

## Distribution Blocks MS4N-FRM – Inch Series



Distributor blocks provide additional air outlets to create separate pressure or air quality branches, or to attach pressure sensors.

- Pneumatic connection: 1/8 NPT, 1/4 NPT, 3/8 NPT
- Operating pressure: 0 ... 206 psi
- Flow rate: 42.4 ... 123.6 scfm

Product Range Overview								
Type	Pneumatic connections		Pressure indicator					Reverse flow
	Body thread	Port plate	Cover plate (without pressure gauge)	Integrated MS pressure gauge	Adapter for pressure gauge 1/8 NPT	Adapter for pressure gauge 1/4 NPT	Pressure sensor with display	Flow direction from right to left
<b>MS4N</b>		<b>AG...</b>	<b>VS</b>	<b>AG</b>	<b>A8</b>	<b>A4</b>	<b>AD...</b>	<b>Z</b>
FRM	1/8 NPT, 1/4 NPT	1/8 NPT, 1/4 NPT, 3/8 NPT	■	■	■	■	■	■

### Features

- Pneumatic manifold with 4 connections
- Can be used as an intermediate distributor for varying air qualities
- Attachment facility for auxiliary modules
- Outlet top and bottom
- An optional integrated non-return valve prevents the return flow e.g. of lubricated compressed air
- Optional pressure sensor with display

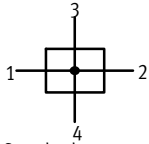
### Contents

- Technical Data → 456
  - Dimensional Drawings → 458
  - Ordering Data → 461
  - Accessories → 464
- [www.festo.com/catalog/ms4n-frm](http://www.festo.com/catalog/ms4n-frm)

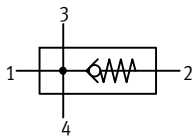
# Distribution Blocks MS4N-FRM – Inch Series

Technical Data

ISO Symbol



Standard



With integrated non-return function



General Technical Data		
Pneumatic connection 1, 2	1/8 NPT	1/4 NPT
Pneumatic connection 3, 4	1/4 NPT	
Operating pressure [psi]	0 ... 206 (Standard)	
	0 ... 147 (With non-return function)	
	0 ... 176 (Pressure switch X/Y/M12)	
	0 ... 147 (Pressure sensor with display AD...)	

1) The Distribution Block must be mounted vertically when combined with a pressure sensor as condensate must not collect in the pressure sensor.

Standard Nominal Flow Rate $q_{nN^2}$ [scfm]		
Pneumatic connection	1/8 NPT	1/4 NPT
Standard		
In main flow direction 1 → 2	45.9	123.6
Outlet at top	77.7	81.2
Outlet at bottom	81.2	88.3
With non-return function		
In main flow direction 1 → 2	42.4	61.8
Outlet at top	17.7	17.7
Outlet at bottom	17.7	17.7

2) Measured at  $p_1 = 88 \text{ psi}$  and  $p_2 = 74 \text{ psi}$   $\Delta p = 15 \text{ psi}$

Operating and Environmental Conditions			
Variant			
Operating medium	Compressed air	Compressed air	Filtered compressed air, lubricated or unlubricated, filtration grade 40 $\mu\text{m}$
Ambient temperature [°F]	14 ... 140	14 ... 140	32 ... 122
Temperature of medium [°F]	14 ... 140	14 ... 140	32 ... 122
Storage temperature [°F]	14 ... 140	14 ... 140	14 ... 140
Assembly position	Any <sup>1)</sup>		
Corrosion resistance class CRC <sup>3)</sup>	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.

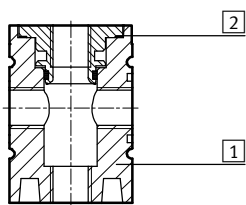
# Distribution Blocks MS4N-FRM – Inch Series

Technical Data

Weight [lb]	
Standard/With non-return function	0.32
With pressure switch	0.80
With pressure sensor	0.50

## Materials

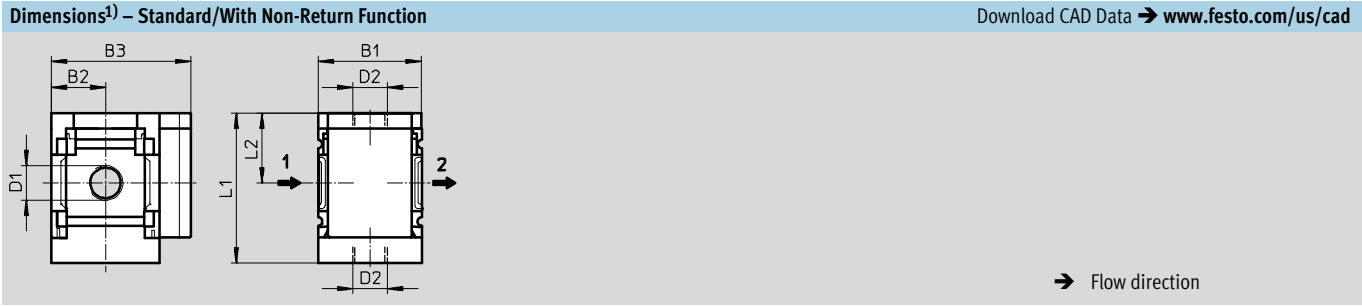
Sectional view (Standard)



Distribution block		
1	Housing	Die-cast aluminum
2	Threaded insert	Aluminum
Note on materials		Free of copper and PTFE (not with variants AG or AD...)

# Distribution Blocks MS4N-FRM – Inch Series

Dimensional Drawings



Type	B1	B2	B3	D1	D2	L1	L2
MS4N-FRM-1/8	1.57	0.83	2.13	1/8 NPT	1/4 NPT	2.28	1.06
MS4N-FRM-1/8-I						2.36	1.14
MS4N-FRM-1/4	1.57	0.83	2.13	1/4 NPT	1/4 NPT	2.28	1.06
MS4N-FRM-1/4-I						2.36	1.14

1) Dimensions are in inches, unless otherwise noted.

