

Branching module MS4N-FRM

FESTO



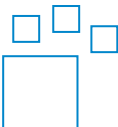
Characteristics

At a glance

- Grid dimension: 40 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 [ms4n-frm](#)



Configurable product

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

Function

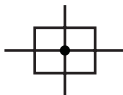
Air distributor with 4 connections

Pneumatic connection

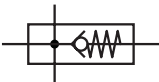
By installing connecting plates it is easier to replace the module if necessary (e.g. when using piping).

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.

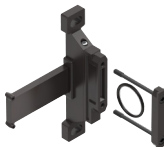
Type of mounting

[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



- For wall mounting an individual device

[WBM]

Mounting centrally at rear (wall mounting top), connecting plates not required



- For wall mounting an individual device

Flow direction

Available with flow in the opposite direction.

Type code

001	Series	
MS	MS series	
002	Size	
4	Grid dimension 40 mm	
003	Thread type	
N	NPT thread	
004	Function	
FRM	Branching module	
005	Pneumatic connection, inch	
1/8	Female thread NPT 1/8	
1/4	Female thread NPT 1/4	
AQK	Sub-base NPT1/8	
AQN	Sub-base NPT1/4	
AQP	Sub-base NPT3/8	
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	
WBM	Mounting centrally at rear (wall mounting top), 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	1/8 NPT	1/4 NPT
Pneumatic connection, port 2	1/8 NPT	1/4 NPT
Pneumatic connection, port 3	1/4 NPT	
Pneumatic connection, port 4	1/4 NPT	
Design	Branching module	Branching module, With non-return function
Mounting position	Any	

Standard nominal flow rate (standard)

Pneumatic connection, port 1	1/8 NPT	1/4 NPT
Standard nominal flow rate in main flow direction 1->2	1,800 l/min	4,600 l/min
Standard nominal flow rate, outlet upwards	1,600 l/min	1,500 l/min
Standard nominal flow rate, outlet downwards	1,700 l/min	1,500 l/min

Standard nominal flow rate (with non-return function)

Pneumatic connection, port 1	1/4 NPT
Standard nominal flow rate in main flow direction 1->2	1,750 l/min
Standard nominal flow rate, outlet upwards	500 l/min
Standard nominal flow rate, outlet downwards	500 l/min

Operating and environmental conditions

Operating pressure	0 ... 14 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) Further information www.festo.com/x/topic/crc

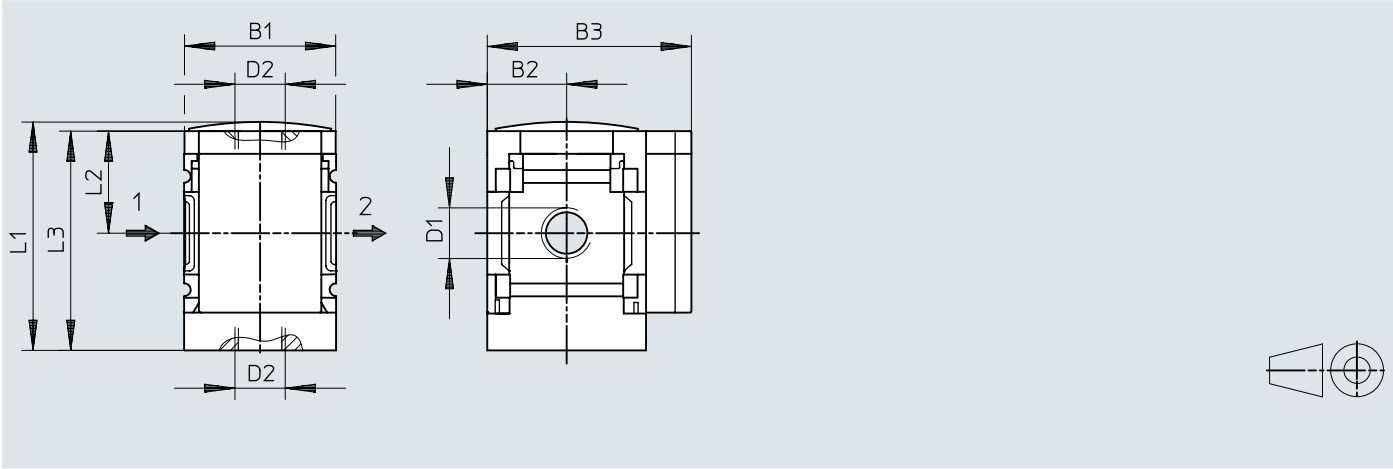
2) Further information www.festo.com/catalogue/ms-firm → Support/Downloads.

