

Branching module MS6N-FRM

FESTO



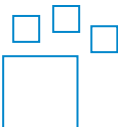
Characteristics

At a glance

- Grid dimension: 62 mm
- Outlet at top and bottom
- Support for additional modules
- Optionally with 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

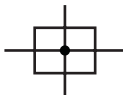
Air distributor with 4 connections

Pneumatic connection

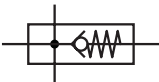
By installing connecting plates it is easier to replace the module if necessary (e.g. when using piping).

Additional function

☐ None



☒ 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.

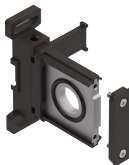
Type of mounting

☒ [WP] Mounting bracket basic design



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

☐ [WPM] Mounting bracket for hooking in service unit components



- For wall mounting an individual device

Characteristics

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

Flow direction

Available with flow in the opposite direction.

Type code

001	Series	
MS	MS series	
002	Size	
6	Grid dimension 62 mm	
003	Thread type	
N	NPT thread	
004	Function	
FRM	Branching module	
005	Pneumatic connection, inch	
1/4	Female thread NPT 1/4	
3/8	Female thread NPT 3/8	
1/2	Female 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	
	None	
I	With integrated non-return function	

007	Pressure gauge alternatives	
	None	
A4	Adapter for EN pressure gauge 1/4, without pressure gauge	
A8	Adapter 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 plug, 4-pin, IO-Link®, PNP, NPN, 0...10 V, 1...5 V, 4...20 mA	
AD12	Pressure sensor with LCD display, M8 plug, 4-pin, 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	
	None	
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), connecting plates not required	
WP	Mounting bracket basic design	
WPM	Mounting bracket for hooking in service unit components	

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

Datasheet

General technical data

Pneumatic connection, port 1	1/4 NPT	3/8 NPT	1/2 NPT
Pneumatic connection, port 2	1/4 NPT	3/8 NPT	1/2 NPT
Pneumatic connection, port 3	1/2 NPT		
Pneumatic connection, port 4	1/2 NPT		
Design	Branching module, With non-return function		
Mounting position	Any		

Standard nominal flow rate (standard)

Pneumatic connection, port 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 upwards	6,000 l/min	4,700 l/min	4,400 l/min
Standard nominal flow rate, outlet downwards	6,400 l/min	4,800 l/min	4,600 l/min

Standard nominal flow rate (with non-return function)

Pneumatic connection, port 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 upwards	2,700 l/min	2,900 l/min	3,100 l/min
Standard nominal flow rate, outlet downwards	2,800 l/min	3,200 l/min	3,300 l/min

Electrical data (only in a combination with a pressure switch)

Operational voltage range AC	0 ... 250 V
Operational voltage range DC	0 ... 125 V

Operating and environmental conditions

Operating pressure	0 ... 20 bar
Operating medium	Compressed air to ISO 8573-1:2010 [7:4:4], Inert gas
Note on operating and pilot medium	Lubricated operation possible (in which case lubricated operation will always be required)
Ambient temperature	-10 ... 60°C
Media temperature	-10 ... 60°C
Storage temperature	-10 ... 60°C
Corrosion resistance class CRC ¹⁾	2 - Moderate corrosion stress
Suitable for use with food 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 that are in direct contact with a normal industrial environment.

