

# Compact cylinder ADN-S-25-45-I-P-A-F1A

Part number: 8142814

**FESTO**



## Data sheet

| Feature                                                   | Value                                                                                                       |
|-----------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|
| Stroke                                                    | 45 mm                                                                                                       |
| Piston diameter                                           | 25 mm                                                                                                       |
| Cushioning                                                | Elastic cushioning rings/pads at both ends                                                                  |
| Mounting position                                         | Any                                                                                                         |
| Mode of operation                                         | Double-acting                                                                                               |
| Piston rod end                                            | Internal thread                                                                                             |
| Structural design                                         | Piston<br>Piston rod                                                                                        |
| Position sensing                                          | For proximity sensor                                                                                        |
| Variants                                                  | Recommended for production facilities for the manufacture of lithium-ion batteries<br>Piston rod at one end |
| Operating pressure                                        | 0.06 MPa...1 MPa<br>0.6 bar...10 bar<br>8.7 psi...145 psi                                                   |
| Operating medium                                          | Compressed air as per ISO 8573-1:2010 [7:4:4]                                                               |
| Information on operating and pilot media                  | Operation with oil lubrication possible (required for further use)                                          |
| Corrosion resistance class (CRC)                          | 2 - Moderate corrosion stress                                                                               |
| LABS (PWIS) conformity                                    | VDMA24364-B2-L                                                                                              |
| Suitability for the production of Li-ion batteries        | Suitable for battery production with reduced Cu/Zn/Ni values (F1a)                                          |
| Cleanroom suitability, measured according to ISO 14644-14 | Class 5 according to ISO 14644-1                                                                            |
| Ambient temperature                                       | 0 °C...80 °C                                                                                                |
| Impact energy in the end positions                        | 0.3 J                                                                                                       |
| Theoretical force at 6 bar, retracting                    | 247 N                                                                                                       |
| Theoretical force at 6 bar, advancing                     | 295 N                                                                                                       |
| Moving mass at 0 mm stroke                                | 25 g                                                                                                        |
| Additional moving mass per 10 mm stroke                   | 6 g                                                                                                         |
| Basic weight with 0 mm stroke                             | 88 g                                                                                                        |
| Additional weight per 10 mm stroke                        | 30 g                                                                                                        |
| Type of mounting                                          | With through-hole<br>With internal thread                                                                   |
| Pneumatic connection                                      | M5                                                                                                          |
| Note on materials                                         | RoHS-compliant                                                                                              |

| Feature                   | Value                            |
|---------------------------|----------------------------------|
| Cover material            | Wrought aluminum alloy, anodized |
| Material of dynamic seals | NBR<br>TPE-U(PU)                 |
| Housing material          | Wrought aluminum alloy, anodized |
| Piston rod material       | High-alloy stainless steel       |