# Distribution Blocks MS4N-FRM – Inch Series

Dimensional Drawings

**Dimensions<sup>1)</sup> – Pressure Gauge Alternatives** Download CAD Data → [www.festo.com/us/cad](http://www.festo.com/us/cad)

Integrated MS pressure gauge AG, display unit [psi] Adapter plate A8/A4 for EN pressure gauge 1/8/1/4, without pressure gauge

→ Flow direction

Pressure sensor with display AD1 ... AD4 Technical data SDE1 → [www.festo.com/catalog/sde1](http://www.festo.com/catalog/sde1)

→ Flow direction

**Variant AD1:**  
SDE1-D10-G2-MS-L-P1-M8 with 3-pin plug M8x1, 1 switch output PNP

**Variant AD2:**  
SDE1-D10-G2-MS-L-N1-M8 with 3-pin plug M8x1, 1 switch output NPN

**Variant AD3:**  
SDE1-D10-G2-MS-L-PI-M12 with 4-pin plug M12x1, 1 switch output PNP and 4 ... 20 mA analog

**Variant AD4:**  
SDE1-D10-G2-MS-L-NI-M12 with 4-pin plug M12x1, 1 switch output NPN and 4 ... 20 mA analog

Type	B2	B3	D1	D4	D6	L5	L6
MS4N-FRM-1/8-...-AG	0.83	2.24	1/8 NPT	-	-	-	-
MS4N-FRM-1/4-...-AG			1/4 NPT				
MS4N-FRM-1/8-...-A8	0.83	2.30	1/8 NPT	G1/8	-	-	-
MS4N-FRM-1/4-...-A8			1/4 NPT				
MS4N-FRM-1/8-...-A4	0.83	2.30	1/8 NPT	G1/4	-	-	-
MS4N-FRM-1/4-...-A4			1/4 NPT				
MS4N-FRM-1/8-...-AD1/AD2	0.83	3.25	1/8 NPT	-	M8x1	1.38	1.84
MS4N-FRM-1/4-...-AD1/AD2			1/4 NPT				
MS4N-FRM-1/8-...-AD3/AD4	0.83	3.25	1/8 NPT	-	M12x1	1.38	2.20
MS4N-FRM-1/4-...-AD3/AD4			1/4 NPT				

1) Dimensions are in inches, unless otherwise noted.

# Distribution Blocks MS4N-FRM – Inch Series

Dimensional Drawings

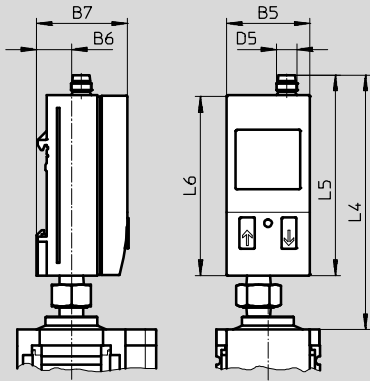


## Dimensions<sup>1)</sup> – Pressure Gauge Alternatives

Pressure sensor with display AD5/AD6

Download CAD Data → [www.festo.com/us/cad](http://www.festo.com/us/cad)

Technical data SDE1 → [www.festo.com/catalog/sde1](http://www.festo.com/catalog/sde1)



Variant AD5:  
SDE1-D10-G2-H18-C-P1-M8 with  
3-pin plug M8x1, 1 switch output PNP

Variant AD6:  
SDE1-D10-G2-W18-L-2I-M12 with  
5-pin plug M12x1, 2 switch outputs  
PNP and 4 ... 20 mA analog

Type	B5	B6	B7	D5	L4	L5	L6
MS4N-FRM-...-AD5	1.27	0.53	1.39	M8	3.90	3.07	2.76
MS4N-FRM-...-AD6				M12	4.25	3.43	

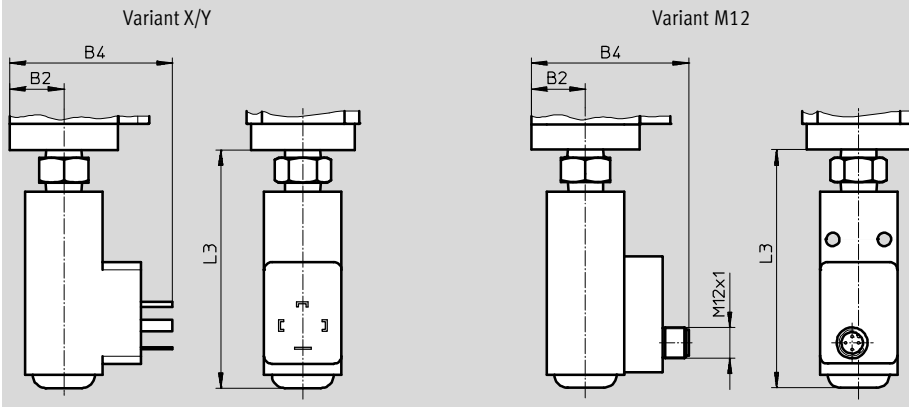
1) Dimensions are in inches, unless otherwise noted.

## Dimensions<sup>1)</sup> – Pressure Switch

Pressure switch with adjustable pressure switching point X/Y/M12

Download CAD Data → [www.festo.com/us/cad](http://www.festo.com/us/cad)

Technical data PEV → [www.festo.com/catalog/pev](http://www.festo.com/catalog/pev)



Variant X:  
PEV-1/4-SC-0D with display, plug,  
square design to DIN EN 175 301,  
type A

Variant Y:  
PEV-1/4-B-0D, plug, square design to  
DIN EN 175 301, type A

Variant M12:  
PEV-1/4-B-M12 with 4-pin plug M12x1

Type	B2	B4	L3
MS4N-FRM-...-X/Y	0.83	2.48	3.63
MS4N-FRM-...-M12	0.83	2.40	3.63

1) Dimensions are in inches, unless otherwise noted.