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

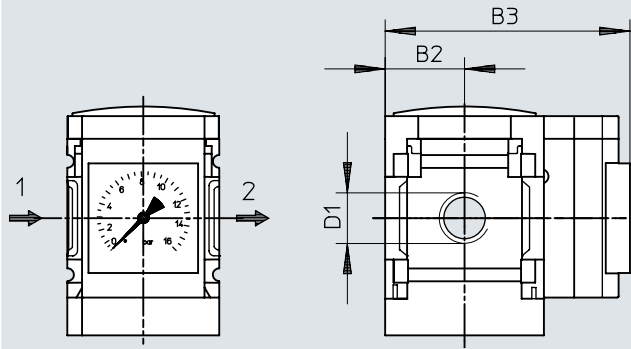


	B1 [inch]	B2 [inch]	B3 [inch]	D1	D2	L1 [inch]	L2 [inch]	L3 [inch]
MS4N-FRM-1/8	1,57	0,83	2,13	1/8 NPT	1/4 NPT	2,38	1,06	2,28
MS4N-FRM-1/4				1/4 NPT				

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



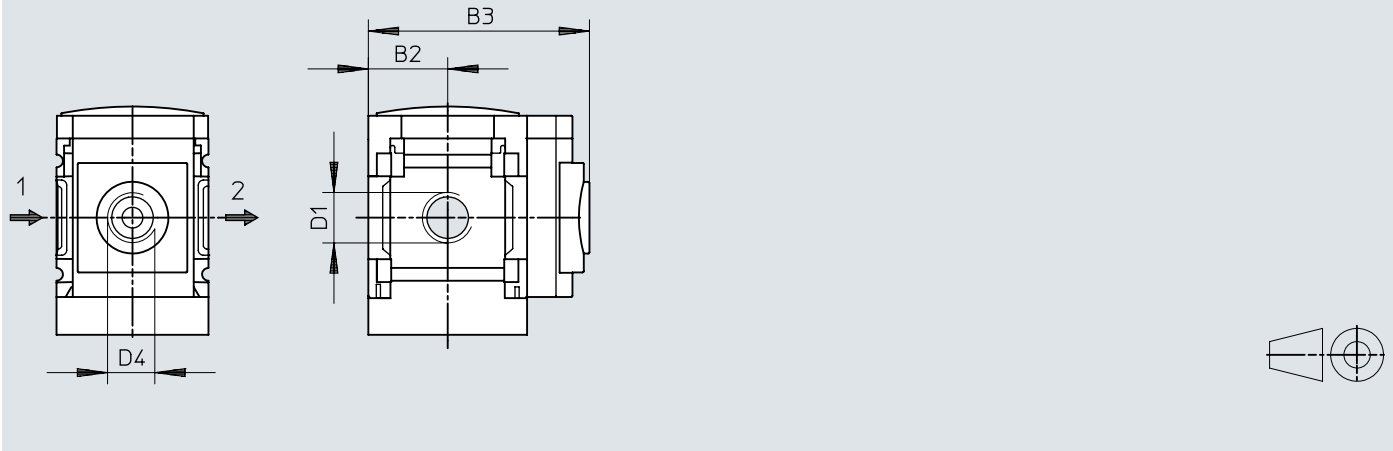
	B2 [inch]	B3 [inch]	D1
MS4N-FRM-1/8-...-AG	0,83	2,56	1/8 NPT
MS4N-FRM-1/4-...-AG			1/4 NPT
MS4N-FRM-1/8-...-RG		2,62	1/8 NPT
MS4N-FRM-1/4-...-RG			1/4 NPT

