

Branching module MS6N-FRM

FESTO



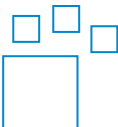
Characteristics

At a glance

- Width dimension: 62 mm
- Outlet at top and bottom
- Support for additional modules
- With optional integrated non-return function and pressure switch
- Can be used as an intermediate distributor for varying air qualities
- Optional pressure sensor

Ordering data - modular system

Link [ms6n-frm](#)



Configurable product

This product and all its product options can be ordered online via the configurator.

Function

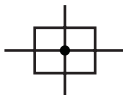
Air distributor with 4 connections

Pneumatic connection

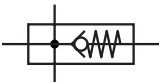
The installation of connection plates makes it easier to replace the module if necessary (e.g., when using piping).

Additional function

[] Without



[!] With integrated non-return function



Pressure gauge alternatives

Two pressure gauge connections for variable installation

Alternative pressure gauge scale

The scaling of the built-in pressure gauge can be selected. The unit options available are [MPa], [bar] / [psi].

Pressure switch

Optionally available with different pressure switches.

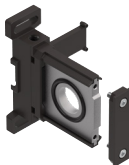
Type of mounting

[WP] Mounting bracket standard design



- For wall mounting a single device or a service unit combination

[WPM] Mounting bracket for hooking in air preparation units



- For wall mounting an individual device

Characteristics

[WB]	Mounting centrally at rear (wall mounting top and bottom), sub-bases not required
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- For wall mounting an individual device

Flow direction

Available with opposite flow direction.

Type code

001	Series	
MS	MS series	
002	Size	
6	Width dimension 62 mm	
003	Thread type	
N	NPT thread	
004	Function	
FRM	Branching module	
005	Pneumatic connection, inch	
1/4	Internal thread NPT 1/4	
3/8	Internal thread NPT 3/8	
1/2	Internal thread NPT 1/2	
AQN	Sub-base NPT 1/4	
AQP	Sub-base NPT 3/8	
AQR	Sub-base NPT 1/2	
AQS	Sub-base NPT 3/4	
006	Additional function	
	Without	
I	With integrated non-return function	

007	Pressure gauge alternatives	
	Without	
A4	Adapter plate for EN pressure gauge 1/4, without pressure gauge	
A8	Adapter plate for EN pressure gauge 1/8, without pressure gauge	
AD7	Pressure sensor with switching display, M8 plug, threshold value comparator, PNP, N/O	
AD8	Pressure sensor with switching display, M8 plug, threshold value comparator, PNP, N/C	
AD9	Pressure sensor with switching display, M8 plug, window comparator, PNP, N/O	
AD10	Pressure sensor with operational status indicator, M8 plug, window comparator, PNP, N/C	
AD11	Pressure sensor with LCD display, M12 4-pin plug, IO-Link®, PNP, NPN, 0...10 V, 1...5 V, 4...20 mA	
AD12	Pressure sensor with LCD display, M8 4-pin plug, IO-Link®, PNP, NPN, 0...10 V, 1...5 V, 4...20 mA	
AG	MS pressure gauge	
RG	Integrated pressure gauge, red/green scale	

008	Alternative pressure gauge scale	
	MS pressure gauge	
BAR	Bar	
MPA	MPa	

009	Pressure switch	
	Without	
M12	Pressure switch PEV without display, plug socket, round, M12, 4-pin	
X	Pressure switch PEV with display, plug socket, EN 175301, type A, cube	
Y	Pressure switch PEV without display, plug socket, EN 175301, type A, cube	

010	Type of mounting	
	Without mounting bracket	
WB	Mounting centrally at rear (wall mounting top and bottom), sub-bases not required	
WP	Mounting bracket standard design	
WPM	Mounting bracket for hooking in air preparation units	

011	Flow direction	
	Flow direction from left to right	
Z	Flow direction from right to left	

Datasheet

General technical data

Pneumatic connection 1	1/4 NPT	3/8 NPT	1/2 NPT
Pneumatic connection 2	1/4 NPT	3/8 NPT	1/2 NPT
Pneumatic connection 3	1/2 NPT		
Pneumatic connection 4	1/2 NPT		
Structural design	Branching module, With check function		
Mounting position	Any		

Standard nominal flow rate (standard)

Pneumatic connection 1	1/4 NPT	3/8 NPT	1/2 NPT
Standard nominal flow rate in main flow direction 1 -> 2	3,300 l/min	8,350 l/min	13,000 l/min
Standard nominal flow rate outlet at top	6,000 l/min	4,700 l/min	4,400 l/min
Standard nominal flow rate outlet down	6,400 l/min	4,800 l/min	4,600 l/min

Standard nominal flow rate (with non-return function)

Pneumatic connection 1	1/4 NPT	3/8 NPT	1/2 NPT
Standard nominal flow rate in main flow direction 1 -> 2	3,200 l/min	5,500 l/min	6,000 l/min
Standard nominal flow rate outlet at top	2,700 l/min	2,900 l/min	3,100 l/min
Standard nominal flow rate outlet down	2,800 l/min	3,200 l/min	3,300 l/min

Electrical data (only when used with a pressure switch)

Operating voltage range AC	0 ... 250 V
DC operating voltage range	0 ... 125 V

Operating and environmental conditions

Operating pressure	0 ... 20 bar
Operating medium	Compressed air as per ISO 8573-1:2010 [7:4:4], Inert gases
Information on operating and pilot media	Operation with oil lubrication possible (required for further use)
Ambient temperature	-10 ... 60°C
Temperature of medium	-10 ... 60°C
Storage temperature	-10 ... 60°C
Corrosion resistance class (CRC) ¹⁾	2 - Moderate corrosion stress
For use in the food industry ²⁾	See supplementary material information

1) Corrosion resistance class CRC 2 to Festo standard FN 940070.

Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements in direct contact with a normal industrial environment.

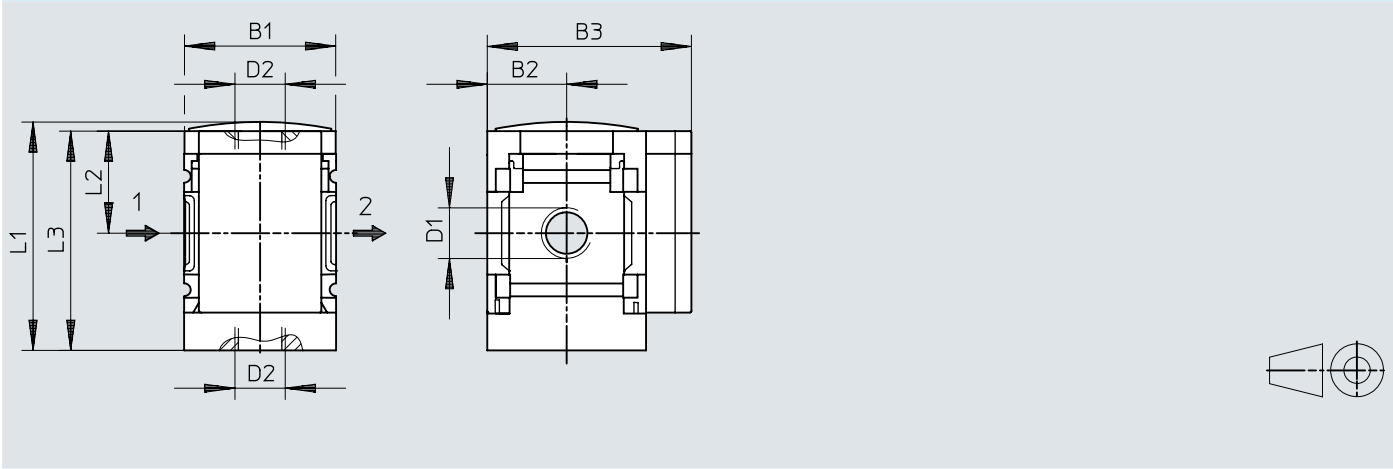
2) Further information www.festo.com/catalogue/ms-firm → Support/Downloads.

Materials

Housing material	Die-cast aluminum
Note on materials	RoHS compliant
LABS (PWIS) conformity	VDMA24364-B1/B2-L

Dimensions

Dimensions – Basic type with female thread, with cover plate Download CAD data www.festo.com

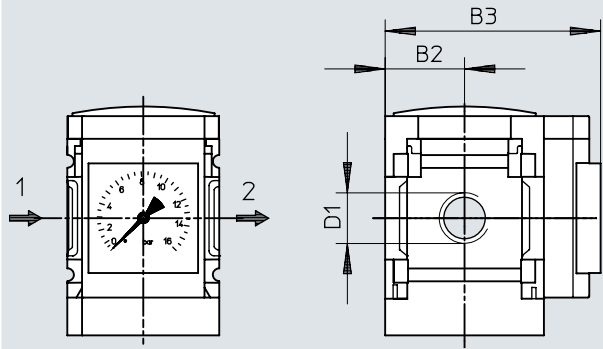


	B1 [inch]	B2 [inch]	B3 [inch]	D1	D2	L1 [inch]	L2 [inch]	L3 [inch]
MS6N-FRM-1/4	2,44	1,22	2,99	1/4 NPT	1/2 NPT	3,43	1,54	3,33
MS6N-FRM-3/8				3/8 NPT				
MS6N-FRM-1/2				1/2 NPT				

Dimensions

Dimensions – AG Integrated MS pressure gauge with standard scale, RG integrated MS pressure gauge with red-green scale

Download CAD data www.festo.com



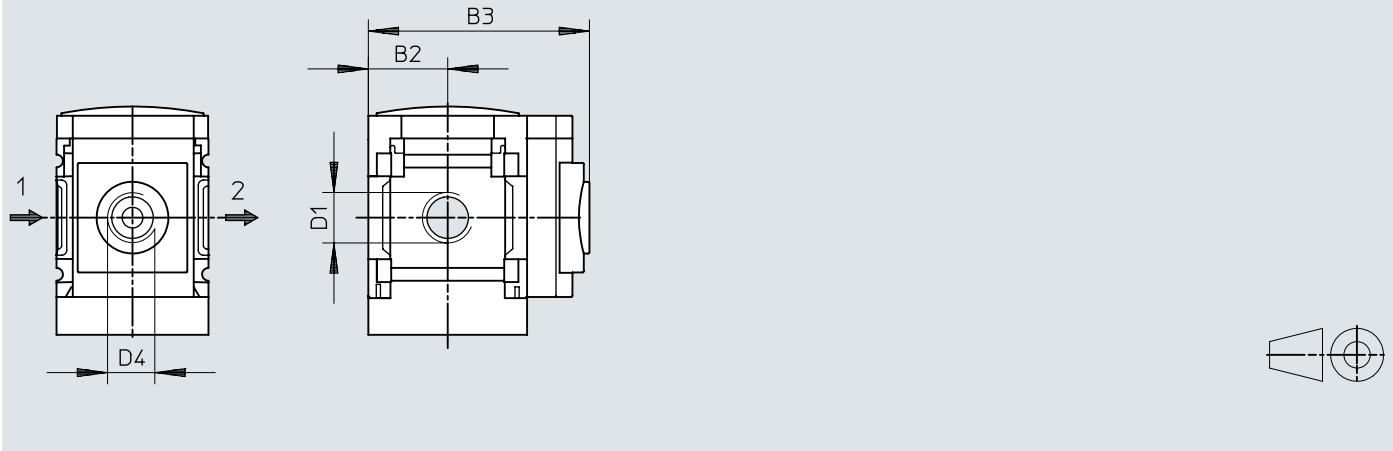
	B2 [inch]	B3		D1
		1) [inch]	l [inch]	
MS6N-FRM-1/4-...-AG	1,22	3,03	3,35	1/4 NPT
MS6N-FRM-3/8-...-AG				3/8 NPT
MS6N-FRM-1/2-...-AG				1/2 NPT
MS6N-FRM-1/4-...-RG		3,09	3,41	1/4 NPT
MS6N-FRM-3/8-...-RG				3/8 NPT
MS6N-FRM-1/2-...-RG				1/2 NPT

