

Branching module MS4N-FRM

FESTO



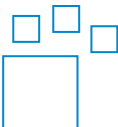
Characteristics

At a glance

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



Configurable product

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

Function

Air distributor with 4 connections

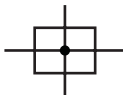
Pneumatic connection

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

Additional function

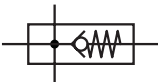
[]

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]

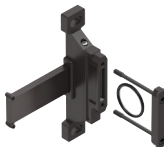
Mounting bracket standard design



- 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



- For wall mounting an individual device

[WBM]

Mounting centrally at rear (wall mounting top), sub-bases
not required



- For wall mounting an individual device

Flow direction

Available with opposite flow direction.

Type code

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

Standard nominal flow rate (standard)

Pneumatic connection 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 at top	1,600 l/min	1,500 l/min
Standard nominal flow rate outlet down	1,700 l/min	1,500 l/min

Standard nominal flow rate (with non-return function)

Pneumatic connection 1	1/4 NPT
Standard nominal flow rate in main flow direction 1 -> 2	1,750 l/min
Standard nominal flow rate outlet at top	500 l/min
Standard nominal flow rate outlet down	500 l/min

Operating and environmental conditions

Operating pressure	0 ... 14 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) Further information, visit www.festo.com/x/topic/kbk

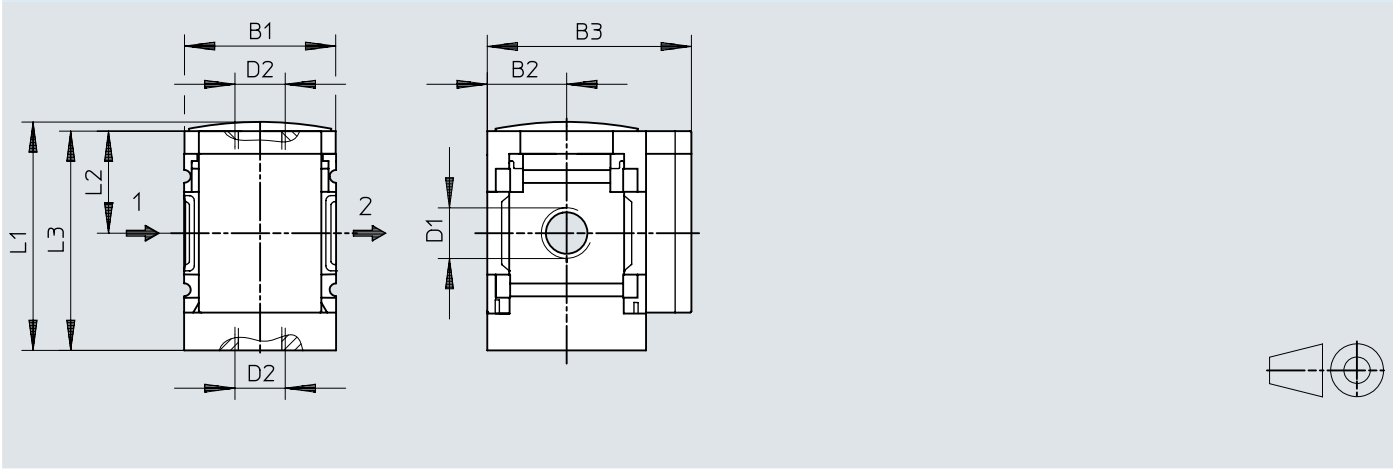
2) Further information www.festo.com/catalogue/ms-firm → Support/Downloads.

