

## Compact cylinder, double-acting ADN-S

**FESTO**



## Characteristics

### At a glance

Further information → [adn-s](#)

- Very compact design: shorter than comparable cylinders
- Reduced housing length: saving materials and weight
- Reduced housing width: for space-critical applications
- Large selection: standard strokes 5 ... 50 mm
- Design by Festo: visually compelling

### Product segmentation



#### Festo Core Range

Solves the majority of your automation tasks

With the Festo Core Range, we have selected the most important products and functions from our broad product catalogue, and added the quickest delivery. The Core Range offers you the best value with the expected high Festo quality.

- Quickest delivery, worldwide – wherever, whenever
- Expected high Festo quality
- Easy and fast to select

### Diagrams

Further information → [adn-s](#)



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

### Design type

[S] Short

Particularly suitable for applications where space is critical

### Piston rod thread type

[A] Male thread

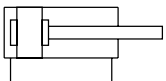


[I] Female thread



### Cushioning

[P] Elastic cushioning rings/plates on both sides



The drive is fitted with elastic polymer end-position cushioning.

Benefits:

- No adjustment required
- Saves time

### Position sensing

[A] For proximity sensor

By using proximity switches, any position can be detected.

## Characteristics

### Special material properties

[F1A] Recommended for production facilities for the manufacture of lithium-ion batteries

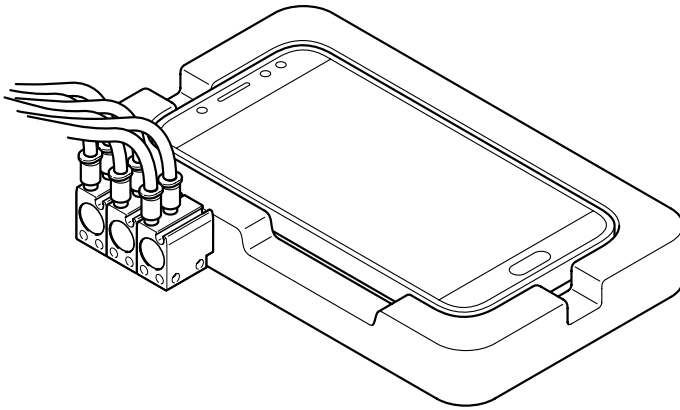
#### Product:

Metals with more than 1% copper, zinc or nickel by mass are excluded from use. Exceptions are nickel in steel, chemically nickel-plated surfaces, circuit boards, cables, electrical plug connectors and coils

#### Accessories:

Please contact your Festo representative for information on which accessories are suitable for manufacturing lithium-ion batteries

### Application example



- Endurance testing of smartphone buttons

## Compact cylinder, double-acting ADN-S

### Type code

| 001   | Series                          |
|-------|---------------------------------|
| ADN-S | Compact cylinder, double-acting |

| 002 | Design type |
|-----|-------------|
| S   | Short       |

| 003 | Piston diameter [mm] |
|-----|----------------------|
| 6   | 6                    |
| 10  | 10                   |
| 12  | 12                   |
| 16  | 16                   |
| 20  | 20                   |
| 25  | 25                   |
| 32  | 32                   |
| 40  | 40                   |
| 50  | 50                   |
| 63  | 63                   |

| 004 | Stroke [mm] |
|-----|-------------|
| 5   | 5           |
| 10  | 10          |
| 15  | 15          |
| 20  | 20          |
| 25  | 25          |
| 30  | 30          |
| 35  | 35          |
| 40  | 40          |
| 45  | 45          |
| 50  | 50          |

| 005 | Piston rod thread type |
|-----|------------------------|
| A   | Male thread            |
| I   | Female thread          |

| 006 | Cushioning                                    |
|-----|---|
|     | No cushioning                                 |
| P   | Elastic cushioning rings/plates on both sides |

| 007 | Position sensing     |
|-----|----------------------|
|     | None                 |
| A   | For proximity sensor |

| 008 | Special material properties  |
|-----|--|
|     | None   |
| F1A | Recommended for production facilities for the manufacture of lithium-ion batteries |

## Datasheet

| Operating and environmental conditions       |  |                     |                  |       |                 |       |  |                 |       |       |
|--|--|---------------------|------------------|-------|-----------------|-------|--|-----------------|-------|-------|
| Piston diameter                              | 6 mm   | 10 mm               | 12 mm            | 16 mm | 20 mm           | 25 mm | 32 mm  | 40 mm           | 50 mm | 63 mm |
| Operating pressure <sup>1)</sup>             | 0.2 ...<br>0.8 MPa   | 0.1 ...<br>0.8 MPa  | 0.1 ... 1 MPa    |       | 0.06 ... 1 MPa  |       |  | 0.04 ... 1 MPa  |       |       |
| Operating pressure <sup>2)</sup>             | 2 ... 8 bar  | 1 ... 8 bar         | 1 ... 10 bar     |       | 0.6 ... 10 bar  |       |  | 0.4 ... 10 bar  |       |       |
| Operating pressure <sup>3)</sup>             | 21.75 ...<br>116 psi   | 14.5 ...<br>116 psi | 14.5 ... 145 psi |       | 8.7 ... 145 psi |       |  | 5.8 ... 145 psi |       |       |
| Operating medium                             | Compressed air to ISO 8573-1:2010 [7:4:4]  |                     |                  |       |                 |       |  |                 |       |       |
| Note on operating and pilot medium           | Lubricated operation possible (in which case lubricated operation will always be required) |                     |                  |       |                 |       |  |                 |       |       |
| Ambient temperature <sup>4)</sup>            | -10 ... 60°C   |                     | 0 ... 60°C       |       |                 |       |  |                 |       |       |
| Corrosion resistance class CRC <sup>5)</sup> | 1 - Low corrosion stress<br>2 - Moderate corrosion stress                                  |                     |                  |       |                 |       | 0 - No corrosion stress<br>1 - Low corrosion stress<br>2 - Moderate corrosion stress |                 |       |       |

1) The minimum pressure values in the retracting direction may be slightly higher after an extended idle time.

2) The minimum pressure values in the retracting direction may be slightly higher after an extended idle time.

3) The minimum pressure values in the retracting direction may be slightly higher after an extended idle time.

4) Note the operating range of the proximity switches.

5) Corrosion resistance class for each individual type → Ordering information. More information [www.festo.com/x/topic/kbk](http://www.festo.com/x/topic/kbk)

| Forces   |       |        |       |       |       |       |       |       |         |         |
|--|-------|--------|-------|-------|-------|-------|-------|-------|---------|---------|
| Piston diameter  | 6 mm  | 10 mm  | 12 mm | 16 mm | 20 mm | 25 mm | 32 mm | 40 mm | 50 mm   | 63 mm   |
| Theoretical force at 0.6 MPa (6 bar, 87 psi), advance stroke | 17 N  | 47 N   | 68 N  | 121 N | 188 N | 295 N | 483 N | 754 N | 1,178 N | 1,870 N |
| Theoretical force at 0.6 MPa (6 bar, 87 psi), return stroke  | 9.4 N | 30.2 N | 51 N  | 90 N  | 141 N | 247 N | 415 N | 686 N | 1,057 N | 1,750 N |

| Impact energy without position sensing |         |         |        |       |        |        |        |
|--|---------|---------|--------|-------|--------|--------|--------|
| Piston diameter                        | 6 mm    | 10 mm   | 12 mm  | 16 mm | 20 mm  | 25 mm  | 32 mm  |
| Impact energy in end positions         | 0.006 J | 0.012 J | 0.06 J | 0.1 J | 0.14 J | 0.18 J | 0.26 J |

| Impact energy with position sensing |         |         |        |        |       |       |       |       |       |       |
|-------------------------------------|---------|---------|--------|--------|-------|-------|-------|-------|-------|-------|
| Piston diameter                     | 6 mm    | 10 mm   | 12 mm  | 16 mm  | 20 mm | 25 mm | 32 mm | 40 mm | 50 mm | 63 mm |
| Impact energy in end positions      | 0.006 J | 0.012 J | 0.07 J | 0.15 J | 0.2 J | 0.3 J | 0.4 J | 0.7 J | 1 J   | 1.3 J |

| Weight without position sensing for Ø 6 ... 10 mm |       |  |               |       |               |
|---|-------|--|---------------|-------|---------------|
| Piston diameter                                   | 6 mm  |  |               | 10 mm |               |
| Stroke  | 5 mm  |  | 10 mm         |       | 10 mm         |
| Product weight                                    | 9.2 g |  | 11.9 ... 15 g |       | 12.2 ... 17 g |
| Moving mass                                       | 1.5 g |  | 2.3 g         |       | 4.1 g         |

| Weight with position sensing for Ø 6 ... 10 mm |        |  |               |       |               |
|--|--------|--|---------------|-------|---------------|
| Piston diameter                                | 6 mm   |  |               | 10 mm |               |
| Stroke   | 5 mm   |  | 10 mm         |       | 10 mm         |
| Product weight                                 | 10.9 g |  | 13.6 ... 15 g |       | 14.5 ... 17 g |
| Moving mass                                    | 1.6 g  |  | 2.4 g         |       | 4.5 g         |

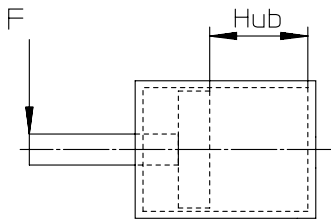
| Weight without position detection for Ø 12 ... 63 mm |       |  |        |       |       |       |
|--|-------|--|--------|-------|-------|-------|
| Piston diameter                                      | 12 mm |  | 16 mm  | 20 mm | 25 mm | 32 mm |
| Basic weight for 0 mm stroke                         | 26 g  |  | 32.5 g | 51 g  | 70 g  | 107 g |
| Additional weight per 10 mm stroke                   | 15 g  |  | 18 g   | 26 g  | 30 g  | 36 g  |
| Moving mass for 0 mm stroke                          | 3.5 g |  | 6 g    | 11 g  | 17 g  | 31 g  |
| Additional moving mass per 10 mm stroke              | 2 g   |  | 4 g    | 6 g   |       | 9 g   |

## Datasheet

### Weight with position sensing for Ø 12 ... 63 mm

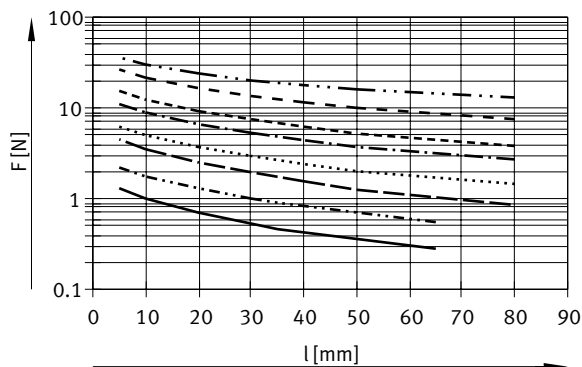
| Piston diameter                         | 12 mm | 16 mm | 20 mm | 25 mm | 32 mm | 40 mm | 50 mm | 63 mm |
|---|-------|-------|-------|-------|-------|-------|-------|-------|
| Basic weight for 0 mm stroke            | 33 g  | 42 g  | 65 g  | 88 g  | 117 g | 304 g | 324 g | 499 g |
| Additional weight per 10 mm stroke      | 15 g  | 18 g  | 26 g  | 30 g  | 36 g  | 45 g  | 63 g  | 77 g  |
| Moving mass for 0 mm stroke             | 6 g   | 11 g  | 18 g  | 25 g  | 37 g  | 62 g  | 104 g | 151 g |
| Additional moving mass per 10 mm stroke | 2 g   | 4 g   | 6 g   |       | 9 g   |       | 16 g  |       |

### Max. transverse force $F_q$ as a function of cantilever load $l$



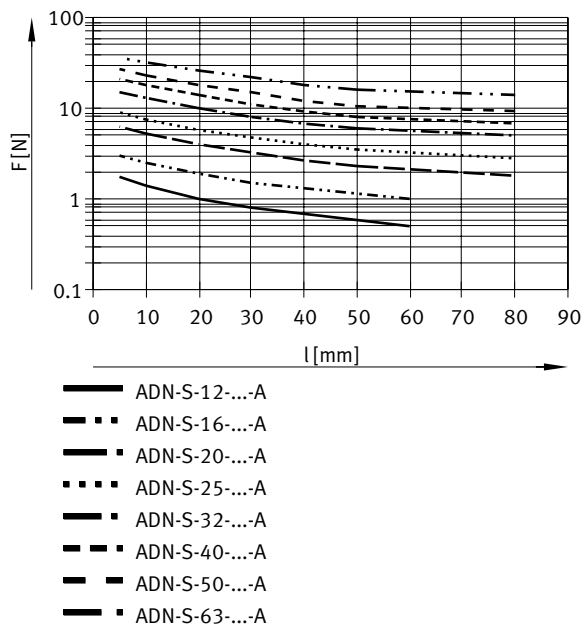
The piston Ø 6 ... 10 must not be subjected to transverse forces. More information → [www.festo.com](http://www.festo.com) User documentation.