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



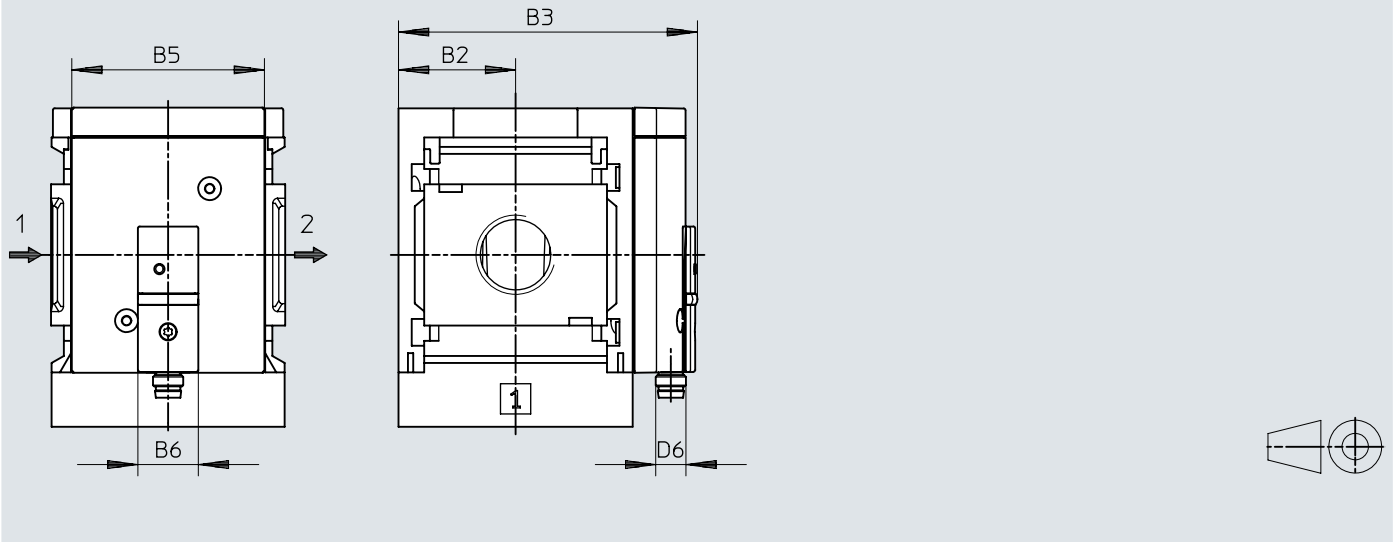
	B2 [inch]	B3 [inch]	D1	D4
MS4N-FRM-1/8-...-A8	0,83	2,30	1/8 NPT	1/8 NPT
MS4N-FRM-1/4-...-A8			1/4 NPT	
MS4N-FRM-1/8-...-A4			1/8 NPT	1/4 NPT
MS4N-FRM-1/4-...-A4			1/4 NPT	