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

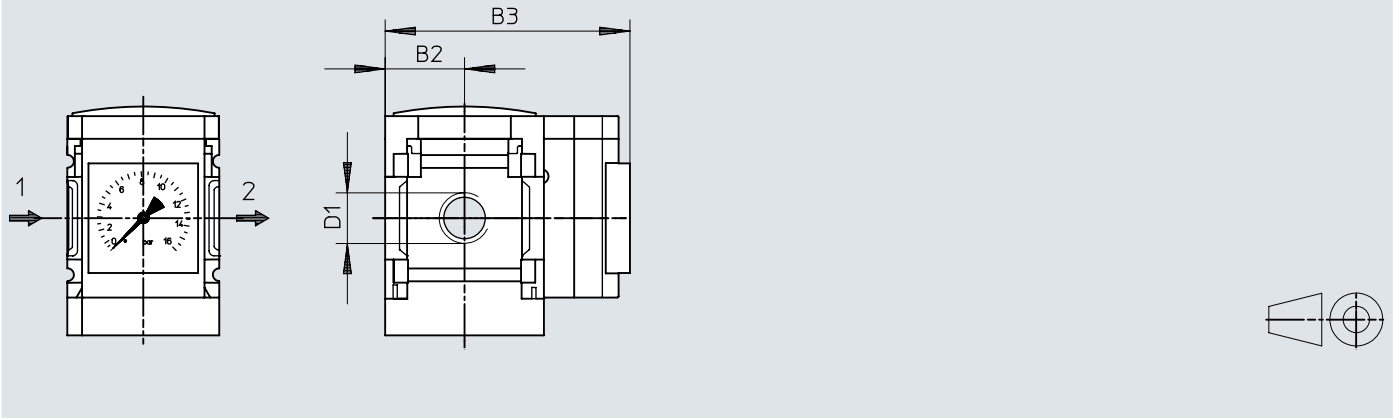


	B1 [inch]	B2 [inch]	B3 [inch]	D1	D2	L1 [inch]	L2 [inch]	L3 [inch]
MS4N-FRM-1/8	1,57	0,83	2,13	1/8 NPT	1/4 NPT	2,38	1,06	2,28
MS4N-FRM-1/4				1/4 NPT				

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



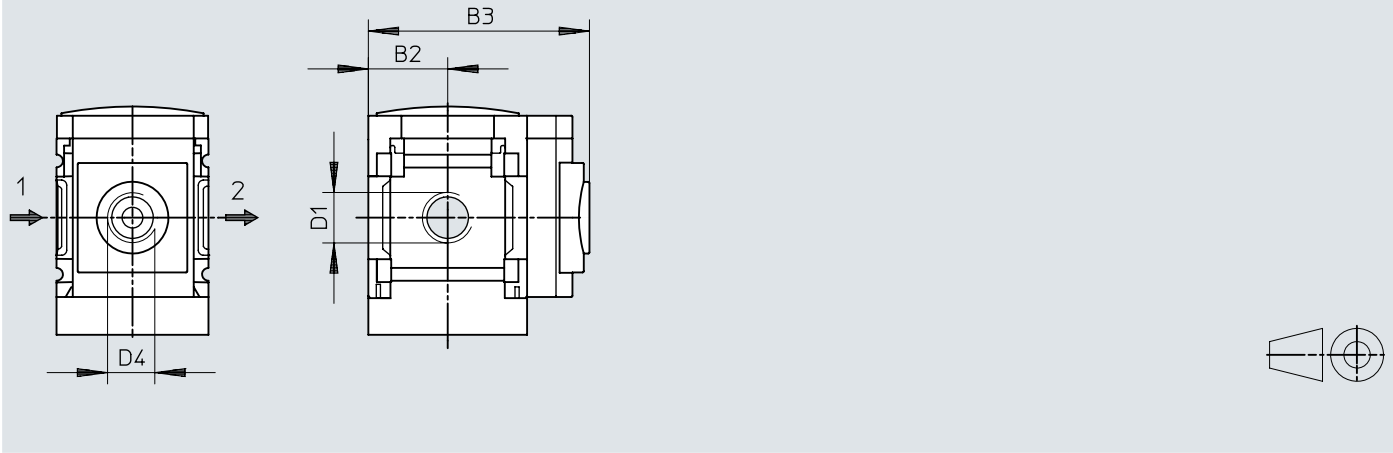
	B2 [inch]	B3 [inch]	D1
MS4N-FRM-1/8-...-AG	0,83	2,56	1/8 NPT
MS4N-FRM-1/4-...-AG			1/4 NPT
MS4N-FRM-1/8-...-RG		2,62	1/8 NPT
MS4N-FRM-1/4-...-RG			1/4 NPT