1) Standard

Dimensions

Dimensions – A8 adapter for EN pressure gauge 1/8, without pressure gauge,
A4 adapter for EN pressure gauge 1/4, without pressure gauge

Download CAD data www.festo.com



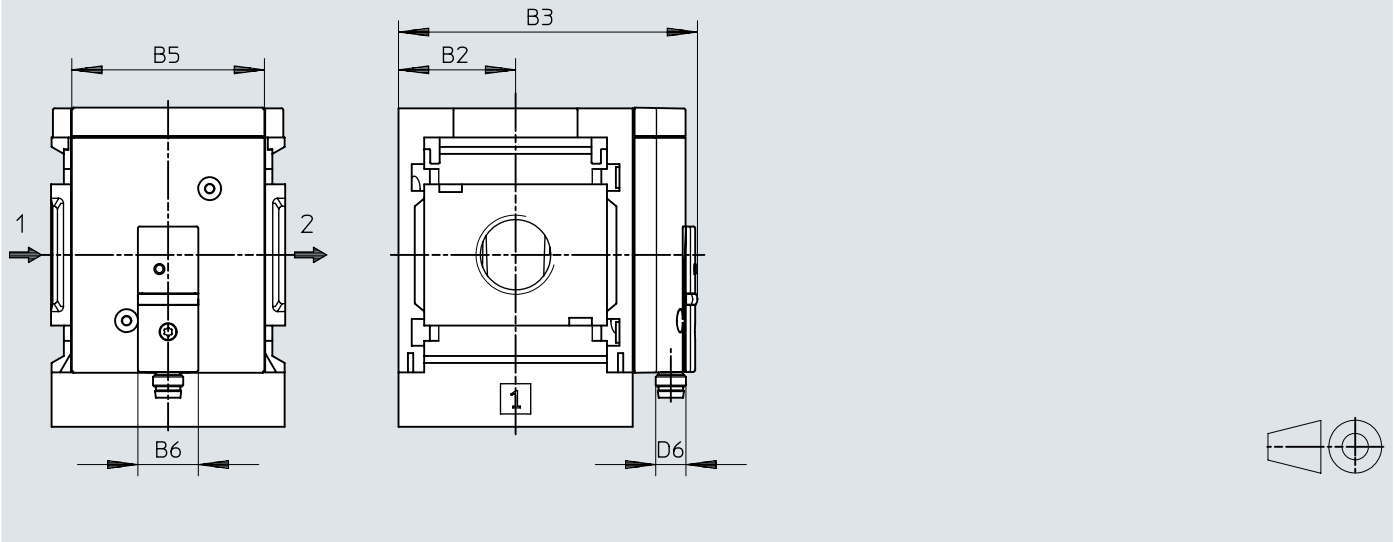
	B2 [inch]	B3 [inch]	D1	D4
MS6N-FRM-1/4-...-A8	1,22	3,09	1/4 NPT	1/8 NPT
MS6N-FRM-3/8-...-A8			3/8 NPT	
MS6N-FRM-1/2-...-A8			1/2 NPT	
MS6N-FRM-1/4-...-A4			1/4 NPT	1/4 NPT
MS6N-FRM-3/8-...-A4			3/8 NPT	
MS6N-FRM-1/2-...-A4			1/2 NPT	

