

# 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/plates at both ends                                                              |
| Mounting position                                            | optional                                                                                                  |
| Mode of operation                                            | Double-acting                                                                                             |
| Piston-rod end                                               | Female thread                                                                                             |
| Design                                                       | Piston<br>Piston rod                                                                                      |
| Position detection                                           | Via proximity switch                                                                                      |
| Variants                                                     | Recommended for production facilities for manufacturing 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 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                               | 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 end positions                               | 0.3 J                                                                                                     |
| Theoretical force at 0.6 MPa (6 bar, 87 psi), return stroke  | 247 N                                                                                                     |
| Theoretical force at 0.6 MPa (6 bar, 87 psi), advance stroke | 295 N                                                                                                     |
| Moving mass for 0 mm stroke                                  | 25 g                                                                                                      |
| Additional moving mass per 10 mm stroke                      | 6 g                                                                                                       |
| Basic weight for 0 mm stroke                                 | 88 g                                                                                                      |
| Additional weight per 10 mm stroke                           | 30 g                                                                                                      |
| Type of mounting                                             | With through-hole<br>Via female thread                                                                    |
| Pneumatic connection                                         | M5                                                                                                        |

| Feature                | Value                            |
|------------------------|----------------------------------|
| Note on materials      | RoHS-compliant                   |
| Material cover         | Anodised wrought aluminium alloy |
| Material dynamic seals | NBR<br>TPE-U(PU)                 |
| Material housing       | Anodised wrought aluminium alloy |
| Material piston rod    | High-alloy stainless steel       |