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



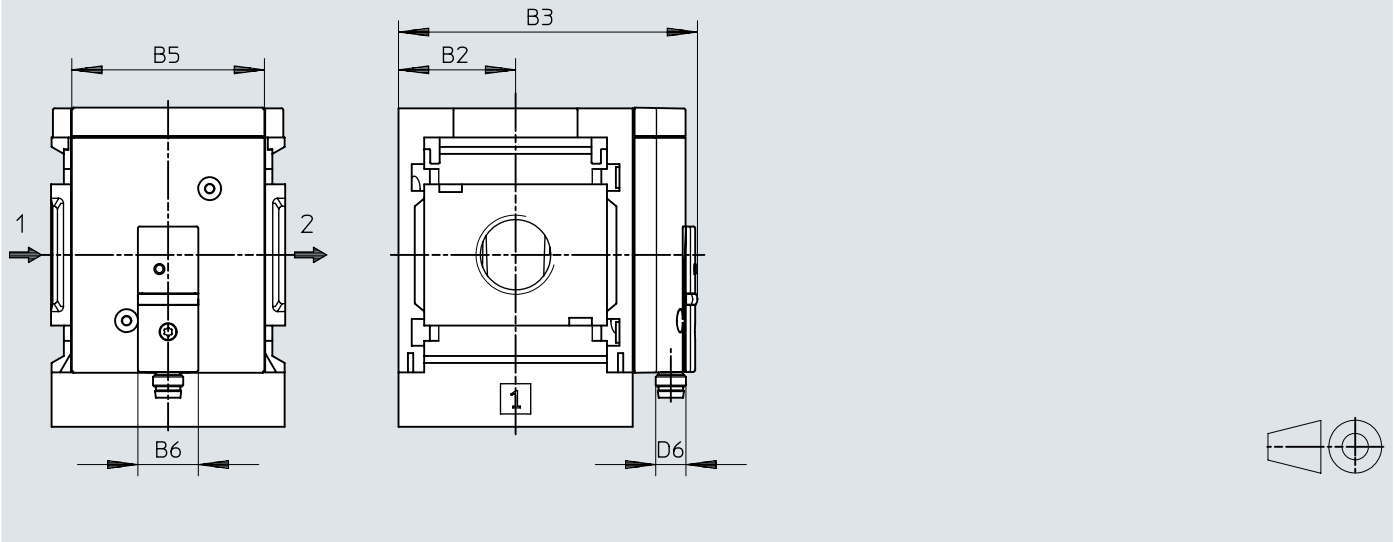
	B2 [inch]	B3 [inch]	D1	D4
MS4N-FRM-1/8-...-A8	0,83	2,30	1/8 NPT	1/8 NPT
MS4N-FRM-1/4-...-A8			1/4 NPT	
MS4N-FRM-1/8-...-A4			1/8 NPT	1/4 NPT
MS4N-FRM-1/4-...-A4			1/4 NPT	