1) Standard

Dimensions

Dimensions – AD7/AD8/AD9/AD10 pressure sensor with switching indication

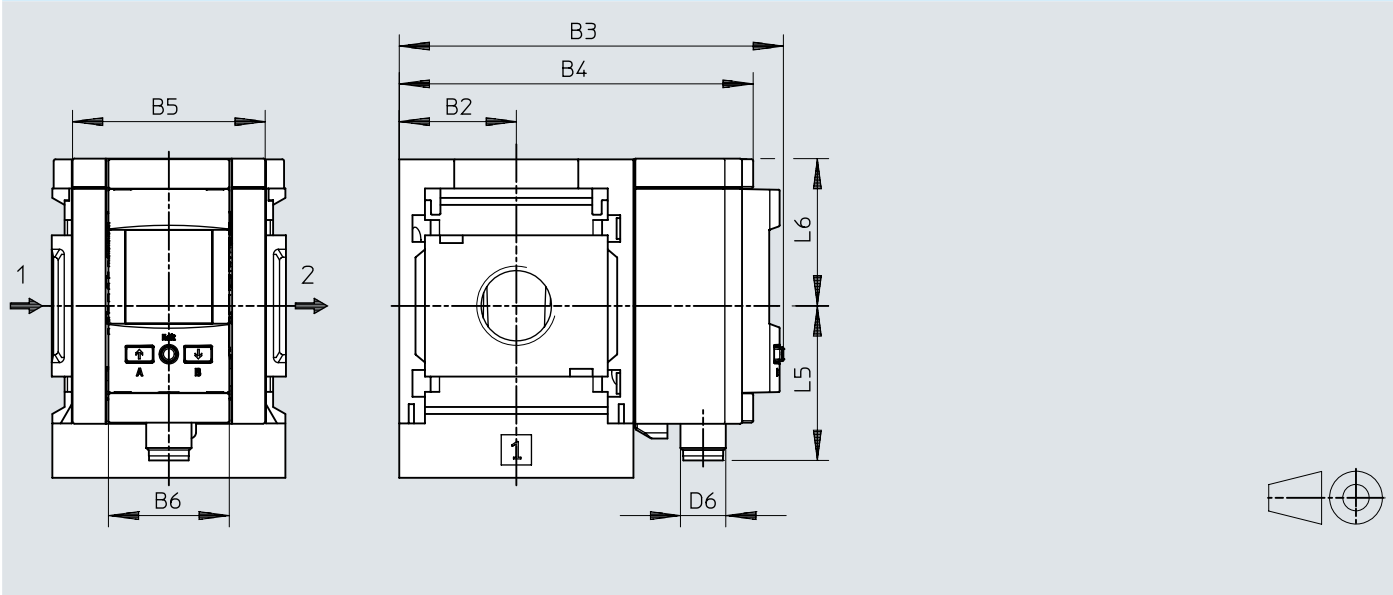
Download CAD data www.festo.com



	B2 [inch]	B3 [inch]	B5 [inch]	B6 [inch]	D6
MS6N-FRM-....AD7, AD8, AD9, AD10	1,22	3,11	~2,01	0,63	M8x1

Dimensions

Dimensions – AD11/AD12 pressure sensor with LCD display Download CAD data www.festo.com

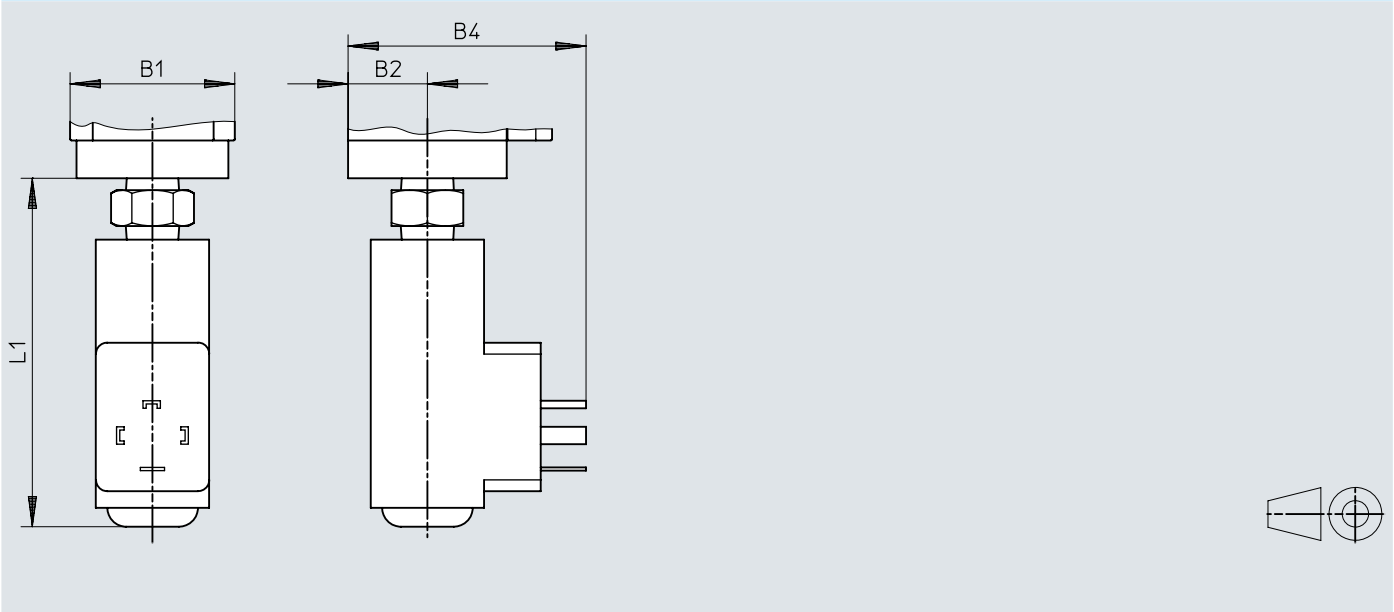


	B2 [inch]	B3 [inch]	B4 [inch]	B5 [inch]	B6 [inch]	D6	L5 [inch]	L6 [inch]
MS6N-FRM-....AD11	1,22	4,01	3,69	2,01	1,26	M12x1	1,62	1,54
MS6N-FRM-....AD12						M8x1	1,49	

