 109        | 2                 | 1035   | 174395   | SNCB-100 |

Corrosion resistance class CRC 2 to Festo standard FN 940070 Moderate corrosion stress. Indoor applications in which condensation may occur. External visible parts with primarily decorative requirements for the surface and which are in direct contact with the ambient atmosphere typical for industrial applications.



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Note

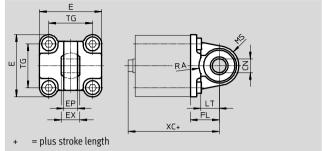
Screws with special lengths are required to fit the sizes  $\varnothing$  80 mm and Ø 100 mm. **→**45

**FESTO** 

#### Swivel flange SNCS

Material: SNCS 32 ... 80: Die-cast aluminium SNCS 100: Wrought aluminium alloy Free of copper and PTFE RoHS-compliant





| Dimensio | Dimensions and ordering data |          |                    |      |    |      |    |                    |      |      |  |  |  |  |
|----------|------------------------------|----------|--------------------|------|----|------|----|--------------------|------|------|--|--|--|--|
| For Ø    | Stroke                       | CN<br>Ø  | E                  | EP   | EX | FL   | LT | MS                 | RA   | TG   |  |  |  |  |
| [mm]     | [mm]                         |          |                    | ±0.2 |    | ±0.2 |    |                    | +1   |      |  |  |  |  |
| 32       | 5                            | 10+0.013 | 45+0.2/-0.5        | 10.5 | 14 | 22   | 13 | 15+0.5             | 14.5 | 32.5 |  |  |  |  |
|          | 10, 15, 20, 25               | 10+0.019 | 4 3+0.2/=0.5       | 10.5 | 14 | 22   | 1) | 15,0.5             | 14.5 | 32.3 |  |  |  |  |
| 40       | 5, 10                        | 12+0.015 | 54_0.5             | 12   | 16 | 25   | 16 | 17+0.5             | 17.5 | 38   |  |  |  |  |
|          | 15, 20, 25                   | 12       | J4-0.5             | 12   | 10 | 23   | 10 | 17                 | 17.5 | 76   |  |  |  |  |
| 50       | 10                           | 16+0.015 | 64_0,6             | 15   | 21 | 27   | 16 | 20+0.5             | 18.5 | 46.5 |  |  |  |  |
|          | 15, 20, 25                   | 10.0013  | 04-0.6             | 1)   | 21 | 21   | 10 | 2010.5             | 10.5 | 40.5 |  |  |  |  |
| 63       | 10                           | 16+0.015 | 75                 | 15   | 21 | 32   | 21 | 22                 | 23   | 56.5 |  |  |  |  |
|          | 15, 20, 25                   | 10,000   | 75 <sub>-0.6</sub> | 15   | 21 | 32   | 21 | 23 <sub>-0.5</sub> | 23   | 50.5 |  |  |  |  |
| 80       | 10, 15, 20, 25               | 20+0.018 | 93_0.8             | 18   | 25 | 36   | 22 | 28_0.5             | 25   | 72   |  |  |  |  |
| 100      | 10, 15, 20, 25               | 20+0.018 | 109+1/-0.7         | 18   | 25 | 41   | 27 | 30±0.5             | 95   | 89   |  |  |  |  |

| For Ø | Stroke         |              | Х            | C             |            | CRC <sup>1)</sup> | Weight | Part No. | Туре     |
|-------|----------------|--------------|--------------|---------------|------------|-------------------|--------|----------|----------|
|       |                | without posi | tion sensing | with position | on sensing |                   |        |          |          |
| [mm]  | [mm]           | ADVC         | AEVC         | ADVC          | AEVC       |                   | [g]    |          |          |
| 32    | 5              | F.7          | 44           | (1            | (1         | 2                 | 0.6    | 174397   | SNCS-32  |
|       | 10, 15, 20, 25 | 57           | 48           | 61            | 61         | 2                 | 86     |          |          |
| 40    | 5, 10          | 60.5         | 50.5         | 69            | 69         | 2                 | 122    | 174398   | SNCS-40  |
|       | 15, 20, 25     | 00.5         | 55.5         | 09            | 09         | 2                 | 122    |          |          |
| 50    | 10             | 63           | 48.1         | 73            | 75         | 2                 | 216    | 174399   | SNCS-50  |
|       | 15, 20, 25     | 0)           | 55.5         | 7.5           | 7.5        | 2                 | 210    |          |          |
| 63    | 10             | 75           | 58           | 81            | 81         | 2                 | 281    | 174400   | SNCS-63  |
|       | 15, 20, 25     | / /          | 65           | 01            | 01         | 2                 | 201    |          |          |
| 80    | 10, 15, 20, 25 | 84           | 79           | 93            | 93         | 2                 | 557    | 174401   | SNCS-80  |
| 100   | 10, 15, 20, 25 | 100          | 91           | 109           | 109        | 2                 | 683    | 174402   | SNCS-100 |

