

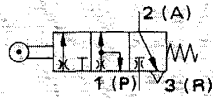
Mechanically Actuated Limit Valves

Back Pressure Sensors, Barbed Fittings for 3 mm Tubing

Limit Valve

with Ball Actuator Spring Return

Type SDK-3-PK-3
SDK-4-PK-3



Mounting Block

Type SDA-...-B

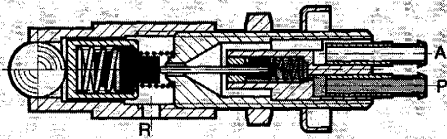
These valves are used as limit switches and end stops. They can be actuated by a perpendicular force (end stop) or a force parallel to the face.

They are especially suited for limit sensing and end position control where a high degree of accuracy is required. A ball actuates the valve's movable stem.

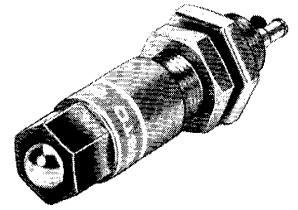
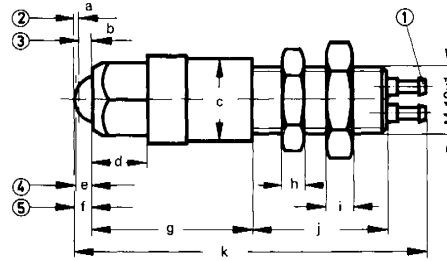
When not in operation, a seat closes the nozzle at inlet P. When the ball is actuated, compressed air escapes to atmosphere until the nozzle outlet is closed. A signal at outlet A then increases to supply pressure.

The permissible impact force must not be exceeded.

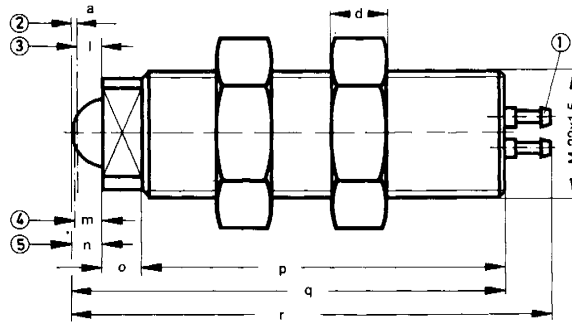
Example: Type SDK-3-PK-3



Type SDK-3-PK-3



Type SDK-4-PK-3



Dimensions

| | |
|---|-------------------|
| a | 0.03 in / 0.8 mm |
| b | 0.09 in / 2.3 mm |
| c | 0.59 in / 15 mm |
| d | 0.39 in / 10 mm |
| e | 0.12 in / 3 mm |
| f | 0.12 in / 3.1 mm |
| g | 1.14 in / 29 mm |
| h | 0.16 in / 4 mm |
| i | 0.18 in / 4.5 mm |
| j | 0.96 in / 24.5 mm |
| k | 2.51 in / 63.8 mm |
| l | 0.15 in / 3.9 mm |
| m | 0.18 in / 4.7 mm |
| n | 0.19 in / 4.8 mm |
| o | 0.28 in / 7 mm |
| p | 2.46 in / 62.5 mm |
| q | 2.43 in / 74.5 mm |
| r | 3.25 in / 82.5 mm |

- ① Barbed fittings for 3 mm plastic tubing
- ② Free play
- ③ Overtravel
- ④ Travel
- ⑤ Rest position

- 1 (P) = Supply (Black)
- 2 (A) = Outlet (Yellow)
- 3 (R) = Exhaust

Permissible Impact Force

| Type | Threaded Into SDA and secured by jam nut ($V < 0.4$ in/s / 10 mm/s) | Through-hole with 2 securing jam nuts ($V < 0.4$ in/s / 10 mm/s) |
|------------|---|--|
| SDK-3-PK-3 | 1011 lbf / 4500 N | 500 lbf / 2000 N |
| SDK-4-PK-3 | 5395 lbf / 24000 N | 2697 lbf / 12000 N |

| Order Number | Valve | 8714 SDK-3-PK-3 | 10033 SDK-4-PK-3 |
|-----------------------------------|----------------|--|-------------------------------|
| Part No./Type | Mounting block | 11541 SDA-12-x-1-B | 11543 SDA-22 x 1.5-B |
| Medium | | Compressed air (filtered, lubricated or unlubricated) | |
| Design | | Seat valve, subject to crossover | |
| Mounting | | M 12 x 1 with mounting nuts | M 22 x 1.5 with mounting nuts |
| Fitting diameter | | 0.49 in / 12.5 mm | 0.88 in / 22.5 mm |
| Connection | | Barbed fittings for 3 mm tubing | |
| Orifice size | | 0.09 in / 2.5 mm (restricted orifice 0.02 in / 0.5 mm) | |
| C_v factor | | 0.016 C_v / 16 l/min | |
| Supply pressure range at P* | | 0 to 120 psi / 0 to 8 bar | |
| Signal pressure range at A | | 0 to supply pressure | |
| End stop accuracy | | ± 0.001 in / 0.03 mm | |
| Actuating force at 90 psi / 6 bar | | 2.7 lbf / 12 N | 3.82 lbf / 17 N |
| Closing force at 90 psi / 6 bar | | 5.62 lbf / 25 N | 6.74 lbf / 30 N |
| Materials | | Stainless steel. Seals: Buna N | |
| Weight | Valve | 0.110 lb / 0.050 kg | |
| | Mounting block | 0.396 lb / 0.180 kg | 1.05 lb / 0.480 kg |

* 14 to +176°F / -10 to +80°C, depending on the tubing used.

