



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

• Pneumatic connection: G1/8, G1/4, G3/8

• Operating pressure: 0 ... 14 bar

• Flow rate: 1,200 ... 3,500 l/min

Product Range Ov	/erview										
Туре	Pneumatic connections F		Pressure indicator	Pressure indicator							
MS4	Body thread	Do rt plate	Cover plate (without pressure gauge)	DR Integrated MS pressure gauge	Adapter for pressure gauge G1/8	Adapter for pressure gauge G ¹ / ₄	Pressure sensor with display	Z Flow direction from right to left			
IVI34		AU	٧3	AU	MO	H4	MD				
FRM	G½, G¼	G½, G¼, G3/8	•	•		•	•	•			

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

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→ www.festo.com/catalog/ms4-frm

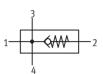


Technical Data



Standard





With integrated non-return function



General Technical Data	General Technical Data									
Pneumatic connection 1, 2		G½	G1/4							
Pneumatic connection 3, 4		G1/4								
Operating pressure	[bar]	0 14 (Standard)								
		0 10 (With non-return function)								
	0 12 (Pressure switch X/Y/M12)									
		0 10 (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.

Note: This product conforms with the ISO 1179-1 standard and the ISO 228-1 standard.

Standard Nominal Flow Rate qnN ²⁾ [l/min]		
Pneumatic connection	G½	G ¹ / ₄
Standard		
In main flow direction 1 2	1,300	3,500
Outlet at top	2,200	2,300
Outlet at bottom	2,300	2,500
With non-return function		
In main flow direction 1 2	1,200	1,750
Outlet at top	500	500
Outlet at bottom	500	500

²⁾ Measured at p1 = 6 bar and p2 = 5 bar, $\Delta p = 1$ bar

Operating and Environmenta	l Conditions			
Variant		Standard/With non-return function	Pressure switch	Pressure sensor with display
			X/Y/M12	AD
Operating medium		Compressed air	Compressed air	Filtered compressed air, lubricated or
				unlubricated, filtration grade 40 μm
Ambient temperature	[°C]	-10 +60	-10 +60	0 +50
Temperature of medium	[°C]	-10 +60	-10 +60	0 +50
Storage temperature	[°C]	-10 +60	-10 +60	-10 +60
Assembly position		Any ¹⁾		
Corrosion resistance class	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.



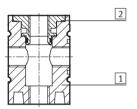
Technical Data

Weight [g]	
Standard/With non-return function	160
With pressure switch	400
With pressure sensor	250

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

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)



Dimensional Drawings



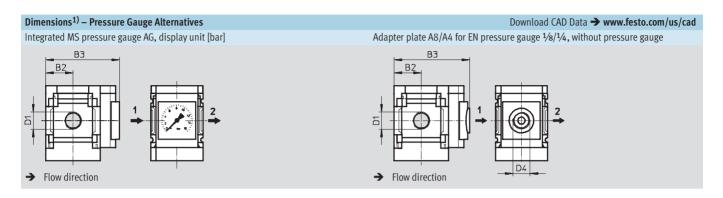
Туре	B1	B2	В3	D1	D2	L1	L2
MS4-FRM-1/8	40	21	54	G1/8	G1/4	58	27
MS4-FRM-1/8-I	40	21	54	U78	074	59.9	28.9
MS4-FRM-1/4	40	21	54	G1/4	G1/4	58	27
MS4-FRM-1/4-I	40	21) 4	U-74	U-74	59.9	28.9

¹⁾ Dimensions are in millimeters, unless otherwise noted.

Note: This product conforms with the ISO 1179-1 standard and the ISO 228-1 standard.



Dimensional Drawings



Pressure sensor with display AD1 ... AD4 D6 B2 B3 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

Technical data SDE1 → www.festo.com/catalog/sde1

Variant AD4:

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

Туре	B2	В3	D1	D4	D6	L5	L6
MS4-FRM-1/8AG	21	57	G1/8		_		
MS4-FRM-1/4AG	21	57	G1/4	_	_	_	_
MS4-FRM-1/8A8	21	58.5	G1/8	G1/8	_	_	_
MS4-FRM-1/4A8	21	96.9	G1/4	078	_	_	_
MS4-FRM-1/8A4	21	58.5	G1/8	G1/4	_		
MS4-FRM-1/4A4	21	50.5	G1/4	G-74	_	_	_
MS4-FRM-1/8AD1/AD2	21	82.6	G1/8		M8x1	35.1	46.7
MS4-FRM-1/4AD1/AD2	21	02.0	G1/4	_	MOXI	55.1	40.7
MS4-FRM-1/8AD3/AD4	21	82.6	G1/8		M12x1	35.1	55.8
MS4-FRM-1/4AD3/AD4	21	82.6	G1/4	_	IVI I ZX I	33.1	33.0

¹⁾ Dimensions are in millimeters, unless otherwise noted.

Note: This product conforms with the ISO 1179-1 standard and the ISO 228-1 standard.

32.3

13.5



70

Dimensional Drawings

Dimensions¹⁾ – Pressure Gauge Alternatives Download CAD Data → www.festo.com/us/cad Pressure sensor with display AD5/AD6 Technical data SDE1 → www.festo.com/catalog/sde1 Variant AD5: В6 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 P 9 5-pin plug M12x1, 2 switch outputs PNP and 4 ... 20 mA analog Туре B5 В6 В7 D5 L4 L5 L6

35.2

M8

M12

99

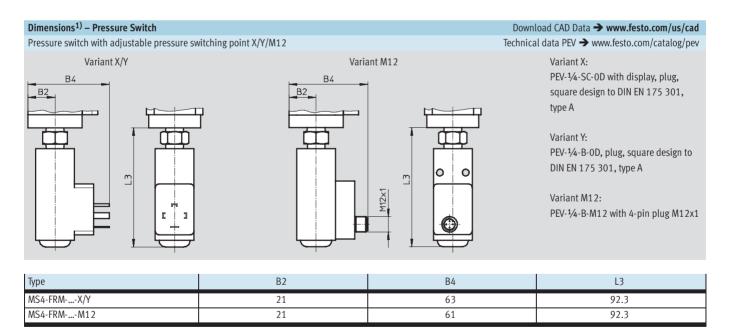
108

78

87

MS4-FRM-...-AD5

MS4-FRM-...-AD6



¹⁾ Dimensions are in millimeters, unless otherwise noted.

