

Lubricators MS12N-LOE – Inch Series



The proportional lubricator adds a precision adjustable quantity of oil to the compressed air stream. The pressure drop that occurs when air flows through a Venturi nozzle is used to convey oil from the container to the drip cap. From here, the oil drips into the air duct directly behind the proportional valve, where it is atomized. The oil mist component is proportional to the compressed air flow rate.

- Pneumatic connection: 1 NPT, 1¼ NPT, 1½ NPT, 2 NPT
- Supply pressure: 15 ... 235 psi
- Flow rate: 706.0 ... 776.6 scfm

| Product Range Overview | | | | | | |
|------------------------|------------------|-----------------------|------------------------------|--------------------|------------|-----------------------------------|
| Type | Flow rate [scfm] | Pneumatic connections | | Bowl guard | | Reverse flow |
| | | Body thread | Port plate | Plastic bowl guard | Metal bowl | Flow direction from right to left |
| MS12N | | | AG... | R | U | Z |
| LOE | 706.0 ... 776.6 | – | 1 NPT, 1¼ NPT, 1½ NPT, 2 NPT | – | ■ | ■ |

Features

- Proportional lubricator with precision oil metering
- Reduces wear on drive units subject to high loading
- High flow rate
- Quick and easy oil top-up even during operation (under pressure)

The following oils are recommended for Festo components:
 Viscosity range to ISO 3448, ISO class VG 32
 32 mm²/s (= cSt) at 40°C

- Festo special oil OFSW-32 → 1190
- ARAL Vitam GF 32
- BP Energol HLP 32
- Esso Nuto H 32
- Mobil DTE 24
- Shell Tellus Oil DO 32

Contents

| | |
|--|--------|
| Technical Data | → 1182 |
| Dimensional Drawings | → 1185 |
| Ordering Data | → 1185 |
| Accessories | → 1187 |
| → www.festo.com/catalog/ms12n-loe | |

Lubricators MS12N-LOE – Inch Series

Technical Data

FESTO

ISO Symbol



| General Technical Data | | | | |
|---|------------|--------|--------|-------|
| Pneumatic connection 1, 2 ¹⁾ | 1 NPT | 1¼ NPT | 1½ NPT | 2 NPT |
| Supply pressure [psi] | 15 ... 235 | | | |

1) Dependent on port plate selected, must be ordered separately as an accessory → 1188

| Standard Nominal Flow Rate qnN ²⁾ [scfm] | | | | |
|---|-------|--------|--------|-------|
| Pneumatic connection 1, 2 | 1 NPT | 1¼ NPT | 1½ NPT | 2 NPT |
| In main flow direction 1 → 2 | 706.0 | 723.7 | 741.3 | 776.6 |

2) Dependent on port plate selected, must be ordered separately as an accessory → 1188
Measured at p1 = 88 psi and Δp = 7.4 psi

| Operating and Environmental Conditions | |
|--|---|
| Minimum flow for lubricator operation [scfm] | ≤14.1 |
| Operating medium | Compressed air, air quality class 5.7.– to DIN ISO 8573-1 |
| Max. oil capacity [in ³] | 91.50 |
| Bowl guard | Metal bowl |
| Ambient temperature [°F] | 32 ... 140 |
| Temperature of medium [°F] | 32 ... 140 |
| Storage temperature [°F] | 14 ... 140 |
| Assembly position | Vertical ±5° |
| Corrosion resistance CRC ³⁾ | 2 |

3) Corrosion resistance class 2 according to Festo standard 940 070
Components requiring moderate corrosion resistance. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

| Weights [lb] | |
|-----------------|-------|
| With metal bowl | 13.00 |

- Wearing parts kits → 1190
- For spare parts go to: www.festo.com/en/spare_parts_service