1) Standard

Dimensions

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

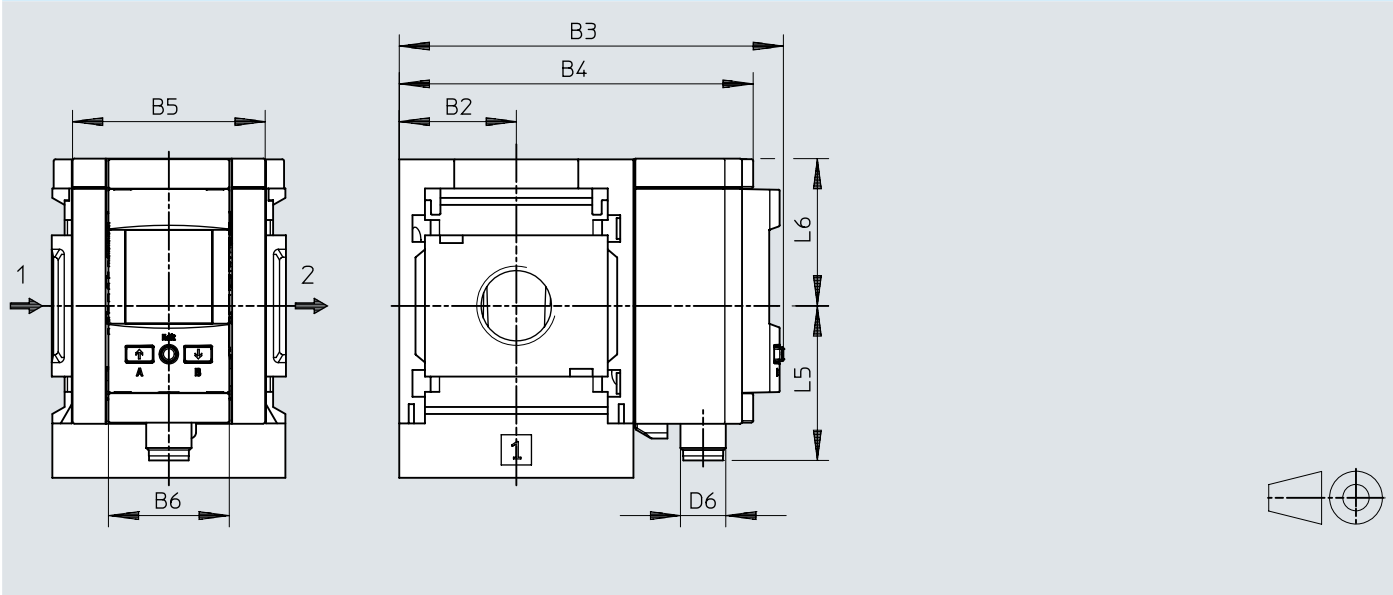
Download CAD data www.festo.com



	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

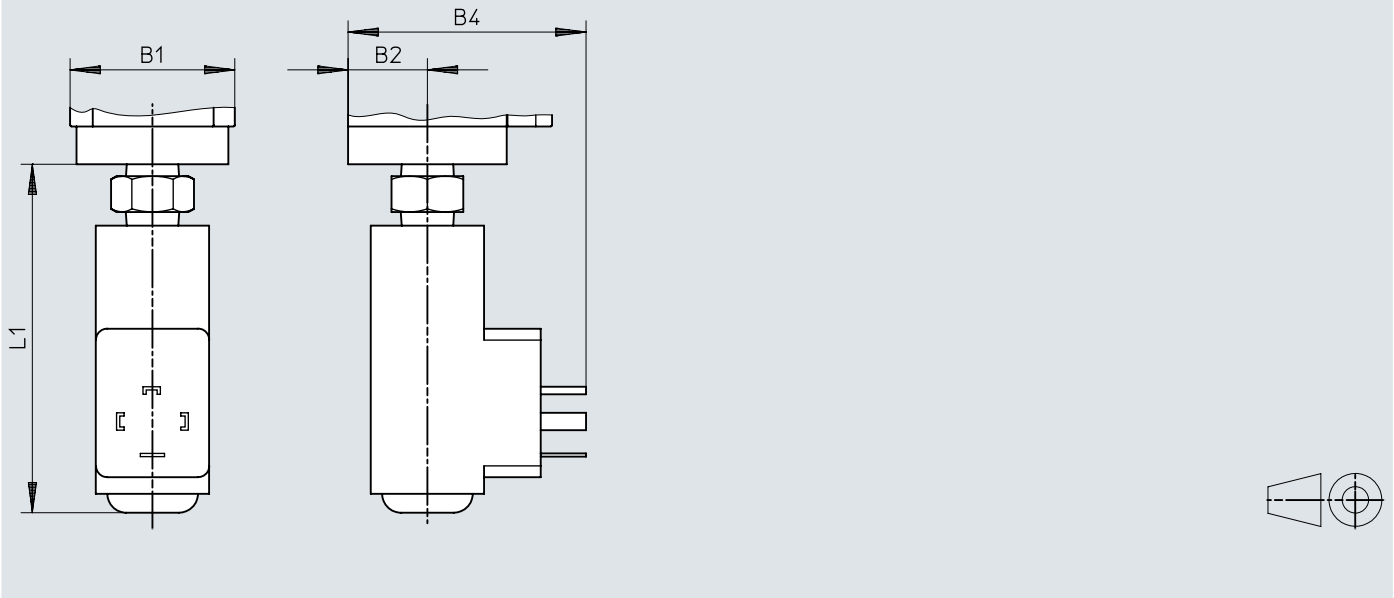


	B2 [inch]	B3 [inch]	B4 [inch]	B5 [inch]	B6 [inch]	D6	L5 [inch]	L6 [inch]
MS4N-...-AD11	0,83	3,20	2,89	1,26	1,26	M12x1	1,62	1,54
