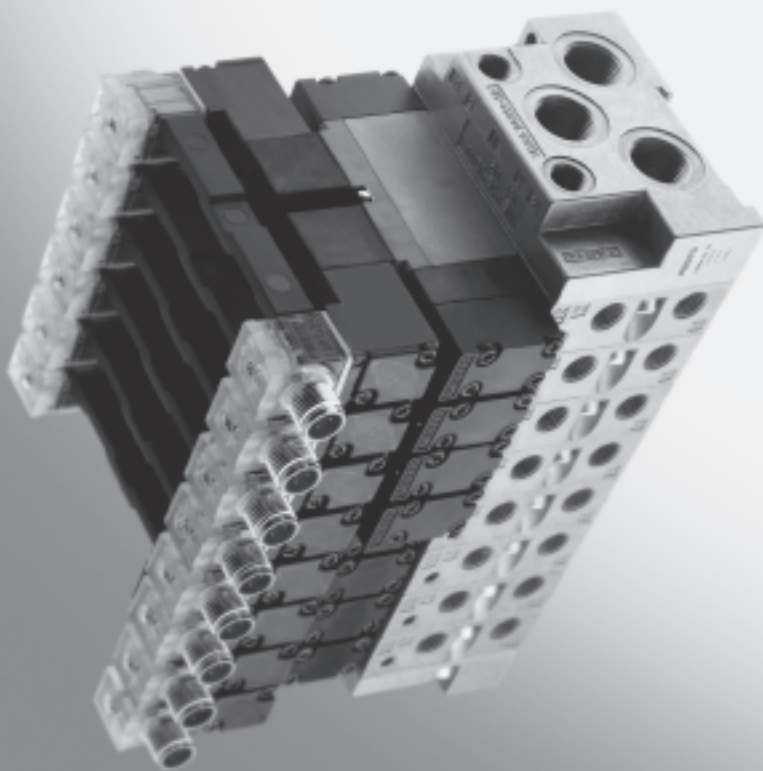
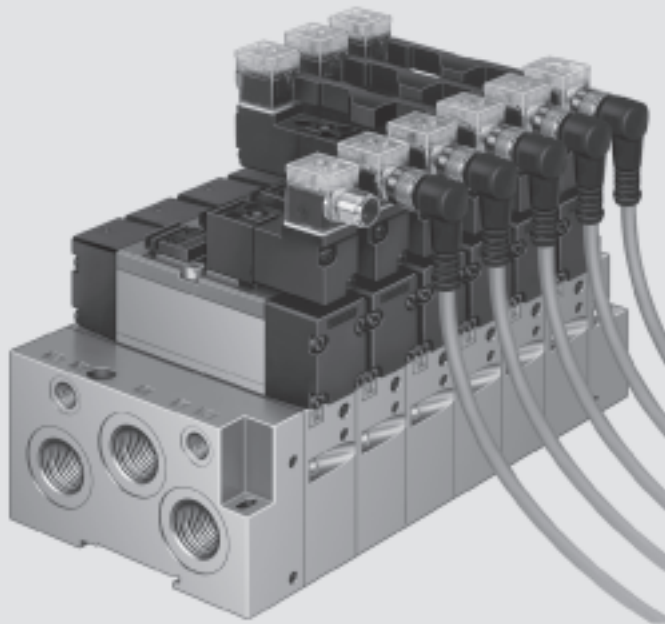




- ISO valve terminal
- High flow rates up to 1000 l/min
- Operating voltage either 12 V DC or 230 V AC
- Two valve sizes on the terminal
- Sturdy metal design

Valve terminal type 14 VDMA-01/02, ISO 15 407-1

Key features



Modular

Festo valve terminals for VDMA 24 563 are of modular design and can be equipped with 2 to 16 standard valves. Fewer valves may also be installed, in which case vacant positions are sealed with blanking plates.

Various electrical connection options such as

- 5-pin central plug M12 to EN 60 947-5-2
- 4-pin central plug M8
- Standard connection (square plug) can be selected.