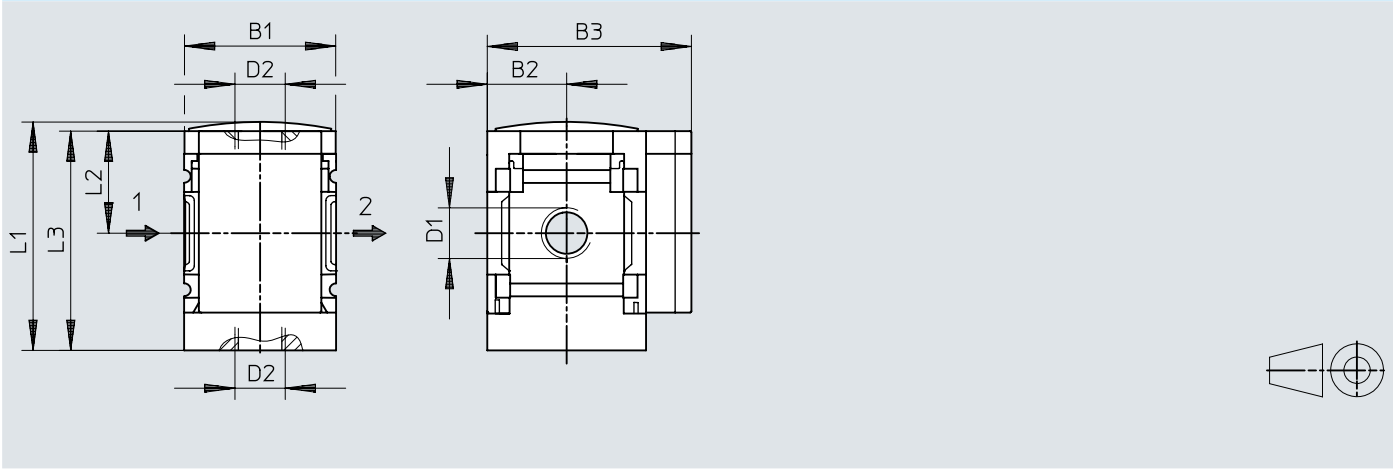
2) More information www.festo.com/catalogue/ms-frm → Support/Downloads.

Materials

Material housing	Die-cast aluminium
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

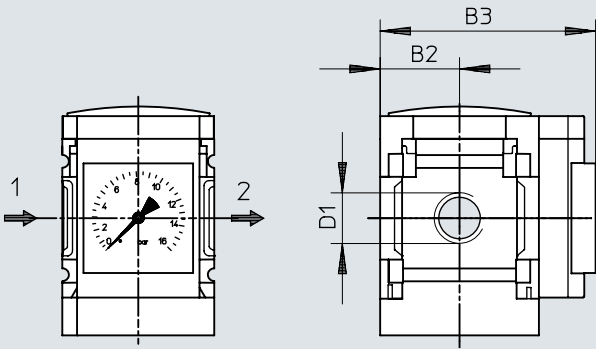


	B1 [inch]	B2 [inch]	B3 [inch]	D1	D2	L1 [inch]	L2 [inch]	L3 [inch]
MS6N-FRM-1/4	2,44	1,22	2,99	1/4 NPT	1/2 NPT	3,43	1,54	3,33
MS6N-FRM-3/8				3/8 NPT				
MS6N-FRM-1/2				1/2 NPT				

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



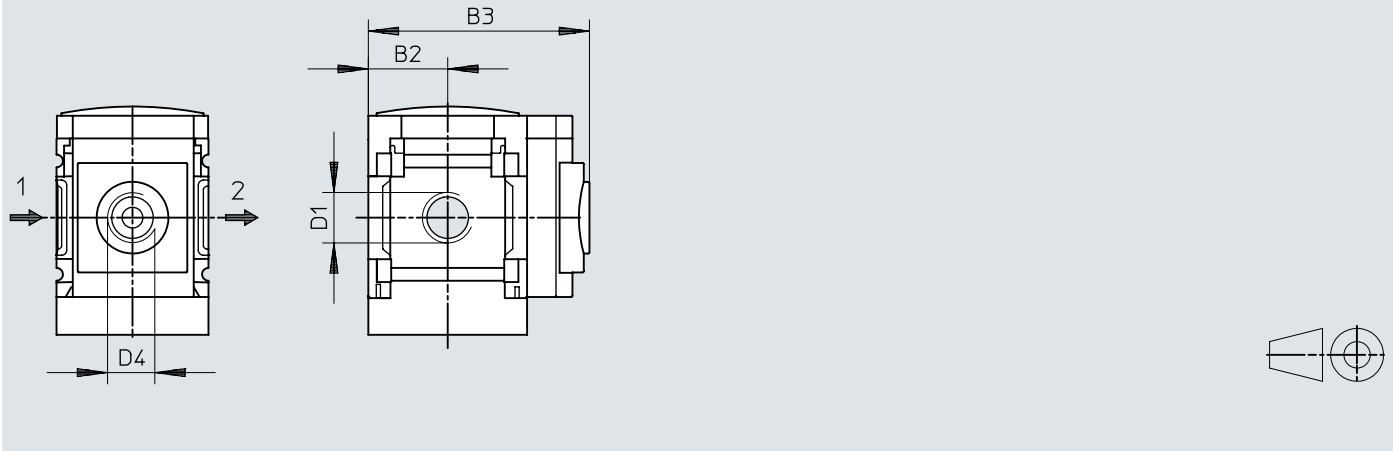
	B2 [inch]	B3		D1
		1) [inch]	l [inch]	
MS6N-FRM-1/4-...-AG	1,22	3,03	3,35	1/4 NPT
MS6N-FRM-3/8-...-AG				3/8 NPT
MS6N-FRM-1/2-...-AG				1/2 NPT
MS6N-FRM-1/4-...-RG		3,09	3,41	1/4 NPT
MS6N-FRM-3/8-...-RG				3/8 NPT
MS6N-FRM-1/2-...-RG				1/2 NPT