<sup>1)</sup> Corrosion resistance class CRC 2 to Festo standard FN 940070 Moderate corrosion stress. Indoor applications in which condensation may occur. External visible parts with primarily decorative requirements for the surface and which are in direct contact with the ambient atmosphere typical for industrial applications.

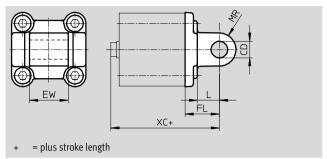




#### Swivel flange SNCL

Material: Die-cast aluminium Free of copper and PTFE RoHS-compliant





| Dimensi           | ons and ordering dat | a  |           |      |    |    |
|-------------------|----------------------|----|-----------|------|----|----|
| For $\varnothing$ | Stroke               | CD | EW        | FL   | L  | MR |
|                   |                      | Ø  |           |      |    |    |
| [mm]              | [mm]                 | H9 | -0.2/-0.6 | ±0.2 |    |    |
| 32                | 5                    | 10 | 26        | 22   | 13 | 10 |
|                   | 10, 15, 20, 25       |    |           |      |    |    |
| 40                | 5, 10                | 12 | 28        | 25   | 16 | 12 |
|                   | 15, 20, 25           |    |           |      |    |    |
| 50                | 10                   | 12 | 32        | 27   | 16 | 12 |
|                   | 15, 20, 25           |    |           |      |    |    |
| 63                | 10                   | 16 | 40        | 32   | 21 | 16 |
|                   | 15, 20, 25           |    |           |      |    |    |
| 80                | 10, 15, 20, 25       | 16 | 50        | 36   | 22 | 16 |
| 100               | 10, 15, 20, 25       | 20 | 60        | 41   | 27 | 20 |

| For $\varnothing$ | Stroke         |              | Х            | С           |            | CRC <sup>1)</sup> | Weight | Part No. | Туре     |
|-------------------|----------------|--------------|--------------|-------------|------------|-------------------|--------|----------|----------|
|                   |                | without posi | tion sensing | with positi | on sensing |                   |        |          |          |
| [mm]              | [mm]           | ADVC         | AEVC         | ADVC        | AEVC       |                   | [g]    |          |          |
| 32                | 5              | 57           | 44           | 61          | 61         | 2                 | 71     | 174404   | SNCL-32  |
|                   | 10, 15, 20, 25 |              | 48           |             |            |                   |        |          |          |
| 40                | 5, 10          | 60.5         | 50.5         | 69          | 69         | 2                 | 95     | 174405   | SNCL-40  |
|                   | 15, 20, 25     |              | 55.5         |             |            |                   |        |          |          |
| 50                | 10             | 63           | 48.1         | 73          | 75         | 2                 | 158    | 174406   | SNCL-50  |
|                   | 15, 20, 25     |              | 55.5         |             |            |                   |        |          |          |
| 63                | 10             | 75           | 58           | 81          | 81         | 2                 | 225    | 174407   | SNCL-63  |
|                   | 15, 20, 25     |              | 65           |             |            |                   |        |          |          |
| 80                | 10, 15, 20, 25 | 84           | 79           | 93          | 93         | 2                 | 436    | 174408   | SNCL-80  |
| 100               | 10, 15, 20, 25 | 100          | 91           | 109         | 109        | 2                 | 655    | 174409   | SNCL-100 |

<sup>1)</sup> Corrosion resistance class CRC 2 to Festo standard FN 940070 Moderate corrosion stress. Indoor applications in which condensation may occur. External visible parts with primarily decorative requirements for the surface and which are in direct contact with the ambient atmosphere typical for industrial applications.