## Distribution Blocks MS4N-FRM – Inch Series



Ordering Data – Pre-configured Products

Ordering Data			
Connection	Part No.	Type	LT
Standard			
1/8 NPT	531950	MS4N-FRM-1/8 <sup>1)</sup>	1D
1/4 NPT	531949	MS4N-FRM-1/4 <sup>1)</sup>	1D
With integrated non-return function			
1/8 NPT	536975	MS4N-FRM-1/8-I <sup>1)</sup>	Q
1/4 NPT	536976	MS4N-FRM-1/4-I <sup>1)</sup>	Q
With pressure switch PEV-1/4-B-0D (variant Y)			
1/8 NPT	531954	MS4N-FRM-1/8-Y <sup>1)</sup>	1D
1/4 NPT	531953	MS4N-FRM-1/4-Y <sup>1)</sup>	1D

LT = Lead time      1D typically ships same day/next day      3D typically ships within 3 days

1) Free of copper and PTFE

# Distribution Blocks MS4N-FRM – Inch Series



Ordering Data – Configurable Products

**M** Mandatory Data →

Part No.	Series	Size	Thread	Function	Connection size
527704	MS	4	N	FRM	1/8 1/4 AQK AQN AQP
<b>Order example</b>					
527704	MS	4	N	- FRM	- 1/8

Ordering Table		Grid dimension [mm]	40	Conditions	Code	Enter code
<b>M</b>	Part No.	527704				
	Series	Standard			MS	MS
	Size	4			4	4
	Thread	NPT thread			N	N
	Function	Distribution block			-FRM	-FRM
	Connection size	Body thread 1/8 NPT			-1/8	
		Body thread 1/4 NPT			-1/4	
		Port plate 1/8 NPT (dimensions → 468)			-AQK	
		Port plate 1/4 NPT (dimensions → 468)			-AQN	
		Port plate 3/8 NPT (dimensions → 468)			-AQP	

Transfer order code

527704	MS	4	N	- FRM	-	
--------	----	---	---	-------	---	--



# Distribution Blocks MS4N-FRM – Inch Series

Ordering Data – Configurable Products

→ **0 Options**

Additional function	Pressure gauge alternatives	Alternative pressure gauge scale	Pressure switch	Type of mounting	Reverse flow direction
I	AG A8 A4 AD1 AD2 AD3 AD4 AD5 AD6	BAR MPA	X Y M12	WP WPM WB WBM	Z
-	- <b>AG</b>	- <b>BAR</b>	- <b>M12</b>	- <b>WB</b>	- <b>Z</b>

Ordering Table		Grid dimension [mm]	40	Conditions	Code	Enter code
<b>0</b>	Additional function	With integrated non-return function		<b>1</b>	<b>-I</b>	
	Pressure gauge alternatives	MS pressure gauge, psi (with adapter)			<b>-AG</b>	
		Adapter plate for EN pressure gauge 1/8, without pressure gauge			<b>-A8</b>	
		Adapter plate for EN pressure gauge 1/4, without pressure gauge			<b>-A4</b>	
		Pressure sensor with display, plug M8, 1 switching output PNP, 3-pin		<b>2</b>	<b>-AD1</b>	
		Pressure sensor with display, plug M8, 1 switching output NPN, 3-pin		<b>2</b>	<b>-AD2</b>	
		Pressure sensor with display, plug M12, 1 switching output PNP, 4-pin, analog output 4 ... 20 mA		<b>2</b>	<b>-AD3</b>	
		Pressure sensor with display, plug M12, 1 switching output NPN, 4-pin, analog output 4 ... 20 mA		<b>2</b>	<b>-AD4</b>	
		Pressure sensor with display, plug M8, 1 switching output PNP, 3-pin		<b>2</b>	<b>-AD5</b>	
		Pressure sensor with display, plug M12, 2 switching outputs PNP, 5-pin, analog output 4 ... 20 mA		<b>2</b>	<b>-AD6</b>	
	Alternative pressure gauge scale	bar		<b>3</b>	<b>-BAR</b>	
		MPa		<b>3</b>	<b>-MPA</b>	
	Pressure switch	Pressure switch PEV with display, socket, EN 175301, type A, cube		<b>4</b>	<b>-X</b>	
		Pressure switch PEV without display, socket, EN 175301, type A, cube		<b>4</b>	<b>-Y</b>	
		Pressure switch PEV without display, socket, round, M12, 4-pin		<b>4</b>	<b>-M12</b>	
	Type of mounting	Mounting bracket (dimensions → 469)		<b>5</b>	<b>-WP</b>	
		Mounting bracket (dimensions → 469)		<b>5</b>	<b>-WPM</b>	
		Mounting bracket (dimensions → 466)			<b>-WB</b>	
		Mounting bracket (dimensions → 466)			<b>-WBM</b>	
	Reverse flow direction	Flow direction from right to left			<b>-Z</b>	

- 1** **I** Not with pressure gauge alternatives AD5 or AD6
- 2** **AD1 ... AD6** Measuring range max. 147 psi
- 3** **BAR, MPA** Only with pressure gauge AG

- 4** **X, Y, M12** Max. permissible supply pressure P1 = 176 psi. Not with pressure gauge alternatives AD5 or AD6
- 5** **WP, WPM** Only with port plate AQK, AQN or AQP