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



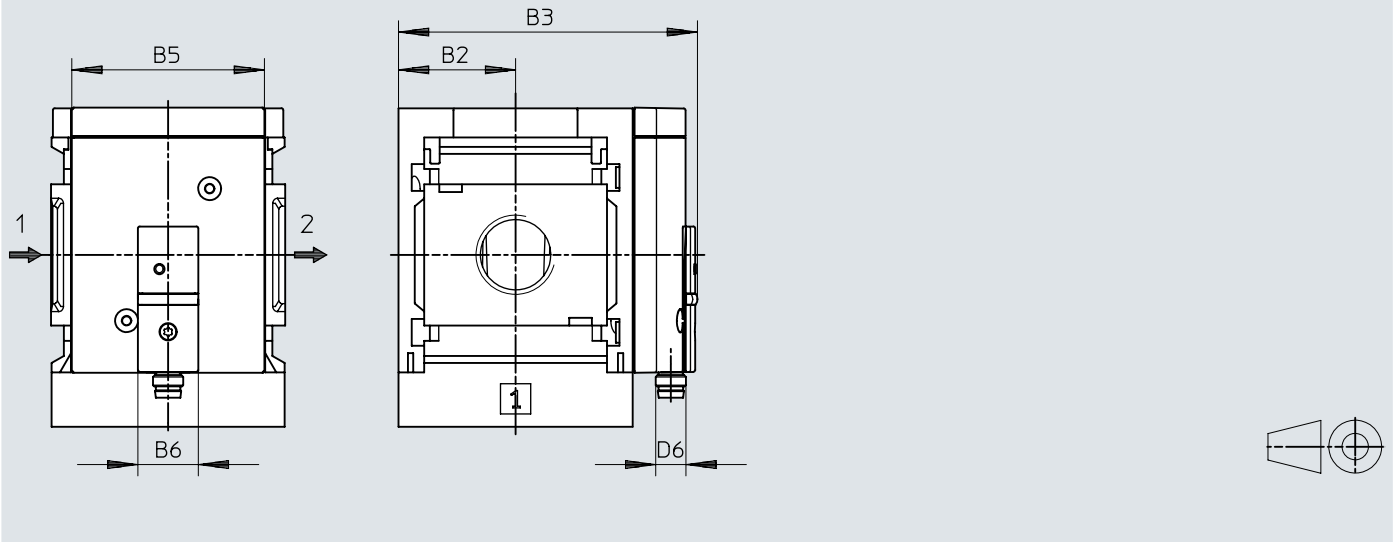
	B2 [inch]	B3 [inch]	D1	D4
MS6N-FRM-1/4-...-A8	1,22	3,09	1/4 NPT	1/8 NPT
MS6N-FRM-3/8-...-A8			3/8 NPT	
MS6N-FRM-1/2-...-A8			1/2 NPT	
MS6N-FRM-1/4-...-A4			1/4 NPT	1/4 NPT
MS6N-FRM-3/8-...-A4			3/8 NPT	
MS6N-FRM-1/2-...-A4			1/2 NPT	

