

# Round cylinder DSNU-40- -F1A-

Part number: 8149449

**FESTO**



## Data sheet

| Feature                                            | Value                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Stroke                                             | 1 mm...500 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Piston diameter                                    | 40 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Piston rod thread                                  | M12x1.25                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Cushioning                                         | Elastic cushioning rings/pads at both ends<br>Self-adjusting pneumatic end-position cushioning<br>Pneumatic cushioning, adjustable at both ends                                                                                                                                                                                                                                                                                                                                                                                             |
| Mounting position                                  | Any                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Structural design                                  | Piston<br>Piston rod<br>Cylinder barrel                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Position sensing                                   | Via proximity switch                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Variants                                           | Metals with copper, zinc or nickel by mass as main constituent are excluded from use. Exceptions are nickel in steel, chemically nickel-plated surfaces, printed circuit boards, cables, electrical plug connectors and coils.<br>Stroke adjustment advancing<br>Weld spatter protection<br>Extended external thread piston rod<br>Internal thread on piston rod<br>Special thread on piston rod<br>Piston rod with external hexagon<br>Low friction for balancer applications<br>Swiveling rod eye mounting on the end cap<br>Low friction |
| Operating pressure                                 | 0.1 MPa...1 MPa<br>1 bar...10 bar                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Mode of operation                                  | Double-acting                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 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)                   | 0 - No corrosion stress                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| LABS (PWIS) conformity                             | VDMA24364-B1/B2-L                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Suitability for the production of Li-ion batteries | Suitable for battery production with reduced Cu/Zn/Ni values (F1a)                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Ambient temperature                                | -20 °C...80 °C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Impact energy in the end positions                 | 0.7 J                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Cushioning length                                  | 18 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Theoretical force at 6 bar, retracting             | 633.3 N                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

| Feature                                 | Value                            |
|-----------------------------------------|----------------------------------|
| Theoretical force at 6 bar, advancing   | 752.9 N                          |
| Moving mass at 0 mm stroke              | 230 g                            |
| Additional moving mass per 10 mm stroke | 16 g                             |
| Basic weight with 0 mm stroke           | 661 g                            |
| Additional weight per 10 mm stroke      | 24 g                             |
| Type of mounting                        | With accessories                 |
| Pneumatic connection                    | G1/8                             |
| Note on materials                       | RoHS compliant                   |
| Cover material                          | Wrought aluminum alloy, anodized |
| Seals material                          | TPE-U(PU)                        |
| Piston rod material                     | high-alloy stainless steel       |
| Material of cylinder barrel             | high-alloy stainless steel       |