Dimensions

Dimensions – X/Y pressure switch with adjustable pressure switching point

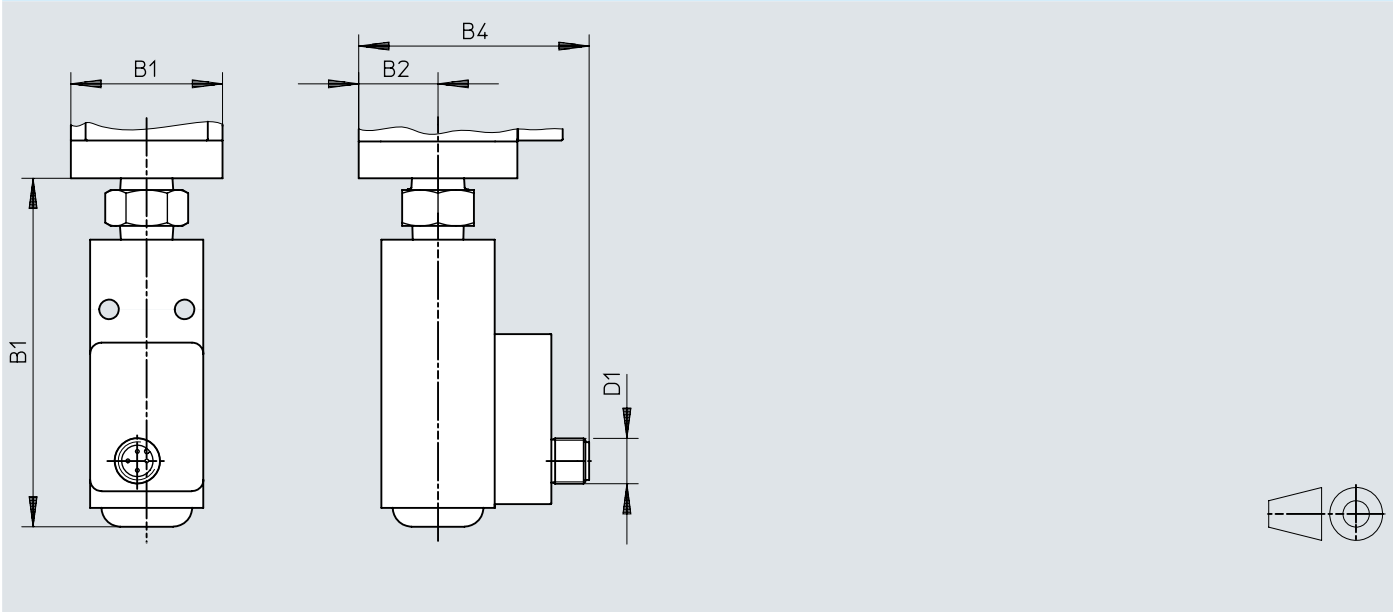
Download CAD data www.festo.com



	B1 [inch]	B2 [inch]	B4 [inch]	L1 [inch]
MS6N-FRM-....X/Y	2,44	1,22	2,87	3,90

Dimensions

Dimensions – M12 pressure switch with adjustable pressure switching point Download CAD data www.festo.com

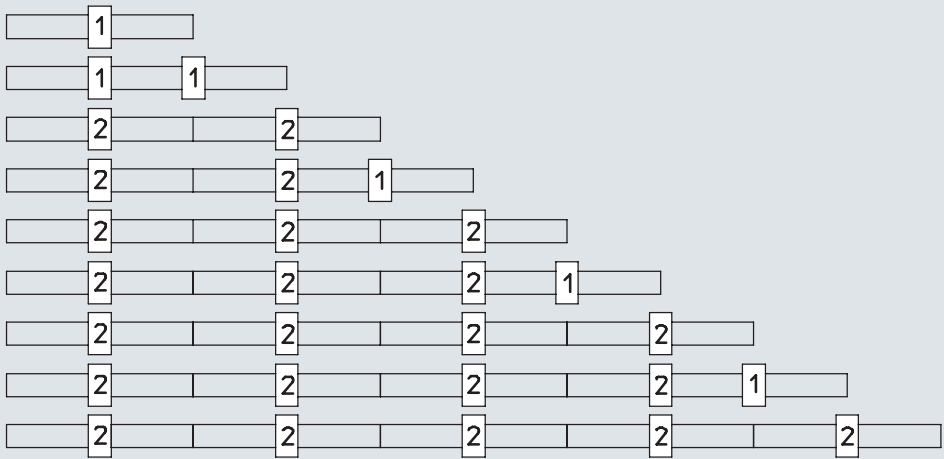
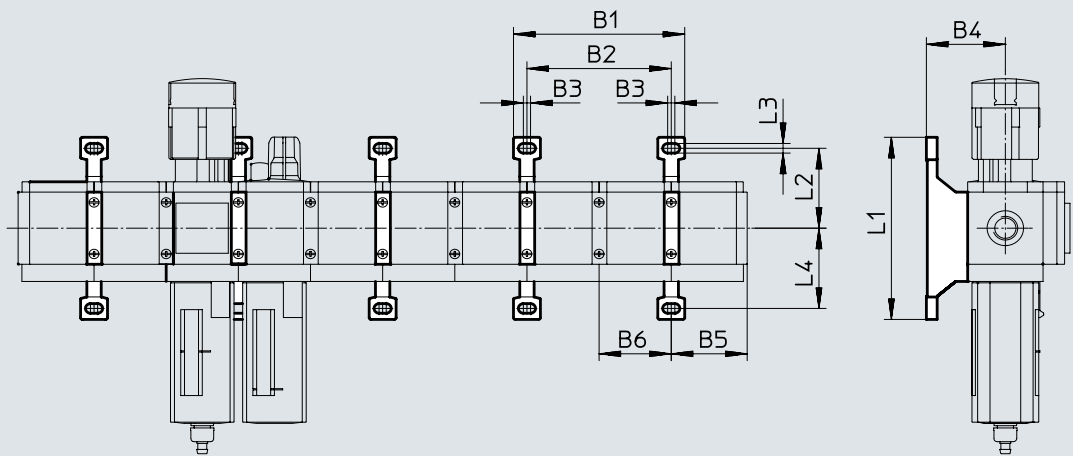