1) Standard

Dimensions

Dimensions – AD7/AD8/AD9/AD10 Pressure sensor with status indicator

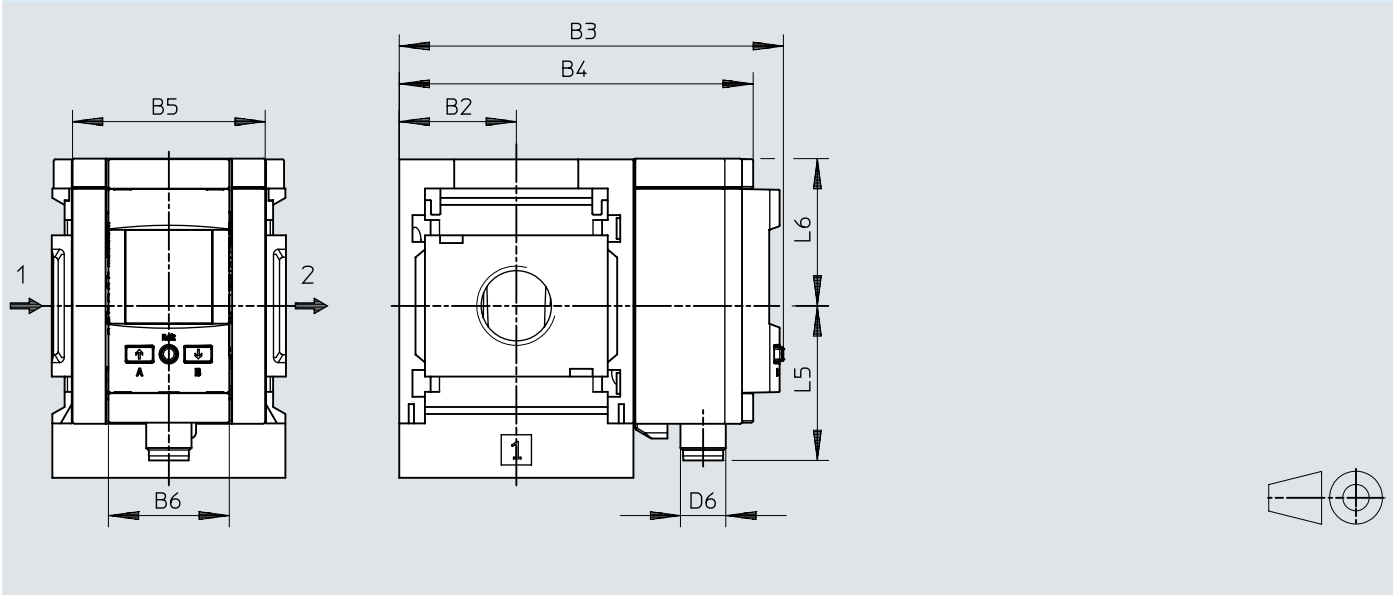
Download CAD data www.festo.com



	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

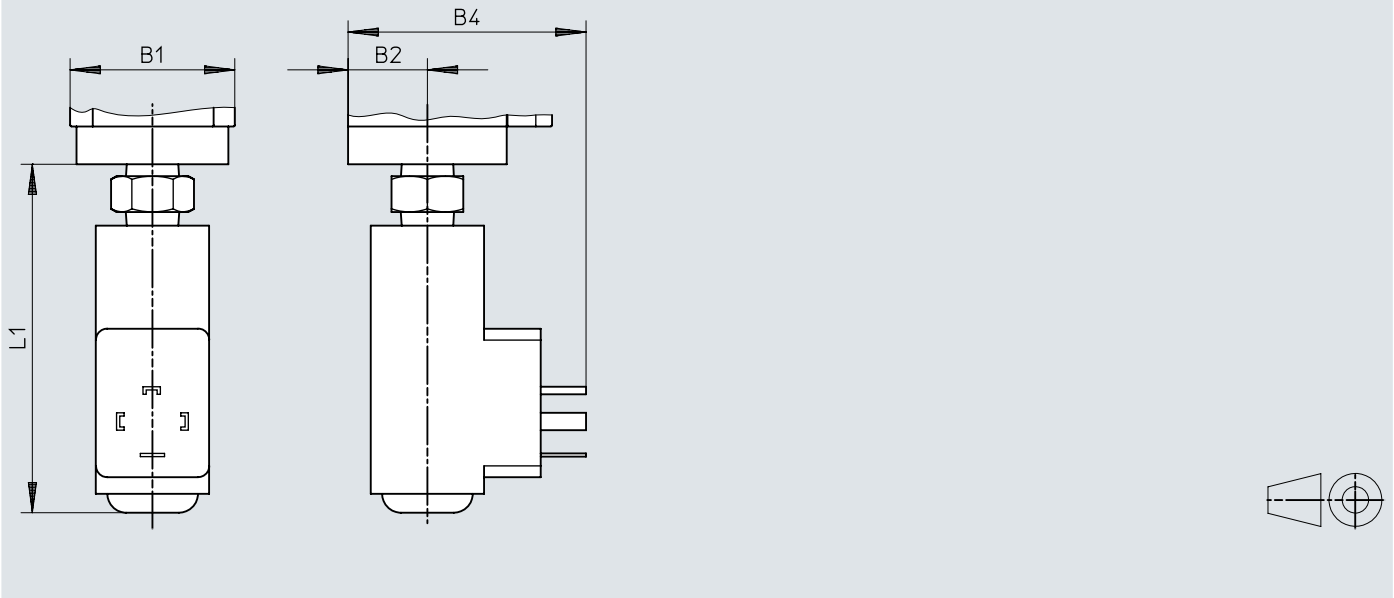


	B2 [inch]	B3 [inch]	B4 [inch]	B5 [inch]	B6 [inch]	D6	L5 [inch]	L6 [inch]
MS6N-FRM-....AD11	1,22	4,01	3,69	2,01	1,26	M12x1	1,62	1,54
MS6N-FRM-....AD12						M8x1	1,49	