MS4N-...-AD12						M8x1	1,49	

Dimensions

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

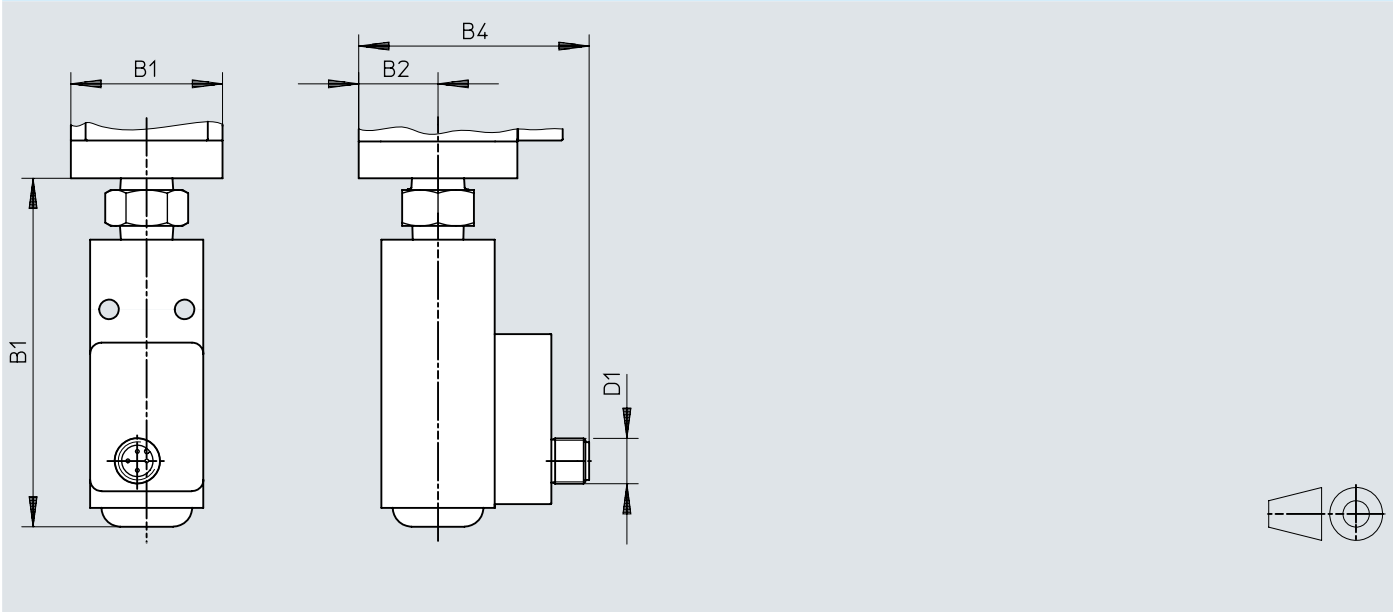
Download CAD data www.festo.com



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

Dimensions

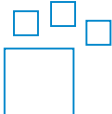
Dimensions – M12 pressure switch with adjustable pressure switching point Download CAD data www.festo.com