### Max. transverse force $F_q$ as a function of cantilever load $l$ – without sensing



- ADN-S-12
- - - ADN-S-16
- ■ ADN-S-20
- · · · · ADN-S-25
- ■ ADN-S-32
- - - ■ ADN-S-40
- ■ ADN-S-50
- ■ ADN-S-63

## Datasheet

Max. transverse force  $F_q$  as a function of cantilever load  $l$  – with sensing

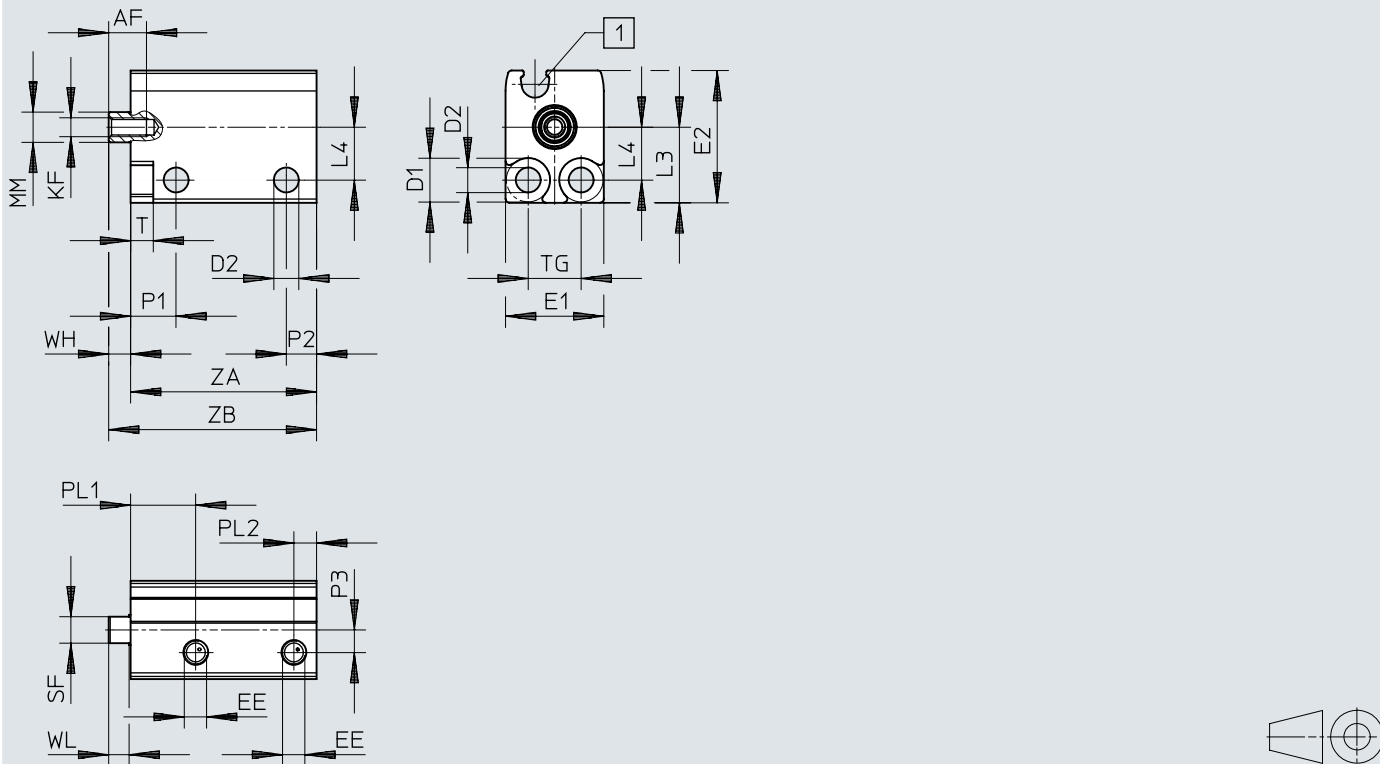
## Materials

| Piston diameter                                    | 6 mm  | 10 mm | 12 mm                            | 16 mm | 20 mm | 25 mm | 32 mm | 40 mm     | 50 mm | 63 mm |  |
|--|---|-------|----------------------------------|-------|-------|-------|-------|-----------|-------|-------|--|
| Material housing                                   | Wrought aluminium alloy<br>Anodised wrought aluminium alloy<br>Anodised   |       | Anodised wrought aluminium alloy |       |       |       |       |           |       |       |  |
| Material cover                                     | Wrought aluminium alloy   |       | Anodised wrought aluminium alloy |       |       |       |       |           |       |       |  |
| Material piston rod                                | High-alloy stainless steel  |       |                                  |       |       |       |       |           |       |       |  |
| Material dynamic seals                             | NBR<br>TPE-U(PU)  |       |                                  |       |       |       |       | TPE-U(PU) |       |       |  |
| Note on materials                                  | RoHS-compliant  |       |                                  |       |       |       |       |           |       |       |  |
| LABS (PWIS) conformity                             | VDMA24364-B2-L  |       |                                  |       |       |       |       |           |       |       |  |
| Cleanroom class                                    | Class 6 according to ISO 14644-1  |       |                                  |       |       |       |       |           |       |       |  |
| Suitability for the production of Li-ion batteries | Metals with more than 1% by mass of copper, zinc or nickel are excluded from use. Exceptions are nickel in steel, chemically nickel-plated surfaces, printed circuit boards, cables, electrical plug connectors and coils |       |                                  |       |       |       |       |           |       |       |  |

## Dimensions

Dimensions – Ø 6 ... 10 mm – with female thread

Download CAD data → [www.festo.com](http://www.festo.com)



[1] C-slot for proximity switch

|          | AF | D1<br>Ø<br>H13 | D2<br>Ø | EE | E1<br>max. | E2<br>max. | KF   | L3 | L4 | MM<br>Ø |
|----------|----|----------------|---------|----|------------|------------|------|----|----|---------|
| ADN-S-6  | 5  | 5,8            | 3,3     | M3 | 13         | 17,5       | M2,5 | 10 | 7  | 4       |
| ADN-S-10 | 6  |                |         |    | 13,5       | 20,5       | M3   | 11 | 8  | 6       |

|          | P1 | P2 | P3  | PL2 | SF  | T | TG<br>±0,1 | WH | WL  |
|----------|----|----|-----|-----|-----|---|------------|----|-----|
| ADN-S-6  | 6  | 4  | 3   | 3   | 3,5 | 3 | 7          | 3  | 2,7 |
| ADN-S-10 |    |    | 3,2 |     | 5   |   |            |    |     |

|          | L <sup>1)</sup><br>[mm] | 2) | PL1 | ZA<br>+0,3 | ZB<br>±0,35 |
|----------|-------------------------|----|-----|------------|-------------|
| ADN-S-6  | 5                       | –  | 8,6 | 20,5       | 23,5        |
|          |                         | ■  | 8,6 | 24,5       | 27,5        |
|          | 10                      | –  | 8,6 | 25,5       | 28,5        |
|          |                         | ■  | 8,6 | 29,5       | 32,5        |
| ADN-S-10 | 5                       | –  | 9,2 | 20,5       | 23,5        |
|          |                         | ■  | 9,9 | 24,5       | 27,5        |
|          | 10                      | –  | 9,2 | 25,5       | 28,5        |
|          |                         | ■  | 9,9 | 29,5       | 32,5        |

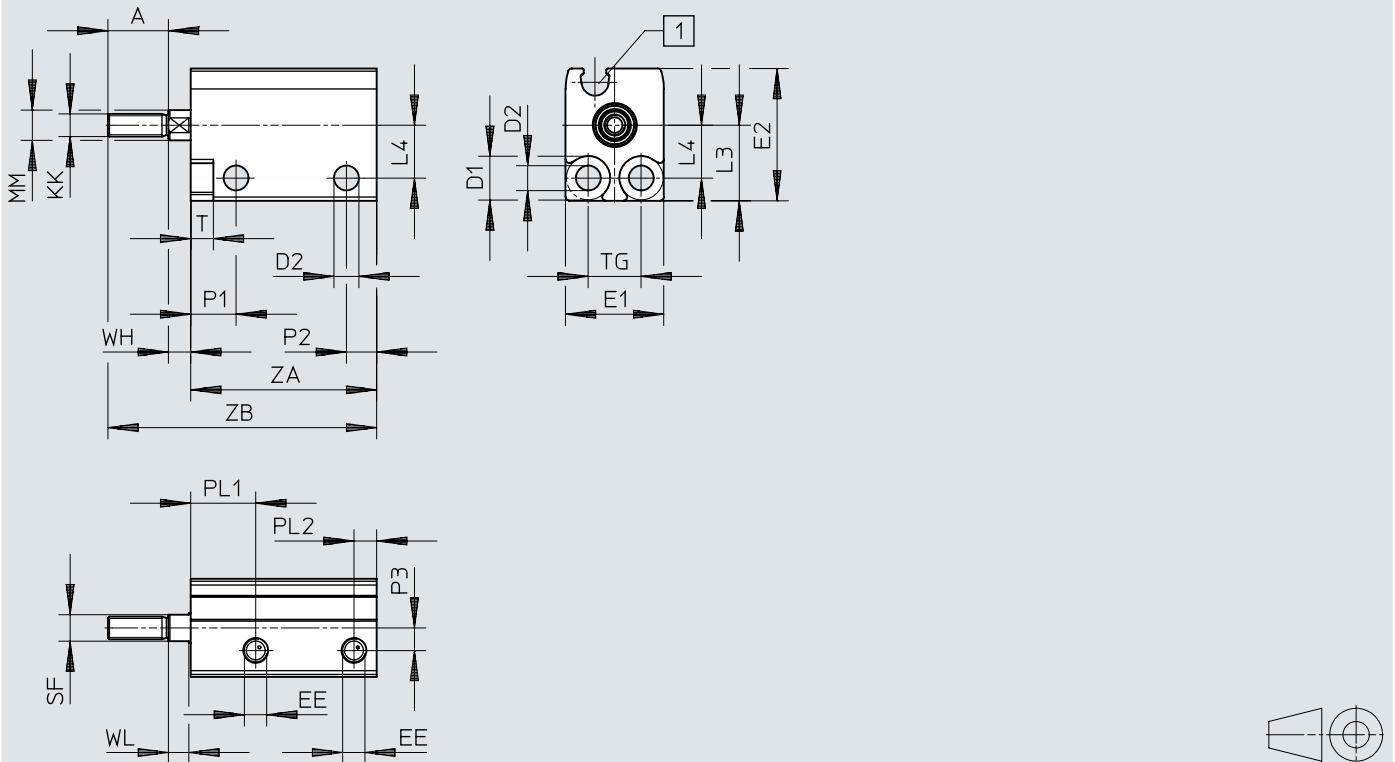
1) Stroke  
2) Position sensing



## Dimensions

Dimensions – Ø 6 ... 10 mm – With male thread

Download CAD data → [www.festo.com](http://www.festo.com)



[1] C-slot for proximity switch

|          | A  | D1<br>Ø<br>H13 | D2<br>Ø | EE | E1<br>max. | E2<br>max. | KK | L3 | L4 | MM<br>Ø |
|----------|----|----------------|---------|----|------------|------------|----|----|----|---------|
| ADN-S-6  | 8  | 5,8            | 3,3     | M3 | 13         | 17,5       | M3 | 10 | 7  | 4       |
| ADN-S-10 | 10 |                |         |    | 13,5       | 20,5       | M4 | 11 | 8  | 6       |

|          | P1 | P2 | P3  | PL2 | SF  | T | TG<br>±0,1 | WH | WL  |
|----------|----|----|-----|-----|-----|---|------------|----|-----|
| ADN-S-6  | 6  | 4  | 3   | 3   | 3,5 | 3 | 7          | 3  | 2,7 |
| ADN-S 10 |    |    | 3,2 |     | 5   |   |            |    |     |

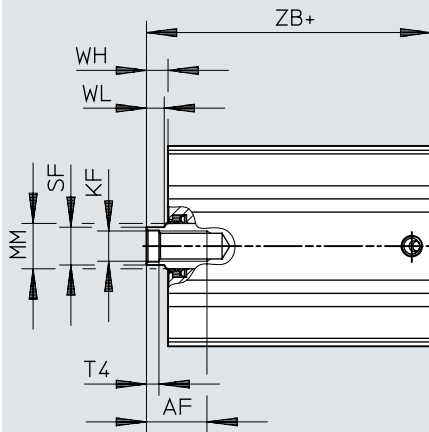
|          | L <sup>1)</sup><br>[mm] | 2) | PL1 | ZA<br>+0,3 | ZB<br>±0,35 |
|----------|-------------------------|----|-----|------------|-------------|
| ADN-S 6  | 5                       | –  | 8,6 | 20,5       | 31,5        |
|          |                         | ■  | 8,6 | 24,5       | 35,5        |
|          | 10                      | –  | 8,6 | 25,5       | 36,5        |
| ADN-S 10 | 5                       | –  | 9,2 | 20,5       | 33,5        |
|          |                         | ■  | 9,9 | 24,5       | 37,5        |
|          | 10                      | –  | 9,2 | 25,5       | 38,5        |
|          |                         | ■  | 9,9 | 29,5       | 42,5        |

- 1) Stroke
- 2) Position sensing

## Dimensions

Dimensions – Ø 12 ... 63 mm – with female thread

Download CAD data → [www.festo.com](http://www.festo.com)



[1] += plus stroke length

|          | AF<br>min. | KF  | MM<br>Ø<br>h8 | SF<br>h13 | T4  | WH<br>+1 | WL<br>-0,15 | ZB   |                       |
|----------|------------|-----|---------------|-----------|-----|----------|-------------|------|-----------------------|
|          |            |     |               |           |     |          |             | +1,2 | <sup>1)</sup><br>+1,2 |
| ADN-S-12 | 8          | M3  | 6             | 5         | 1,5 | 2,5      | 2,7         | 18   | 22                    |
| ADN-S-16 | 10         | M4  | 8             | 7         | 1,5 | 3        | 3,5         | 19   | 23,5                  |
| ADN-S-20 | 11         | M6  | 10            | 9         | 2,6 | 3        | 4           | 20,5 | 25                    |
| ADN-S-25 | 11         | M6  | 10            | 9         | 2,6 | 3,5      | 4,2         | 22,5 | 27                    |
| ADN-S-32 | 12         | M8  | 12            | 10        | 3,3 | 4        | 4,7         | 25,5 | 29                    |
| ADN-S-40 | 16         | M8  | 12            | 10        | 3,3 | 5        | 4,7         | –    | 34,5                  |
| ADN-S-50 | 16         | M10 | 16            | 13        | 4,7 | 7        | 6,5         | –    | 39                    |
| ADN-S-63 | 20         | M10 | 16            | 13        | 4,7 | 7        | 6,5         | –    | 42                    |