Note

Screws with special lengths are required to fit the sizes  $\varnothing$  80 mm and Ø 100 mm. **→**45



| Ordering data    | - Mounting attach  | ıments         |                  |                 |                   | Tech           | nical data → Internet: clevis foo |
|------------------|--------------------|----------------|------------------|-----------------|-------------------|----------------|-----------------------------------|
| Designation      | For Ø              | Part No.       | Туре             | Designation     | For Ø             | Part No.       | Туре                              |
| Clevis foot mo   | unting LNG         | ·              |                  | Clevis foot mou | inting LSN        |                |                                   |
| $\overline{}$    | 32                 | 33890          | LNG-32           |                 | 32                | 5561           | LSN-32                            |
|                  | 40                 | 33891          | LNG-40           |                 | 40                | 5562           | LSN-40                            |
|                  | 50                 | 33892          | LNG-50           |                 | 50                | 5563           | LSN-50                            |
|                  | 63                 | 33893          | LNG-63           |                 | 63                | 5564           | LSN-63                            |
|                  | 80                 | 33894          | LNG-80           |                 | 80                | 5565           | LSN-80                            |
|                  | 100                | 33895          | LNG-100          |                 | 100               | 5566           | LSN-100                           |
| Clevis foot mo   | unting LSNG        |                |                  | Weld-on clevis  | foot mounting LSN | SG             |                                   |
|                  | 32                 | 31740          | LSNG-32          |                 | 32                | 31747          | LSNSG-32                          |
|                  | 40                 | 31741          | LSNG-40          |                 | 40                | 31748          | LSNSG-40                          |
|                  | 50                 | 31742          | LSNG-50          |                 | 50                | 31749          | LSNSG-50                          |
|                  | 63                 | 31743          | LSNG-63          |                 | 63                | 31750          | LSNSG-63                          |
|                  | 80                 | 31744          | LSNG-80          |                 | 80                | 31751          | LSNSG-80                          |
|                  | 100                | 31745          | LSNG-100         |                 | 100               | 31752          | LSNSG-100                         |
|                  |                    |                |                  | 01.1.5.1.7.0    |                   |                |                                   |
| Clevis foot LBC  | on swivel flange S |                | 100.00           | Clevis foot LBG | on rod eye SGS    | 101-11         | 180.00                            |
|                  | 32                 | 31761          | LBG-32           | <b>F</b>        | 32, 40            | 31761          | LBG-32                            |
| \                | 40                 | 31762<br>31763 | LBG-40<br>LBG-50 | ]\\\@\          | 50, 63<br>80      | 31762          | LBG-40                            |
|                  | 50<br>63           | 31764          | LBG-50<br>LBG-63 |                 | 80                | 31763<br>31764 | LBG-50<br>LBG-63                  |
|                  | 80                 | 31765          | LBG-83           |                 | 100               | 31764          | LBG-80                            |
|                  | 100                | 31766          | LBG-100          |                 | 100               | 31766          | LBG-100                           |
|                  | 100                | 31700          | LBG-100          |                 |                   | 31700          | LDG-100                           |
| Clevis foot, rig | ht-angled LQG      |                |                  |                 |                   |                |                                   |
|                  | 32, 40             | 31768          | LQG-32           |                 |                   |                |                                   |
|                  | 50, 63             | 31769          | LQG-40           |                 |                   |                |                                   |
|                  | 80                 | 31770          | LQG-50           |                 |                   |                |                                   |
|                  |                    | 31771          | LQG-63           |                 |                   |                |                                   |
|                  | 100                | 31772          | LQG-80           |                 |                   |                |                                   |
|                  |                    | 31773          | LQG-100          |                 |                   |                |                                   |

| Ordering data                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                   |                                       |          |        |                  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|---------------------------------------|----------|--------|------------------|
| Special screw                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | For $\varnothing$ | For accessory                         | Part No. |        | PU <sup>1)</sup> |
| CHARLES THE STATE OF THE STATE | 80, 100           | HNC, FNC,<br>SNC, SNCS,<br>SNCL, SNCB | 238600   | M10x30 | 1                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 80                | ZNCF                                  | 204138   | M10x40 | -                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 100               | ZNCF                                  | 370524   | M10x50 |                  |