Dimensions

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

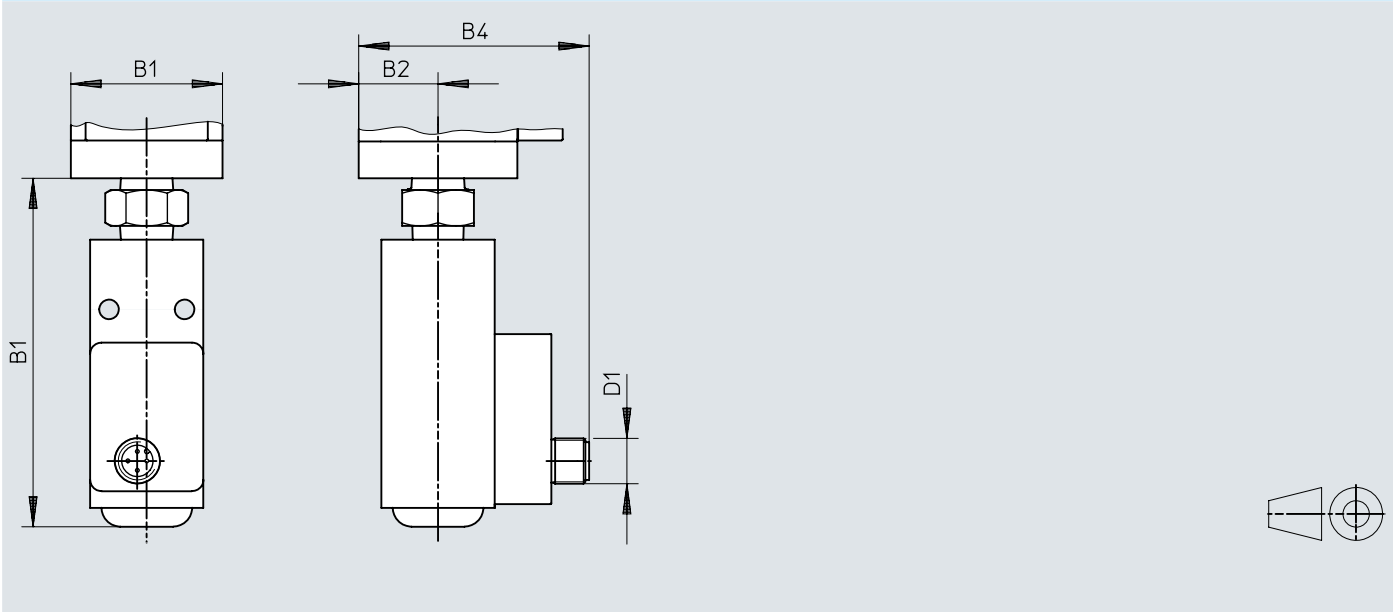
Download CAD data www.festo.com



	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

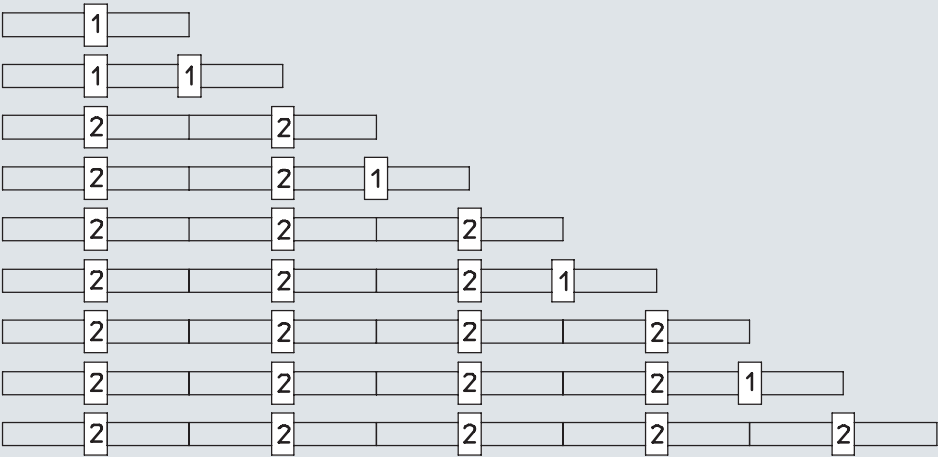
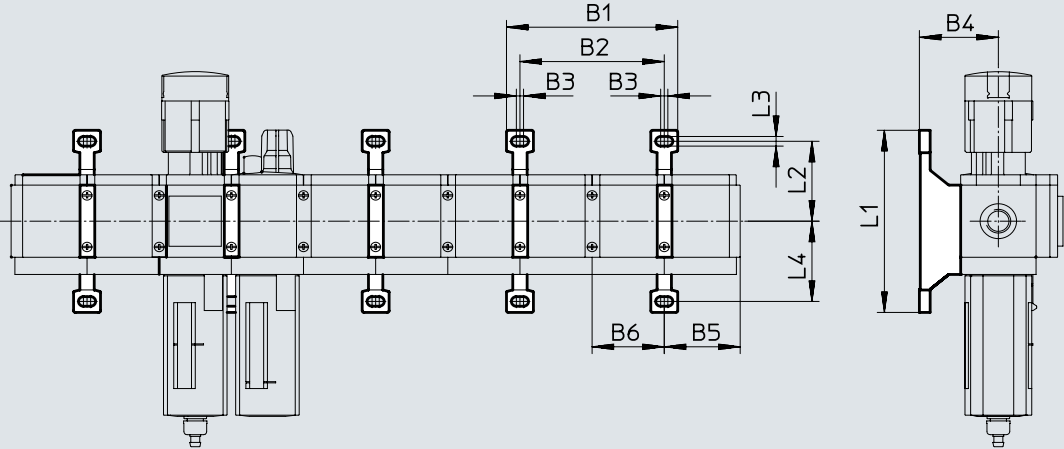


	B1 [inch]	B2 [inch]	B4 [inch]	D1	L1 [inch]
MS6N-FRM-...-M12	2,44	1,22	2,80	M12x1	3,90

Dimensions

Dimensions –

Download CAD data www.festo.com



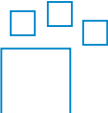
- [1] Mounting bracket WP, WPB, WPE or WPM-D
- [2] Mounting bracket WP, WPB, WPE or WPM-2D
- [3] Number of components

	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 service unit components with grid dimension
2) With accessories cover cap MS-END