Lubricators MS12N-LOE – Inch Series

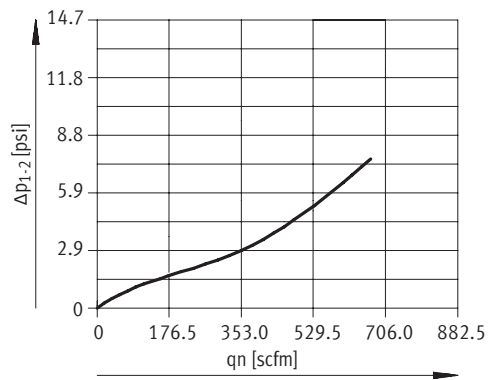
Technical Data



Standard Flow Rate q_n as a Function of the Differential Pressure Δp_{1-2}

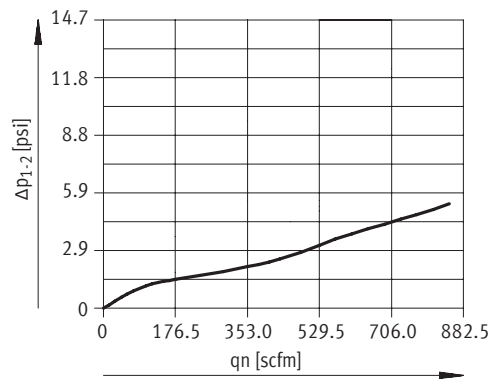
With port plate MS12-AGF

Pneumatic connection 1NPT



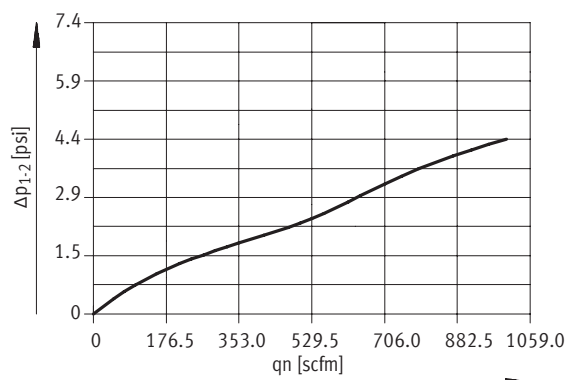
With port plate MS12-AGG

Pneumatic connection 1¼NPT



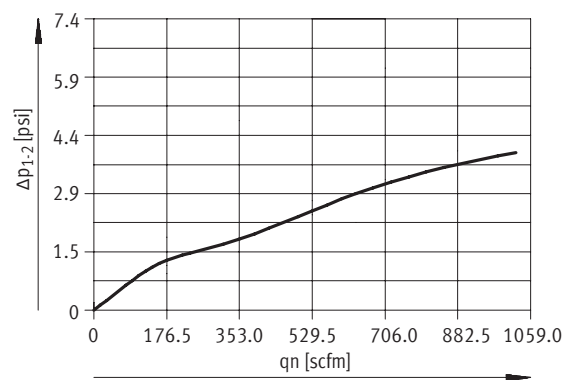
With port plate MS12-AGH

Pneumatic connection 1½NPT



With port plate MS12-AGI

Pneumatic connection 2NPT



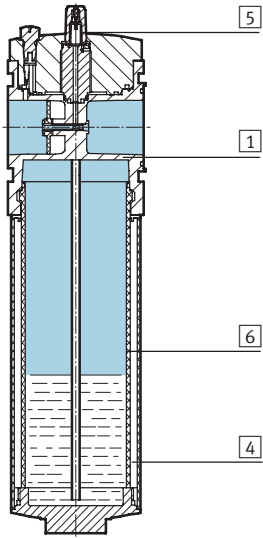
Lubricators MS12N-LOE – Inch Series

Technical Data



Materials

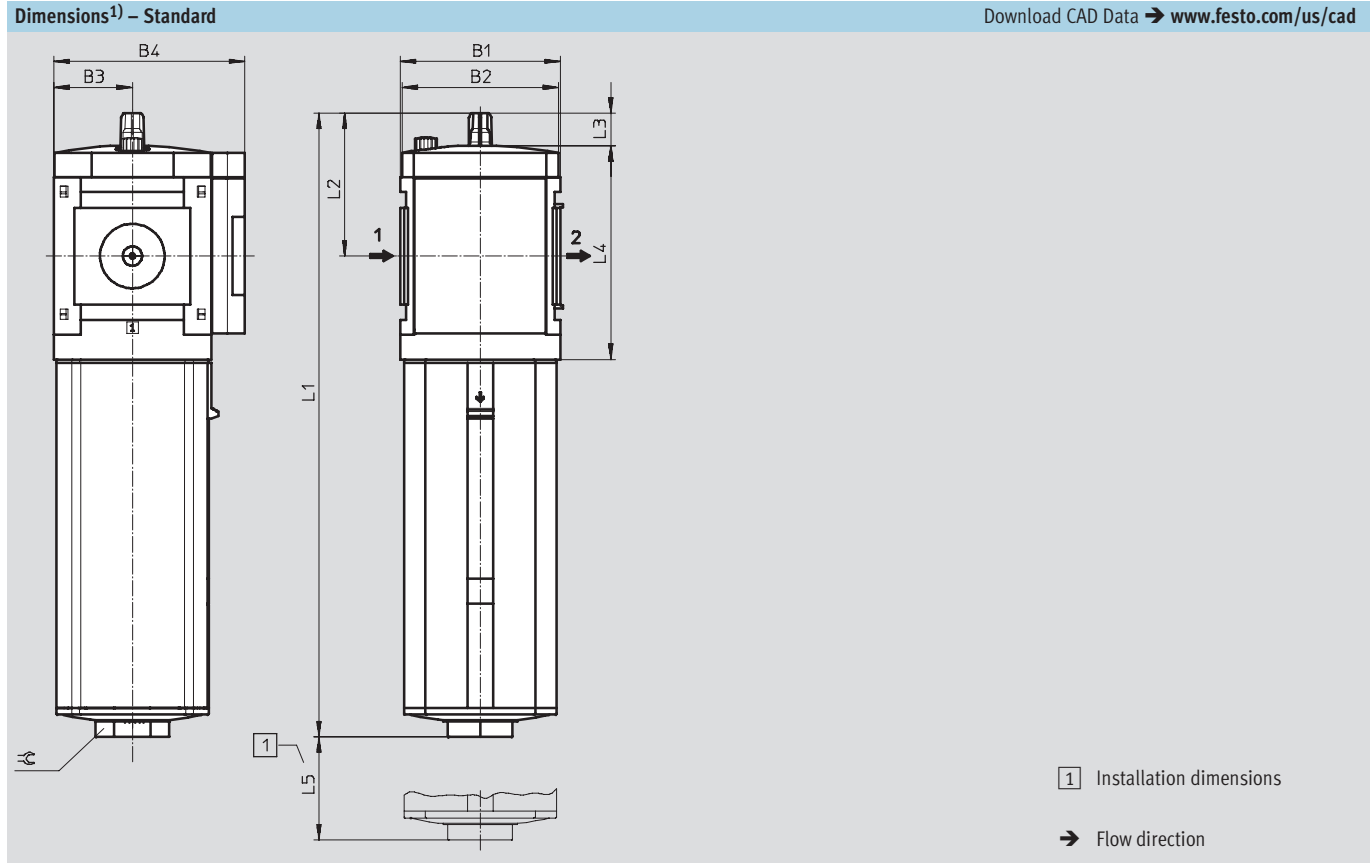
Sectional view



| Lubricator | | |
|------------|------------------------|--------------------|
| 1 | Body | Die-cast aluminum |
| 4 | Metal bowl | Aluminum/polyamide |
| 5 | Lubricator dome | Polycarbonate |
| 6 | Metal bowl sight glass | Polyamide |
| - | Seals | Nitrile rubber |

Lubricators MS12N-LOE – Inch Series

Dimensional Drawings, Ordering Data – Pre-configured Products



| B1 | B2 | B3 | B4 | L1 | L2 | L3 | L4 | L5 | ⌀ |
|------|------|------|------|-------|------|------|------|-------|------|
| 4.88 | 4.80 | 2.40 | 5.83 | 19.02 | 4.37 | 0.98 | 6.54 | 11.81 | 1.97 |

1) Dimensions are in inches, unless otherwise noted.

| Ordering Data | | | |
|-----------------------------|----------|--------------|----|
| Metal bowl | | | |
| Connection | Part No. | Type | LT |
| 1NPT ... 2NPT ²⁾ | 537156 | MS12-LOE-G-U | 1D |

LT = Lead time 1D typically ships same day/next day 1W typically ships within 1 week Q request a quote for lead time

2) Port plate must be ordered separately as an accessory → 1188

Lubricators MS12N-LOE – Inch Series

Ordering Data – Configurable Products



| M Mandatory Data | | | | | | | O Options | |
|----------------------|--------|------|--------|----------|-------------------------------|------|------------------|------------------------|
| Part No. | Series | Size | Thread | Function | Connection size | Bowl | Type of mounting | Reverse flow direction |
| 535044 | MS | 12 | N | LOE | AQT AQU AQV AQW G | U | WP | Z |
| Order example | | | | | | | | |
| 535044 | MS | 12 | N | - LOE | - AQW | - U | - WP | - Z |