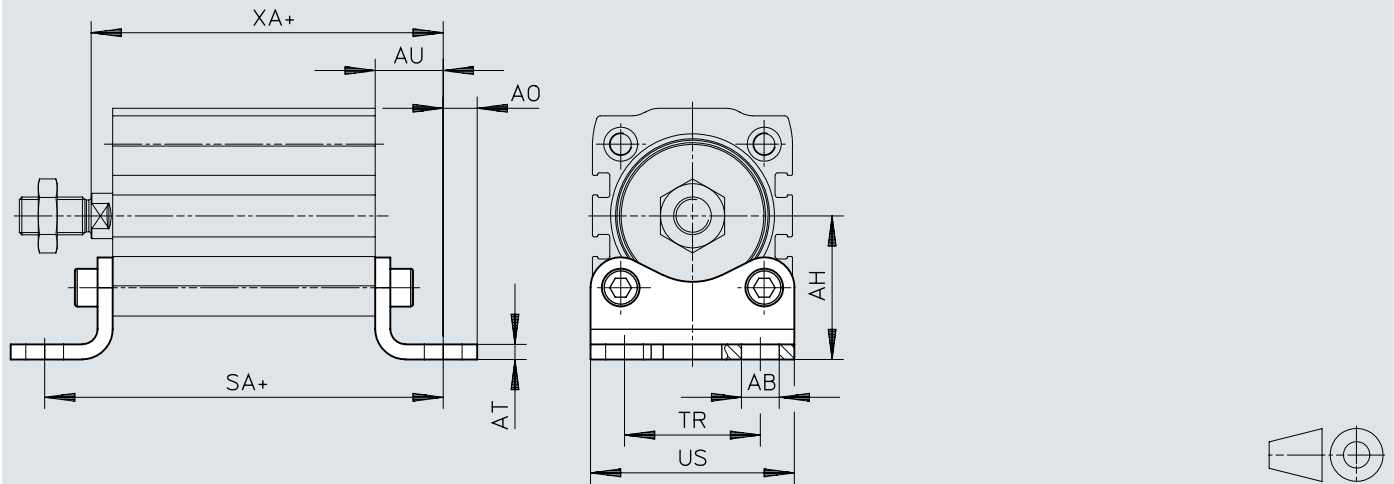
1) Position sensing



## Dimensions

### Dimensions – Foot mounting HNA

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[1] += plus stroke length

|        | AB  | AH   | AO   | AT   | AU   | SA <sup>3)</sup> |               | TR   | US   | XA <sup>3)</sup> |               |
|--------|-----|------|------|------|------|------------------|---------------|------|------|------------------|---------------|
|        | ∅   |      |      |      |      |                  | <sup>2)</sup> |      |      |                  | <sup>2)</sup> |
|        | H14 | JS14 |      | ±0,5 | ±0,2 | +0,2             | +0,2          | ±0,2 | -0,5 | +1,2             | +1,2          |
| HNA-12 | 5,8 | 21   | 5    | 3    | 13   | 41,5             | 45,5          | 16   | 26   | 31               | 35            |
| HNA-16 | 5,8 | 22   | 4,75 | 3    | 13   | 42               | 46,5          | 18   | 27,5 | 32               | 36,5          |
| HNA-20 | 7   | 27   | 6,25 | 4    | 16   | 49,5             | 54            | 22   | 34,5 | 36,5             | 41            |
| HNA-25 | 7   | 29   | 6,25 | 4    | 16   | 51               | 55,5          | 26   | 38,5 | 38,5             | 43            |
| HNA-32 | 7   | 33,5 | 7    | 4    | 16   | 53,5             | 57            | 32   | 46   | 41,5             | 45            |
| HNA-40 | 10  | 38   | 9    | 4    | 18   | 62               | 65,5          | 36   | 54   | 49               | 52,5          |
| HNA-50 | 10  | 45   | 8    | 5    | 21   | 71               | 74            | 45   | 64   | 57               | 60            |
| HNA-63 | 10  | 50   | 8    | 5    | 21   | 74               | 77            | 50   | 75   | 60               | 63            |

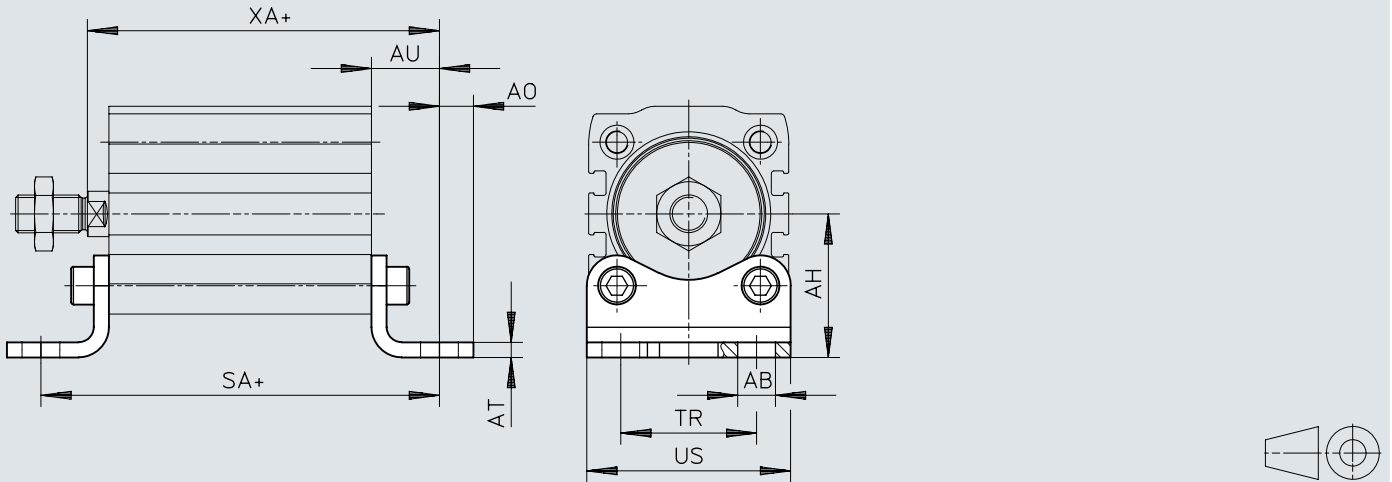
2) Position sensing

3) Deviating dimensions for the strokes 5, 10 and 25

## Dimensions

### Dimensions – Foot mounting HNA

Download CAD data → [www.festo.com](http://www.festo.com)



[1] += plus stroke length

## Dimensions

|        | L <sup>1)</sup><br>[mm] | 2) | SA<br>+0,2 | XA<br>+1,2 |
|--------|-------------------------|----|------------|------------|
| HNA-12 | 5                       | –  | 46,5       | 36         |
|        |                         | ■  | 50,5       | 40         |
|        | 10                      | –  | 51,5       | 41         |
|        |                         | ■  | 55,5       | 45         |
| HNA-16 | 5                       | –  | 47         | 37         |
|        |                         | ■  | 51,5       | 41,5       |
|        | 10                      | –  | 52         | 42         |
|        |                         | ■  | 56,5       | 46,5       |
|        | 25                      | –  | 69         | 59         |
|        |                         | ■  | 74,5       | 64,5       |
| HNA-20 | 5                       | –  | 54,5       | 41,5       |
|        |                         | ■  | 59         | 46         |
|        | 10                      | –  | 59,5       | 46,5       |
|        |                         | ■  | 64         | 51         |
|        | 25                      | –  | 77,5       | 64,5       |
|        |                         | ■  | 82         | 69         |
| HNA-25 | 5                       | –  | 56         | 43,5       |
|        |                         | ■  | 60,5       | 48         |
|        | 10                      | –  | 61         | 48,5       |
|        |                         | ■  | 65,5       | 53         |
|        | 25                      | –  | 79         | 66,5       |
|        |                         | ■  | 83,5       | 71         |
| HNA-32 | 5                       | –  | 58,5       | 46,5       |
|        |                         | ■  | 62         | 50         |
|        | 10                      | –  | 63,5       | 51,5       |
|        |                         | ■  | 67         | 55         |
|        | 25                      | –  | 81,5       | 69,5       |
|        |                         | ■  | 85         | 73         |
| HNA-40 | 5                       | –  | 67         | 54         |
|        |                         | ■  | 70,5       | 57,5       |
|        | 10                      | –  | 72         | 59         |
|        |                         | ■  | 75,5       | 62,5       |
|        | 25                      | –  | 90         | 77         |
|        |                         | ■  | 93,5       | 80,5       |
| HNA-50 | 10                      | –  | 81         | 67         |
|        |                         | ■  | 84         | 70         |
|        | 25                      | –  | 98,5       | 84,5       |
|        |                         | ■  | 102        | 88         |
| HNA-63 | 10                      | –  | 84         | 70         |
|        |                         | ■  | 87         | 73         |
|        | 25                      | –  | 101,5      | 87,5       |
|        |                         | ■  | 104,5      | 90,5       |

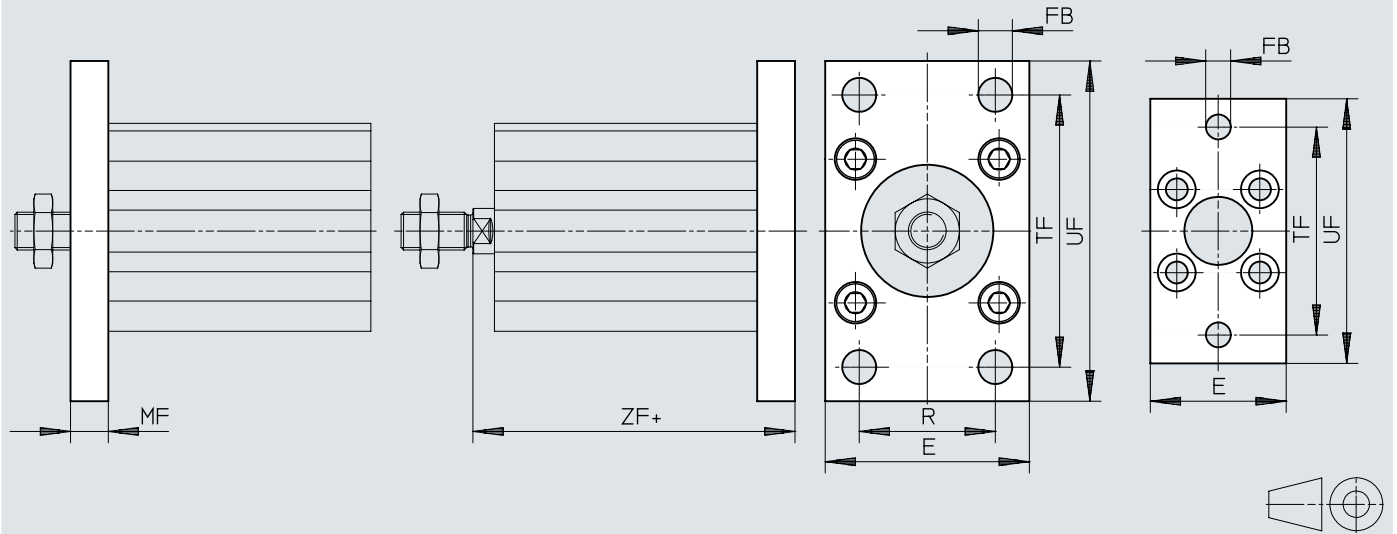
1) Stroke

2) Position sensing

## Dimensions

### Dimensions – Flange mounting FNC

Download CAD data → [www.festo.com](http://www.festo.com)



[1] + = plus stroke length

## Dimensions

|        | E  | FB<br>∅ | MF | R  | TF  | UF<br>±1 | ZF   |                       |
|--------|----|---------|----|----|-----|----------|------|-----------------------|
|        |    |         |    |    |     |          | +0,2 | <sup>2)</sup><br>+0,2 |
| FNC-12 | 28 | 5,5     | 8  | –  | 40  | 50       | 26   | 30                    |
| FNC-16 | 29 | 5,5     | 8  | –  | 43  | 55       | 27   | 31,5                  |
| FNC-20 | 36 | 6,6     | 8  | –  | 55  | 70       | 28,5 | 33                    |
| FNC-25 | 40 | 6,6     | 8  | –  | 60  | 76       | 30,5 | 35                    |
| FNC-32 | 45 | 7       | 10 | 32 | 64  | 80       | 35,5 | 39                    |
| FNC-40 | 54 | 9       | 10 | 36 | 72  | 90       | 41   | 44,5                  |
| FNC-50 | 65 | 9       | 12 | 45 | 90  | 110      | 48   | 51                    |
| FNC-63 | 75 | 9       | 12 | 50 | 100 | 120      | 51   | 54                    |


|        | L <sup>1)</sup><br>[mm] | <sup>2)</sup> | ZF<br>+0,2 |
|--------|-------------------------|---------------|------------|
| FNC-12 | 5                       | –             | 31         |
|        |                         | ■             | 35         |
|        | 10                      | –             | 36         |
|        |                         | ■             | 40         |
| FNC-16 | 5                       | –             | 32         |
|        |                         | ■             | 36,5       |
|        | 10                      | –             | 37         |
|        |                         | ■             | 41,5       |
|        | 25                      | –             | 54         |
|        |                         | ■             | 59,5       |
| FNC-20 | 5                       | –             | 33,5       |
|        |                         | ■             | 38         |
|        | 10                      | –             | 38,5       |
|        |                         | ■             | 43         |
|        | 25                      | –             | 56,5       |
|        |                         | ■             | 61         |
| FNC-25 | 5                       | –             | 35,5       |
|        |                         | ■             | 40         |
|        | 10                      | –             | 40,5       |
|        |                         | ■             | 45         |
|        | 25                      | –             | 58,5       |
|        |                         | ■             | 63         |
| FNC-32 | 5                       | –             | 40,5       |
|        |                         | ■             | 44         |
|        | 10                      | –             | 45,5       |
|        |                         | ■             | 49         |
|        | 25                      | –             | 63,5       |
|        |                         | ■             | 67         |
| FNC-40 | 5                       | –             | 46         |
|        |                         | ■             | 49,5       |
|        | 10                      | –             | 51         |
|        |                         | ■             | 54,5       |
|        | 25                      | –             | 69         |
|        |                         | ■             | 72,5       |
| FNC-50 | 10                      | –             | 58         |
|        |                         | ■             | 61         |
|        | 25                      | –             | 75,5       |
|        |                         | ■             | 79         |
| FNC-63 | 10                      | –             | 61         |
|        |                         | ■             | 64         |
|        | 25                      | –             | 78,5       |
|        |                         | ■             | 81,5       |