	B1 [inch]	B2 [inch]	B4 [inch]	D1	L1 [inch]
MS6N-FRM-...-M12	2,44	1,22	2,80	M12x1	3,90

Dimensions

Dimensions –

Download CAD data www.festo.com



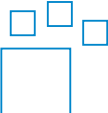
- [1] Mounting bracket WP, WPB, WPE, or WPM-D
[2] Mounting bracket WP, WPB, WPE, or WPM-2D
[3] Number of devices

	B1 ¹⁾ [inch]	B2 ¹⁾ [inch]	B3 [inch]	B4 [inch]	B5 ¹⁾²⁾ [inch]	B6 ¹⁾ [inch]	L1 [inch]	L2 [inch]	L3 [inch]	L4 [inch]
MS6-WP	5,55	4,88	0,18	2,13	2,54	2,44	6,22	2,80	0,26	2,80
MS6-WPB/WPE				3,56						
MS6-WPM-...D	6,61	5,43	0,69	2,13	2,68	2,72	3,88	1,63		1,63

1) 2 Air preparation units with width dimensions
2) With accessories cover cap MS-END

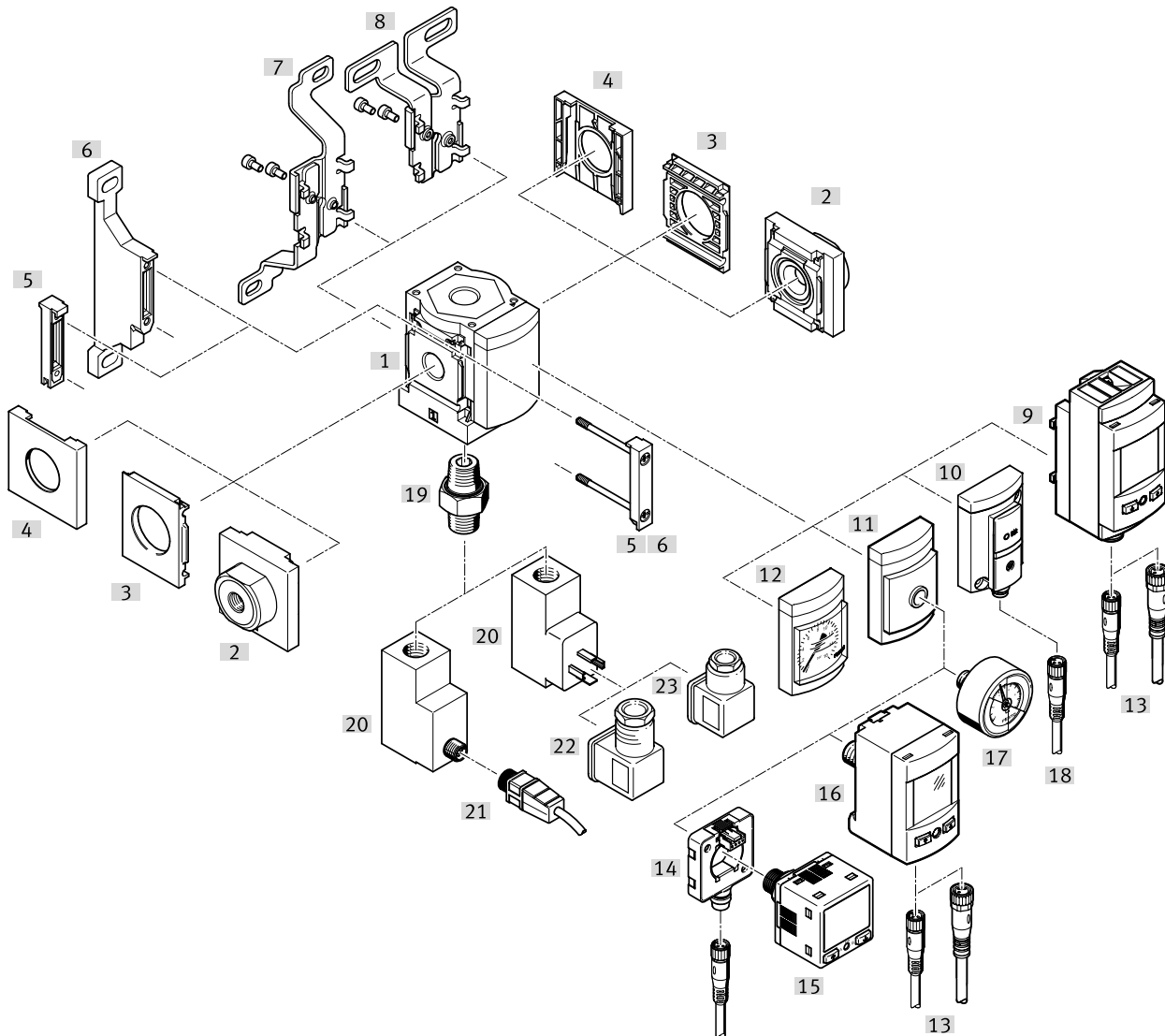
Ordering data

Ordering data						
	Pneumatic connection 1	Flow direction	Structural design	Product weight	Part no.	Type
	1/4 NPT	From right to left	Branching module, With check function	400 g	536982	MS6N-FRM-1/4-I-Z
		From left to right	Branching module	500 g	531965	MS6N-FRM-1/4
	3/8 NPT		Branching module, With check function	400 g	536978	MS6N-FRM-3/8-I
			Branching module	500 g	531967	MS6N-FRM-3/8
				778 g	531973	MS6N-FRM-3/8-Y
	1/2 NPT	From right to left	Branching module, With check function	400 g	536984	MS6N-FRM-1/2-I-Z
		From left to right	Branching module, With check function		536979	MS6N-FRM-1/2-I
			Branching module	500 g	531966	MS6N-FRM-1/2
				778 g	531972	MS6N-FRM-1/2-Y

Ordering information – modular product system			
	Structural design	Part no.	Type
	Branching module	527677	MS6N-FRM

Peripherals overview

Peripherals overview



Accessories			→ Page/Internet
Type/order code	Description		
[1] Branching Module MS6N-FRM	Illustration based on MS4-FRM as an example		ms6n-frm
[2] Connection plate SET MS6-A...	Order code [AG...]; MS6-MV module connector1 [5] or MS6-WP, WPB, WPE, WPM mounting bracket [6] required for installation.		19
[3] Mounting plate MS6-AEND	Module connector MS6-MV1 [5] or mounting bracket MS6-WP, WPB, WPE, WPM [6] is required for mounting.		19
[4] Cover cap MS6-END			19
[5] Module connector MS6-MV1	Included in the scope of delivery		17
[6] Mounting bracket MS6-WP	Order code [WP]		17
[6] Mounting bracket MS6-WPB	Without illustration		17
[6] Mounting bracket MS6-WPE	Not shown		17
[6] Mounting bracket MS6-WPM	Order code [WPM] (not shown)		17
[7] Mounting bracket MS6-WB	Order code [WB]		17
[8] Mounting bracket MS6-WBM	Not available for this size		–