| Ordering Table | | | |
|----------------|------------------------|--|----------------------------|
| Grid dimension | [mm] | 124 | Conditions Code Enter code |
| M | Part No. | 535044 | |
| | Series | Standard | MS MS |
| | Size | 12 | 12 12 |
| | Thread | NPT thread | N N |
| | Function | Lubricator | -LOE -LOE |
| | Connection size | Port plate 1 NPT (dimensions → 1188) | -AQT |
| | | Port plate 1¼ NPT (dimensions → 1188) | -AQU |
| | | Port plate 1½ NPT (dimensions → 1188) | -AQV |
| | | Port plate 2 NPT (dimensions → 1188) | -AQW |
| | | Module without connecting thread, without port plate | -G |
| | Bowl | Metal bowl | -U -U |
| O | Type of mounting | Mounting bracket (dimensions → 1189) | 1 -WP |
| | Reverse flow direction | Flow direction from right to left | -Z |

1 WP Only with port plate AQT, AQU, AQV or AQW

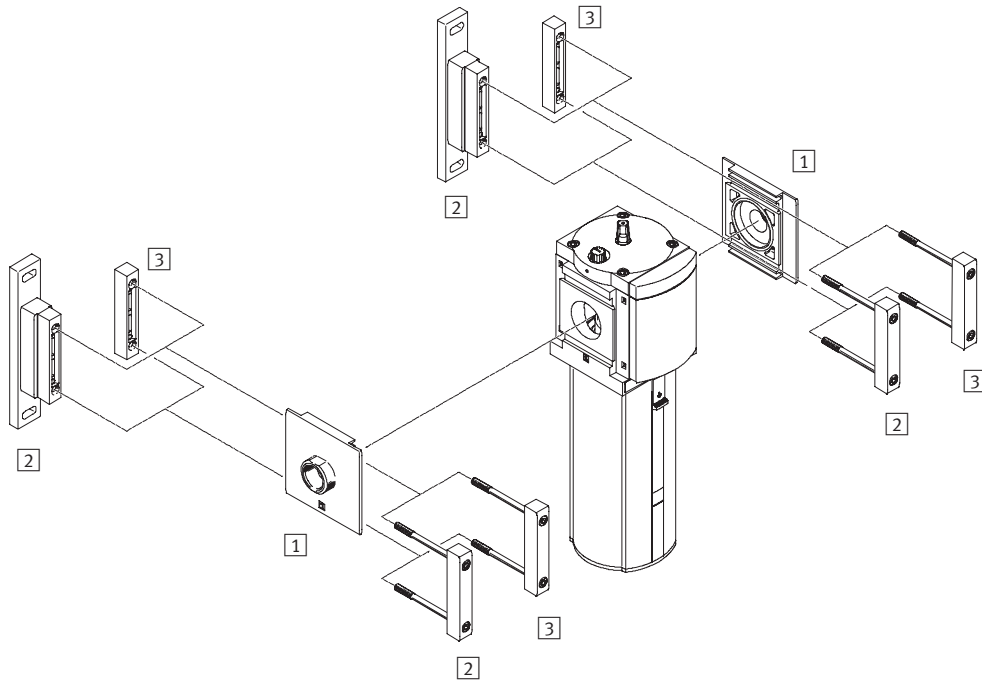
Transfer order code

| | | | | | | | | | | | | | |
|--------|----|----|---|---|-----|---|--|---|---|---|--|---|--|
| 535044 | MS | 12 | N | - | LOE | - | | - | U | - | | - | |
|--------|----|----|---|---|-----|---|--|---|---|---|--|---|--|

Lubricators MS12N-LOE – Inch Series

Accessories Overview

Mounting Attachments and Accessories



| Mounting Attachments and Accessories | | → Page |
|--------------------------------------|-----------------------------|--------|
| 1 | Port plate MS12-AQ... | 1188 |
| 2 | Mounting bracket MS12-WP | 1189 |
| 3 | Body connector MS12-MV | 1188 |