1) Stroke


2) Position sensing




## Ordering data

| With female thread – I  |                 |        |  |          |               |
|---|-----------------|--------|--|----------|---------------|
|   | Piston diameter | Stroke | Corrosion resistance class CRC <sup>1)</sup> | Part no. | Type          |
|  | 6 mm            | 5 mm   | 2 - Moderate corrosion stress                | 4886885  | ADN-S-6-5-I   |
|   |                 | 10 mm  |  | 4886886  | ADN-S-6-10-I  |
|   | 10 mm           | 5 mm   |  | 4887523  | ADN-S-10-5-I  |
|   |                 | 10 mm  |  | 4887524  | ADN-S-10-10-I |


1) More information [www.festo.com/x/topic/kbk](http://www.festo.com/x/topic/kbk)

| With female thread – I; with position sensing – A                                 |                 |        |  |          |                 |
|---|-----------------|--------|--|----------|-----------------|
|   | Piston diameter | Stroke | Corrosion resistance class CRC <sup>1)</sup> | Part no. | Type            |
|  | 6 mm            | 5 mm   | 1 - Low corrosion stress                     | 5173732  | ADN-S-6-5-I-A   |
|   |                 | 10 mm  |  | 5173733  | ADN-S-6-10-I-A  |
|   | 10 mm           | 5 mm   |  | 5177082  | ADN-S-10-5-I-A  |
|   |                 | 10 mm  |  | 5177085  | ADN-S-10-10-I-A |


1) More information [www.festo.com/x/topic/kbk](http://www.festo.com/x/topic/kbk)

| With female thread – I; for battery production – F1A                                |                 |        |  |          |                   |
|---|-----------------|--------|--|----------|-------------------|
|   | Piston diameter | Stroke | Corrosion resistance class CRC <sup>1)</sup> | Part no. | Type              |
|  | 6 mm            | 5 mm   | 2 - Moderate corrosion stress                | 8142509  | ADN-S-6-5-I-F1A   |
|   |                 | 10 mm  |  | 8142510  | ADN-S-6-10-I-F1A  |
|   | 10 mm           | 5 mm   |  | 8142518  | ADN-S-10-5-I-F1A  |
|   |                 | 10 mm  |  | 8142519  | ADN-S-10-10-I-F1A |

1) More information [www.festo.com/x/topic/kbk](http://www.festo.com/x/topic/kbk)

| With female thread – I; with position sensing – A; for battery production – F1A     |                 |        |  |          |                     |
|---|-----------------|--------|--|----------|---------------------|
|   | Piston diameter | Stroke | Corrosion resistance class CRC <sup>1)</sup> | Part no. | Type                |
|  | 6 mm            | 5 mm   | 2 - Moderate corrosion stress                | 8142511  | ADN-S-6-5-I-A-F1A   |
|   |                 | 10 mm  |  | 8142512  | ADN-S-6-10-I-A-F1A  |
|   | 10 mm           | 5 mm   |  | 8142520  | ADN-S-10-5-I-A-F1A  |
|   |                 | 10 mm  |  | 8142521  | ADN-S-10-10-I-A-F1A |


1) More information [www.festo.com/x/topic/kbk](http://www.festo.com/x/topic/kbk)

| With male thread – A  |                 |        |  |          |               |
|---|-----------------|--------|--|----------|---------------|
|   | Piston diameter | Stroke | Corrosion resistance class CRC <sup>1)</sup> | Part no. | Type          |
|  | 6 mm            | 5 mm   | 2 - Moderate corrosion stress                | 8080598  | ADN-S-6-5-A   |
|   |                 | 10 mm  |  | 8080596  | ADN-S-6-10-A  |
|   | 10 mm           | 5 mm   |  | 8080589  | ADN-S-10-5-A  |
|   |                 | 10 mm  |  | 8080588  | ADN-S-10-10-A |

1) More information [www.festo.com/x/topic/kbk](http://www.festo.com/x/topic/kbk)


Ordering data

**With male thread – A; with position sensing – A**

|  | Piston diameter | Stroke | Corrosion resistance class CRC <sup>1)</sup> | Part no. | Type            |
|--|-----------------|--------|--|----------|-----------------|
|  | 6 mm            | 5 mm   | 2 - Moderate corrosion stress                | 8080597  | ADN-S-6-5-A-A   |
|  |                 | 10 mm  |  | 8080595  | ADN-S-6-10-A-A  |
|  | 10 mm           | 5 mm   |  | 8080587  | ADN-S-10-5-A-A  |
|  |                 | 10 mm  |  | 8080590  | ADN-S-10-10-A-A |


1) More information [www.festo.com/x/topic/kbk](http://www.festo.com/x/topic/kbk)

**With male thread – A; for battery production – F1A**

|  | Piston diameter | Stroke | Corrosion resistance class CRC <sup>1)</sup> | Part no. | Type              |
|--|-----------------|--------|--|----------|-------------------|
|  | 6 mm            | 5 mm   | 2 - Moderate corrosion stress                | 8142513  | ADN-S-6-5-A-F1A   |
|  |                 | 10 mm  |  | 8142514  | ADN-S-6-10-A-F1A  |
|  | 10 mm           | 5 mm   |  | 8142522  | ADN-S-10-5-A-F1A  |
|  |                 | 10 mm  |  | 8142523  | ADN-S-10-10-A-F1A |


1) More information [www.festo.com/x/topic/kbk](http://www.festo.com/x/topic/kbk)

**With male thread – A; with position sensing – A; for battery production – F1A**

|  | Piston diameter | Stroke | Corrosion resistance class CRC <sup>1)</sup> | Part no. | Type                |
|--|-----------------|--------|--|----------|---------------------|
|  | 6 mm            | 5 mm   | 2 - Moderate corrosion stress                | 8142515  | ADN-S-6-5-A-A-F1A   |
|  |                 | 10 mm  |  | 8142516  | ADN-S-6-10-A-A-F1A  |
|  | 10 mm           | 5 mm   |  | 8142517  | ADN-S-10-5-A-A-F1A  |
|  |                 | 10 mm  |  | 8142524  | ADN-S-10-10-A-A-F1A |


1) More information [www.festo.com/x/topic/kbk](http://www.festo.com/x/topic/kbk)

**With cushioning – P; with female thread – I**

|  | Piston diameter | Stroke | Corrosion resistance class CRC <sup>1)</sup> | Part no.  | Type            |
|--|-----------------|--------|--|-----------|-----------------|
|  | 12 mm           | 5 mm   | 1 - Low corrosion stress                     | ★ 8076407 | ADN-S-12-5-I-P  |
|  |                 | 10 mm  |  | ★ 8076419 | ADN-S-12-10-I-P |
|  |                 | 15 mm  |  | ★ 8076417 | ADN-S-12-15-I-P |
|  |                 | 20 mm  |  | ★ 8076415 | ADN-S-12-20-I-P |
|  |                 | 25 mm  |  | ★ 8076413 | ADN-S-12-25-I-P |
|  |                 | 30 mm  |  | ★ 8076411 | ADN-S-12-30-I-P |
|  |                 | 35 mm  |  | ★ 8076409 | ADN-S-12-35-I-P |
|  | 16 mm           | 5 mm   |  | ★ 8076393 | ADN-S-16-5-I-P  |
|  |                 | 10 mm  |  | ★ 8076405 | ADN-S-16-10-I-P |
|  |                 | 15 mm  |  | ★ 8076403 | ADN-S-16-15-I-P |
|  |                 | 20 mm  |  | ★ 8076401 | ADN-S-16-20-I-P |
|  |                 | 25 mm  |  | ★ 8076399 | ADN-S-16-25-I-P |
|  |                 | 30 mm  |  | ★ 8076397 | ADN-S-16-30-I-P |
|  |                 | 35 mm  |  | ★ 8076395 | ADN-S-16-35-I-P |
|  | 20 mm           | 5 mm   |  | ★ 8076323 | ADN-S-20-5-I-P  |
|  |                 | 10 mm  |  | ★ 8076341 | ADN-S-20-10-I-P |
|  |                 | 15 mm  |  | ★ 8076339 | ADN-S-20-15-I-P |
|  |                 | 20 mm  |  | ★ 8076337 | ADN-S-20-20-I-P |
|  |                 | 25 mm  |  | ★ 8076335 | ADN-S-20-25-I-P |
|  |                 | 30 mm  |  | ★ 8076333 | ADN-S-20-30-I-P |
|  |                 | 35 mm  |  | ★ 8076331 | ADN-S-20-35-I-P |
|  |                 | 40 mm  |  | ★ 8076329 | ADN-S-20-40-I-P |
|  |                 | 45 mm  |  | ★ 8076327 | ADN-S-20-45-I-P |


Ordering data

**With cushioning – P; with female thread – I**


|   | Piston diameter | Stroke | Corrosion resistance class CRC <sup>1)</sup> | Part no.  | Type            |
|---|-----------------|--------|--|-----------|-----------------|
|  | 20 mm           | 50 mm  | 1 - Low corrosion stress                     | ★ 8076325 | ADN-S-20-50-I-P |
|   |                 | 25 mm  |  | 5 mm      | ★ 8076343       |
|   | 10 mm           |        |  | ★ 8076361 | ADN-S-25-10-I-P |
|   | 15 mm           |        |  | ★ 8076359 | ADN-S-25-15-I-P |
|   | 20 mm           |        |  | ★ 8076357 | ADN-S-25-20-I-P |
|   | 25 mm           |        |  | ★ 8076355 | ADN-S-25-25-I-P |
|   | 30 mm           |        |  | ★ 8076353 | ADN-S-25-30-I-P |
|   | 35 mm           |        |  | ★ 8076351 | ADN-S-25-35-I-P |
|   | 40 mm           |        |  | ★ 8076349 | ADN-S-25-40-I-P |
|   | 45 mm           |        |  | ★ 8076347 | ADN-S-25-45-I-P |
|   | 50 mm           |        |  | ★ 8076345 | ADN-S-25-50-I-P |
|   | 32 mm           |        |  | 5 mm      | ★ 8076364       |
|   |                 | 10 mm  |  | ★ 8076382 | ADN-S-32-10-I-P |
|   |                 | 15 mm  |  | ★ 8076380 | ADN-S-32-15-I-P |
|   |                 | 20 mm  |  | ★ 8076378 | ADN-S-32-20-I-P |
|   |                 | 25 mm  |  | ★ 8076376 | ADN-S-32-25-I-P |
|   |                 | 30 mm  |  | ★ 8076374 | ADN-S-32-30-I-P |
|   |                 | 35 mm  |  | ★ 8076372 | ADN-S-32-35-I-P |
|   |                 | 40 mm  |  | ★ 8076370 | ADN-S-32-40-I-P |
|   |                 | 45 mm  |  | ★ 8076368 | ADN-S-32-45-I-P |
|   |                 | 50 mm  |  | ★ 8076366 | ADN-S-32-50-I-P |

1) More information [www.festo.com/x/topic/kbk](http://www.festo.com/x/topic/kbk)


**With cushioning – P; with female thread – I; with position sensing – A**

|   | Piston diameter | Stroke | Corrosion resistance class CRC <sup>1)</sup> | Part no.  | Type              |                   |
|---|-----------------|--------|--|-----------|-------------------|-------------------|
|  | 12 mm           | 5 mm   | 1 - Low corrosion stress                     | ★ 8076406 | ADN-S-12-5-I-P-A  |                   |
|   |                 | 10 mm  |  | ★ 8076418 | ADN-S-12-10-I-P-A |                   |
|   |                 | 15 mm  |  | ★ 8076416 | ADN-S-12-15-I-P-A |                   |
|   |                 | 20 mm  |  | ★ 8076414 | ADN-S-12-20-I-P-A |                   |
|   |                 | 25 mm  |  | ★ 8076412 | ADN-S-12-25-I-P-A |                   |
|   |                 | 30 mm  |  | ★ 8076410 | ADN-S-12-30-I-P-A |                   |
|   |                 | 35 mm  |  | ★ 8076408 | ADN-S-12-35-I-P-A |                   |
|   |                 | 16 mm  |  | 5 mm      | ★ 8076392         | ADN-S-16-5-I-P-A  |
|   | 10 mm           |        |  | ★ 8076404 | ADN-S-16-10-I-P-A |                   |
|   | 15 mm           |        |  | ★ 8076402 | ADN-S-16-15-I-P-A |                   |
|   | 20 mm           |        |  | ★ 8076400 | ADN-S-16-20-I-P-A |                   |
|   | 25 mm           |        |  | ★ 8076398 | ADN-S-16-25-I-P-A |                   |
|   | 30 mm           |        |  | ★ 8076396 | ADN-S-16-30-I-P-A |                   |
|   | 35 mm           |        |  | ★ 8076394 | ADN-S-16-35-I-P-A |                   |
|   | 20 mm           | 5 mm   |  | ★ 8076322 | ADN-S-20-5-I-P-A  |                   |
|   |                 | 10 mm  |  | ★ 8076340 | ADN-S-20-10-I-P-A |                   |
|   |                 | 15 mm  |  | ★ 8076338 | ADN-S-20-15-I-P-A |                   |
|   |                 | 20 mm  |  | ★ 8076336 | ADN-S-20-20-I-P-A |                   |
|   |                 | 25 mm  |  | ★ 8076334 | ADN-S-20-25-I-P-A |                   |
|   |                 | 30 mm  |  | ★ 8076332 | ADN-S-20-30-I-P-A |                   |
|   |                 | 35 mm  |  | ★ 8076330 | ADN-S-20-35-I-P-A |                   |
|   |                 | 40 mm  |  | ★ 8076328 | ADN-S-20-40-I-P-A |                   |
|   |                 | 45 mm  |  | ★ 8076326 | ADN-S-20-45-I-P-A |                   |
|   |                 | 50 mm  |  | ★ 8076324 | ADN-S-20-50-I-P-A |                   |
|   |                 | 25 mm  |  | 5 mm      | ★ 8076342         | ADN-S-25-5-I-P-A  |
|   |                 |        |  | 10 mm     | ★ 8076360         | ADN-S-25-10-I-P-A |
|   | 15 mm           |        |  | ★ 8076358 | ADN-S-25-15-I-P-A |                   |
|   | 20 mm           |        |  | ★ 8076356 | ADN-S-25-20-I-P-A |                   |