1) Standard

Dimensions

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

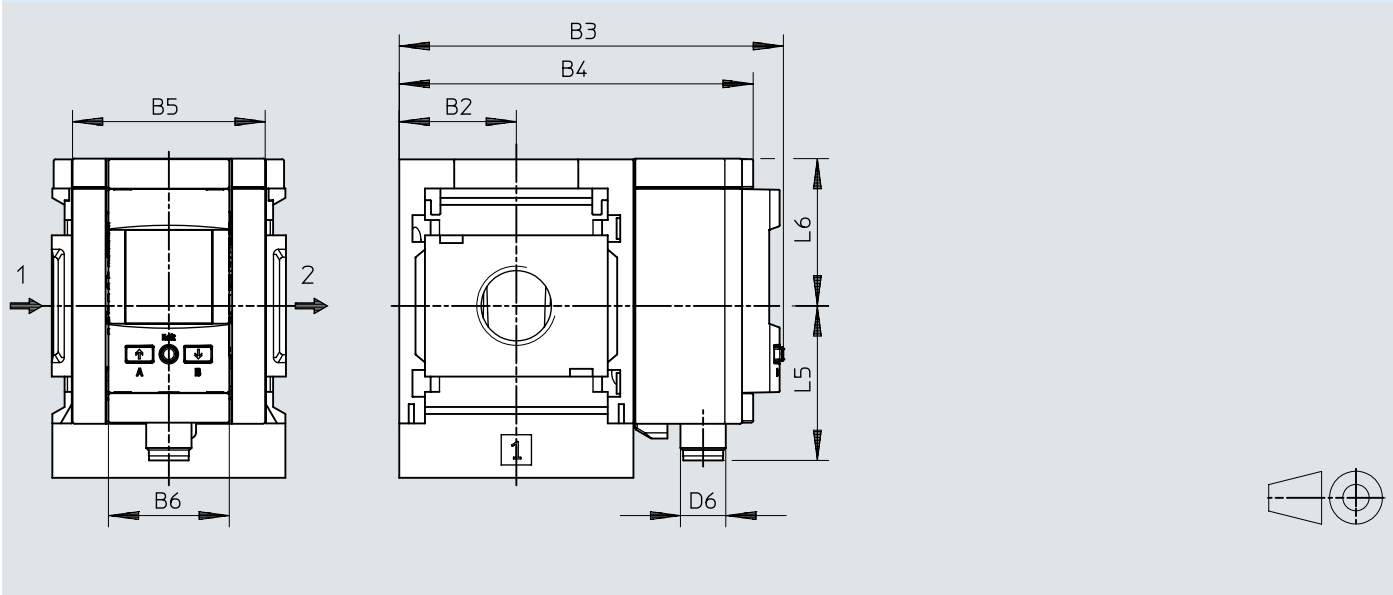
Download CAD data www.festo.com



	B2 [inch]	B3 [inch]	B5 [inch]	B6 [inch]	D6
MS4N-FRM-....AD7/AD8/AD9/AD10	0,83	2,33	~1,26	0,63	M8x1

Dimensions

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

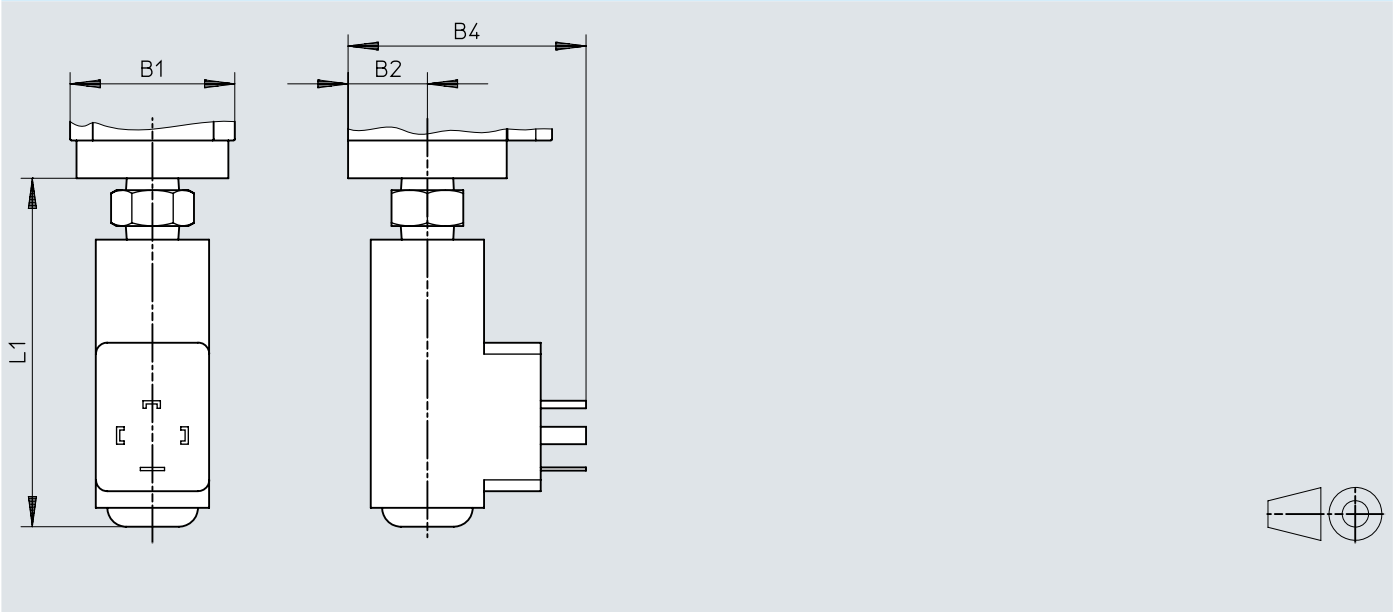


	B2 [inch]	B3 [inch]	B4 [inch]	B5 [inch]	B6 [inch]	D6	L5 [inch]	L6 [inch]
MS4N-...-AD11	0,83	3,20	2,89	1,26	1,26	M12x1	1,62	1,54
MS4N-...-AD12						M8x1	1,49	

