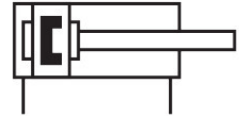


# Compact cylinder ADN-S-50-50-A-P-A-F1A

Part number: 8142916

**FESTO**



 [General operating condition](#)

## Data sheet

| Feature                                                      | Value                                                                                                                                                                                                                 |
|--------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Stroke                                                       | 50 mm                                                                                                                                                                                                                 |
| Piston diameter                                              | 50 mm                                                                                                                                                                                                                 |
| Cushioning                                                   | Elastic cushioning rings/plates at both ends                                                                                                                                                                          |
| Mounting position                                            | optional                                                                                                                                                                                                              |
| Mode of operation                                            | Double-acting                                                                                                                                                                                                         |
| Piston-rod end                                               | Male thread                                                                                                                                                                                                           |
| Design                                                       | Piston<br>Piston rod                                                                                                                                                                                                  |
| Position detection                                           | Via proximity switch                                                                                                                                                                                                  |
| Symbol                                                       | 00991217                                                                                                                                                                                                              |
| Variants                                                     | Recommended for production facilities for manufacturing of lithium-ion batteries<br>Piston rod at one end                                                                                                             |
| Operating pressure                                           | 0.04 MPa ... 1 MPa                                                                                                                                                                                                    |
| Operating pressure                                           | 0.4 bar ... 10 bar                                                                                                                                                                                                    |
| Operating pressure                                           | 5.8 psi ... 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)                                                                                                                            |
| Corrosion resistance class CRC                               | 0 - No corrosion stress                                                                                                                                                                                               |
| LABS (PWIS) conformity                                       | VDMA24364-B2-L                                                                                                                                                                                                        |
| Suitability for the production of Li-ion batteries           | Metals with more than 1% by mass of copper, zinc or nickel are excluded from use. The exceptions are nickel in steel, chemically nickel-plated surfaces, circuit boards, cables, electrical plug connectors and coils |
| Cleanroom class                                              | Class 6 according to ISO 14644-1                                                                                                                                                                                      |
| Ambient temperature                                          | 0 °C ... 60 °C                                                                                                                                                                                                        |
| Impact energy in end positions                               | 1 J                                                                                                                                                                                                                   |
| Theoretical force at 0.6 MPa (6 bar, 87 psi), return stroke  | 1057 N                                                                                                                                                                                                                |
| Theoretical force at 0.6 MPa (6 bar, 87 psi), advance stroke | 1178 N                                                                                                                                                                                                                |
| Moving mass for 0 mm stroke                                  | 104 g                                                                                                                                                                                                                 |
| Additional moving mass per 10 mm stroke                      | 16 g                                                                                                                                                                                                                  |
| Basic weight for 0 mm stroke                                 | 324 g                                                                                                                                                                                                                 |
| Additional weight per 10 mm stroke                           | 63 g                                                                                                                                                                                                                  |
| Type of mounting                                             | With through-hole<br>Via female thread                                                                                                                                                                                |
| Pneumatic connection                                         | G1/8                                                                                                                                                                                                                  |
| Note on materials                                            | RoHS-compliant                                                                                                                                                                                                        |
| Material cover                                               | Anodised wrought aluminium alloy                                                                                                                                                                                      |

| Feature                | Value                            |
|------------------------|----------------------------------|
| Material dynamic seals | TPE-U(PU)                        |
| Material housing       | Anodised wrought aluminium alloy |
| Material piston rod    | High-alloy stainless steel       |