Ordering data

| With cushioning – P; with female thread – I; with position sensing – A           |                 |        |  |           |                   |                   |
|--|-----------------|--------|--|-----------|-------------------|-------------------|
|  | Piston diameter | Stroke | Corrosion resistance class CRC <sup>1)</sup> | Part no.  | Type              |                   |
|  | 25 mm           | 25 mm  | 1 - Low corrosion stress                     | ★ 8076354 | ADN-S-25-25-I-P-A |                   |
|  |                 | 30 mm  |  | ★ 8076352 | ADN-S-25-30-I-P-A |                   |
|  |                 | 35 mm  |  | ★ 8076350 | ADN-S-25-35-I-P-A |                   |
|  |                 | 40 mm  |  | ★ 8076348 | ADN-S-25-40-I-P-A |                   |
|  |                 | 45 mm  |  | ★ 8076346 | ADN-S-25-45-I-P-A |                   |
|  |                 | 50 mm  |  | ★ 8076344 | ADN-S-25-50-I-P-A |                   |
|  |                 | 32 mm  |  | 5 mm      | ★ 8076363         | ADN-S-32-5-I-P-A  |
|  | 10 mm           |        |  | ★ 8076381 | ADN-S-32-10-I-P-A |                   |
|  | 15 mm           |        |  | ★ 8076379 | ADN-S-32-15-I-P-A |                   |
|  | 20 mm           |        |  | ★ 8076377 | ADN-S-32-20-I-P-A |                   |
|  | 25 mm           |        |  | ★ 8076375 | ADN-S-32-25-I-P-A |                   |
|  | 30 mm           |        |  | ★ 8076373 | ADN-S-32-30-I-P-A |                   |
|  | 35 mm           |        |  | ★ 8076371 | ADN-S-32-35-I-P-A |                   |
|  | 40 mm           |        |  | ★ 8076369 | ADN-S-32-40-I-P-A |                   |
|  | 45 mm           |        |  | ★ 8076367 | ADN-S-32-45-I-P-A |                   |
|  | 50 mm           |        |  | ★ 8076365 | ADN-S-32-50-I-P-A |                   |
|  | 40 mm           |        |  | 5 mm      | ★ 5138606         | ADN-S-40-5-I-P-A  |
|  |                 |        |  | 10 mm     | ★ 5138607         | ADN-S-40-10-I-P-A |
|  |                 |        |  | 15 mm     | ★ 5138608         | ADN-S-40-15-I-P-A |
|  |                 |        |  | 20 mm     | ★ 5138609         | ADN-S-40-20-I-P-A |
|  |                 | 25 mm  |  | ★ 5138610 | ADN-S-40-25-I-P-A |                   |
|  |                 | 30 mm  |  | ★ 5138611 | ADN-S-40-30-I-P-A |                   |
|  |                 | 35 mm  |  | ★ 5138612 | ADN-S-40-35-I-P-A |                   |
|  |                 | 40 mm  |  | ★ 5138613 | ADN-S-40-40-I-P-A |                   |
|  |                 | 45 mm  |  | ★ 5138614 | ADN-S-40-45-I-P-A |                   |
|  |                 | 50 mm  |  | ★ 5138615 | ADN-S-40-50-I-P-A |                   |
|  |                 | 50 mm  |  | 5 mm      | ★ 5138188         | ADN-S-50-5-I-P-A  |
|  | 10 mm           |        |  | ★ 5138189 | ADN-S-50-10-I-P-A |                   |
|  | 15 mm           |        |  | ★ 5138190 | ADN-S-50-15-I-P-A |                   |
|  | 20 mm           |        |  | ★ 5138191 | ADN-S-50-20-I-P-A |                   |
|  | 25 mm           |        |  | ★ 5138192 | ADN-S-50-25-I-P-A |                   |
|  | 30 mm           |        |  | ★ 5138193 | ADN-S-50-30-I-P-A |                   |
|  | 35 mm           |        |  | ★ 5138194 | ADN-S-50-35-I-P-A |                   |
|  | 40 mm           |        |  | ★ 5138195 | ADN-S-50-40-I-P-A |                   |
|  | 45 mm           |        |  | ★ 5138196 | ADN-S-50-45-I-P-A |                   |
|  | 50 mm           |        |  | ★ 5138197 | ADN-S-50-50-I-P-A |                   |
|  | 63 mm           |        |  | 5 mm      | ★ 5132663         | ADN-S-63-5-I-P-A  |
|  |                 |        |  | 10 mm     | ★ 5132664         | ADN-S-63-10-I-P-A |
|  |                 |        |  | 15 mm     | ★ 5132665         | ADN-S-63-15-I-P-A |
|  |                 | 20 mm  |  | ★ 5132666 | ADN-S-63-20-I-P-A |                   |
|  |                 | 25 mm  |  | ★ 5132667 | ADN-S-63-25-I-P-A |                   |
|  |                 | 30 mm  |  | ★ 5132668 | ADN-S-63-30-I-P-A |                   |
|  |                 | 35 mm  |  | ★ 5132669 | ADN-S-63-35-I-P-A |                   |
|  |                 | 40 mm  |  | ★ 5132670 | ADN-S-63-40-I-P-A |                   |
|  |                 | 45 mm  |  | ★ 5132671 | ADN-S-63-45-I-P-A |                   |
|  |                 | 50 mm  |  | ★ 5132672 | ADN-S-63-50-I-P-A |                   |

1) More information [www.festo.com/x/topic/kbk](http://www.festo.com/x/topic/kbk)


| With cushioning – P; with female thread – I; with position sensing – A; for battery production – F1A |                 |        |  |          |                      |
|--|-----------------|--------|--|----------|----------------------|
|  | Piston diameter | Stroke | Corrosion resistance class CRC <sup>1)</sup> | Part no. | Type                 |
|                    | 12 mm           | 5 mm   | 2 - Moderate corrosion stress                | 8142562  | ADN-S-12-5-I-P-A-F1A |

## Ordering data

| With cushioning – P; with female thread – I; with position sensing – A; for battery production – F1A |                 |         |  |          |                       |
|--|-----------------|---------|--|----------|-----------------------|
|  | Piston diameter | Stroke  | Corrosion resistance class CRC <sup>1)</sup> | Part no. | Type                  |
|                     | 12 mm           | 10 mm   | 2 - Moderate corrosion stress                | 8142563  | ADN-S-12-10-I-P-A-F1A |
|  |                 | 15 mm   |  | 8142564  | ADN-S-12-15-I-P-A-F1A |
|  |                 | 20 mm   |  | 8142565  | ADN-S-12-20-I-P-A-F1A |
|  |                 | 25 mm   |  | 8142566  | ADN-S-12-25-I-P-A-F1A |
|  |                 | 30 mm   |  | 8142567  | ADN-S-12-30-I-P-A-F1A |
|  |                 | 35 mm   |  | 8142568  | ADN-S-12-35-I-P-A-F1A |
|  | 16 mm           | 5 mm    |  | 8142728  | ADN-S-16-5-I-P-A-F1A  |
|  |                 | 10 mm   |  | 8142729  | ADN-S-16-10-I-P-A-F1A |
|  |                 | 15 mm   |  | 8142730  | ADN-S-16-15-I-P-A-F1A |
|  |                 | 20 mm   |  | 8142731  | ADN-S-16-20-I-P-A-F1A |
|  |                 | 25 mm   |  | 8142732  | ADN-S-16-25-I-P-A-F1A |
|  |                 | 30 mm   |  | 8142733  | ADN-S-16-30-I-P-A-F1A |
|  | 20 mm           | 35 mm   |  | 8142734  | ADN-S-16-35-I-P-A-F1A |
|  |                 | 5 mm    |  | 8142756  | ADN-S-20-5-I-P-A-F1A  |
|  |                 | 10 mm   |  | 8142757  | ADN-S-20-10-I-P-A-F1A |
|  |                 | 15 mm   |  | 8142758  | ADN-S-20-15-I-P-A-F1A |
|  |                 | 20 mm   |  | 8142759  | ADN-S-20-20-I-P-A-F1A |
|  |                 | 25 mm   |  | 8142760  | ADN-S-20-25-I-P-A-F1A |
|  |                 | 30 mm   |  | 8142761  | ADN-S-20-30-I-P-A-F1A |
|  |                 | 35 mm   |  | 8142762  | ADN-S-20-35-I-P-A-F1A |
|  |                 | 40 mm   |  | 8142763  | ADN-S-20-40-I-P-A-F1A |
|  |                 | 45 mm   |  | 8142764  | ADN-S-20-45-I-P-A-F1A |
|  | 25 mm           | 50 mm   |  | 8142765  | ADN-S-20-50-I-P-A-F1A |
|  |                 | 5 mm    |  | 8142806  | ADN-S-25-5-I-P-A-F1A  |
|  |                 | 10 mm   |  | 8142807  | ADN-S-25-10-I-P-A-F1A |
|  |                 | 15 mm   |  | 8142808  | ADN-S-25-15-I-P-A-F1A |
|  |                 | 20 mm   |  | 8142809  | ADN-S-25-20-I-P-A-F1A |
|  |                 | 25 mm   |  | 8142810  | ADN-S-25-25-I-P-A-F1A |
|  |                 | 30 mm   |  | 8142811  | ADN-S-25-30-I-P-A-F1A |
|  |                 | 35 mm   |  | 8142812  | ADN-S-25-35-I-P-A-F1A |
|  |                 | 40 mm   |  | 8142813  | ADN-S-25-40-I-P-A-F1A |
|  |                 | 45 mm   |  | 8142814  | ADN-S-25-45-I-P-A-F1A |
|  | 32 mm           | 50 mm   |  | 8142815  | ADN-S-25-50-I-P-A-F1A |
|  |                 | 5 mm    |  | 8142846  | ADN-S-32-5-I-P-A-F1A  |
|  |                 | 10 mm   |  | 8142847  | ADN-S-32-10-I-P-A-F1A |
|  |                 | 15 mm   |  | 8142848  | ADN-S-32-15-I-P-A-F1A |
|  |                 | 20 mm   |  | 8142849  | ADN-S-32-20-I-P-A-F1A |
|  |                 | 25 mm   |  | 8142850  | ADN-S-32-25-I-P-A-F1A |
|  |                 | 30 mm   |  | 8142851  | ADN-S-32-30-I-P-A-F1A |
|  |                 | 35 mm   |  | 8142852  | ADN-S-32-35-I-P-A-F1A |
|  |                 | 40 mm   |  | 8142853  | ADN-S-32-40-I-P-A-F1A |
|  |                 | 45 mm   |  | 8142854  | ADN-S-32-45-I-P-A-F1A |
|  | 40 mm           | 50 mm   |  | 8142855  | ADN-S-32-50-I-P-A-F1A |
|  |                 | 5 mm    |  | 8142876  | ADN-S-40-5-I-P-A-F1A  |
|  |                 | 10 mm   |  | 8142877  | ADN-S-40-10-I-P-A-F1A |
|  |                 | 15 mm   |  | 8142878  | ADN-S-40-15-I-P-A-F1A |
|  |                 | 20 mm   |  | 8142879  | ADN-S-40-20-I-P-A-F1A |
|  |                 | 25 mm   |  | 8142880  | ADN-S-40-25-I-P-A-F1A |
|  |                 | 30 mm   |  | 8142881  | ADN-S-40-30-I-P-A-F1A |
|  |                 | 35 mm   |  | 8142882  | ADN-S-40-35-I-P-A-F1A |
|  |                 | 40 mm   |  | 8142883  | ADN-S-40-40-I-P-A-F1A |
|  |                 | 45 mm   |  | 8142884  | ADN-S-40-45-I-P-A-F1A |
| 50 mm  | 50 mm           | 8142885 | ADN-S-40-50-I-P-A-F1A                        |          |                       |
|  | 5 mm            | 8142897 | ADN-S-50-5-I-P-A-F1A                         |          |                       |


Ordering data

**With cushioning – P; with female thread – I; with position sensing – A; for battery production – F1A**


|  | Piston diameter | Stroke | Corrosion resistance class CRC <sup>1)</sup> | Part no. | Type                  |
|--|-----------------|--------|--|----------|-----------------------|
|  | 50 mm           | 10 mm  | 2 - Moderate corrosion stress                | 8142898  | ADN-S-50-10-I-P-A-F1A |
|  |                 | 15 mm  |  | 8142899  | ADN-S-50-15-I-P-A-F1A |
|  |                 | 20 mm  |  | 8142900  | ADN-S-50-20-I-P-A-F1A |
|  |                 | 25 mm  |  | 8142901  | ADN-S-50-25-I-P-A-F1A |
|  |                 | 30 mm  |  | 8142902  | ADN-S-50-30-I-P-A-F1A |
|  |                 | 35 mm  |  | 8142903  | ADN-S-50-35-I-P-A-F1A |
|  |                 | 40 mm  |  | 8142904  | ADN-S-50-40-I-P-A-F1A |
|  |                 | 45 mm  |  | 8142905  | ADN-S-50-45-I-P-A-F1A |
|  |                 | 50 mm  |  | 8142906  | ADN-S-50-50-I-P-A-F1A |
|  |                 | 63 mm  |  | 5 mm     | 8142917               |
|  | 10 mm           |        |  | 8142918  | ADN-S-63-10-I-P-A-F1A |
|  | 15 mm           |        |  | 8142919  | ADN-S-63-15-I-P-A-F1A |
|  | 20 mm           |        |  | 8142920  | ADN-S-63-20-I-P-A-F1A |
|  | 25 mm           |        |  | 8142921  | ADN-S-63-25-I-P-A-F1A |
|  | 30 mm           |        |  | 8142922  | ADN-S-63-30-I-P-A-F1A |
|  | 35 mm           |        |  | 8142923  | ADN-S-63-35-I-P-A-F1A |
|  | 40 mm           |        |  | 8142924  | ADN-S-63-40-I-P-A-F1A |
|  | 45 mm           |        |  | 8142925  | ADN-S-63-45-I-P-A-F1A |
|  | 50 mm           |        |  | 8142926  | ADN-S-63-50-I-P-A-F1A |

1) More information [www.festo.com/x/topic/kbk](http://www.festo.com/x/topic/kbk)