¹⁾ Dimensions are in millimeters, unless otherwise noted.



Q request a quote for lead time

Ordering Data – Pre-configured Products

Ordering Data			
Connection	Part No.	Туре	LT
Standard			
G ¹ / ₈	529559	MS4-FRM-1/8 ¹⁾	1D
G ¹ / ₄	529555	MS4-FRM-1/4 1)	1D
With integrated non-return function			
G½8	536965	MS4-FRM- ¹ / ₈ -I ¹⁾	Q
G ¹ / ₄	536966	MS4-FRM-1/4-I ¹⁾	Q
With pressure switch PEV-1/4-B-0D (variant	Y)		
G½	529560	MS4-FRM-1/8-Y ¹⁾	1D
G1/4	529556	MS4-FRM-1/4-Y ¹⁾	1D

1W typically ships within 1 week

1D typically ships same day/next day

LT = Lead time

2007/10 – Subject to change – MS Series

¹⁾ Free of copper and PTFE



Ordering Data – Configurable Products

M Mandatory I	Dat	a						→
Part No.		Series	Size		Function		Connection size	
								İ
527703		MS	4		FRM		1/8	
							1/4	
							AGA	
							AGB	
							AGC	
Order example				_				_
527703		MS	4	-	FRM	-	1/8	

0	Ordering Table								
Gı	id dimension [mm]	40	Conditions	Code		Enter code			
M	Part No.	527703							
	Series	Standard		MS		MS			
	Size	4	4			4			
	Function	Distribution block		-FRM] [-i	-FRM			
	Connection size	Body thread G½		-1/8					
		Body thread G1/4		-1/4					
		Port plate G½ (dimensions → 446)		-AGA					
		Port plate G1⁄4 (dimensions → 446)		-AGB					
¥		Port plate G3/8 (dimensions → 446)		-AGC					

Transfer order code

527703	MS	4	-	FRM	-	
			J			



Ordering Data – Configurable Products

Additional function	Pressure gauge alternatives	Alternative pressure gauge scale	Pressure switch	Type of mounting	Reverse flow direction
	AG	PSI	x	WP	Z
	A8	MPA	Υ	WPM	
	A4		M12	WB	
	AD1			WBM	
	AD2				
	AD3				
	AD4				
	AD5				
	AD6				
	– AG	- PSI	- M12	– WB	- Z

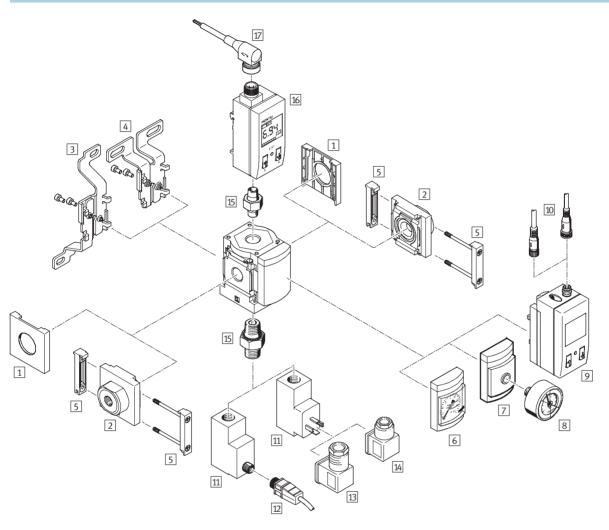
Or	dering Table				
Gri	d dimension [mm]	40	Conditions	Code	Enter code
0	Additional function	With integrated non-return function	1	-l	
	Pressure gauge alternatives	MS pressure gauge, bar (with adapter)		-AG	
		Adapter plate for EN pressure gauge 1/8, without pressure gauge		-A8	
		Adapter plate for EN pressure gauge 1/4, without pressure gauge		-A4	
		Pressure sensor with display, plug M8, 1 switching output PNP, 3-pin	2	-AD1	
		Pressure sensor with display, plug M8, 1 switching output NPN, 3-pin	2	-AD2	
		Pressure sensor with display, plug M12, 1 switching output PNP, 4-pin,	2	-AD3	
		analog output 4 20 mA			
		Pressure sensor with display, plug M12, 1 switching output NPN, 4-pin,	2	-AD4	
		analog output 4 20 mA			
		Pressure sensor with display, plug M8, 1 switching output PNP, 3-pin	2	-AD5	
		Pressure sensor with display, plug M12, 2 switching outputs PNP, 5-pin,	2	-AD6	
		analog output 4 20 mA			
	Alternative pressure gauge scale	psi	3	-PSI	
		MPa	3	-MPA	
	Pressure switch	Pressure switch PEV with display, socket, EN 175301, type A, cube	4	-X	
		Pressure switch PEV without display, socket, EN 175301, type A, cube	4	-Y	
		Pressure switch PEV without display, socket, round, M12, 4-pin	4	-M12	
	Type of mounting	Mounting bracket (dimensions → 447)	5	-WP	
		Mounting bracket (dimensions → 447)	5	-WPM	
		Mounting bracket (dimensions → 444)		-WB	
		Mounting bracket (dimensions → 444)		-WBM	
	Reverse flow direction	Flow direction from right to left		-Z	

l I	Not with pressure gauge alternatives AD5 or AD6	4 X, Y, M12	Max. permissible supply pressure P1 = 12 bar.
AD1 AD6	Measuring range max. 10 bar		Not with pressure gauge alternatives AD5 or AL
PSI. MPA	Only with pressure gauge AG	5 WP WPM	Only with port plate AGA AGB or AGC

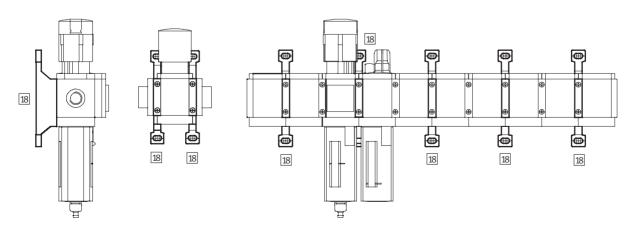
Tra	nsfer order code						
-	-	-	-	-	-	-	



Mounting Attachments and Accessories



Single unit and combination unit mounting brackets.