<sup>1)</sup> Packaging unit quantity



| _                                      | – Piston rod a |          |                  |                  |               |          | Internet: piston- |
|----------------------------------------|----------------|----------|------------------|------------------|---------------|----------|-------------------|
| Designation                            | For Ø          | Part No. | Type             | Designation      | For Ø         | Part No. | Туре              |
| od eye SGS                             |                |          |                  | Rod clevis SGA   |               |          |                   |
| ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ | 10             | 9253     | SGS-M4           |                  | 32            | _        | _                 |
|                                        | 16             | 9254     | SGS-M6           |                  | 40            |          |                   |
| 9                                      | 20             | 9255     | SGS-M8           | ,                | 50            |          |                   |
|                                        | 25             |          |                  |                  | 63            |          |                   |
|                                        | 32             | 9261     | SGS-M10x1,25     |                  | 32            | 32954    | SGA-M10x1.25      |
|                                        | 40             |          |                  |                  | 40            |          |                   |
|                                        | 50             | 9262     | SGS-M12x1,25     |                  | 50            | 10767    | SGA-M12x1,25      |
|                                        | 63             |          |                  |                  | 63            |          |                   |
|                                        | 80             | 9263     | SGS-M16x1,5      |                  | 80            | 10768    | SGA-M16x1,5       |
|                                        | 100            | 9264     | SGS-M20x1,5      |                  | 100           | 10769    | SGA-M20x1,5       |
|                                        |                |          |                  |                  |               |          |                   |
| od clevis SG                           |                |          |                  | Self-aligning ro | od coupler FK |          |                   |
|                                        | 10             | 6532     | SG-M4            |                  | 10            | 6528     | FK-M4             |
| <b>**</b>                              | 12             | -        | -                |                  | 12            | 30984    | FK-M5             |
| 9                                      | 16             | 3110     | SG-M6            |                  | 16            | 2061     | FK-M6             |
|                                        | 20             | 3111     | SG-M8            |                  | 20            | 2062     | FK-M8             |
|                                        | 25             |          |                  |                  | 25            |          |                   |
|                                        | 32             | 6144     | SG-M10x1,25      |                  | 32            | 6140     | FK-M10x1,25       |
|                                        | 40             |          |                  |                  | 40            |          |                   |
|                                        | 50             | 6145     | SG-M12x1,25      |                  | 50            | 6141     | FK-M12x1,25       |
|                                        | 63             |          |                  |                  | 63            |          |                   |
|                                        | 80             | 6146     | SG-M16x1,5       |                  | 80            | 6142     | FK-M16x1,5        |
|                                        | 100            | 6147     | SG-M20x1,5       |                  | 100           | 6143     | FK-M20x1,5        |
| oupling piec                           | e KSG          |          |                  |                  | П             | 1        |                   |
| ~ ~                                    | 32             | 32963    | KSG-M10x1,25     |                  |               |          |                   |
|                                        | 40             |          |                  |                  |               |          |                   |
|                                        | 50             | 32964    | KSG-M12x1,25     |                  |               |          |                   |
|                                        | 63             | 32704    | 1130-11112/11/27 |                  |               |          |                   |
|                                        | 80             | 32965    | KSG-M16x1,5      |                  |               |          |                   |
| $\checkmark$                           | 100            | 32966    | KSG-M10x1,5      |                  |               |          |                   |
|                                        | 100            | 32300    | NJU-IVIZUA1,J    |                  |               |          |                   |



| Ordering data      | - Proximity sensors for T-slot, magneto-                                     | esistive |                       |              |          | Technical data → Internet: smt |
|--------------------|------------------------------------------------------------------------------|----------|-----------------------|--------------|----------|--------------------------------|
|                    | Type of mounting                                                             | Switch   | Electrical connection | Cable length | Part No. | Туре                           |
|                    |                                                                              | output   |                       | [m]          |          |                                |
| N/O contact        |                                                                              |          |                       |              |          |                                |
|                    | Insertable in the slot from above, flush                                     | PNP      | Cable, 3-wire         | 2.5          | 574335   | SMT-8M-A-PS-24V-E-2,5-0E       |
| THE REAL PROPERTY. | with cylinder profile, short design                                          |          | Plug M8x1, 3-pin      | 0.3          | 574334   | SMT-8M-A-PS-24V-E-0,3-M8D      |
|                    |                                                                              |          | Plug M12x1, 3-pin     | 0.3          | 574337   | SMT-8M-A-PS-24V-E-0,3-M12      |
|                    |                                                                              | NPN      | Cable, 3-wire         | 2.5          | 574338   | SMT-8M-A-NS-24V-E-2,5-0E       |
|                    |                                                                              |          | Plug M8x1, 3-pin      | 0.3          | 574339   | SMT-8M-A-NS-24V-E-0,3-M8D      |
|                    |                                                                              |          |                       | ·            |          |                                |
| N/C contact        |                                                                              |          |                       |              |          |                                |
| AL ST              | Insertable in the slot from above, flush with cylinder profile, short design | PNP      | Cable, 3-wire         | 7.5          | 574340   | SMT-8M-A-PO-24V-E-7,5-OE       |