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

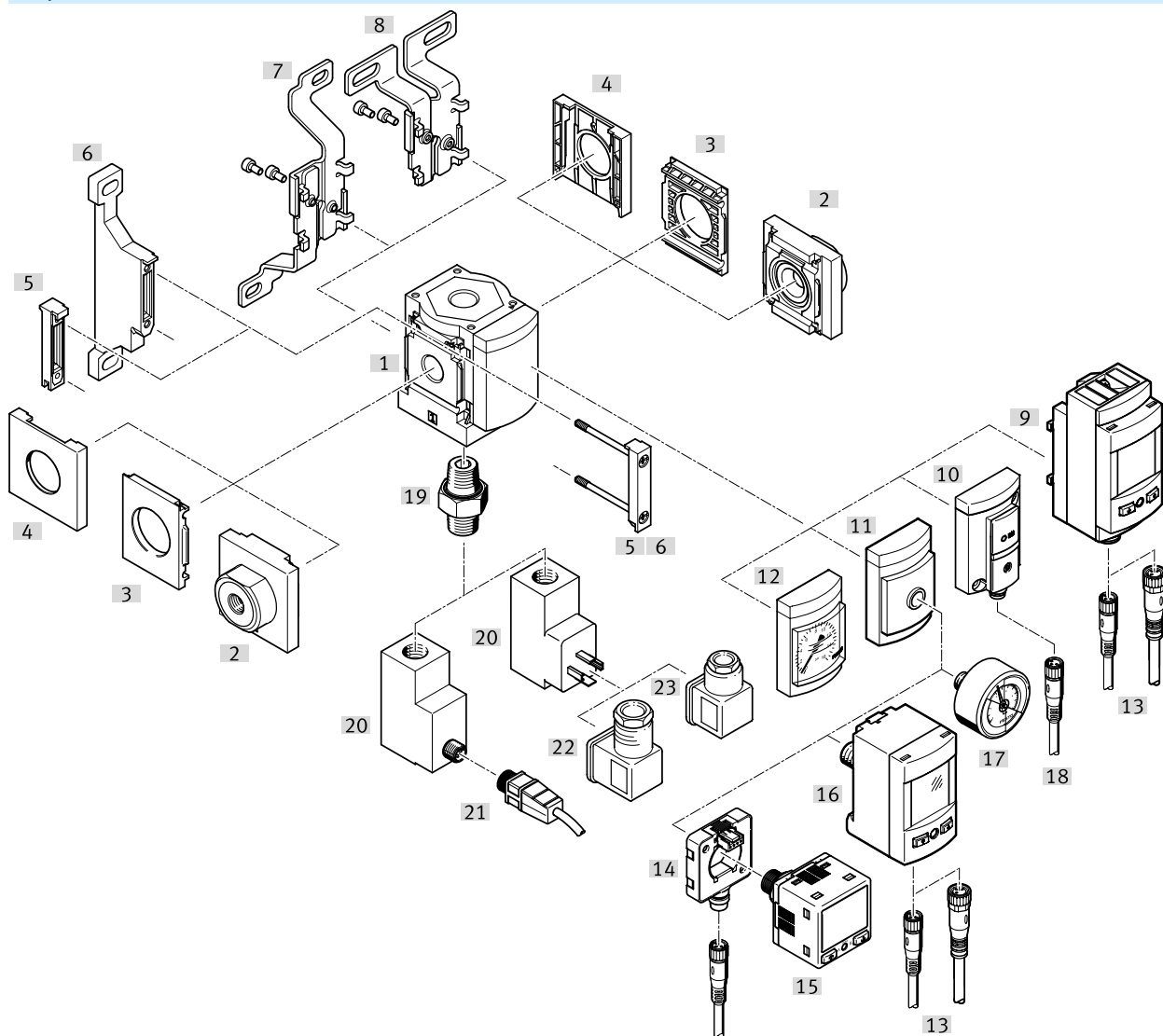
Ordering data

Ordering data						
	Pneumatic connection 1	Flow direction	Structural 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 check function	160 g	536981	MS4N-FRM-1/4-I-Z
		From left to right	Branching module, With check function		536976	MS4N-FRM-1/4-I
			Branching module	165 g	531949	MS4N-FRM-1/4
			Branching module	405 g	531953	MS4N-FRM-1/4-Y