Product Range and Company Overview

A Complete Suite of Automation Services

Our experienced engineers provide complete support at every stage of your development process, including: conceptualization, analysis, engineering, design, assembly, documentation, validation, and production.



Custom Automation Components
Complete custom engineered solutions



Custom Control Cabinets
Comprehensive engineering support and on-site services



Complete Systems
Shipment, stocking and storage services

The Broadest Range of Automation Components

With a comprehensive line of more than 30,000 automation components, Festo is capable of solving the most complex automation requirements.



Electromechanical
Electromechanical actuators, motors, controllers & drives



Pneumatics
Pneumatic linear and rotary actuators, valves, and air supply



PLCs and I/O Devices
PLC's, operator interfaces, sensors and I/O devices

Supporting Advanced Automation... As No One Else Can!

Festo is a leading global manufacturer of pneumatic and electromechanical systems, components and controls for industrial automation, with more than 12,000 employees in 56 national headquarters serving more than 180 countries. For more than 80 years, Festo has continuously elevated the state of manufacturing with innovations and optimized motion control solutions that deliver higher performing, more profitable automated manufacturing and processing equipment. Our dedication to the advancement of automation extends beyond technology to the education and development of current and future automation and robotics designers with simulation tools, teaching programs, and on-site services.

Quality Assurance, ISO 9001 and ISO 14001 Certifications

Festo Corporation is committed to supply all Festo products and services that will meet or exceed our customers' requirements in product quality, delivery, customer service and satisfaction.

To meet this commitment, we strive to ensure a consistent, integrated, and systematic approach to management that will meet or exceed the requirements of the ISO 9001 standard for Quality Management and the ISO 14001 standard for Environmental Management.



© Copyright 2008, Festo Corporation. While every effort is made to ensure that all dimensions and specifications are correct, Festo cannot guarantee that publications are completely free of any error, in particular typing or printing errors. Accordingly, Festo cannot be held responsible for the same. For Liability and Warranty conditions, refer to our "Terms and Conditions of Sale", available from your local Festo office. All rights reserved. No part of this publication may be reproduced, distributed, or transmitted in any form or by any means, electronic, mechanical, photocopying or otherwise, without the prior written permission of Festo. All technical data subject to change according to technical update.



Printed on recycled paper at New Horizon Graphic, Inc., FSC certified as an environmentally friendly printing plant.

Festo North America

United States

Customer Resource Center

502 Earth City Expy., Suite 125
Earth City, MO 63045

For ordering assistance, or to find
your nearest Festo Distributor,

Call: 1.800.99.FESTO

Fax: 1.800.96.FESTO

Email: customer.service@us.festo.com

For technical support,

Call: 1.866.GO.FESTO

Fax: 1.800.96.FESTO

Email: product.support@us.festo.com

Headquarters

Festo Corporation
395 Moreland Road
P.O. Box 18023
Hauppauge, NY 11788
www.festo.com/us

Sales Offices

Appleton

N. 922 Tower View Drive, Suite N
Greenville, WI 54942

Boston

120 Presidential Way, Suite 330
Woburn, MA 01801

Chicago

1441 East Business Center Drive
Mt. Prospect, IL 60056

Dallas

1825 Lakeway Drive, Suite 600
Lewisville, TX 75057

Detroit - Automotive Engineering Center

2601 Cambridge Court, Suite 320
Auburn Hills, MI 48326

New York

395 Moreland Road
Hauppauge, NY 11788

Silicon Valley

4935 Southfront Road, Suite F
Livermore, CA 94550

Design and Manufacturing Operations



East: 395 Moreland Road, Hauppauge, NY 11788



Central: 1441 East Business Center Drive, Mt. Prospect, IL 60056



West: 4935 Southfront Road, Suite F, Livermore, CA 94550

Mexico

Headquarters

Festo Pneumatic, S.A.
Av. Ceylán 3, Col. Tequesquahuac
54020 Tlalnepantla, Edo. de México
Call: 011 52 [55] 53 21 66 00
Fax: 011 52 [55] 53 21 66 65
Email: festo.mexico@mx.festo.com
www.festo.com/mx



Canada

Headquarters

Festo Inc.
5300 Explorer Drive
Mississauga, Ontario L4W 5G4
Call: 1.905.624.9000
Fax: 1.905.624.9001
Email: info.ca@ca.festo.com
www.festo.com/ca



Festo Worldwide

Argentina Australia Austria Belarus Belgium Brazil Bulgaria Canada Chile China Colombia Croatia Czech Republic Denmark
Estonia Finland France Germany Great Britain Greece Hong Kong Hungary India Indonesia Iran Ireland Israel Italy Japan
Latvia Lithuania Malaysia Mexico Netherlands New Zealand Norway Peru Philippines Poland Romania Russia Serbia Singapore
Slovakia Slovenia South Africa South Korea Spain Sweden Switzerland Taiwan Thailand Turkey Ukraine United States Venezuela

www.festo.com