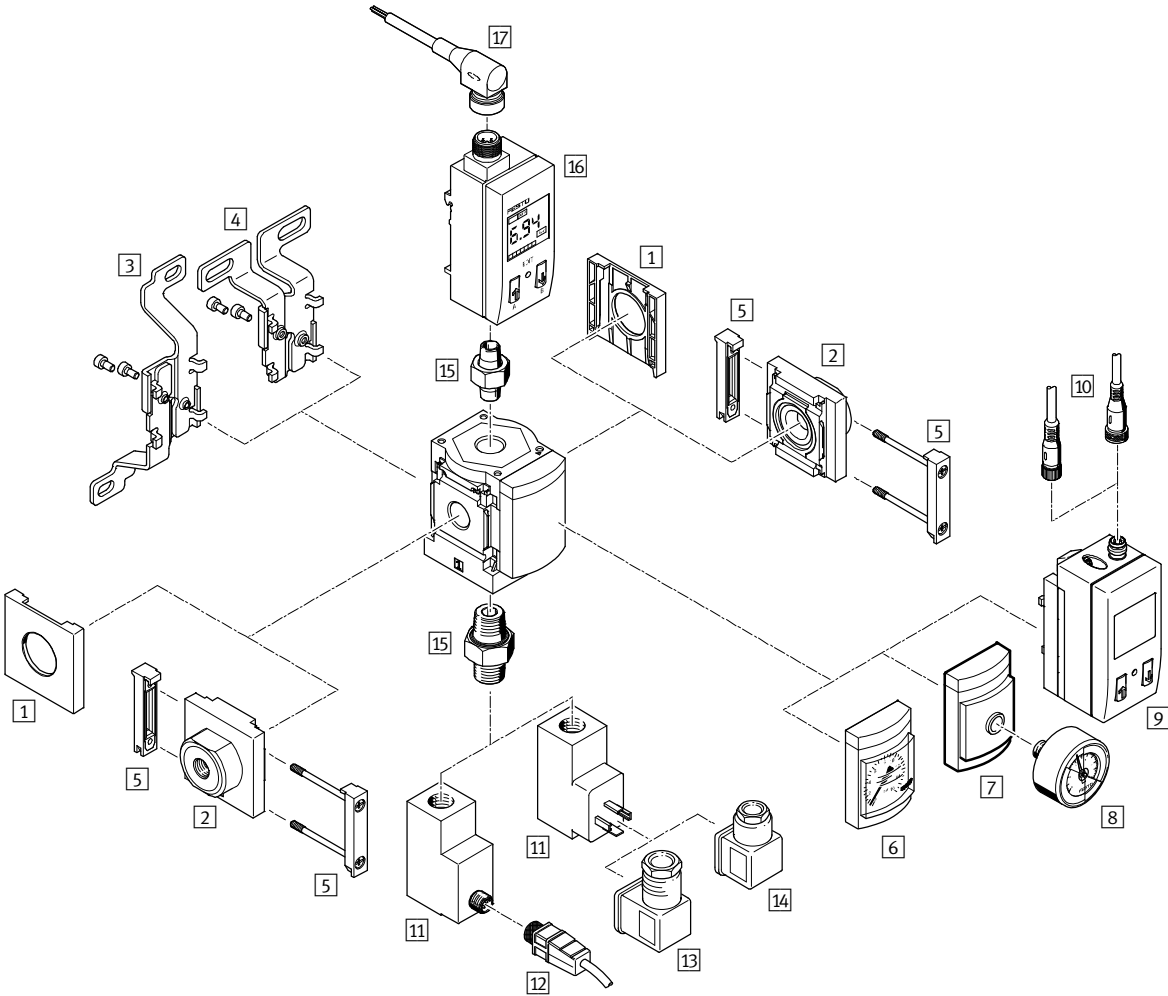
**Transfer order code**

-  -  -  -  -  -

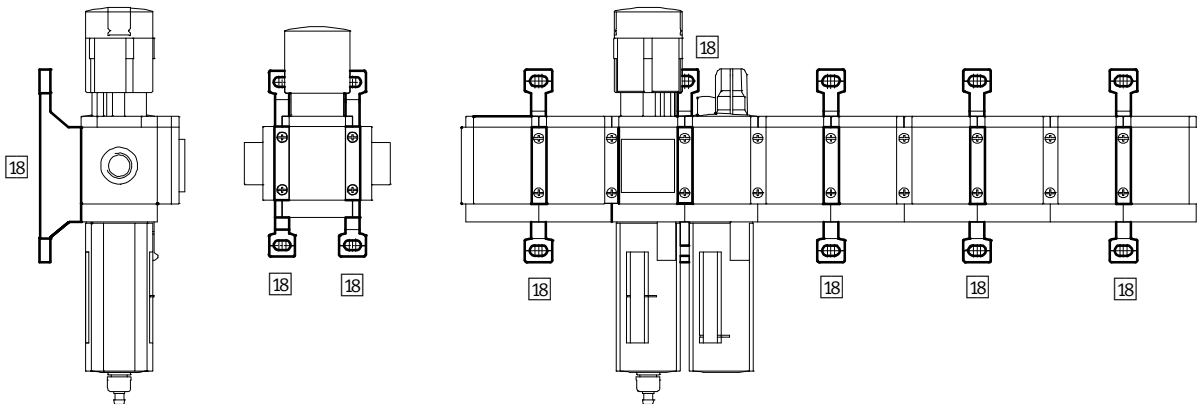
# Distribution Blocks MS4N-FRM – Inch Series

Accessories Overview

## Mounting Attachments and Accessories



Single unit and combination unit mounting brackets.



# Distribution Blocks MS4N-FRM – Inch Series

Accessories Overview



Mounting Attachments and Accessories						
		Single unit		Combination unit → 2.1-49		→ Page
		without port plate	with port plate	without port plate	with port plate	
1	Cover cap MS4-END	■	-	■	-	467
2	Port plate MS4N-AQ...	-	■	-	■	468
3	Mounting bracket MS4-WB	■	■	-	-	466
4	Mounting bracket MS4-WBM	■	■	-	-	466
5	Body connector MS4-MV	-	■	■	■	468
6	MS pressure gauge AG	■	■	■	■	462
7	Adapter for EN pressure gauge 1/8/1/4 A8/A4	■	■	■	■	462
8	Pressure gauge MA	■	■	■	■	473
9	Pressure sensor SDE1-...-MS AD1 ... AD4	■	■	■	■	462
10	Plug socket with cable SIM-M8-3.../SIM-M12-4...	■	■	■	■	473
11	Pressure switch PEV X/Y/M12	■	■	■	■	472
12	Plug socket with cable SIM-M12-4...	■	■	■	■	473
13	Angled socket PEV-1/4-WD-LED-...	■	■	■	■	472
14	Plug socket MSSD-C-4P	■	■	■	■	472
15	Double nipple ESK	■	■	■	■	472
16	Pressure sensor SDE1-...-H18/W18 AD5/AD6	■	■	■	■	472
17	Plug socket with cable SIM-M8-3.../SIM-M12-5...	■	■	■	■	473
18	Mounting bracket MS4-WP/WPB/WPM	-	■	■	■	469