Dimensions

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

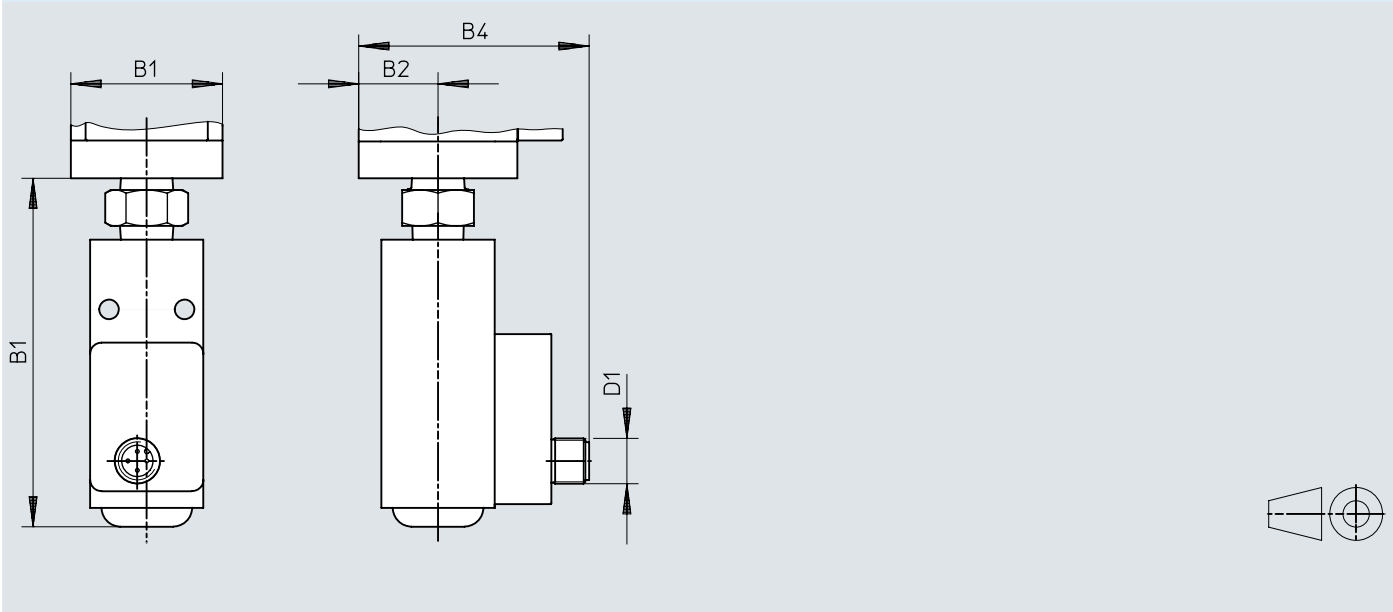
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	B1 [inch]	B2 [inch]	B4 [inch]	L1 [inch]
MS4N-FRM-....X/Y	1,57	0,83	2,48	3,61

Dimensions

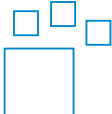
Dimensions – M12 pressure switch with adjustable pressure switching point [Download CAD data](#) www.festo.com



	B1 [inch]	B2 [inch]	B4 [inch]	D1	L1 [inch]
MS4N-FRM-...-M12	1,57	0,83	2,40	M12x1	3,61