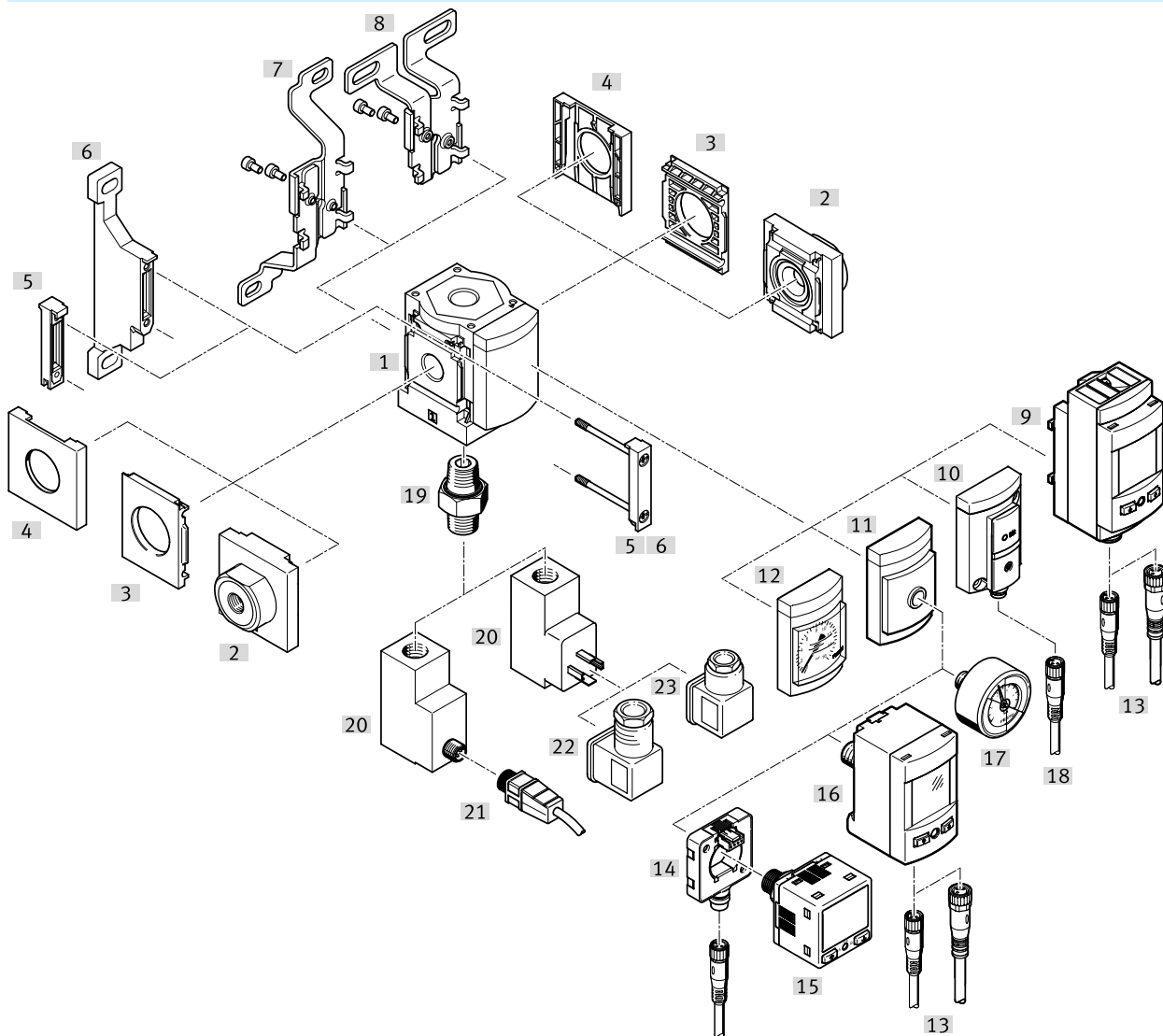
Ordering data

Ordering data						
	Pneumatic connection, port 1	Flow direction	Design	Product weight	Part no.	Type
	1/4 NPT	From right to left	Branching module, With non-return 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 non-return 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 non-return function	400 g	536984	MS6N-FRM-1/2-I-Z
		From left to right	Branching module, With non-return 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 data – Modular product system			
	Design	Part no.	Type
	Branching module	527677	MS6N-FRM

Peripherals

Peripherals overview



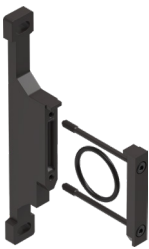
Accessories			→ Link
Type/order code	Description		
[1] Branching module MS6N-FRM	Illustration based on MS4-FRM as an example		ms6n-frm
[2] Connection plate set MS6-A...	Order code [AG...]; MS6-MV module connector1 [5] or MS6-WP, WPB, WPE, WPM mounting bracket [6] required for installation.		20
[3] Mounting 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] (without illustration)		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 status indicator 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