Lubricators MS12N-LOE – Inch Series



Accessories

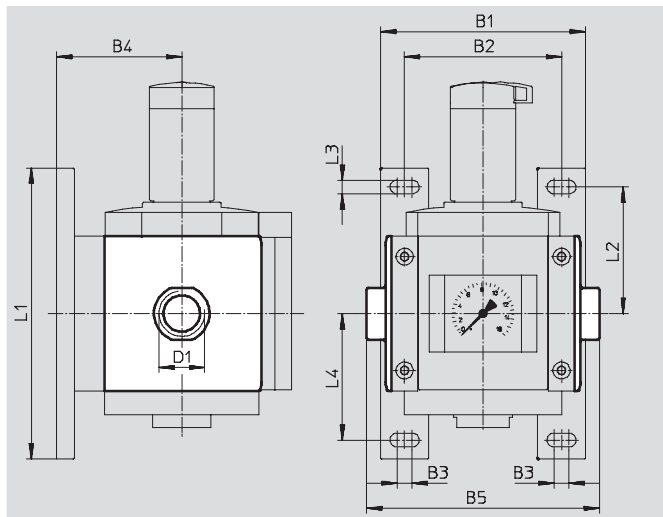
1 Port plate MS12-AQ...

- Adapter for pneumatic connection

Material:

Die-cast aluminum

Free of copper and PTFE



| Dimensions and Ordering Data | | | | | | | | | | | | Part No. | Type |
|------------------------------|------|------|------|------|--------|------|------|------|------|-----------------|--------|----------|------|
| B1 | B2 | B3 | B4 | B5 | D1 | L1 | L2 | L3 | L4 | Weight [[lb] | | | |
| 6.38 | 4.88 | 0.47 | 3.90 | 7.24 | 1 NPT | 9.06 | 3.94 | 0.43 | 3.94 | 2.60 | 537139 | MS12-AQT | |
| | | | | 7.24 | 1¼ NPT | | | | | | 537140 | MS12-AQU | |
| | | | | 7.24 | 1½ NPT | | | | | | 537141 | MS12-AQV | |
| | | | | 7.72 | 2 NPT | | | | | | 537142 | MS12-AQW | |

3 Body connector MS12-MV

- For connecting modules

Material:

Die-cast aluminum,

Free of copper and PTFE



| Ordering Data | | | |
|---------------|-----------------|----------|---------|
| Size | Weight [[lb] | Part No. | Type |
| MS12 | 1.00 | 537134 | MS12-MV |

Lubricators MS12N-LOE – Inch Series

Accessories

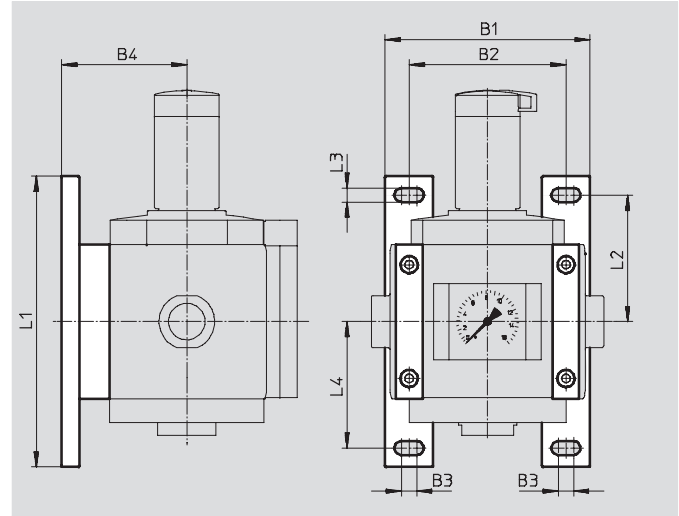
2 Mounting bracket MS12-WP

- To connect the modules for wall mounting
- In combination with a port plate for mounting an individual unit on a wall

Material:

Die-cast aluminum

Free of copper and PTFE



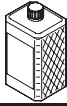
Dimensions and Ordering Data

| Size | B1 | B2 | B3 | B4 | L1 | L2 | L3 | L4 | Weight [[b] | Part No. | Type |
|------|------|------|------|------|------|------|------|------|----------------|----------|---------|
| MS12 | 6.38 | 4.88 | 0.47 | 3.90 | 9.06 | 3.94 | 0.43 | 3.94 | 1.40 | 537133 | MS12-WP |

Lubricators MS12N-LOE – Inch Series



Accessories

| Ordering Data – Special Oil OFSW | | | | |
|---|-----------------|-------------------|----------|---------|
| | Description | Scope of delivery | Part No. | Type |
|  | for lubricators | 1 liter | 152811 | OFSW-32 |

| Ordering Data – Wearing Parts Kits | | | | |
|------------------------------------|---------------|--|----------|----------|
| Size | Description | | Part No. | Type |
| MS12 | O-rings, seal | | 673746 | MS12-LOE |

- For spare parts go to: www.festo.com/en/spare_parts_service

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