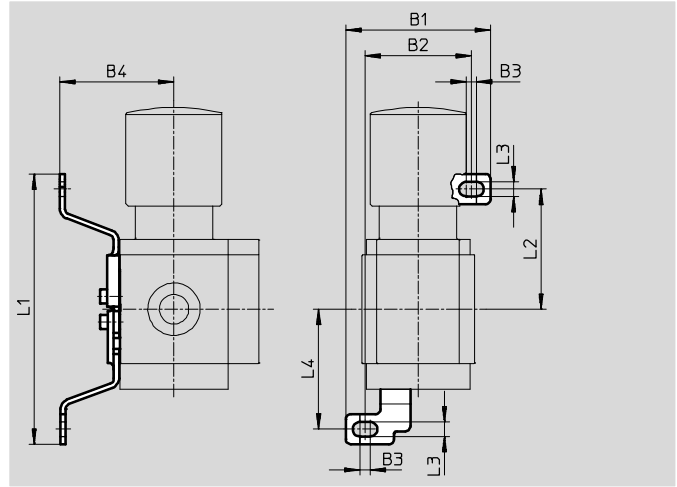
# Distribution Blocks MS4N-FRM – Inch Series

Accessories

## 3 Mounting bracket MS4-WB

- For wall mounting

Material:  
Steel



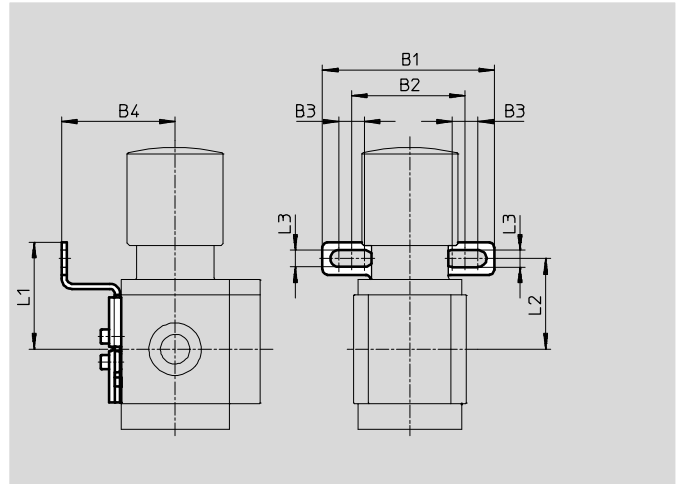
### Dimensions and Ordering Data

B1	B2	B3	B4	L1	L2	L3	L4	Weight [lb]	Part No.	Type
2.21	1.62	0.16	1.74	4.12	1.83	0.22	1.83	0.09	532185	MS4-WB

## 4 Mounting bracket MS4-WBM

- For wall mounting

Material:  
Steel



### Dimensions and Ordering Data

B1	B2	B3	B4	L1	L2	L3	Weight [lb]	Part No.	Type
2.62	1.73	0.39	1.73	1.63	1.38	0.26	0.10	526062	MS4-WBM

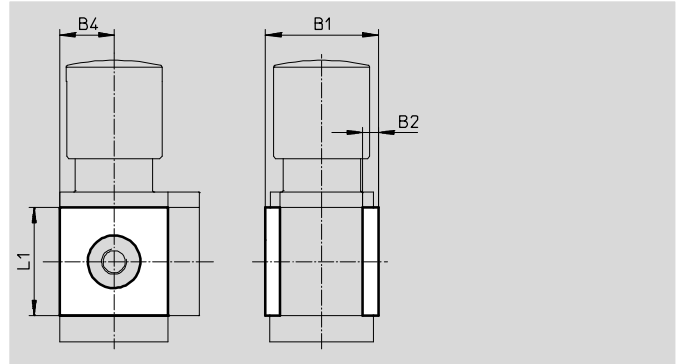
# Distribution Blocks MS4N-FRM – Inch Series

Accessories

## 1 Cover cap MS4-END

- Can be used to cover the body sides of the first and last module if port plates are not used.

Material:  
Reinforced polyamide  
Free of copper and PTFE

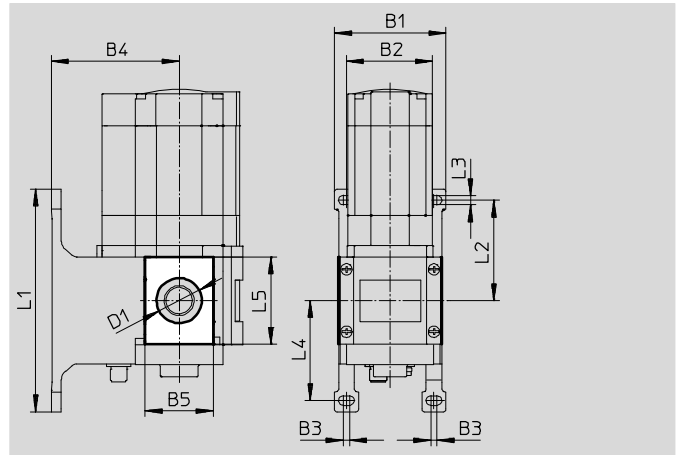


Dimensions and Ordering Data						
B1	B2	B4	L1	Part No.	Type	
1.72	0.24	0.83	1.65	538779	MS4-END	

## Mounting plate MS4-AEND

- In combination with mounting bracket MS-WP or MS-WPB for mounting an individual unit on a wall with body thread

Material:  
Reinforced polyamide  
Conforms to RoHS  
Free of copper and PTFE



Dimensions and Ordering Data															
B1	B2	B3	B4		B5	D1 ∅	L1	L2	L3	L4	L5	CRC <sup>1)</sup>	Weight [lb]	Part No.	Type
			WP	WPB											
2.17	1.58	0.16	1.73	2.60	1.20	0.80	4.17	1.83	0.22	1.84	1.65	2	0.01	542966	MS4-AEND

1) 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.