Accessories Overview

	nting Attachments and Accessories	Single unit		Combination unit ->	2.1-1	→ Page
		without port plate	with port plate	without port plate	with port plate	
1	Cover cap	_				445
	MS4-END	•	_	•	_	
2	Port plate		_		_	446
	MS4-AG	-	•	_	•	
3	Mounting bracket				_	444
	MS4-WB	_	_	-	_	
4	Mounting bracket	•	•	_	_	444
	MS4-WBM	•	_	_	_	
5	Body connector	_		•		446
	MS4-MV	_	_		_	
6	MS pressure gauge	•		•	•	440
	AG	_	_	_	_	
7	Adapter for EN pressure gauge 1/8/1/4	•		•		440
	A8/A4	_	_	_	_	
8	Pressure gauge	•		•	•	451
	MA	_	_		_	
9	Pressure sensor SDE1MS	•		•	•	440
	AD1 AD4	_	_		_	
10	Plug socket with cable	_	_	_	_	451
	SIM-M8-3/SIM-M12-4	•	•	•	•	
11	Pressure switch PEV			•	•	450
	X/Y/M12	•	-		_	
12	Plug socket with cable	_		_	_	451
	SIM-M12-4	•	•	•	•	
13	Angled socket	•			•	450
	PEV-1/4-WD-LED	_	_	_	_	
14	Plug socket		•	•	•	450
	MSSD-C-4P	•	_	•	•	
15	Double nipple	_	_	_	_	450
	ESK	•	•	•	•	
16	Pressure sensor SDE1H18/W18				•	450
	AD5/AD6	•	•	•	•	
17	Plug socket with cable				•	451
	SIM-M8-3/SIM-M12-5	•	•	•	•	
18	Mounting bracket		_	_	_	447
_	MS4-WP/WPB/WPM	-	•	•	-	

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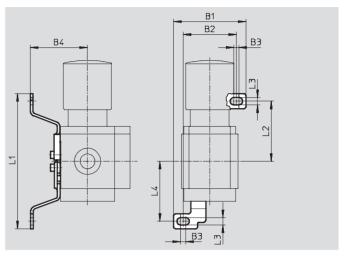
Accessories

3 Mounting bracket MS4-WB

• For wall mounting

Material: Steel





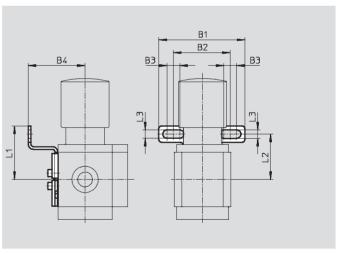
Dimensions a	Dimensions and Ordering Data											
B1	B2	В3	B4	L1	L2	L3	L4	Weight [g]	Part No.	Туре		
56.2	41.2	4	44.2	104.6	46.6	5.6	46.5	46	532185	MS4-WB		

4 Mounting bracket MS4-WBM

• For wall mounting

Material: Steel





Dimensions an	Dimensions and Ordering Data											
B1	B2	В3	B4	L1	L2		Weight [g]	Part No.	Туре			
66.5	44	10	44	41.3	35	6.5	48	526062	MS4-WBM			

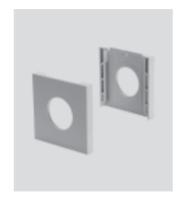


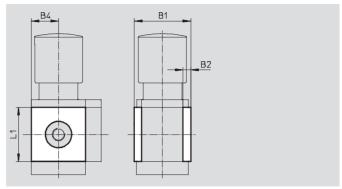
Accessories

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





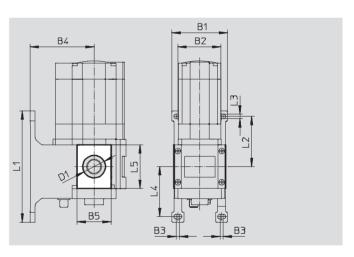
Dimensions and Ordering Data	Dimensions and Ordering Data										
B1	B2	B4	L1	Part No.	Туре						
43.6	6	21	42	538779	MS4-END						

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





Dimens	imensions and Ordering Data														
B1	B2	В3	В	4	B5	D1	L1	L2	L3	L4	L5	CRC ¹⁾	Weight	Part No.	Туре
			WP	WPB		Ø							[g]		
55.2	40.2	4	44	66	30.4	20.3	106	46.5	5.6	46.7	42	2	4	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.



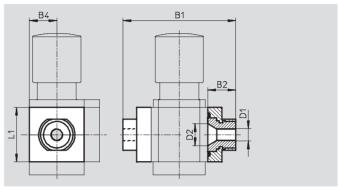
Accessories

2 Port plate MS4-AG...

Adapter for pneumatic connection

Material: Aluminum





Dimensions and C	imensions and Ordering Data											
B1	B2	B4	D1	D2	L1	Weight [g]	Part No.	Туре				
			G ¹ /8			107	526068	MS4-AGA				
83.5	21.5	21	G1/4	16.8	42	128	526069	MS4-AGB				
			G ³ /8				526070	MS4-AGC				

5 Body connector MS4-MV

• For connecting modules

Material:

Stainless steel/polyacetate



Ordering Data		
Weight	Part No.	Туре
[g]		
36	532798	MS4-MV



Accessories

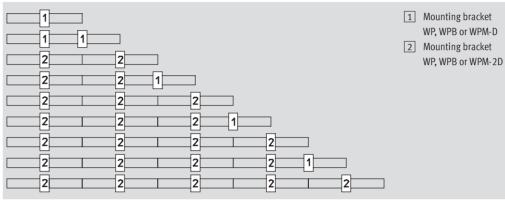
18 Mounting Bracket MS4-WP...