Accessories		→ Link
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	20
[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					
	Material module connector	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...					
	Material bracket	LABS (PWIS) conformity	Product weight	Part no.	Type
	Die-cast aluminium	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					
	Material bracket	LABS (PWIS) conformity	Product weight	Part no.	Type
	Steel	VDMA24364-B1/B2-L	121 g	532196	MS6-WB

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

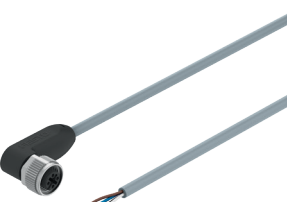
Pressure sensor SPAN						
	Pneumatic connection	Switching output	Switching element function	Product weight	Part no.	Type
	Male thread G1/8, Female thread M5	2 x PNP or 2 x NPN, switchable	NC or NO, switchable	46 g	8035544	SPAN-P10R-G18M-PN-PN-L1

Accessories

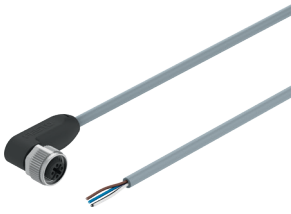
Pressure sensor SPAN						
	Pneumatic connection	Switching output	Switching element function	Product weight	Part no.	Type
	Male thread G1/8, Female thread M5	2 x PNP or 2 x NPN, switchable	NC or NO, switchable	46 g	8035533	SPAN-P10R-G18M-PNLK-PNVBA-L1
	Male thread R1/8, Female thread M5				8035547	SPAN-P10R-R18M-PN-PN-L1
					8035536	SPAN-P10R-R18M-PNLK-PNVBA-L1

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

Connecting cables NEBA, straight						
	Electrical connection 1, connector system	Electrical connection 2, connector system	Electrical connection 2, number of connections/ cores	Cable length	Part no.	Type
	M12x1, A-coded to 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, to 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						
	Electrical connection 1, connector system	Electrical connection 2, connector system	Electrical connection 2, number of connections/cores	Cable length	Part no.	Type
	M12x1, A-coded to EN 61076-2-101	Open end	3	2.5 m	8078245	NEBA-M12W5-U-2.5-N-LE3

Accessories

Connecting cables NEBA, angled						
	Electrical connection 1, connector system	Electrical connection 2, connector system	Electrical connection 2, number of connections/ cores	Cable length	Part no.	Type
	M12x1, A-coded to EN 61076-2-101	Open end	3	5 m	8078246	NEBA-M12W5-U-5-N-LE3
	M8x1, A-coded, to EN 61076-2-104		4	2.5 m	8078248	NEBA-M12W5-U-2.5-N-LE4
				5 m	8078249	NEBA-M12W5-U-5-N-LE4
			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	

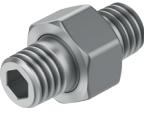
Pressure gauge MA						
	Pneumatic connection	Indicating range	Scale	Product weight	Part no.	Type
	G1/4	0 ... 16 bar	Double scale, Bar (external), psi (inner scale)	70 g	183901	MA-40-16-G1/4-EN
	R1/8		Single scale, Bar (external)	60 g	525726	MA-40-16-R1/8-E-RG
	R1/4		Double scale, Bar (external), psi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

Cover cap MS6-END				
	Material housing	LABS (PWIS) conformity	Part no.	Type
	Reinforced PA	VDMA24364-B1/B2-L	538780	MS6-END

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

Accessories

Connecting plate SET MS6-AQ...					
	Pneumatic connection, port 1	Material sub-base	Product weight	Part no.	Type
	1/4 NPT	Die-cast aluminium	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, port 1	Pneumatic connection, port 2	Material double nipple	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

Angled plug socket PEV					
	Operational voltage range AC	Operational voltage range DC	Electrical connection 1, connector system	Switching status indication	Part no. Type
		15 ... 30 V	Plug pattern type A to 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, To DIN EN 175301-803, Square design MSC, Square design MSN1	On solenoid valve via M3 central screw	VDMA24364-B2-L	22 g	171157 MSSD-C-4P