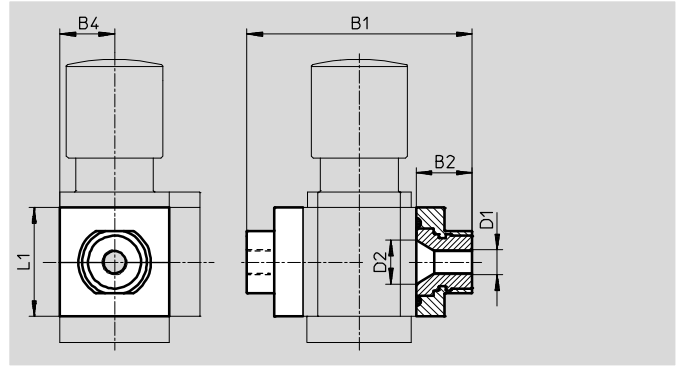
## Distribution Blocks MS4N-FRM – Inch Series

Accessories

### 2 Port plate MS4N-AQ...

- Adapter for pneumatic connection

Material:  
Aluminum



Dimensions and Ordering Data							
B1	B2	B4	D1	D2	L1	Weight [lb]	Part No. Type
3.29	0.85	0.83	1/8 NPT	0.66	1.65	0.26	526065 MS4N-AQK
			1/4 NPT				526066 MS4N-AQN
			3/8 NPT				526067 MS4N-AQP

### 5 Body connector MS4-MV

- For connecting modules

Material:  
Stainless steel/polyacetate



Ordering Data		
Weight [lb]	Part No.	Type
0.07	532798	MS4-MV

# Distribution Blocks MS4N-FRM – Inch Series

Accessories

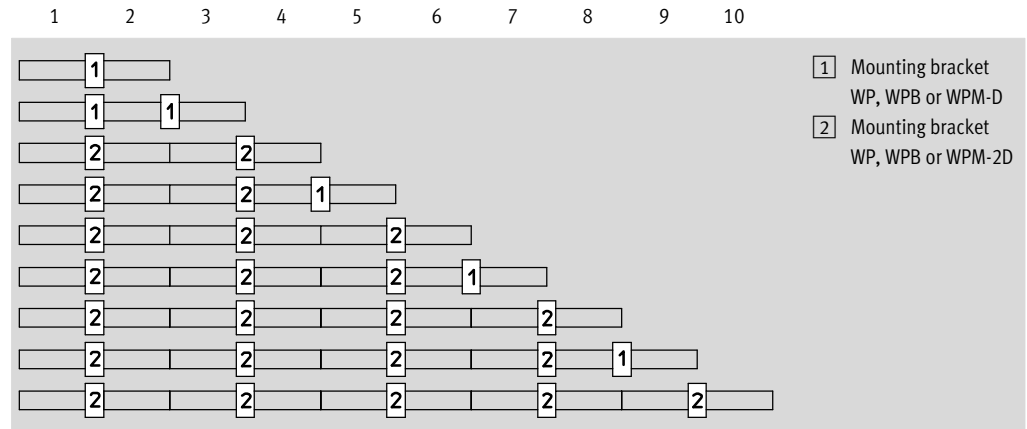
## 18 Mounting Bracket MS4-WP...

Suggested placement of wall mounting brackets when mounting air preparation combinations

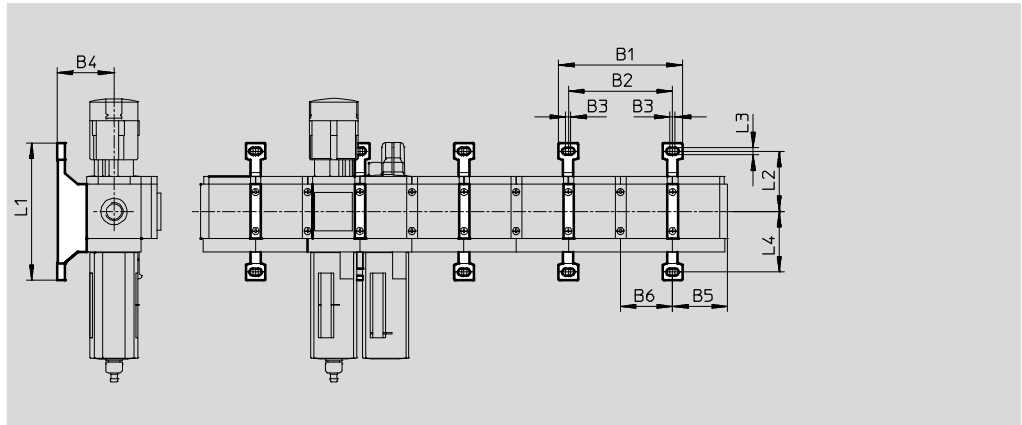
1 unit: 1.575 in

2 units: 3.15 in

Number of units



## Mounting dimensions



Type	B1	B2	B3	B4	B5	B6	L1	L2	L3	L4
MS4-WP	3.75	3.15	0.16	1.73	1.65	1.57	4.17	1.83	0.22	1.84
MS4-WPB				2.60						
MS4-WPM-...D				1.73						

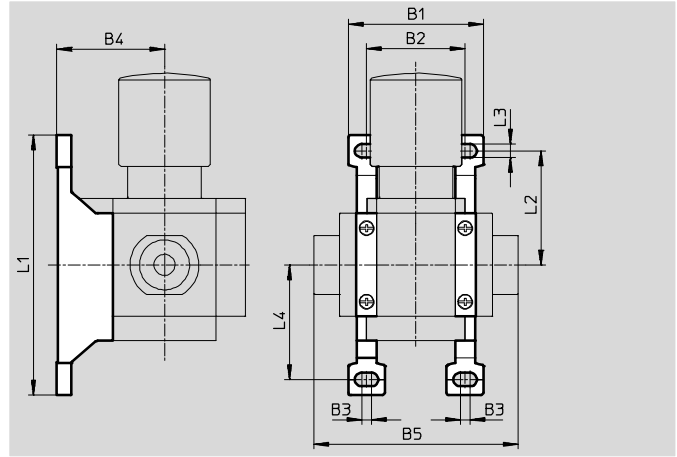
# Distribution Blocks MS4N-FRM – Inch Series