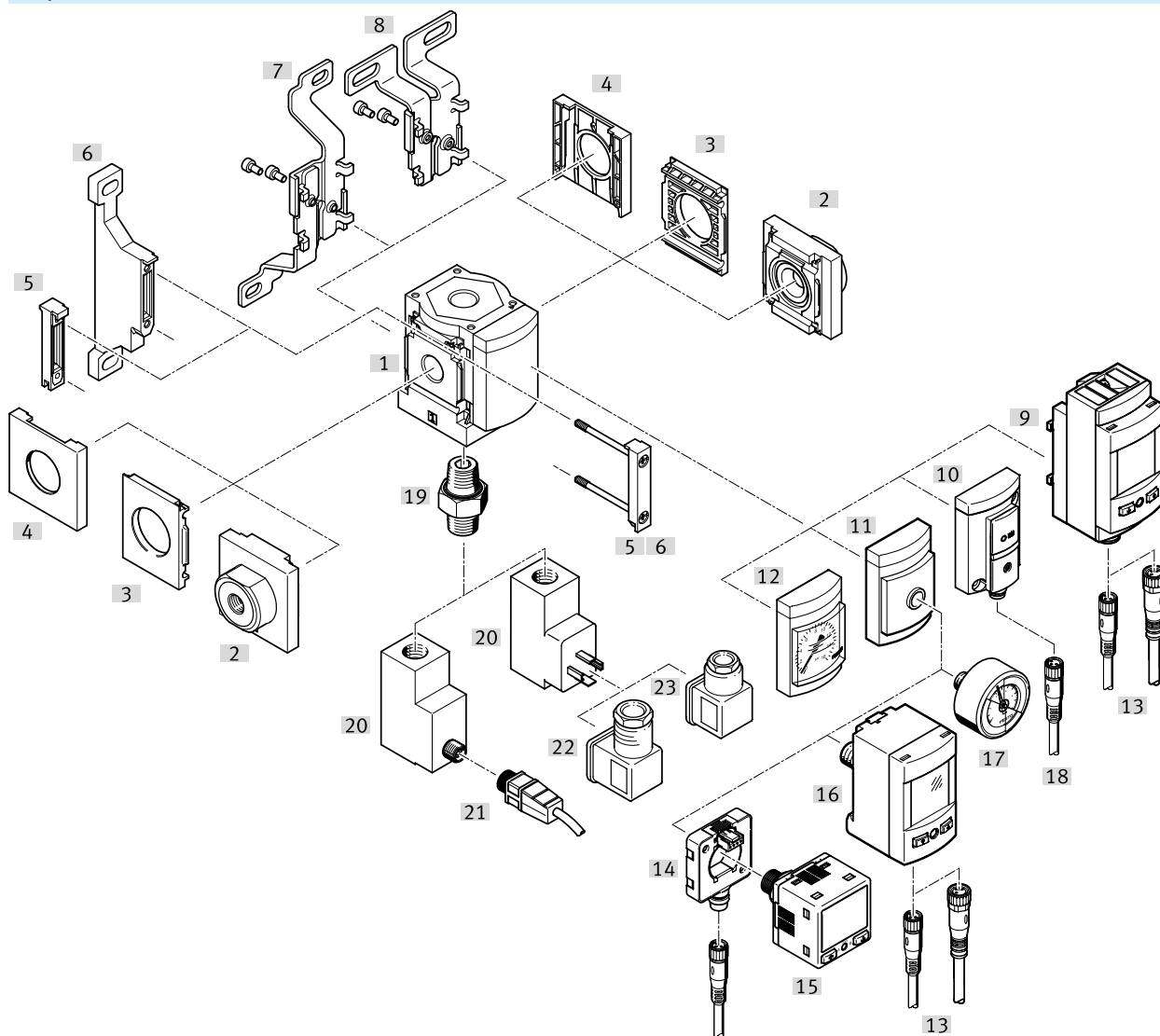
Ordering data

Ordering data						
	Pneumatic connection, port 1	Flow direction	Design	Product weight	Part no.	Type
	1/8 NPT	From left to right	Branching module	165 g	531950	MS4N-FRM-1/8
	1/4 NPT	From right to left	Branching module, With non-return function	160 g	536981	MS4N-FRM-1/4-I-Z
		From left to right			536976	MS4N-FRM-1/4-I
			Branching module	165 g	531949	MS4N-FRM-1/4
				405 g	531953	MS4N-FRM-1/4-Y

Ordering information – Modular product system			
	Design	Part no.	Type
	Branching module	527704	MS4N-FRM