| Ordering data | - Proximity sensors for T-slot, magnetic | reed       |                       |              |          | Technical data → Internet: sme |
|---------------|------------------------------------------|------------|-----------------------|--------------|----------|--------------------------------|
|               | Type of mounting                         | Switch     | Electrical connection | Cable length | Part No. | Туре                           |
|               |                                          | output     |                       | [m]          |          |                                |
| N/O contact   |                                          |            |                       |              |          |                                |
|               | Insertable in the slot from above, flush | Contacting | Cable, 3-wire         | 2.5          | 543862   | SME-8M-DS-24V-K-2,5-0E         |
|               | with cylinder profile                    |            |                       | 5.0          | 543863   | SME-8M-DS-24V-K-5,0-0E         |
|               |                                          |            | Cable, 2-wire         | 2.5          | 543872   | SME-8M-ZS-24V-K-2,5-OE         |
|               |                                          |            | Plug M8x1, 3-pin      | 0.3          | 543861   | SME-8M-DS-24V-K-0,3-M8D        |
|               | Insertable in the slot lengthwise, flush | Contacting | Cable, 3-wire         | 2.5          | 150855   | SME-8-K-LED-24                 |
|               | with the cylinder profile                |            | Plug M8x1, 3-pin      | 0.3          | 150857   | SME-8-S-LED-24                 |
| N/C contact   |                                          |            |                       |              |          |                                |
| N. C.         | Insertable in the slot lengthwise, flush | Contacting | Cable, 3-wire         | 7.5          | 160251   | SME-8-O-K-LED-24               |
|               | with the cylinder profile                |            |                       |              |          |                                |

| Ordering da | ata – Connecting cables       |                              |                  |          | Technical data → Internet: nebu |
|-------------|-------------------------------|------------------------------|------------------|----------|---------------------------------|
|             | Electrical connection, left   | Electrical connection, right | Cable length [m] | Part No. | Туре                            |
|             | Straight socket, M8x1, 3-pin  | Cable, open end, 3-wire      | 2.5              | 541333   | NEBU-M8G3-K-2.5-LE3             |
| <b>O</b>    |                               |                              | 5                | 541334   | NEBU-M8G3-K-5-LE3               |
|             | Straight socket, M12x1, 5-pin | Cable, open end, 3-wire      | 2.5              | 541363   | NEBU-M12G5-K-2.5-LE3            |
|             |                               |                              | 5                | 541364   | NEBU-M12G5-K-5-LE3              |
|             | Angled socket, M8x1, 3-pin    | Cable, open end, 3-wire      | 2.5              | 541338   | NEBU-M8W3-K-2.5-LE3             |
|             |                               |                              | 5                | 541341   | NEBU-M8W3-K-5-LE3               |
|             | Angled socket, M12x1, 5-pin   | Cable, open end, 3-wire      | 2.5              | 541367   | NEBU-M12W5-K-2.5-LE3            |
|             |                               |                              | 5                | 541370   | NEBU-M12W5-K-5-LE3              |

| Ordering data | - Slot cover for T-slot |          |          |         |
|---------------|-------------------------|----------|----------|---------|
|               | Mounting                | Length   | Part No. | Туре    |
|               | Insertable from above   | 2x 0.5 m | 151680   | ABP-5-S |



| Ordering data | - Proximity switches for C-s | lot, magneto-r | esistive                                    |                  |          | Technical data → Internet: smt |
|---------------|------------------------------|----------------|---------------------------------------------|------------------|----------|--------------------------------|
|               | Type of mounting             |                | Electrical connection, connection direction | Cable length [m] | Part No. | Туре                           |
| N/O contact   |                              |                |                                             |                  |          |                                |
|               | Insertable in the slot from  | PNP            | Plug M8x1, 3-pin, in-line                   | 0,3              | 551375   | SMT-10M-PS-24V-E-0,3-L-M8D     |
| 15 B          | above                        |                | Cable, 3-wire, in-line                      | 2,5              | 551373   | SMT-10M-PS-24V-E-2,5-L-0E      |