Accessories

## Mounting bracket MS4-WP

- To connect the modules for wall mounting
- In combination with a port plate MS-AG... for mounting an individual unit on a wall
- In combination with mounting plate MS-AEND or for mounting an individual unit with body thread on a wall
- For pressure regulator LRB with angled outlet block B... at rear

Material:  
Die-cast aluminum

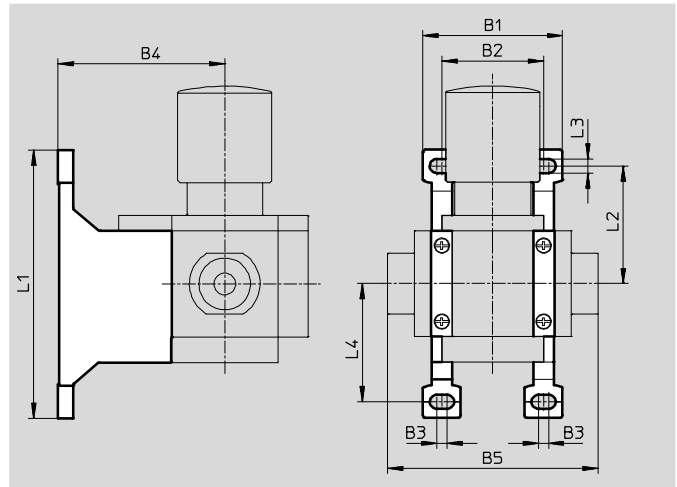


Dimensions and Ordering Data											
B1	B2	B3	B4	B5	L1	L2	L3	L4	Weight [lb]	Part No.	Type
2.17	1.58	0.16	1.73	3.28	4.17	1.83	0.22	1.84	0.08	532184	MS4-WP

## Mounting bracket MS4-WPB

- To connect the modules for wall mounting
- In combination with a port plate MS-AG... for mounting an individual unit on a wall
- In combination with mounting plate MS-AEND or for mounting an individual unit with direct thread on a wall
- Provides large wall gap for pressure regulator

Material:  
Die-cast aluminum



Dimensions and Ordering Data											
B1	B2	B3	B4	B5	L1	L2	L3	L4	Weight [lb]	Part No.	Type
2.17	1.58	0.16	2.60	3.28	4.17	1.83	0.22	1.84	0.11	526063	MS4-WPB



## Distribution Blocks MS4N-FRM – Inch Series

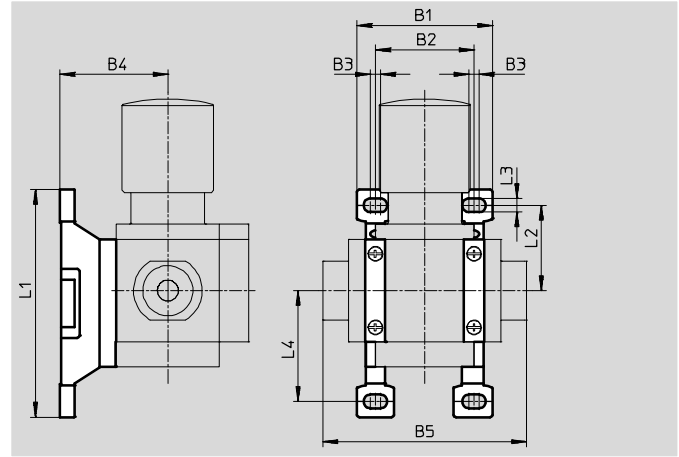
Accessories

### Mounting bracket MS4-WPM

- To connect the modules for wall mounting
- In combination with a port plate MS-AG... for mounting an individual unit on a wall
- Speedy attachment and detachment
- For installation of modules with regulating knob pointing downwards

The distance piece D or 2D (designated in the type code) is included in the scope of delivery and ensures the correct clearance

Material:  
Die-cast aluminum



Dimensions and Ordering Data												
B1	B2	B3	B4	B5	L1	L2	L3	L4	Clearance	Weight [lb]	Part No.	Type
2.17	1.57	0.16	1.73	3.28	3.65	1.37	0.22	1.78	1.57	0.09	526060	MS4-WPM-D
3.75	3.15			4.86					3.15			0.11

### Body connector MS4-MVM

- For installation of modules with regulating knob pointing downwards

Material:  
Die-cast aluminum

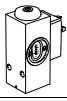
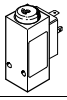
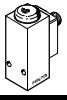


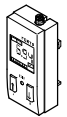
Ordering Data		
Size	Part No.	Type
MS4	532800	MS4-MVM


# Distribution Blocks MS4N-FRM – Inch Series


Accessories




11 Ordering Data – Pressure Switch PEV					Technical data → <a href="http://www.festo.com/catalog/pev">www.festo.com/catalog/pev</a>	
	Pneumatic connection	Pressure switching point	Electrical connection	Order code	Part No.	Type
	1/4 NPT	Adjustable with visual scale	Plug, square design to DIN EN 175 301, type A	X	161760	PEV-1/4-SC-0D
	1/4 NPT	Adjustable	Plug, square design to DIN EN 175 301, type A	Y	175250	PEV-1/4-B-0D
	1/4 NPT	Adjustable	Plug M12x1, 4-pin	M12	192488	PEV-1/4-B-M12

16 Ordering Data – Pressure Sensor SDE1					Technical data → <a href="http://www.festo.com/catalog/sde1">www.festo.com/catalog/sde1</a>	
	Pneumatic connection	Electrical output	Electrical connection	Display	Order code	Part No. Type
Pressure sensor SDE1 for Distribution Block MS-FRM, pressure measuring range 0 ... 147 psi, relative pressure measurement						
	Female thread 1/8NPT	1 switch output PNP	M8x1, 3-pin	LCD	AD5	192030 SDE1-D10-G2-H18-C-P1-M8
		2 switch outputs PNP and 4 ... 20 mA analog	M12x1, 5-pin	Illuminated LCD	AD6	534062 SDE1-D10-G2-W18-L-2I-M12