**With cushioning – P; with male thread – A**

|  | Piston diameter | Stroke | Corrosion resistance class CRC <sup>1)</sup> | Part no. | Type            |                 |
|--|-----------------|--------|--|----------|-----------------|-----------------|
|  | 12 mm           | 5 mm   | 1 - Low corrosion stress                     | 8091419  | ADN-S-12-5-A-P  |                 |
|  |                 | 10 mm  |  | 8091428  | ADN-S-12-10-A-P |                 |
|  |                 | 15 mm  |  | 8091416  | ADN-S-12-15-A-P |                 |
|  |                 | 20 mm  |  | 8091420  | ADN-S-12-20-A-P |                 |
|  |                 | 25 mm  |  | 8091426  | ADN-S-12-25-A-P |                 |
|  |                 | 30 mm  |  | 8091423  | ADN-S-12-30-A-P |                 |
|  |                 | 35 mm  |  | 8091418  | ADN-S-12-35-A-P |                 |
|  |                 | 16 mm  |  | 5 mm     | 8091671         | ADN-S-16-5-A-P  |
|  | 10 mm           |        |  | 8091670  | ADN-S-16-10-A-P |                 |
|  | 15 mm           |        |  | 8091677  | ADN-S-16-15-A-P |                 |
|  | 20 mm           |        |  | 8091666  | ADN-S-16-20-A-P |                 |
|  | 25 mm           |        |  | 8091665  | ADN-S-16-25-A-P |                 |
|  | 30 mm           |        |  | 8091672  | ADN-S-16-30-A-P |                 |
|  | 35 mm           |        |  | 8091676  | ADN-S-16-35-A-P |                 |
|  | 20 mm           |        |  | 5 mm     | 8091431         | ADN-S-20-5-A-P  |
|  |                 | 10 mm  |  | 8091449  | ADN-S-20-10-A-P |                 |
|  |                 | 15 mm  |  | 8091447  | ADN-S-20-15-A-P |                 |
|  |                 | 20 mm  |  | 8091445  | ADN-S-20-20-A-P |                 |
|  |                 | 25 mm  |  | 8091443  | ADN-S-20-25-A-P |                 |
|  |                 | 30 mm  |  | 8091441  | ADN-S-20-30-A-P |                 |
|  |                 | 35 mm  |  | 8091439  | ADN-S-20-35-A-P |                 |
|  |                 | 40 mm  |  | 8091437  | ADN-S-20-40-A-P |                 |
|  |                 | 45 mm  |  | 8091435  | ADN-S-20-45-A-P |                 |
|  |                 | 50 mm  |  | 8091433  | ADN-S-20-50-A-P |                 |
|  |                 | 25 mm  |  | 5 mm     | 8092103         | ADN-S-25-5-A-P  |
|  |                 |        |  | 10 mm    | 8092102         | ADN-S-25-10-A-P |
|  | 15 mm           |        |  | 8092107  | ADN-S-25-15-A-P |                 |
|  | 20 mm           |        |  | 8092091  | ADN-S-25-20-A-P |                 |
|  | 25 mm           |        |  | 8092092  | ADN-S-25-25-A-P |                 |
|  | 30 mm           |        |  | 8092099  | ADN-S-25-30-A-P |                 |


## Ordering data

| With cushioning – P; with male thread – A   |                 |        |  |          |                 |
|---|-----------------|--------|--|----------|-----------------|
|   | Piston diameter | Stroke | Corrosion resistance class CRC <sup>1)</sup> | Part no. | Type            |
|  | 25 mm           | 35 mm  | 1 - Low corrosion stress                     | 8092097  | ADN-S-25-35-A-P |
|   |                 | 40 mm  |  | 8092094  | ADN-S-25-40-A-P |
|   |                 | 45 mm  |  | 8092106  | ADN-S-25-45-A-P |
|   |                 | 50 mm  |  | 8092105  | ADN-S-25-50-A-P |
|   | 32 mm           | 5 mm   |  | 8091452  | ADN-S-32-5-A-P  |
|   |                 | 10 mm  |  | 8091461  | ADN-S-32-10-A-P |
|   |                 | 15 mm  |  | 8091460  | ADN-S-32-15-A-P |
|   |                 | 20 mm  |  | 8091453  | ADN-S-32-20-A-P |
|   |                 | 25 mm  |  | 8091467  | ADN-S-32-25-A-P |
|   |                 | 30 mm  |  | 8091465  | ADN-S-32-30-A-P |
|   |                 | 35 mm  |  | 8091456  | ADN-S-32-35-A-P |
|   |                 | 40 mm  |  | 8091450  | ADN-S-32-40-A-P |
|   |                 | 45 mm  |  | 8091451  | ADN-S-32-45-A-P |
|   |                 | 50 mm  |  | 8091462  | ADN-S-32-50-A-P |


1) More information [www.festo.com/x/topic/kbk](http://www.festo.com/x/topic/kbk)

| With cushioning – P; with male thread – A; with position sensing – A               |                 |        |  |          |                   |                   |
|--|-----------------|--------|--|----------|-------------------|-------------------|
|  | Piston diameter | Stroke | Corrosion resistance class CRC <sup>1)</sup> | Part no. | Type              |                   |
|  | 12 mm           | 5 mm   | 1 - Low corrosion stress                     | 8091427  | ADN-S-12-5-A-P-A  |                   |
|  |                 | 10 mm  |  | 8091424  | ADN-S-12-10-A-P-A |                   |
|  |                 | 15 mm  |  | 8091422  | ADN-S-12-15-A-P-A |                   |
|  |                 | 20 mm  |  | 8091429  | ADN-S-12-20-A-P-A |                   |
|  |                 | 16 mm  |  | 25 mm    | 8091421           | ADN-S-12-25-A-P-A |
|  |                 |        |  | 30 mm    | 8091417           | ADN-S-12-30-A-P-A |
|  |                 |        |  | 35 mm    | 8091425           | ADN-S-12-35-A-P-A |
|  |                 |        |  | 5 mm     | 8091668           | ADN-S-16-5-A-P-A  |
|  | 10 mm           |        |  | 8091678  | ADN-S-16-10-A-P-A |                   |
|  | 15 mm           |        |  | 8091667  | ADN-S-16-15-A-P-A |                   |
|  | 20 mm           |        |  | 8091674  | ADN-S-16-20-A-P-A |                   |
|  | 25 mm           |        |  | 8091675  | ADN-S-16-25-A-P-A |                   |
|  | 20 mm           | 30 mm  |  | 8091669  | ADN-S-16-30-A-P-A |                   |
|  |                 | 35 mm  |  | 8091673  | ADN-S-16-35-A-P-A |                   |
|  |                 | 5 mm   |  | 8091430  | ADN-S-20-5-A-P-A  |                   |
|  |                 | 10 mm  |  | 8091448  | ADN-S-20-10-A-P-A |                   |
|  |                 | 15 mm  |  | 8091446  | ADN-S-20-15-A-P-A |                   |
|  |                 | 20 mm  |  | 8091444  | ADN-S-20-20-A-P-A |                   |
|  |                 | 25 mm  |  | 8091442  | ADN-S-20-25-A-P-A |                   |
|  |                 | 30 mm  |  | 8091440  | ADN-S-20-30-A-P-A |                   |
|  |                 | 35 mm  |  | 8091438  | ADN-S-20-35-A-P-A |                   |
|  |                 | 40 mm  |  | 8091436  | ADN-S-20-40-A-P-A |                   |
|  |                 | 45 mm  |  | 8091434  | ADN-S-20-45-A-P-A |                   |
|  |                 | 50 mm  |  | 8091432  | ADN-S-20-50-A-P-A |                   |
|  | 25 mm           | 5 mm   |  | 8092104  | ADN-S-25-5-A-P-A  |                   |
|  |                 | 10 mm  |  | 8092093  | ADN-S-25-10-A-P-A |                   |
|  |                 | 15 mm  |  | 8092096  | ADN-S-25-15-A-P-A |                   |
|  |                 | 20 mm  |  | 8092109  | ADN-S-25-20-A-P-A |                   |
|  |                 | 25 mm  |  | 8092100  | ADN-S-25-25-A-P-A |                   |
|  |                 | 30 mm  |  | 8092098  | ADN-S-25-30-A-P-A |                   |
|  |                 | 35 mm  |  | 8092108  | ADN-S-25-35-A-P-A |                   |
|  |                 | 40 mm  |  | 8092095  | ADN-S-25-40-A-P-A |                   |
|  |                 | 45 mm  |  | 8092110  | ADN-S-25-45-A-P-A |                   |
|  |                 | 50 mm  |  | 8092101  | ADN-S-25-50-A-P-A |                   |
|  |                 | 32 mm  |  | 5 mm     | 8091464           | ADN-S-32-5-A-P-A  |

Ordering data


| With cushioning – P; with male thread – A; with position sensing – A             |                 |        |  |          |                   |                   |
|--|-----------------|--------|--|----------|-------------------|-------------------|
|  | Piston diameter | Stroke | Corrosion resistance class CRC <sup>1)</sup> | Part no. | Type              |                   |
|  | 32 mm           | 10 mm  | 1 - Low corrosion stress                     | 8091457  | ADN-S-32-10-A-P-A |                   |
|  |                 | 15 mm  |  | 8091469  | ADN-S-32-15-A-P-A |                   |
|  |                 | 20 mm  |  | 8091468  | ADN-S-32-20-A-P-A |                   |
|  |                 | 25 mm  |  | 8091459  | ADN-S-32-25-A-P-A |                   |
|  |                 | 30 mm  |  | 8091454  | ADN-S-32-30-A-P-A |                   |
|  |                 | 35 mm  |  | 8091463  | ADN-S-32-35-A-P-A |                   |
|  |                 | 40 mm  |  | 8091455  | ADN-S-32-40-A-P-A |                   |
|  |                 | 45 mm  |  | 8091466  | ADN-S-32-45-A-P-A |                   |
|  |                 | 50 mm  |  | 8091458  | ADN-S-32-50-A-P-A |                   |
|  |                 | 40 mm  |  | 5 mm     | 8092050           | ADN-S-40-5-A-P-A  |
|  | 10 mm           |        |  | 8092067  | ADN-S-40-10-A-P-A |                   |
|  | 15 mm           |        |  | 8092053  | ADN-S-40-15-A-P-A |                   |
|  | 20 mm           |        |  | 8092064  | ADN-S-40-20-A-P-A |                   |
|  | 25 mm           |        |  | 8092056  | ADN-S-40-25-A-P-A |                   |
|  | 30 mm           |        |  | 8092061  | ADN-S-40-30-A-P-A |                   |
|  | 35 mm           |        |  | 8092051  | ADN-S-40-35-A-P-A |                   |
|  | 40 mm           |        |  | 8092059  | ADN-S-40-40-A-P-A |                   |
|  | 45 mm           |        |  | 8092065  | ADN-S-40-45-A-P-A |                   |
|  | 50 mm           |        |  | 8092054  | ADN-S-40-50-A-P-A |                   |
|  | 50 mm           |        |  | 5 mm     | 8092081           | ADN-S-50-5-A-P-A  |
|  |                 |        |  | 10 mm    | 8092073           | ADN-S-50-10-A-P-A |
|  |                 |        |  | 15 mm    | 8092085           | ADN-S-50-15-A-P-A |
|  |                 |        |  | 20 mm    | 8092076           | ADN-S-50-20-A-P-A |
|  |                 | 25 mm  |  | 8092075  | ADN-S-50-25-A-P-A |                   |
|  |                 | 30 mm  |  | 8092074  | ADN-S-50-30-A-P-A |                   |
|  |                 | 35 mm  |  | 8092071  | ADN-S-50-35-A-P-A |                   |
|  |                 | 40 mm  |  | 8092087  | ADN-S-50-40-A-P-A |                   |
|  |                 | 45 mm  |  | 8092079  | ADN-S-50-45-A-P-A |                   |
|  |                 | 50 mm  |  | 8092086  | ADN-S-50-50-A-P-A |                   |
|  |                 | 63 mm  |  | 5 mm     | 8092130           | ADN-S-63-5-A-P-A  |
|  |                 |        |  | 10 mm    | 8092128           | ADN-S-63-10-A-P-A |
|  |                 |        |  | 15 mm    | 8092135           | ADN-S-63-15-A-P-A |
|  |                 |        |  | 20 mm    | 8092120           | ADN-S-63-20-A-P-A |
|  | 25 mm           |        |  | 8092121  | ADN-S-63-25-A-P-A |                   |
|  | 30 mm           |        |  | 8092125  | ADN-S-63-30-A-P-A |                   |
|  | 35 mm           |        |  | 8092133  | ADN-S-63-35-A-P-A |                   |
|  | 40 mm           |        |  | 8092134  | ADN-S-63-40-A-P-A |                   |
|  | 45 mm           |        |  | 8092138  | ADN-S-63-45-A-P-A |                   |
|  | 50 mm           |        |  | 8092119  | ADN-S-63-50-A-P-A |                   |

1) More information [www.festo.com/x/topic/kbk](http://www.festo.com/x/topic/kbk)


| With cushioning – P; with male thread – A; with position sensing – A; for battery production – F1A |                 |        |  |          |                       |                       |
|--|-----------------|--------|--|----------|-----------------------|-----------------------|
|  | Piston diameter | Stroke | Corrosion resistance class CRC <sup>1)</sup> | Part no. | Type                  |                       |
|                  | 12 mm           | 5 mm   | 2 - Moderate corrosion stress                | 8142576  | ADN-S-12-5-A-P-A-F1A  |                       |
|  |                 | 10 mm  |  | 8142577  | ADN-S-12-10-A-P-A-F1A |                       |
|  |                 | 15 mm  |  | 8142578  | ADN-S-12-15-A-P-A-F1A |                       |
|  |                 | 20 mm  |  | 8142579  | ADN-S-12-20-A-P-A-F1A |                       |
|  |                 | 25 mm  |  | 8142580  | ADN-S-12-25-A-P-A-F1A |                       |
|  |                 | 30 mm  |  | 8142581  | ADN-S-12-30-A-P-A-F1A |                       |
|  |                 | 35 mm  |  | 8142582  | ADN-S-12-35-A-P-A-F1A |                       |
|  |                 | 16 mm  |  | 5 mm     | 8142735               | ADN-S-16-5-A-P-A-F1A  |
|  |                 |        |  | 10 mm    | 8142736               | ADN-S-16-10-A-P-A-F1A |
|  | 15 mm           |        |  | 8142737  | ADN-S-16-15-A-P-A-F1A |                       |