| Ordering data | - Proximity switches for C-s | ordering data – Proximity switches for C-slot, magnetic reed |                           |              |          |                  |  |
|---------------|------------------------------|--------------------------------------------------------------|---------------------------|--------------|----------|------------------|--|
|               | Type of mounting             | Switch                                                       | Electrical connection,    | Cable length | Part No. | Туре             |  |
|               |                              | output                                                       | connection direction      | [m]          |          |                  |  |
|               |                              |                                                              |                           |              |          |                  |  |
| N/O contact   |                              | l'                                                           |                           |              |          |                  |  |
| N/O contact   | Insertable in the slot       | Contacting                                                   | Plug M8x1, 3-pin, in-line | 0,3          | 173212   | SME-10-SL-LED-24 |  |

| Ordering data | a – Connecting cables        | Technical data → Internet: nebu |                  |          |                     |
|---------------|------------------------------|---------------------------------|------------------|----------|---------------------|
|               | Electrical connection, left  | Electrical connection, right    | Cable length [m] | Part No. | Туре                |
|               | Straight socket, M8x1, 3-pin | Cable, open end, 3-wire         | 2,5              | 541333   | NEBU-M8G3-K-2.5-LE3 |
|               |                              |                                 | 5                | 541334   | NEBU-M8G3-K-5-LE3   |
|               | Angled socket, M8x1, 3-pin   | Cable, open end, 3-wire         | 2,5              | 541338   | NEBU-M8W3-K-2.5-LE3 |
|               |                              |                                 | 5                | 541341   | NEBU-M8W3-K-5-LE3   |

| Ordering data   | rdering data – One-way flow control valves Technical data → Into |                 |              |          |                  |  |  |  |  |
|-----------------|------------------------------------------------------------------|-----------------|--------------|----------|------------------|--|--|--|--|
|                 | Connection                                                       |                 | Material     | Part No. | Туре             |  |  |  |  |
|                 | Thread                                                           | For tubing O.D. |              |          |                  |  |  |  |  |
| For exhaust air |                                                                  |                 |              |          |                  |  |  |  |  |
|                 | M3                                                               | 3               | Metal design | 175041   | GRLA-M3-QS-3     |  |  |  |  |
|                 | M5                                                               | 3               |              | 193137   | GRLA-M5-QS-3-D   |  |  |  |  |
|                 |                                                                  | 4               |              | 193138   | GRLA-M5-QS-4-D   |  |  |  |  |
|                 |                                                                  | 6               |              | 193139   | GRLA-M5-QS-6-D   |  |  |  |  |
|                 | G1/8                                                             | 3               |              | 193142   | GRLA-1/8-QS-3-D  |  |  |  |  |
|                 |                                                                  | 4               |              | 193143   | GRLA-1/8-QS-4-D  |  |  |  |  |
|                 |                                                                  | 6               |              | 193144   | GRLA-1/8-QS-6-D  |  |  |  |  |
|                 |                                                                  | 8               |              | 193145   | GRLA-1/8-QS-8-D  |  |  |  |  |
|                 | G1/4                                                             | 6               |              | 193146   | GRLA-1/4-QS-6-D  |  |  |  |  |
|                 |                                                                  | 8               |              | 193147   | GRLA-1/4-QS-8-D  |  |  |  |  |
|                 |                                                                  | 10              |              | 193148   | GRLA-1/4-QS-10-D |  |  |  |  |
|                 |                                                                  |                 |              |          |                  |  |  |  |  |
| For supply air  |                                                                  |                 |              |          |                  |  |  |  |  |
|                 | M3                                                               | 3               | Metal design | 175043   | GRLZ-M3-QS-3     |  |  |  |  |
|                 | M5                                                               | 3               |              | 193153   | GRLZ-M5-QS-3-D   |  |  |  |  |
|                 |                                                                  | 4               |              | 193154   | GRLZ-M5-QS-4-D   |  |  |  |  |
|                 |                                                                  | 6               |              | 193155   | GRLZ-M5-QS-6-D   |  |  |  |  |
|                 | G1/8                                                             | 3               |              | 193156   | GRLZ-1/8-QS-3-D  |  |  |  |  |
|                 |                                                                  | 4               |              | 193157   | GRLZ-1/8-QS-4-D  |  |  |  |  |
|                 |                                                                  | 6               |              | 193158   | GRLZ-1/8-QS-6-D  |  |  |  |  |
|                 |                                                                  | 8               |              | 193159   | GRLZ-1/8-QS-8-D  |  |  |  |  |