Suggested placement of wall mounting brackets when mounting air preparation combinations

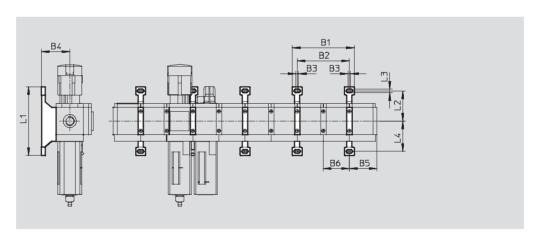
1 unit: 40 mm

2 units: 80 mm

Number of units
1 2 3 4 5 6 7 8 9 10



Mounting dimensions



Туре	B1	B2	В3	B4	B5	В6	L1	L2	L3	L4
MS4-WP				44			106	46.5		46.7
MS4-WPB	95.2	80	4	66	41.9	40	100	40.5	5.6	40.7
MS4-WPMD				44			92.8	34.8		40



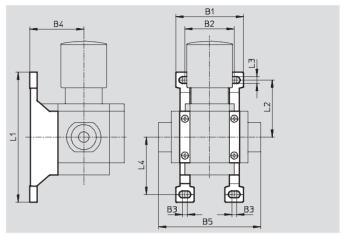
Accessories

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	Dimensions and Ordering Data										
B1	B2	В3	B4	B5	L1	L2	L3		Weight [g]	Part No.	Туре
55.2	40.2	4	44	83.4	106	46.5	5.6	46.7	39	532184	MS4-WP

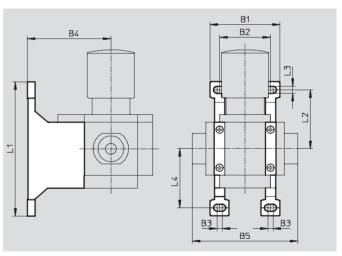
Mounting bracket MS4-WPB

- 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 Orderin	g Data									
B1	B2	В3	B4	B5	L1	L2	L3	L4	Weight	Part No.	Туре
									[g]		<i>'</i> '
55.0				22.1	106						MC / MIDD
55.2	40.2	4	66	83.4	106	46.5	5.6	46./	55	526063	MS4-WPB



Accessories

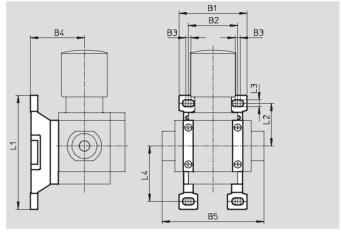
Mounting bracket MS4-WPM

- 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







Dimension	ns and Orde	ering Data										
B1	B2	В3	B4	B5	L1	L2	L3	L4	Clearance	Weight	Part No.	Туре
										[g]		
55.2	40	4	44	83.4	92.8	34.8	5.6	45.2	40	45	526060	MS4-WPM-D
95.2	80	4	44	123.4	92.0	74.0	5.0	43.2	80	55	526061	MS4-WPM-2D

Body connector MS4-MVM

• For installation of modules with regulating knob pointing downwards

Material:

Die-cast aluminum



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



Accessories

11 Ordering Data	– Pressure Switch PEV				Techni	cal data → www.festo.com/catalog/pev
	Pneumatic connection	Pressure switching	Electrical connection	Order	Part No.	Туре
		point		code		
	G1/4	Adjustable	Plug, square design to	Х	161760	PEV-1/4-SC-OD
		with visual scale	DIN EN 175 301, type A			
	G1/4	Adjustable	Plug, square design to	Υ	175250	PEV-1/4-B-0D
			DIN EN 175 301, type A			
	G ¹ / ₄	Adjustable	Plug M12x1, 4-pin	M12	192488	PEV-1/4-B-M12

16 Ordering Data	– Pressure Sensor SDE1					Technica	al data → www.festo.com/catalog/sde1
	Pneumatic connection	Electrical output	Electrical connection	-1	Order code	Part No.	Туре
Pressure sensor SI	DE1 for Distribution Block	MS-FRM, pressure measuring ra	nge 0 10 bar, r	elative pressure	measurem	ent	
	Female thread G1/8	1 switch output PNP	M8x1,	LCD	AD5	192030	SDE1-D10-G2-H18-C-P1-M8
			3-pin				
		2 switch outputs PNP and	M12x1,	Illuminated	AD6	534062	SDE1-D10-G2-W18-L-2I-M12
		4 20 mA analog	5-pin	LCD			

13 Ordering Data	- Angled Socket PEV				Techni	cal data → www.festo.com/catalog/pev
	Description	Operating voltage range	Electrical connection	Switching status	Part No.	Туре
				display		
	for PEV-1/4OD	15 30 V DC	4-pin	Yellow LED	164274	PEV-1/4-WD-LED-24
	for PEV-1/4OD	15 30 V DC ≤ 230 V AC	4-pin 4-pin	Yellow LED Yellow LED	164274 164275	PEV-1/4-WD-LED-24 PEV-1/4-WD-LED-230

14 Ordering Data	ı – Plug Socket MSSD				Technica	l data → www.festo.com/catalog/mssd
	Description	Operating voltage range	Electrical connection	Type of mounting cable	Part No.	Туре
				connection		
_	for DD/1/ OD	≤ 250 V AC/DC	2 nin	Cl	474457	HCCD C ID
	for PEV-1/4OD	≤ 250 V AC/DC	3-pin	Clamping screws	171157	MSSD-C-4P