Ordering data – Modular product system			
	Structural design	Part no.	Type
	Branching module	527704	MS4N-FRM

Peripherals overview

Peripherals overview



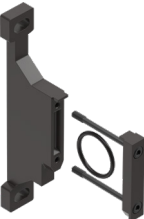
Accessories		→ Page/Internet
Type/order code	Description	
[1] Branching Module MS4N-FRM		ms4n-frm
[2] Connection plate SET MS4-A...	Order code [AG...]; module connector MS4-MV1 is used for mounting [5] or mounting bracket MS4-WP, WPB, WPE, WPM [6] required.	18
[3] Mounting plate MS4-AEND	Order code [AG...]; for mounting, module connector MS4-MV1 [5] or mounting bracket MS4-WP, WPB, WPE, WPM [6] is required.	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] (not shown)	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 switching indication 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
[15] Pressure sensor SPAN		17

Peripherals overview

Accessories		→ Page/Internet
Type/order code	Description	
[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					
	Module connector material	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...					
	Bracket material	LABS (PWIS) conformity	Product weight	Part no.	Type
	Die-cast aluminum	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					
	Bracket material	LABS (PWIS) conformity	Product weight	Part no.	Type
	Steel	VDMA24364-B1/B2-L	46 g	532185	MS4-WB

Mounting bracket MS4-WBM					
	Bracket material	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, 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
					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

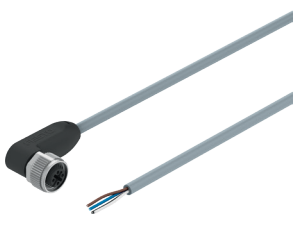
	Pneumatic connection	Switching output	Electrical connection 1, connection technology	Product weight	Part no.	Type
	R1/8	2 x PNP or 2 x NPN switchable	M12x1 A-coded as per EN 61076-2-101	70 g	8001206	SPAU-P10R-T-R18M-L-PNLK-PNVBA-M12D
			M8x1 A-coded as per EN 61076-2-104		8001203	SPAU-P10R-T-R18M-L-PNLK-PNVBA-M8D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

Accessories

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

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

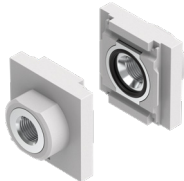
Cover cap MS4-END

	Housing material	LABS (PWIS) conformity	Part no.	Type
	PA-reinforced	VDMA24364-B1/B2-L	538779	MS4-END

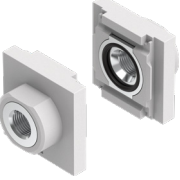
Mounting plate MS4-AEND

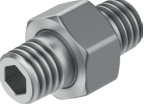
	Plate material	LABS (PWIS) conformity	Product weight	Part no.	Type
	PA-reinforced	VDMA24364-B1/B2-L	4 g	542966	MS4-AEND

Sub-base SET MS4-AQ...

	Pneumatic connection 1	Material of sub-base	LABS (PWIS) conformity	Product weight	Part no.	Type
	1/8 NPT	Die-cast aluminum	VDMA24364-B1/B2-L	128 g	526065	MS4N-AQK

Accessories

Sub-base SET MS4-AQ...						
	Pneumatic connection 1	Material of sub-base	LABS (PWIS) conformity	Product weight	Part no.	Type
	1/4 NPT	Die-cast aluminum	VDMA24364-B1/B2-L	128 g	526066	MS4N-AQN
	3/8 NPT				526067	MS4N-AQP

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

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