13 Ordering Data – Angled Socket PEV					Technical data → <a href="http://www.festo.com/catalog/pev">www.festo.com/catalog/pev</a>	
	Description	Operating voltage range	Electrical connection	Switching status display	Part No.	Type
	for PEV-1/4-...-OD	15 ... 30 V DC	4-pin	Yellow LED	164274	PEV-1/4-WD-LED-24
		≤ 230 V AC ≤ 180 V DC	4-pin	Yellow LED	164275	PEV-1/4-WD-LED-230



14 Ordering Data – Plug Socket MSSD					Technical data → <a href="http://www.festo.com/catalog/mssd">www.festo.com/catalog/mssd</a>	
	Description	Operating voltage range	Electrical connection	Type of mounting cable connection	Part No.	Type
	for PEV-1/4-...-OD	≤ 250 V AC/DC	3-pin	Clamping screws	171157	MSSD-C-4P



15 Ordering Data – Double Nipple ESK					
	Description	Pneumatic connection		Part No.	Type
	Adjustable for angular compensation • For retro-fitting pressure switch PEV or pressure sensor SDE1 to distribution block MS-FRM	R1/8	R1/4	534151	ESK-1/8-1/4
		R1/4	R1/4	151521	ESK-1/4-1/4
			R1/2	534153	ESK-1/4-1/2


## Distribution Blocks MS4N-FRM – Inch Series

Accessories

FESTO

17 Ordering Data – Plug Socket with Cable SIM-M8			Technical data → <a href="http://www.festo.com/catalog/sim-m8">www.festo.com/catalog/sim-m8</a>	
	Electrical connection	Cable length [ft]	Part No.	Type
				M8x1, 3-pin
	16.4	159421	SIM-M8-3GD-5-PU	
	32.8	192964	SIM-M8-3GD-10-PU	
	M8x1, 3-pin	8.2	159422	SIM-M8-3WD-2,5-PU
		16.4	159423	SIM-M8-3WD-5-PU
		32.8	192965	SIM-M8-3WD-10-PU

Ordering Data – Plug Socket with Cable SIM-M12			Technical data → <a href="http://www.festo.com/catalog/sim-m12">www.festo.com/catalog/sim-m12</a>	
	Electrical connection	Cable length [ft]	Part No.	Type
				M12x1, 4-pin
	M12x1, 5-pin	8.2	175715	SIM-M12-5GD-2,5-PU
		16.4	175716	SIM-M12-5GD-5-PU
	M12x1, 4-pin	16.4	164258	SIM-M12-4WD-5-PU

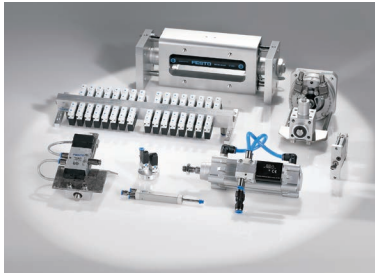
8 Ordering Data – Pressure Gauge MA				Technical data → <a href="http://www.festo.com/catalog/ma">www.festo.com/catalog/ma</a>		
	Nominal size	Pneumatic connection	Indicating range		Part No.	Type
			[bar]	[psi]		
	Pressure gauge MA, DIN EN 837-1					
	1.57	1/4 NPT	0 ... 16	0 ... 232	183908	MA-40-16-N1/4-EN
	Pressure gauge MA, DIN EN 837-1, with red-green range					
	1.57	1/8 NPT	–	0 ... 232	530388	MA-40-232-N1/8-PSI-E-RG
	1.97	1/4 NPT	–	0 ... 232	530391	MA-50-232-N1/4-PSI-E-RG



# Product Range and Company Overview

## A Complete Suite and Company Overview

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



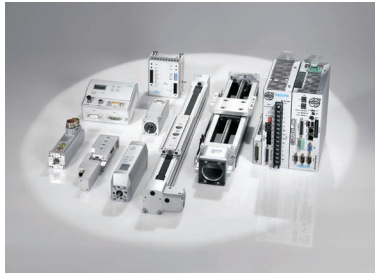
**Custom Control Cabinets**  
Comprehensive engineering support and on-site services



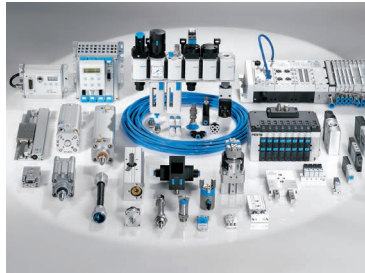
**Complete Systems**  
Shipment, stocking and storage services

## 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 & drivers



**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 16,000 employees in 60 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 2013, 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 environmental friendly printing plant.

# Festo North America



**1 Festo Canada Headquarters**  
**Festo Inc.**  
5300 Explorer Drive  
Mississauga, ON  
L4W 5G4

**2 Montréal**  
5600, Trans-Canada  
Pointe-Claire, QC  
H9R 1B6

**3 Québec City**  
2930, rue Watt#117  
Québec, QC  
G1X 4G3



**4 Festo United States Headquarters**  
**Festo Corporation**  
395 Moreland Road  
Hauppauge, NY  
11788

**5 Appleton**  
North 922 Tower View Drive, Suite N  
Greenville, WI  
54942

**7 Detroit**  
1441 West Long Lake Road  
Troy, MI  
48098

**6 Chicago**  
85 W Algonquin - Suite 340  
Arlington Heights, IL  
60005

**8 Silicon Valley**  
4935 Southfront Road, Suite F  
Livermore, CA  
94550

## Festo Regional Contact Center

### Canadian Customers

Commercial Support:  
Tel: 1 877 GO FESTO (1 877 463 3786)  
Fax: 1 877 FX FESTO (1 877 393 3786)  
Email: festo.canada@ca.festo.com

Technical Support:  
Tel: 1 866 GO FESTO (1 866 463 3786)  
Fax: 1 877 FX FESTO (1 877 393 3786)  
Email: technical.support@ca.festo.com

### USA Customers

Commercial Support:  
Tel: 1 800 99 FESTO (1 800 993 3786)  
Fax: 1 800 96 FESTO (1 800 963 3786)  
Email: customer.service@us.festo.com

Technical Support:  
Tel: 1 866 GO FESTO (1 866 463 3786)  
Fax: 1800 96 FESTO (1 800 963 3786)  
Email: product.support@us.festo.com