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



Accessories

17 Ordering Data	a – Plug Socket with Cable SIM-M8		Technical d	lata → www.festo.com/catalog/sim-m8
	Electrical connection	Cable length	Part No.	Туре
		[m]		
	M8x1, 3-pin	2.5	159420	SIM-M8-3GD-2,5-PU
		5	159421	SIM-M8-3GD-5-PU
		10	192964	SIM-M8-3GD-10-PU
	M8x1, 3-pin	2.5	159422	SIM-M8-3WD-2,5-PU
		5	159423	SIM-M8-3WD-5-PU
		10	192965	SIM-M8-3WD-10-PU

Ordering Data -	Plug Socket with Cable SIM-M12		Technical data → www.festo.com/catalog/sim-m12
	Electrical connection	Cable length [m]	Part No. Type
	M12x1, 4-pin	5	164259 SIM-M12-4GD-5-PU
S	M12x1, 5-pin	2.5	175715 SIM-M12-5GD-2,5-PU
		5	175716 SIM-M12-5GD-5-PU
	M12x1, 4-pin	5	164258 SIM-M12-4WD-5-PU

8 Ordering Data	Ordering Data − Pressure Gauge MA Technical data → www.festo.com/catalog/ma								
	Nominal size	Pneumatic connection	Indicating range		Part No.	Туре			
			[bar]	[psi]					
	Pressure gauge MA, DIN EN 837-1								
	40	G1/4	016	0 232	183901	MA-40-16-G ¹ / ₄ -EN			
	Pressure gauge MA, DIN								
	40	R ¹ /8	0 16	-	525726	MA-40-16-R ¹ /8-E-RG			
	50	R ¹ / ₄	0 16	-	525729	MA-50-16-R ¹ / ₄ -E-RG			

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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								
Туре	Pneumatic conne	Pneumatic connections		Pressure indicator				
	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
MS4N		AG	VS	AG	A8	A4	AD	Z
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

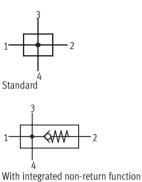
Contents	
Technical Data	→ 454
Dimensional Drawings	→ 456
Ordering Data	→ 459
Accessories	→ 462

→ www.festo.com/catalog/ms4n-frm



Technical Data

ISO Symbol





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 qnN 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 p1 = 88 psi and p2 = 74 psi Δ p = 15 psi

Operating and Environmental Conditions								
Variant								
Operating medium		Compressed air	Compressed air	Filtered compressed air, lubricated or unlubricated, filtration grade 40 µm				
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 ¹⁾	•					
Corrosion resistance class	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.

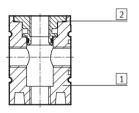


Technical Data

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)				



Dimensional Drawings

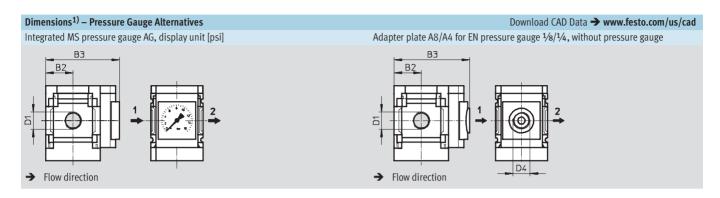


Туре	B1	B2	В3	D1	D2	L1	L2
MS4N-FRM-1/8	1.57	0.83	2.13	1/8 NPT	½ NPT	2.28	1.06
MS4N-FRM-1/8-I	1.57	0.63	2.13	78 NF1	74 IVI I	2.36	1.14
MS4N-FRM-1/4	1.57	0.83	2.13	1/4 NPT	1/4 NPT	2.28	1.06
MS4N-FRM-1/4-I	1.5/	0.63	2.15	74 NP1	74 NP1	2.36	1.14

¹⁾ Dimensions are in inches, unless otherwise noted.



Dimensional Drawings



Pressure sensor with display AD1 ... AD4 D6 B2 B3 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

Technical data SDE1 → www.festo.com/catalog/sde1

Variant AD4:

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

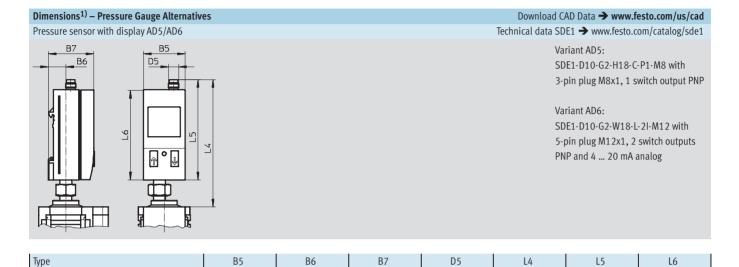
Туре	B2	В3	D1	D4	D6	L5	L6
MS4N-FRM-1/8AG	0.83	2.24	1/8 NPT		_		
MS4N-FRM-1/4AG	0.63	2.24	1/4 NPT	_	_	_	_
MS4N-FRM-1/8A8	0.83	2.30	1/8 NPT	1/8 NPT	_	_	_
MS4N-FRM-1/4A8	0.07	2.50	1/4 NPT	/6 IVI I			
MS4N-FRM-1/8A4	0.83	2.30	1/8 NPT	1/4 NPT	_	_	_
MS4N-FRM-1/4A4	0.65	2.50	1/4 NPT	/4 111 1			
MS4N-FRM-1/8AD1/AD2	0.83	3.25	1/8 NPT		M8x1	1.38	1.84
MS4N-FRM-1/4AD1/AD2	0.65		1/4 NPT		MOXI	1.50	1.04
MS4N-FRM-1/8AD3/AD4	0.83	3.25	1/8 NPT		M12x1	1.38	2.20
MS4N-FRM-1/4AD3/AD4	0.07	7.27	1/4 NPT	,	IVITZXI	1.56	2.20

¹⁾ Dimensions are in inches, unless otherwise noted.