## Ordering data

| With cushioning – P; with male thread – A; with position sensing – A; for battery production – F1A |                 |         |  |                         |                       |                       |
|--|-----------------|---------|--|-------------------------|-----------------------|-----------------------|
|  | Piston diameter | Stroke  | Corrosion resistance class CRC <sup>1)</sup> | Part no.                | Type                  |                       |
|                   | 16 mm           | 20 mm   | 2 - Moderate corrosion stress                | 8142738                 | ADN-S-16-20-A-P-A-F1A |                       |
|  |                 | 25 mm   |  | 8142739                 | ADN-S-16-25-A-P-A-F1A |                       |
|  |                 | 30 mm   |  | 8142740                 | ADN-S-16-30-A-P-A-F1A |                       |
|  |                 | 35 mm   |  | 8142741                 | ADN-S-16-35-A-P-A-F1A |                       |
|  |                 | 20 mm   |  | 5 mm                    | 8142766               | ADN-S-20-5-A-P-A-F1A  |
|  | 20 mm           | 10 mm   | 8142767                                      | ADN-S-20-10-A-P-A-F1A   |                       |                       |
|  |                 | 15 mm   | 8142768                                      | ADN-S-20-15-A-P-A-F1A   |                       |                       |
|  |                 | 20 mm   | 8142769                                      | ADN-S-20-20-A-P-A-F1A   |                       |                       |
|  |                 | 25 mm   | 8142770                                      | ADN-S-20-25-A-P-A-F1A   |                       |                       |
|  |                 | 30 mm   | 8142771                                      | ADN-S-20-30-A-P-A-F1A   |                       |                       |
|  |                 | 35 mm   | 8142772                                      | ADN-S-20-35-A-P-A-F1A   |                       |                       |
|  |                 | 40 mm   | 8142773                                      | ADN-S-20-40-A-P-A-F1A   |                       |                       |
|  |                 | 45 mm   | 8142774                                      | ADN-S-20-45-A-P-A-F1A   |                       |                       |
|  |                 | 50 mm   | 8142775                                      | ADN-S-20-50-A-P-A-F1A   |                       |                       |
|  |                 | 25 mm   | 5 mm   | 8142826                 | ADN-S-25-5-A-P-A-F1A  |                       |
|  |                 |         | 10 mm  | 8142827                 | ADN-S-25-10-A-P-A-F1A |                       |
|  |                 |         | 15 mm  | 8142828                 | ADN-S-25-15-A-P-A-F1A |                       |
|  |                 |         | 20 mm  | 8142829                 | ADN-S-25-20-A-P-A-F1A |                       |
|  | 25 mm           |         | 8142830                                      | ADN-S-25-25-A-P-A-F1A   |                       |                       |
|  | 30 mm           |         | 8142831                                      | ADN-S-25-30-A-P-A-F1A   |                       |                       |
|  | 35 mm           |         | 8142832                                      | ADN-S-25-35-A-P-A-F1A   |                       |                       |
|  | 40 mm           |         | 8142833                                      | ADN-S-25-40-A-P-A-F1A   |                       |                       |
|  | 45 mm           |         | 8142834                                      | ADN-S-25-45-A-P-A-F1A   |                       |                       |
|  | 50 mm           |         | 8142835                                      | ADN-S-25-50-A-P-A-F1A   |                       |                       |
|  | 32 mm           |         | 5 mm   | 0 - No corrosion stress | 8142866               | ADN-S-32-5-A-P-A-F1A  |
|  |                 | 10 mm   | 8142867                                      |                         | ADN-S-32-10-A-P-A-F1A |                       |
|  |                 | 15 mm   | 8142868                                      |                         | ADN-S-32-15-A-P-A-F1A |                       |
|  |                 | 20 mm   | 8142869                                      |                         | ADN-S-32-20-A-P-A-F1A |                       |
|  |                 | 25 mm   | 8142870                                      |                         | ADN-S-32-25-A-P-A-F1A |                       |
|  |                 | 30 mm   | 8142871                                      |                         | ADN-S-32-30-A-P-A-F1A |                       |
|  |                 | 35 mm   | 8142872                                      |                         | ADN-S-32-35-A-P-A-F1A |                       |
|  |                 | 40 mm   | 8142873                                      |                         | ADN-S-32-40-A-P-A-F1A |                       |
|  |                 | 45 mm   | 8142874                                      |                         | ADN-S-32-45-A-P-A-F1A |                       |
|  |                 | 50 mm   | 8142875                                      |                         | ADN-S-32-50-A-P-A-F1A |                       |
|  |                 | 40 mm   | 5 mm   |                         | 8142886               | ADN-S-40-5-A-P-A-F1A  |
|  |                 |         | 10 mm  |                         | 8142887               | ADN-S-40-10-A-P-A-F1A |
|  |                 |         | 15 mm  |                         | 8142888               | ADN-S-40-15-A-P-A-F1A |
|  | 20 mm           |         | 8142889                                      | ADN-S-40-20-A-P-A-F1A   |                       |                       |
|  | 25 mm           |         | 8142890                                      | ADN-S-40-25-A-P-A-F1A   |                       |                       |
|  | 30 mm           |         | 8142891                                      | ADN-S-40-30-A-P-A-F1A   |                       |                       |
|  | 35 mm           |         | 8142892                                      | ADN-S-40-35-A-P-A-F1A   |                       |                       |
|  | 40 mm           |         | 8142893                                      | ADN-S-40-40-A-P-A-F1A   |                       |                       |
|  | 45 mm           |         | 8142894                                      | ADN-S-40-45-A-P-A-F1A   |                       |                       |
|  | 50 mm           |         | 8142895                                      | ADN-S-40-50-A-P-A-F1A   |                       |                       |
|  | 50 mm           |         | 5 mm   | 8142907                 | ADN-S-50-5-A-P-A-F1A  |                       |
|  |                 | 10 mm   | 8142908                                      | ADN-S-50-10-A-P-A-F1A   |                       |                       |
|  |                 | 15 mm   | 8142909                                      | ADN-S-50-15-A-P-A-F1A   |                       |                       |
|  |                 | 20 mm   | 8142910                                      | ADN-S-50-20-A-P-A-F1A   |                       |                       |
|  |                 | 25 mm   | 8142911                                      | ADN-S-50-25-A-P-A-F1A   |                       |                       |
|  |                 | 30 mm   | 8142912                                      | ADN-S-50-30-A-P-A-F1A   |                       |                       |
|  |                 | 35 mm   | 8142913                                      | ADN-S-50-35-A-P-A-F1A   |                       |                       |
|  |                 | 40 mm   | 8142914                                      | ADN-S-50-40-A-P-A-F1A   |                       |                       |
| 45 mm  |                 | 8142915 | ADN-S-50-45-A-P-A-F1A                        |                         |                       |                       |
| 50 mm  |                 | 8142916 | ADN-S-50-50-A-P-A-F1A                        |                         |                       |                       |
| 63 mm  |                 | 5 mm    | 8142927                                      | ADN-S-63-5-A-P-A-F1A    |                       |                       |

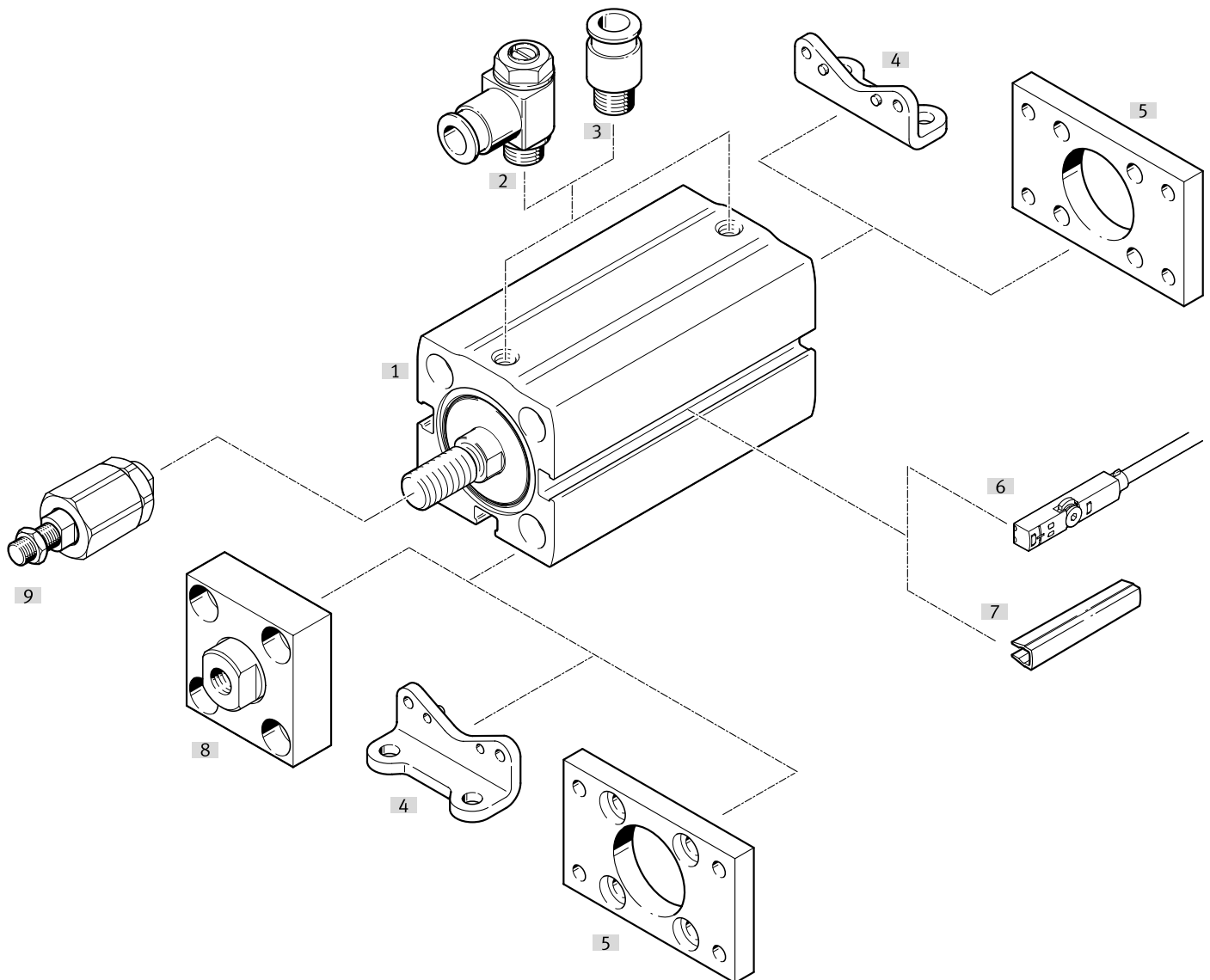
## Ordering data

| With cushioning – P; with male thread – A; with position sensing – A; for battery production – F1A |                 |        |  |          |                       |
|--|-----------------|--------|--|----------|-----------------------|
|  | Piston diameter | Stroke | Corrosion resistance class CRC <sup>1)</sup> | Part no. | Type                  |
|                    | 63 mm           | 10 mm  | 0 - No corrosion stress                      | 8142928  | ADN-S-63-10-A-P-A-F1A |
|  |                 | 15 mm  |  | 8142929  | ADN-S-63-15-A-P-A-F1A |
|  |                 | 20 mm  |  | 8142930  | ADN-S-63-20-A-P-A-F1A |
|  |                 | 25 mm  |  | 8142931  | ADN-S-63-25-A-P-A-F1A |
|  |                 | 30 mm  |  | 8142932  | ADN-S-63-30-A-P-A-F1A |
|  |                 | 35 mm  |  | 8142933  | ADN-S-63-35-A-P-A-F1A |
|  |                 | 40 mm  |  | 8142934  | ADN-S-63-40-A-P-A-F1A |
|  |                 | 45 mm  |  | 8142935  | ADN-S-63-45-A-P-A-F1A |
|  |                 | 50 mm  |  | 8142936  | ADN-S-63-50-A-P-A-F1A |

1) More information [www.festo.com/x/topic/kbk](http://www.festo.com/x/topic/kbk)

## Peripherals

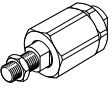
## Peripherals overview



| Accessories     |                                   |   | → Page/Internet |
|-----------------|-----------------------------------|---|-----------------|
| Type/order code |                                   | Description   |                 |
| [1]             | Compact cylinder ADN-S            | Double-acting   | adn-s           |
| [2]             | One-way flow control valve GRLA   | For Ø 12 ... 63: for regulating speed   | 29              |
| [2]             | One-way flow control valve GRLZ   | For Ø 12 ... 63: for regulating speed   | 29              |
| [3]             | Push-in fitting QS                | For Ø 12 ... 63: For connecting tubing with standard O.D.                             | qs              |
| [4]             | Foot mounting HNA                 | For Ø 12 ... 63: for bearing or end caps  |                 |
| [5]             | Flange mounting FNC               | For Ø 12 ... 63: for bearing or end caps  | 28              |
| [6]             | Proximity switch SMT-10           | For Ø 6 ... 10: can be integrated in the cylinder profile barrel                      | 29              |
| [6]             | Proximity switch SMT-8            | For Ø 12 ... 63: can be integrated in the cylinder profile barrel                     | 30              |
| [6]             | Position transmitter SDAS-MHS     | For Ø 12 ... 63: can be integrated in the cylinder profile barrel                     | 30              |
| [6]             | Position transmitter SDAT-MHS     | For Ø 12 ... 63: can be integrated in the cylinder profile barrel                     | 30              |
| [6]             | Position transmitter SMAT-8       | For Ø 12 ... 63: can be integrated in the cylinder profile barrel                     | 31              |
| [7]             | Slot cover ABP                    | For Ø 12 ... 63: to protect the sensor cables and the sensor slots from contamination | 31              |
| [8]             | Coupling piece KSG                | For Ø 32 ... 63: to compensate for radial deviations                                  | 28              |
| [8]             | Coupling piece KSZ                | For Ø 32 ... 63: to compensate for radial deviations                                  | 28              |
| [9]             | Self-aligning rod coupler FK/DARP | For Ø 12 ... 63: To compensate for radial and angular deviations                      | 28              |