Peripherals

Peripherals overview

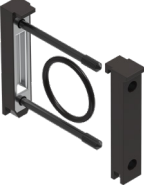


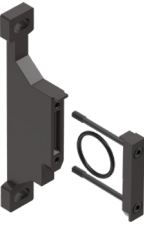
Accessories		→ Link
Type/order code	Description	
[1] Branching module MS4N-FRM		ms4n-frm
[2] Connection plate set MS4-A...	Order code [AG...]; module connector MS4-MV1 is used for mounting [5] or mounting bracket MS4-WP, WPB, WPE, WPM [6] required.	19
[3] Mounting plate MS4-AEND	Order code [AG...]; module connector MS4-MV1 [5] or mounting bracket MS4-WP, WPB, WPE, WPM [6] is required for mounting.	18
[4] Cover cap MS4-END		18
[5] Module connector MS4-MV1	Included in the scope of delivery	16
[6] Mounting bracket MS4-WP	Order code [WP]	16
[6] Mounting bracket MS4-WPB	Without illustration	16
[6] Mounting bracket MS4-WPE	Not shown	16
[6] Mounting bracket MS4-WPM	Order code [WPM] (without illustration)	16
[7] Mounting bracket MS4-WB	Order code [WB]	16
[8] Mounting bracket MS4-WBM	Order code [WBM]	16
[9] Pressure sensor with LCD display SPAU	Order code [AD11], [AD12]	spau
[10] Pressure sensor with operational status indicator SDE5	Order code [AD7], [AD8], [AD9], [AD10]	sde5
[11] Adapter for EN pressure gauge 1/8, 1/4	Order code [A8], [A4]	ms4n-frm
[12] Pressure gauge MS	Order code [AG], [RG]	ms4n-frm
[13] Connecting cable NEBA-M8...-LE4, NEBA-M12...-LE4		17
[14] Electrical adapter SASC		17

Peripherals

Accessories		→ Link
Type/order code	Description	
[15] Pressure sensor SPAN		17
[16] Pressure sensor SPAU-...-T		17
[17] Pressure gauge MA		18
[18] Connecting cable NEBA-M8...-LE3		17
[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		17
[22] Angled plug socket PEV-1/4-WD-LED-...		19
[23] Plug socket MSSD-C-4P		19

Accessories

Module connector MS4-MV1					
	Material module connector	LABS (PWIS) conformity	Product weight	Part no.	Type
	POM, High-alloy stainless steel	VDMA24364-B1/B2-L	13 g	8119201	MS4-MV1

Mounting bracket MS4-WP...					
	Material bracket	LABS (PWIS) conformity	Product weight	Part no.	Type
	Die-cast aluminium	VDMA24364-B1/B2-L		558869	MS4-WPE
			39 g	532184	MS4-WP
			45 g	526060	MS4-WPM-D
			55 g	526063	MS4-WPB
				526061	MS4-WPM-2D

Mounting bracket MS4-WB					
	Material bracket	LABS (PWIS) conformity	Product weight	Part no.	Type
	Steel	VDMA24364-B1/B2-L	46 g	532185	MS4-WB

Mounting bracket MS4-WBM					
	Material bracket	LABS (PWIS) conformity	Product weight	Part no.	Type
	Steel	VDMA24364-B1/B2-L	48 g	526062	MS4-WBM

Accessories

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
					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	

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	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, to 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

Pressure gauge MA						
	Pneumatic con- nection	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 MS4-END				
	Material housing	LABS (PWIS) conformity	Part no.	Type
	Reinforced PA	VDMA24364-B1/B2-L	538779	MS4-END

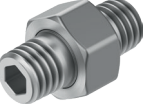
Mounting plate MS4-AEND					
	Material plate	LABS (PWIS) conformity	Product weight	Part no.	Type
	Reinforced PA	VDMA24364-B1/B2-L	4 g	542966	MS4-AEND

Accessories

Connecting plate SET MS4-AQ...

	Pneumatic connection, port 1	Material sub-base	LABS (PWIS) conformity	Product weight	Part no.	Type
	1/8 NPT	Die-cast aluminium	VDMA24364-B1/B2-L	128 g	526065	MS4N-AQK
	1/4 NPT				526066	MS4N-AQN
	3/8 NPT				526067	MS4N-AQP

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