2.76

Dimensional Drawings



1.39

0.53

1.27

M8

M12

3.90

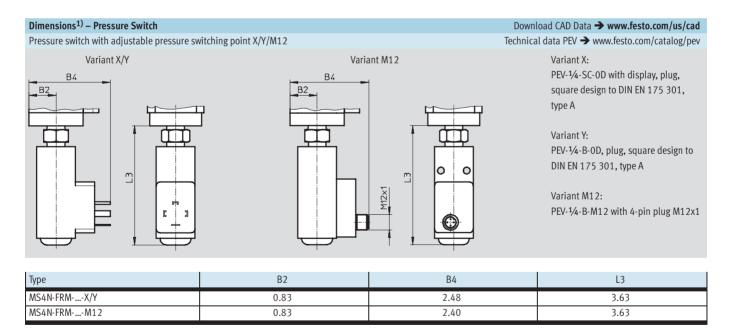
4.25

3.07

3.43

MS4N-FRM-...-AD5

MS4N-FRM-...-AD6



¹⁾ Dimensions are in inches, unless otherwise noted.

¹⁾ Dimensions are in inches, unless otherwise noted.



Ordering Data – Pre-configured Products

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

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

¹⁾ Free of copper and PTFE

2007/10 - Subject to change - MS Series



Ordering Data – Configurable Products

M Mandatory D	Data					→
Part No.	Series	Size	Thread	Function		Connection size
527704	MS	4	N	FRM		1/8
						1/4
						AQK
						AQN
						AQP
1						
Order example					.	
527704	MS	4	N -	FRM	-	1/8

0	rdering Table				
G	rid dimension [mm]	40	Conditions	Code	Enter code
M	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 → 466)		-AQK	
		Port plate ¼ NPT (dimensions → 466)		-AQN	
Ψ		Port plate 3/8 NPT (dimensions → 466)		-AQP	

Transfer order code

						_	
527704	MS	4	N	-	FRM] –	

Distribution Blocks MS4N-FRM — Inch SeriesOrdering Data — Configurable Products



Additional function	Pressure gauge alternatives	Alternative pressure gauge scale	Pressure switch	Type of mounting	Reverse flow direction
	AG	BAR	x	WP	Z
	A8	MPA	Υ	WPM	
	A4		M12	WB	
	AD1			WBM	
	AD2				
	AD3				
	AD4				
	AD5				
	AD6				
	– AG	– BAR	- M12	– WB	- Z

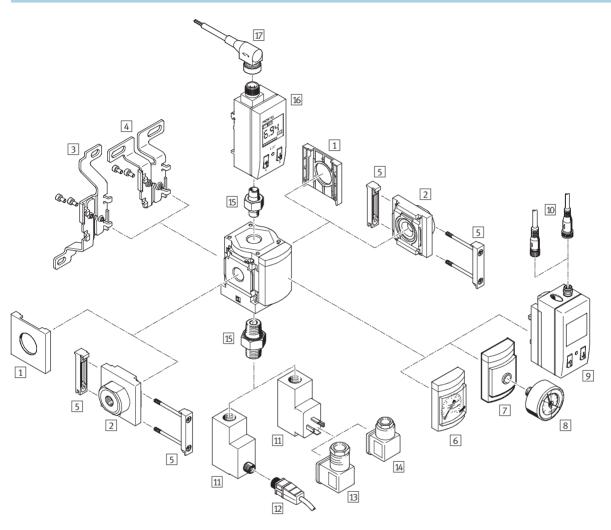
Or	dering Table				
Gr	id dimension [mm]	40	Conditions	Code	Enter code
0	Additional function	With integrated non-return function	1	-1	
	Pressure gauge alternatives	MS pressure gauge, psi (with adapter)		-AG	
		Adapter plate for EN pressure gauge 1/8, without pressure gauge		-A8	
		Adapter plate for EN pressure gauge 1/4, without pressure gauge		-A4	
		Pressure sensor with display, plug M8, 1 switching output PNP, 3-pin	2	-AD1	
		Pressure sensor with display, plug M8, 1 switching output NPN, 3-pin	2	-AD2	
		Pressure sensor with display, plug M12, 1 switching output PNP, 4-pin,	2	-AD3	
		analog output 4 20 mA			
		Pressure sensor with display, plug M12, 1 switching output NPN, 4-pin,	2	-AD4	
		analog output 4 20 mA			
		Pressure sensor with display, plug M8, 1 switching output PNP, 3-pin	2	-AD5	
		Pressure sensor with display, plug M12, 2 switching outputs PNP, 5-pin,	2	-AD6	
		analog output 4 20 mA			
	Alternative pressure gauge scale	bar	3	-BAR	
		MPa	3	-MPA	
	Pressure switch	Pressure switch PEV with display, socket, EN 175301, type A, cube	4	-X	
		Pressure switch PEV without display, socket, EN 175301, type A, cube	4	-Y	
		Pressure switch PEV without display, socket, round, M12, 4-pin	4	-M12	
	Type of mounting	Mounting bracket (dimensions → 467)	5	-WP	
		Mounting bracket (dimensions → 467)	5	-WPM	
		Mounting bracket (dimensions → 464)		-WB	
		Mounting bracket (dimensions → 464)		-WBM	
	Reverse flow direction	Flow direction from right to left		-Z	

I	Not with pressure gauge alternatives AD5 or AD6	4 X, Y, M12	Max. permissible supply pressure P1 = 176 ps
AD1 AD6	Measuring range max. 147 psi		Not with pressure gauge alternatives AD5 or AD
RAR MPA	Only with pressure gauge AG	5 WP WPM	Only with port plate AOK AON or AOP

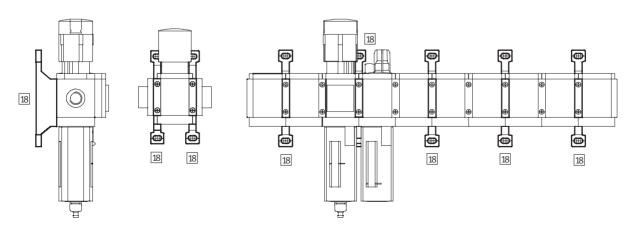
Tra	nsfer order code						
-	-	-	-	-	-	-	



Mounting Attachments and Accessories



Single unit and combination unit mounting brackets.





