

# ISO cylinder DSBF-C-...-80- -

Part number: 570081

**FESTO**



[PDF](#) General operating condition

## Data sheet

Overall data sheet – Individual values depend upon your configuration.

| Feature                                      | Value                                                                                                                                                                                                                                                                                                                                      |
|----------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Stroke                                       | 1 mm ... 2800 mm                                                                                                                                                                                                                                                                                                                           |
| Piston diameter                              | 80 mm                                                                                                                                                                                                                                                                                                                                      |
| Piston rod thread                            | M20x1.5<br>M12                                                                                                                                                                                                                                                                                                                             |
| Based on standard                            | ISO 15552                                                                                                                                                                                                                                                                                                                                  |
| Cushioning                                   | Elastic cushioning rings/plates at both ends<br>Self-adjusting pneumatic end-position cushioning<br>Pneumatic cushioning, adjustable at both ends                                                                                                                                                                                          |
| Mounting position                            | optional                                                                                                                                                                                                                                                                                                                                   |
| Conforms to standard                         | ISO 15552                                                                                                                                                                                                                                                                                                                                  |
| Piston-rod end                               | Male thread<br>Female thread                                                                                                                                                                                                                                                                                                               |
| Design                                       | Piston<br>Piston rod<br>Profile barrel                                                                                                                                                                                                                                                                                                     |
| Position detection                           | Via proximity switch                                                                                                                                                                                                                                                                                                                       |
| Symbol                                       | 00991217<br>00991218<br>00991235<br>00991237<br>00992970<br>00992971                                                                                                                                                                                                                                                                       |
| Variants                                     | For unlubricated operation<br>Increased chemical resistance<br>Hard scraper<br>Extended male piston rod thread<br>Piston rod with female thread<br>Extended piston rod<br>Uniform, slow movement<br>Low friction<br>Through piston rod<br>Heat-resistant seals max. 120°C<br>Temperature range 0 to 150°C<br>Temperature range -40 to 80°C |
| Operating pressure                           | 0.005 MPa ... 1.2 MPa                                                                                                                                                                                                                                                                                                                      |
| Operating pressure                           | 0.05 bar ... 12 bar                                                                                                                                                                                                                                                                                                                        |
| Mode of operation                            | Double-acting                                                                                                                                                                                                                                                                                                                              |
| CE mark (see declaration of conformity)      | To EU Explosion Protection Directive (ATEX)                                                                                                                                                                                                                                                                                                |
| UKCA marking (see declaration of conformity) | To UK EX instructions                                                                                                                                                                                                                                                                                                                      |

| Feature                                                      | Value                                                                                                 |
|--------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| Explosion protection                                         | Zone 1 (ATEX)<br>Zone 1 (UKEX)<br>Zone 2 (ATEX)<br>Zone 21 (ATEX)<br>Zone 21 (UKEX)<br>Zone 22 (ATEX) |
| ATEX category gas                                            | II 2G                                                                                                 |
| ATEX category dust                                           | II 2D                                                                                                 |
| Explosion ignition protection type for gas                   | Ex h IIC T4 Gb                                                                                        |
| Explosion ignition protection type for dust                  | Ex h IIIC T120°C Db                                                                                   |
| Explosion ambient temperature                                | -20°C ≤ Ta ≤ +60°C                                                                                    |
| Explosion protection certification outside the EU            | EPL Db (GB)<br>EPL Gb (GB)                                                                            |
| 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                               | 3 - high corrosion stress                                                                             |
| LABS (PWIS) conformity                                       | VDMA24364-B2-L<br>VDMA24364 zone III                                                                  |
| Suitable for use with food                                   | See supplementary material information                                                                |
| Ambient temperature                                          | -40 °C ... 150 °C                                                                                     |
| Impact energy in end positions                               | 0.9 J ... 1.8 J                                                                                       |
| Cushioning length                                            | 28 mm ... 34 mm                                                                                       |
| Theoretical force at 0.6 MPa (6 bar, 87 psi), return stroke  | 2721 N                                                                                                |
| Theoretical force at 0.6 MPa (6 bar, 87 psi), advance stroke | 2721 N ... 3016 N                                                                                     |
| Additional weight per piston rod extension of 10 mm          | 39 g                                                                                                  |
| Additional weight per piston rod thread extension of 10 mm   | 22 g                                                                                                  |
| Type of mounting                                             | Either:<br>Via female thread<br>With accessories                                                      |
| Pneumatic connection                                         | G3/8                                                                                                  |
| Note on materials                                            | RoHS-compliant                                                                                        |
| Material cover                                               | Coated die-cast aluminium                                                                             |
| Material piston seal                                         | FPM<br>TPE-U(PU)                                                                                      |
| Material piston                                              | Wrought aluminium alloy                                                                               |
| Material piston rod                                          | High-alloy stainless steel, hard chrome-plated<br>High-alloy stainless steel                          |
| Material piston rod wiper                                    | FPM<br>PE<br>TPE-U(PU)                                                                                |
| Buffer seal material                                         | FPM<br>TPE-U(PU)                                                                                      |
| Cushioning boss material                                     | Aluminium<br>POM                                                                                      |
| Material cylinder barrel                                     | Anodised wrought aluminium alloy                                                                      |
| Material nut                                                 | High-alloy stainless steel                                                                            |
| Material rod wiper                                           | PTFE reinforced                                                                                       |
| Material bearing                                             | Bronze<br>Metal polymer compound<br>POM                                                               |
| Material collar screws                                       | Galvanised steel                                                                                      |