[9] Pressure sensor with LCD display SPAU	Order code [AD11], [AD12]		spau
[10] Pressure sensor with switching indication SDE5	Order code [AD7], [AD8], [AD9], [AD10]		sde5
[11] Adapter for EN pressure gauge 1/8, 1/4	Order code [A8], [A4]		ms6n-frm
[12] Pressure gauge MS	Order code [AG], [RG]		ms6n-frm
[13] Connecting cable NEBA-M8...-LE4, NEBA-M12...-LE4			18
[14] Electrical adapter SASC			17
[15] Pressure sensor SPAN			18

Peripherals overview

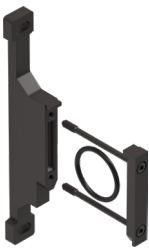
Accessories		→ Page/Internet
Type/order code	Description	
[16] Pressure sensor SPAU-...-T		18
[17] Pressure gauge MA		19
[18] Connecting cable NEBA-M8...-LE3		18
[19] Double nipple ESK	Included in the scope of delivery	19
[20] Pressure switch PEV	Order code: [X], [Y], [M12]	pev
[21] Connecting cable NEBA-M12...-LE4		18
[22] Angled plug socket PEV-1/4-WD-LED-...		20
[23] Plug socket MSSD-C-4P		20

Accessories

Module connector MS6-MV1

	Module connector material	LABS (PWIS) conformity	Product weight	Part no.	Type
	POM, high-alloy stainless steel	VDMA24364-B1/B2-L	33 g	8119204	MS6-MV1

Mounting bracket MS6-WP...

	Bracket material	LABS (PWIS) conformity	Product weight	Part no.	Type
	Die-cast aluminum	VDMA24364-B1/B2-L		1025936	MS6-WPE
			76 g	532195	MS6-WP
			115 g	526074	MS6-WPB
			144 g	526073	MS6-WPM-D
			154 g	532186	MS6-WPM-2D

Mounting bracket MS6-WB

	Bracket material	LABS (PWIS) conformity	Product weight	Part no.	Type
	Steel	VDMA24364-B1/B2-L	121 g	532196	MS6-WB

Electrical adapter SASC

	Electrical connection 1, connection technology	Degree of protection	LABS (PWIS) conformity	Part no.	Type
	M8x1 A-coded as per EN 61076-2-104, Diameter 8 mm, A-coded according to EN 61076-2-104	IP40	VDMA24364-B1/B2-L	8000326	SASC-P4-A-M8-A

Pressure sensor SPAN

	Pneumatic connection	Switching output	Switching element function	Product weight	Part no.	Type
	External thread G1/8, Internal thread M5	2 x PNP or 2 x NPN switchable	N/C contact/N/O contact, switchable	46 g	8035544	SPAN-P10R-G18M-PN-PN-L1

Accessories

Pressure sensor SPAN

	Pneumatic connection	Switching output	Switching element function	Product weight	Part no.	Type
	External thread G1/8, Internal thread M5	2 x PNP or 2 x NPN switchable	N/C contact/N/O contact, switchable	46 g	8035533	SPAN-P10R-G18M-PNLK-PNVBA-L1
	External thread R1/8, Internal thread M5				8035547	SPAN-P10R-R18M-PN-PN-L1
					8035536	SPAN-P10R-R18M-PNLK-PNVBA-L1