Accessories Overview

	nting 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	_		_		465
	MS4-END	•	_	•	_	
2	Port plate		_		_	466
	MS4N-AQ	_	•	-	•	
3	Mounting bracket				_	464
	MS4-WB	_	_	_	_	
4	Mounting bracket	•	•	_	_	464
	MS4-WBM	_	_	_	_	
5	Body connector	_	•	•	•	466
	MS4-MV	_	_	•	_	
6	MS pressure gauge			•	•	460
	AG	_	_	•	•	
7	Adapter for EN pressure gauge 1/8/1/4		•	•	•	460
	A8/A4	_	_	_	_	
8	Pressure gauge	•	•	•	•	471
	MA	_	_	_	_	
9	Pressure sensor SDE1MS	•		•	•	460
	AD1 AD4	_	_	_	_	
10	Plug socket with cable	_	_	_	_	471
	SIM-M8-3/SIM-M12-4	•	•	•	•	
11	Pressure switch PEV		•	•	•	470
	X/Y/M12	_	_	•	_	
12	Plug socket with cable		•	•	•	471
	SIM-M12-4	_	_	•	_	
13	Angled socket	•		•	•	470
	PEV-1/4-WD-LED	_	_	_	_	
14	Plug socket	•	•	•	•	470
	MSSD-C-4P	_	_	_	_	
15	Double nipple	_	_	•	•	470
	ESK	•	•	•	•	
16	Pressure sensor SDE1H18/W18			•	•	470
	AD5/AD6	•	•	•	•	
17	Plug socket with cable			•	•	471
	SIM-M8-3/SIM-M12-5	•	•	•	•	
18	Mounting bracket		_	_	_	467
	MS4-WP/WPB/WPM	-	•	•	-	

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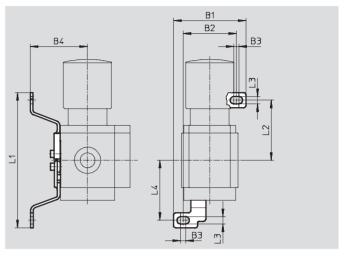
Accessories

3 Mounting bracket MS4-WB

• For wall mounting

Material: Steel





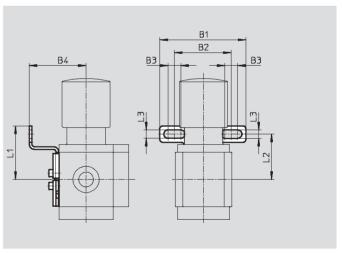
Dimensions a	imensions and Ordering Data												
B1	B2	В3	B4	L1	L2	L3		Weight [lb]	Part No.	Туре			
2.21	1.62	0.16	1.74	4.12	1.83	0.22	1.83	0.09	532185	MS4-WB			

4 Mounting bracket MS4-WBM

• For wall mounting

Material: Steel





Dimensions an	mensions and Ordering Data												
B1	B2	В3	B4	L1	L2		Weight [lb]	Part No.	Туре				
2.62	1.73	0.39	1.73	1.63	1.38	0.26	0.10	526062	MS4-WBM				

FESTO

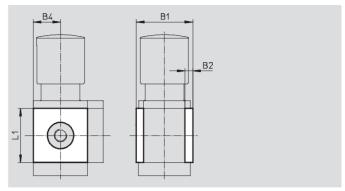
Accessories

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





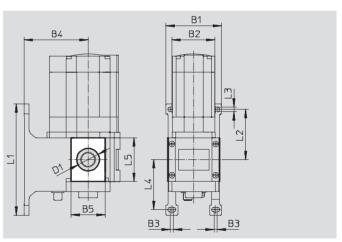
Dimensions and Ordering Data					
B1	B2	B4	L1	Part No.	Туре
1.72	0.24	0.83	1.65	538779	MS4-END

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





Dimens	imensions and Ordering Data														
B1	B2	В3	В	4	B5	D1	L1	L2	L3	L4	L5	CRC ¹⁾	Weight	Part No.	Туре
			WP	WPB		Ø							[lb]		
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.



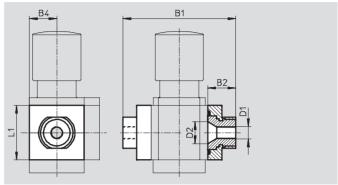
Accessories

2 Port plate MS4N-AQ...

Adapter for pneumatic connection

Material: Aluminum





Dir	mensions and C	Ordering Data							
	B1	B2	В4	D1	D2	L1	Weight [lb]	Part No.	Туре
				1/8 NPT				526065	MS4N-AQK
	3.29	0.85	0.83	1/4 NPT	0.66	1.65	0.26	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.	Туре
[lb]		
0.07	532798	MS4-MV



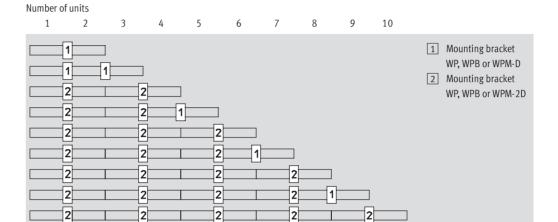
Accessories

18 Mounting Bracket MS4-WP...

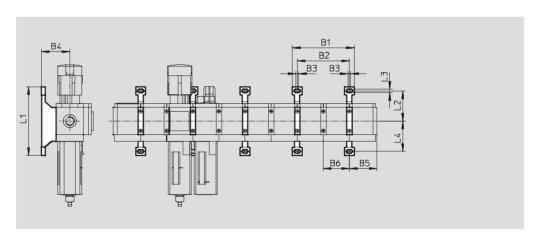
Suggested placement of wall mounting brackets when mounting air preparation combinations

1 unit: 1.575 in

2 units: 3.15 in



Mounting dimensions



Туре	B1	B2	В3	B4	B5	В6	L1	L2	L3	L4
MS4-WP				1.73			4.17	1.83		1.84
MS4-WPB	3.75	3.15	0.16	2.60	1.65	1.57	4.17	1.0)	0.22	1.04
MS4-WPMD				1.73			3.65	1.37		1.57