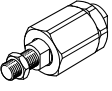
## Accessories

### Self-aligning rod coupler FK

|  | Description  | Material housing  | Suitability for the production of Li-ion batteries <sup>1)</sup> | Product weight | Part no.      | Type        |
|--|--------------|-------------------|--|----------------|---------------|-------------|
|  | For Ø 12     | Steel, Galvanised | F1   | 20 g           | <b>30984</b>  | FK-M5       |
|  | For Ø 16     |                   |  | 23 g           | ★ <b>2061</b> | FK-M6       |
|  | For Ø 20, 25 |                   |  | 50 g           | ★ <b>2062</b> | FK-M8       |
|  | For Ø 32, 40 |                   |  | 210 g          | ★ <b>6140</b> | FK-M10X1,25 |
|  | For Ø 50, 63 |                   |  | 215 g          | ★ <b>6141</b> | FK-M12X1,25 |

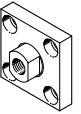
1) More information [www.festo.com/x/topic/bat](http://www.festo.com/x/topic/bat)

### Self-aligning rod coupler DARP

|  | Description  | Material housing           | Suitability for the production of Li-ion batteries <sup>1)</sup> | Product weight | Part no.       | Type        |
|--|--------------|----------------------------|--|----------------|----------------|-------------|
|  | For Ø 12     | High-alloy stainless steel | F5a  | 24 g           | <b>8170112</b> | DARP-M5-F   |
|  | For Ø 16     |                            |  | 25 g           | <b>8170115</b> | DARP-M6-F   |
|  | For Ø 20, 25 |                            |  | 58 g           | <b>8170116</b> | DARP-M8-F   |
|  | For Ø 32, 40 |                            |  | 236 g          | <b>8170119</b> | DARP-M10P-F |
|  | For Ø 50, 63 |                            |  | 244 g          | <b>8170120</b> | DARP-M12P-F |

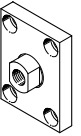
1) More information [www.festo.com/x/topic/bat](http://www.festo.com/x/topic/bat)

### Coupling piece KSG

|  | Description  | Material mounting | Suitability for the production of Li-ion batteries <sup>1)</sup> | Product weight | Part no.     | Type         |
|--|--------------|-------------------|--|----------------|--------------|--------------|
|  | For Ø 32, 40 | Steel, Galvanised | F1   | 229 g          | <b>32963</b> | KSG-M10X1,25 |
|  | For Ø 50, 63 |                   |  | 447 g          | <b>32964</b> | KSG-M12X1,25 |

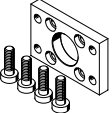
1) More information [www.festo.com/x/topic/bat](http://www.festo.com/x/topic/bat)

### Coupling piece KSZ

|  | Description  | Material mounting | Suitability for the production of Li-ion batteries <sup>1)</sup> | Product weight | Part no.     | Type         |
|--|--------------|-------------------|--|----------------|--------------|--------------|
|  | For Ø 32, 40 | Steel, Galvanised | F1   | 110 g          | <b>36125</b> | KSZ-M10X1,25 |
|  | For Ø 50, 63 |                   |  | 180 g          | <b>36126</b> | KSZ-M12X1,25 |


1) More information [www.festo.com/x/topic/bat](http://www.festo.com/x/topic/bat)

### Flange mounting FNC


|  | Description | Material mounting | Product weight | Part no.      | Type   |
|--|-------------|-------------------|----------------|---------------|--------|
|  | For Ø 12    | Steel, Galvanised | 79 g           | <b>537245</b> | FNC-12 |
|  | For Ø 16    |                   | 88 g           | <b>537246</b> | FNC-16 |
|  | For Ø 20    |                   | 141 g          | <b>537247</b> | FNC-20 |
|  | For Ø 25    |                   | 165 g          | <b>537248</b> | FNC-25 |
|  | For Ø 32    |                   | 221 g          | <b>174376</b> | FNC-32 |
|  | For Ø 40    |                   | 291 g          | <b>174377</b> | FNC-40 |
|  | For Ø 50    |                   | 536 g          | <b>174378</b> | FNC-50 |
|  | For Ø 63    |                   | 679 g          | <b>174379</b> | FNC-63 |

## Accessories

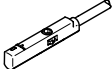
## One-way flow control valves GRLA – for exhaust air

|   | Description                  | Pneumatic connection 1 | Pneumatic connection, port 2 | Part no.        | Type            |                |
|---|------------------------------|------------------------|------------------------------|-----------------|-----------------|----------------|
|  | For Ø 6, 10                  | Push-in connector 3 mm | M3                           | 175041          | GRLA-M3-QS-3    |                |
|   | For Ø 12, 16, 20, 25, 32, 40 |                        | Push-in connector 4 mm       | M5              | ★ 193137        | GRLA-M5-QS-3-D |
|   |                              |                        |                              | ★ 193138        | GRLA-M5-QS-4-D  |                |
|   | For Ø 50, 63                 | Push-in connector 6 mm | G1/8                         | ★ 193139        | GRLA-M5-QS-6-D  |                |
|   |                              | Push-in connector 3 mm |                              | 193142          | GRLA-1/8-QS-3-D |                |
|   |                              | Push-in connector 4 mm |                              | ★ 193143        | GRLA-1/8-QS-4-D |                |
|   |                              | Push-in connector 6 mm |                              | ★ 193144        | GRLA-1/8-QS-6-D |                |
|   |                              | Push-in connector 8 mm | ★ 193145                     | GRLA-1/8-QS-8-D |                 |                |

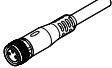
## One-way flow control valves GRLZ – for supply air

|   | Description                  | Pneumatic connection 1 | Pneumatic connection, port 2 | Part no.        | Type            |                |
|---|------------------------------|------------------------|------------------------------|-----------------|-----------------|----------------|
|  | For Ø 6, 10                  | Push-in connector 3 mm | M3                           | 175043          | GRLZ-M3-QS-3    |                |
|   | For Ø 12, 16, 20, 25, 32, 40 |                        | Push-in connector 4 mm       | M5              | ★ 193153        | GRLZ-M5-QS-3-D |
|   |                              |                        |                              | ★ 193154        | GRLZ-M5-QS-4-D  |                |
|   | For Ø 50, 63                 | Push-in connector 6 mm | G1/8                         | ★ 193155        | GRLZ-M5-QS-6-D  |                |
|   |                              | Push-in connector 3 mm |                              | 193156          | GRLZ-1/8-QS-3-D |                |
|   |                              | Push-in connector 4 mm |                              | ★ 193157        | GRLZ-1/8-QS-4-D |                |
|   |                              | Push-in connector 6 mm |                              | ★ 193158        | GRLZ-1/8-QS-6-D |                |
|   |                              | Push-in connector 8 mm | ★ 193159                     | GRLZ-1/8-QS-8-D |                 |                |

## Proximity switch SMT-10 for round slot, magneto-resistive – for Ø 6 ... 10

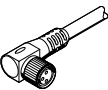
|   | Type of mounting                                 | Switching output       | Electrical connection | Cable length | Part no. | Type                       |
|---|--|------------------------|-----------------------|--------------|----------|----------------------------|
|  | Screw-clamped, insertable in the slot from above | 3-wire NPN N/O contact | Open end              | 2.5 m        | ★ 551377 | SMT-10M-NS-24V-E-2,5-L-OE  |
|   |  |                        | Plug M8, A-coded      | 0.3 m        | ★ 551379 | SMT-10M-NS-24V-E-0,3-L-M8D |
|   |  | 3-wire PNP N/O contact | Open end              | 2.5 m        | ★ 551373 | SMT-10M-PS-24V-E-2,5-L-OE  |
|   |  |                        | Plug M8, A-coded      | 0.3 m        | ★ 551375 | SMT-10M-PS-24V-E-0,3-L-M8D |

## Connecting cables NEBU, straight

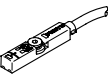
|   | Electrical connection 1, connector system | Electrical connection 2, connector system | Electrical connection 2, number of connections/cores | Cable length | Part no. | Type                |
|---|---|---|--|--------------|----------|---------------------|
|  | M8x1, A-coded, to EN 61076-2-104          | Open end                                  | 3  | 2.5 m        | ★ 541333 | NEBU-M8G3-K-2.5-LE3 |
|   |   |   |  | 5 m          | ★ 541334 | NEBU-M8G3-K-5-LE3   |

## Accessories

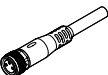
## Connecting cables NEBU, angled

|  | Electrical connection 1, connector system | Electrical connection 2, connector system | Electrical connection 2, number of connections/cores | Cable length | Part no. | Type                |
|--|---|---|--|--------------|----------|---------------------|
|  | M8x1, A-coded, to EN 61076-2-104          | Open end                                  | 3  | 2.5 m        | ★ 541338 | NEBU-M8W3-K-2.5-LE3 |
|  |   |   |  | 5 m          | ★ 541341 | NEBU-M8W3-K-5-LE3   |

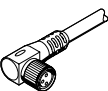
## Proximity switch SMT-8 for T-slot, magneto-resistive – for Ø 12 ... 63

|  | Type of mounting                                 | Switching output       | Electrical connection | Cable length | Part no. | Type                      |
|--|--|------------------------|-----------------------|--------------|----------|---------------------------|
|  | Screw-clamped, Insertable in the slot from above | 3-wire NPN N/O contact | Open end              | 2.5 m        | ★ 574338 | SMT-8M-A-NS-24V-E-2,5-OE  |
|  |  |                        | Plug M8, A-coded      | 0.3 m        | ★ 574339 | SMT-8M-A-NS-24V-E-0,3-M8D |
|  |  | 3-wire PNP N/C contact | Open end              | 7.5 m        | ★ 574340 | SMT-8M-A-PO-24V-E-7,5-OE  |
|  |  |                        | Plug M8, A-coded      | 0.3 m        | ★ 574334 | SMT-8M-A-PS-24V-E-0,3-M8D |
|  |  | 3-wire PNP N/O contact | Open end              | 2.5 m        | ★ 574335 | SMT-8M-A-PS-24V-E-2,5-OE  |
|  |  |                        | Plug M8, A-coded      | 0.3 m        | ★ 574334 | SMT-8M-A-PS-24V-E-0,3-M8D |

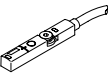
## Connecting cables NEBU, straight

|  | Electrical connection 1, connector system | Electrical connection 2, connector system | Electrical connection 2, number of connections/cores | Cable length | Part no. | Type                |
|--|---|---|--|--------------|----------|---------------------|
|  | M8x1, A-coded, to EN 61076-2-104          | Open end                                  | 3  | 2.5 m        | ★ 541333 | NEBU-M8G3-K-2.5-LE3 |
|  |   |   |  | 5 m          | ★ 541334 | NEBU-M8G3-K-5-LE3   |

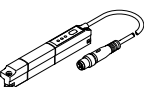
## Connecting cables NEBU, angled

|  | Electrical connection 1, connector system | Electrical connection 2, connector system | Electrical connection 2, number of connections/cores | Cable length | Part no. | Type                |
|--|---|---|--|--------------|----------|---------------------|
|  | M8x1, A-coded, to EN 61076-2-104          | Open end                                  | 3  | 2.5 m        | ★ 541338 | NEBU-M8W3-K-2.5-LE3 |
|  |   |   |  | 5 m          | ★ 541341 | NEBU-M8W3-K-5-LE3   |

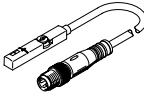
## Position transmitter SDAS for T-slot, plug M8, A-coded – for Ø 12 ... 63

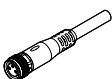
|  | Description   | Sensing range | Electrical connection 1, number of connections/cores | Cable length | Part no. | Type                             |
|--|---|---------------|--|--------------|----------|----------------------------------|
|  | Operating modes: two adjustable switching outputs; IO-Link® | 52 mm         | 4  | 0.3 m        | 8063974  | SDAS-MHS-M40-1L-PNLK-PN-E-0.3-M8 |
|  |   |               |  | 2.5 m        | 8063975  | SDAS-MHS-M40-1L-PNLK-PN-E-2.5-LE |

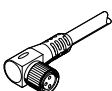
## Position transmitter SDAT for T-slot, plug M8, A-coded – for Ø 12 ... 63

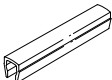
|  | Sensing range   | Analogue output | Electrical connection 1, number of connections/cores | Cable length | Part no. | Type                        |
|--|-----------------|-----------------|--|--------------|----------|-----------------------------|
|  | 0 ... 50.000 mm | 4 · 20 mA       | 4  | 0.3 m        | 1531265  | SDAT-MHS-M50-1L-SA-E-0.3-M8 |

## Accessories

| Position transmitter SMAT for T-slot, plug M8, A-coded – for Ø 12 ... 63          |               |                 |  |              |          |                     |
|---|---------------|-----------------|--|--------------|----------|---------------------|
|   | Sensing range | Analogue output | Electrical connection 1, number of connections/<br>cores | Cable length | Part no. | Type                |
|  | 52 mm         | 0 - 10 V        | 4  | 0.3 m        | 553744   | SMAT-8M-U-E-0,3-M8D |

| Connecting cables NEBU, straight  |   |   |  |              |          |                     |
|---|---|---|--|--------------|----------|---------------------|
|   | Electrical connection 1, connector system | Electrical connection 2, connector system | Electrical connection 2, number of connections/<br>cores | Cable length | Part no. | Type                |
|  | M8x1, A-coded, to EN 61076-2-104          | Open end                                  | 4  | 2.5 m        | 541342   | NEBU-M8G4-K-2.5-LE4 |
|   |   |   |  | 5 m          | 541343   | NEBU-M8G4-K-5-LE4   |

| Connecting cables NEBU, angled  |   |   |  |              |          |                     |
|---|---|---|--|--------------|----------|---------------------|
|   | Electrical connection 1, connector system | Electrical connection 2, connector system | Electrical connection 2, number of connections/<br>cores | Cable length | Part no. | Type                |
|  | M8x1, A-coded, to EN 61076-2-104          | Open end                                  | 4  | 2.5 m        | 541344   | NEBU-M8W4-K-2.5-LE4 |
|   |   |   |  | 5 m          | 541345   | NEBU-M8W4-K-5-LE4   |

| Slot cover ABP for T-slot – for Ø 12 ... 63   |                                   |                  |                             |          |         |
|---|-----------------------------------|------------------|-----------------------------|----------|---------|
|   | Description                       | Material housing | Packaging quantity [pieces] | Part no. | Type    |
|  | Length 0.5 m, Inserted from above | ABS              | 2                           | 151680   | ABP-5-S |