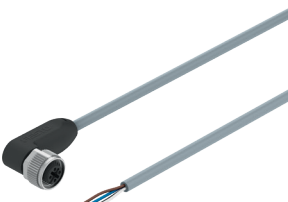
Pressure sensor SPAU-...-T

	Pneumatic connection	Switching output	Electrical connection 1, connection technology	Product weight	Part no.	Type
	R1/8	2 x PNP or 2 x NPN switchable	M12x1 A-coded as per EN 61076-2-101	70 g	8001206	SPAU-P10R-T-R18M-L-PNLK-PNVBA-M12D
			M8x1 A-coded as per EN 61076-2-104		8001203	SPAU-P10R-T-R18M-L-PNLK-PNVBA-M8D
	R1/4		M12x1 A-coded as per EN 61076-2-101		8001208	SPAU-P10R-T-R14M-L-PNLK-PNVBA-M12D
			M8x1 A-coded as per EN 61076-2-104		8001209	SPAU-P10R-T-R14M-L-PNLK-PNVBA-M8D

Connecting cables NEBA, straight

Connecting cables NEBA, straight						
	Electrical connection 1, connection technology	Electrical connection 2, connection technology	Electrical connection 2, number of pins/wires	Cable length	Part no.	Type
	M12x1 A-coded as per EN 61076-2-101	Open end	3	2.5 m	8078236	NEBA-M12G5-U-2.5-N-LE3
				5 m	8078237	NEBA-M12G5-U-5-N-LE3
			4	2.5 m	8078239	NEBA-M12G5-U-2.5-N-LE4
				5 m	8078240	NEBA-M12G5-U-5-N-LE4
	M8x1 A-coded as per EN 61076-2-104		3	2.5 m	8078223	NEBA-M8G3-U-2.5-N-LE3
				5 m	8078224	NEBA-M8G3-U-5-N-LE3
			4	2.5 m	8078227	NEBA-M8G4-U-2.5-N-LE4
				5 m	8078228	NEBA-M8G4-U-5-N-LE4

Connecting cables NEBA, angled

Connecting cables NEBA, angled		Electrical connection 1, connection technology	Electrical connection 2, connection technology	Electrical connection 2, number of pins/wires	Cable length	Part no.	Type
	M12x1 A-coded as per EN 61076-2-101	Open end	3	2.5 m	8078245	NEBA-M12W5-U-2.5-N-LE3	
	5 m			8078246	NEBA-M12W5-U-5-N-LE3		
	4		2.5 m	8078248	NEBA-M12W5-U-2.5-N-LE4		
			5 m	8078249	NEBA-M12W5-U-5-N-LE4		
	M8x1 A-coded as per EN 61076-2-104		3	2.5 m	8078230	NEBA-M8W3-U-2.5-N-LE3	
				5 m	8078231	NEBA-M8W3-U-5-N-LE3	
			4	2.5 m	8078233	NEBA-M8W4-U-2.5-N-LE4	
				5 m	8078234	NEBA-M8W4-U-5-N-LE4	

Accessories

Pressure gauge MA						
	Pneumatic connection	Display range	Scale	Product weight	Part no.	Type
	G1/4	0 ... 16 bar	Double scale, bar (außen), psi (inner scale)	70 g	183901	MA-40-16-G1/4-EN
	R1/8		Single scale, bar (außen)	60 g	525726	MA-40-16-R1/8-E-RG
	R1/4		Double scale, bar (außen), psi (inner scale)	70 g	187080	MA-40-16-R1/4-EN
			Single scale, bar (außen)	75 g	525729	MA-50-16-R1/4-E-RG

Cover cap MS6-END				
	Housing material	LABS (PWIS) conformity	Part no.	Type
	PA-reinforced	VDMA24364-B1/B2-L	538780	MS6-END

Mounting plate MS6-AEND					
	Housing material	LABS (PWIS) conformity	Product weight	Part no.	Type
	PA-reinforced	VDMA24364-B1/B2-L	11.1 g	535408	MS6-AEND1

Sub-base SET MS6-AQ...					
	Pneumatic connection 1	Material of sub-base	Product weight	Part no.	Type
	1/4 NPT	Die-cast aluminum	300 g	526076	MS6N-AQN
	3/8 NPT			526077	MS6N-AQP
	1/2 NPT			526078	MS6N-AQR
	3/4 NPT			526079	MS6N-AQS

Double nipple ESK						
	Pneumatic connection 1	Pneumatic connection 2	Double nipple material	LABS (PWIS) conformity	Part no.	Type
	R1/4	R1/4	Brass	VDMA24364-B1/B2-L	151521	ESK-1/4-1/4
		R1/2			534153	ESK-1/4-1/2

Accessories

Angled plug socket PEV						
	Operating voltage range AC	DC operating voltage range	Electrical connection 1, connection technology	Switching status indication	Part no.	Type
		15 ... 30 V	Connection diagram form A as per EN 175301-803	Yellow LED, Green LED	164274	PEV-1/4-WD-LED-24
	150 ... 230 V	140 ... 180 V			164275	PEV-1/4-WD-LED-230

Plug socket MSSD						
	Electrical connection	Type of mounting	LABS (PWIS) conformity	Product weight	Part no.	Type
	3-pin, Angled socket, Type A, As per DIN EN 175301-803, Rectangular design MSC, Rectangular design MSN1	On air solenoid valve with M3 central screw	VDMA24364-B2-L	22 g	171157	MSSD-C-4P