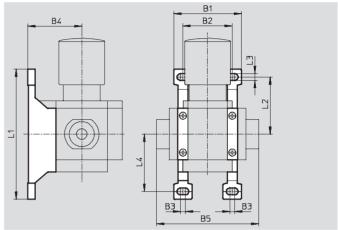
Accessories

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 Orderin	g Data									
B1	B2	В3	B4	B5	L1	L2	L3		Weight [lb]	Part No.	Туре
2.17	1.58	0.16	1.73	3.28	4.17	1.83	0.22	1.84	0.08	532184	MS4-WP

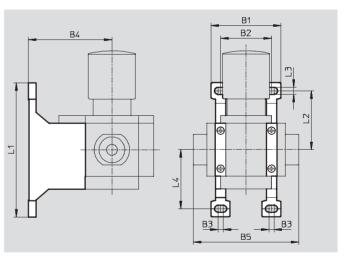
Mounting bracket MS4-WPB

- 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 Orderin	g Data									
B1	B2	В3	B4	B5	L1	L2	L3	L4	Weight [lb]	Part No.	Туре
2.17	1.58	0.16	2.60	3.28	4.17	1.83	0.22	1.84	0.11	526063	MS4-WPB

FESTO

Accessories

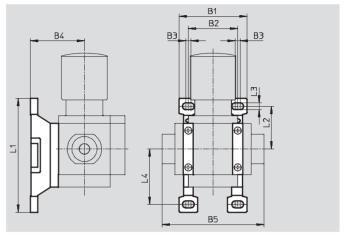
Mounting bracket MS4-WPM

- 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







Dimension	ns and Orde	ering Data										
B1	B2	В3	B4	B5	L1	L2	L3	L4	Clearance	Weight	Part No.	Туре
										[lb]		
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	0.10	1./)	4.86	7.07	1.57	0.22	1.70	3.15	0.11	526061	MS4-WPM-2D

Body connector MS4-MVM

• For installation of modules with regulating knob pointing downwards

Material:

Die-cast aluminum



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



Accessories

11 Ordering [Oata – Pressure Switch PEV				Techn	ical data → www.festo.com/catalog/pev
	Pneumatic connection	Pressure switching point	Electrical connection	Order code	Part No.	Туре
	1/4 NPT	Adjustable with visual scale	Plug, square design to DIN EN 175 301, type A	X	161760	PEV-1/4-SC-OD
	1/4 NPT	Adjustable	Plug, square design to DIN EN 175 301, type A	Y	175250	PEV-1/4-B-OD
	1/4 NPT	Adjustable	Plug M12x1, 4-pin	M12	192488	PEV-1/4-B-M12

16 Ordering Data	16 Ordering Data − Pressure Sensor SDE1 Technical data → www.festo.com/catalog/sde1											
	Pneumatic connection	Electrical output	Electrical connection	-1	Order code	Part No.	Туре					
Pressure sensor SI	DE1 for Distribution Block	MS-FRM, pressure measuring ra	nge 0 147 psi,	relative pressur	re measuren	nent						
	Female thread 1/8NPT	1 switch output PNP	M8x1,	LCD	AD5	192030	SDE1-D10-G2-H18-C-P1-M8					
750			3-pin									
0.0		2 switch outputs PNP and	M12x1,	Illuminated	AD6	534062	SDE1-D10-G2-W18-L-2I-M12					
		4 20 mA analog	5-pin	LCD								

13 Ordering Data	a – Angled Socket PEV				Techni	cal data → www.festo.com/catalog/pev
	Description	Operating voltage range	Electrical connection	Switching status	Part No.	Туре
				display		
	for PEV-1/4OD	15 30 V DC	4-pin	Yellow LED	164274	PEV-1/4-WD-LED-24
	for PEV-1/4OD	15 30 V DC ≤ 230 V AC	4-pin 4-pin	Yellow LED Yellow LED	164274 164275	PEV-1/4-WD-LED-24 PEV-1/4-WD-LED-230

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

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



Accessories

17 Ordering Data – Plug Socket with Cable SIM-M8				Technical data → www.festo.com/catalog/sim-m8	
	Electrical connection	Cable length [ft]	Part No.	Туре	
	M8x1, 3-pin	8.2	159420	SIM-M8-3GD-2,5-PU	
		16.4	159421	SIM-M8-3GD-5-PU	
		32.8	192964	SIM-M8-3GD-10-PU	
		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 → www.festo.com/catalog/sim-m12		
	Electrical connection	Cable length [ft]	Part No.	Туре		
	M12x1, 4-pin	16.4	164259	SIM-M12-4GD-5-PU		
	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 → www.festo.com/catalog/ma								
	Nominal size	Pneumatic connection	Indicating range		Part No.	Туре		
			[bar]	[psi]				
	Pressure gauge MA, DIN EN 837-1							
	1.57	1/4 NPT	0 16	0 232	183908	MA-40-16-N ¹ / ₄ -EN		
	Pressure gauge MA, DIN EN 837-1, with red-green range							
	1.57	1/8 NPT	-	0 232	530388	MA-40-232-N ¹ / ₈ -PSI-E-RG		
	1.97	1/4 NPT	-	0 232	530391	MA-50-232-N ¹ / ₄ -PSI-E-RG		

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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, 1.800.99.FESTO Call: 1.800.96.FESTO

Email: customer.service@us.festo.com

For technical support, 1.866.GO.FESTO Call: Fax: 1.800.96.FESTO

Email: product.support@us.festo.com

Headquarters

Fax:

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

2800 Collier Canyon Road 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: 2800 Collier Canyon Road, Livermore, CA 94550

Mexico

Headquarters

Festo Pneumatic, S.A. Av. Ceylán 3, Col. Tequesquinahuac 54020 Tlalnepantla, Edo. de México

011 52 [55] 53 21 66 00 Call: 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