Flexible

- A valve terminal can have multiple pressure zones and vacuum operation.
- Conversions and extensions are possible at any time.
- Wide range of valve functions, for example 2x 3/2-way valves, in one housing.
- The new generation of valve housings are all the same size. The valve terminals are therefore capable of providing versatile and flexible solutions to a variety of pneumatic control technology requirements.

Reliable

- Sturdy and durable components made of high-quality metal/plastic with IP65 protection.
- The new generation of valves are made of flame-retardant materials.
- Fast error diagnosis thanks to LEDs on the valves or via connector plugs.
- All valves feature manual override.
- Reliability of service through replaceable valves.
- Labelling systems for valves, connection plugs and cables.

Easy to assemble

- Fully assembled and tested unit.
- Captive screws and seals.
- Valves are replaced by undoing just two screws.
- No tube removal required for valve replacement.
- Mounting on H-rail.
- Lower costs for selection, ordering, assembly and commissioning.

Valve terminal configurator

A valve terminal configurator is available to help you select a suitable valve terminal. This makes it much easier for you to find the right product.

Valve terminals are equipped and assembled according to customer requirements. This results in minimal installation time. They are also fully inspected before shipment.



Online via: → www.festo.com/en/engineering

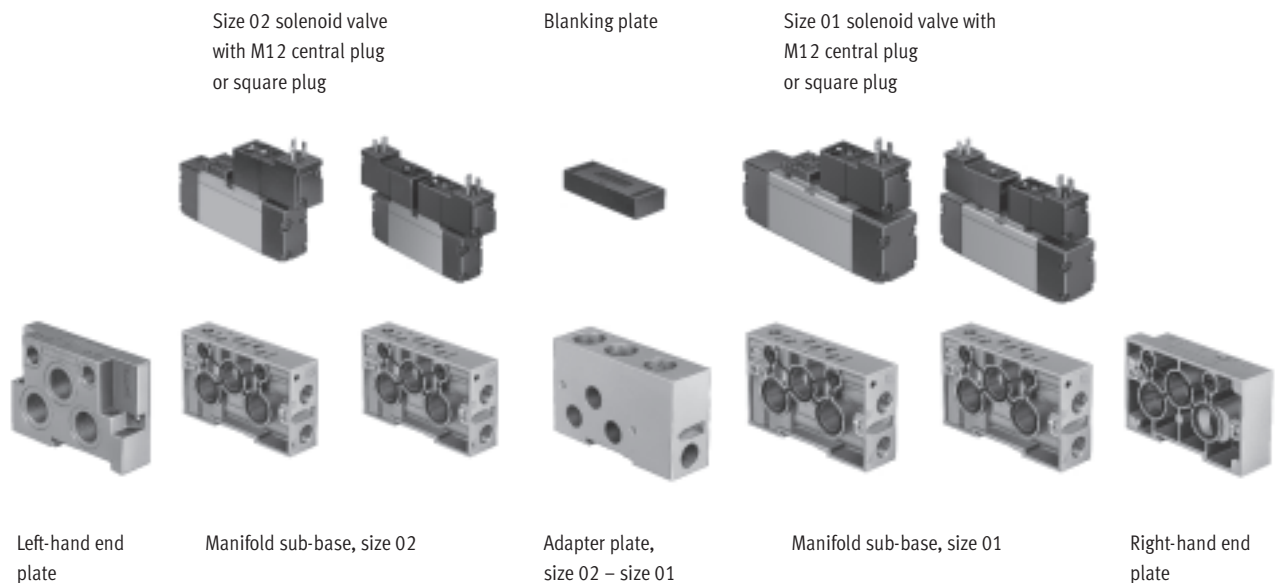
Valve terminal type 14 VDMA-01/02, ISO 15 407-1

Peripherals overview

FESTO

ISO valve terminals
ISO 15 407-1 (VDMA 24 563)

1.2



Pneumatic components

The valve terminals include common supply ports and exhausts for all valves. The bus lines can be connected to the end plates, or via adapter plates.

The valve terminals are available in 2 sizes with corresponding flow rates:

- Size 01: 1000 l/min
- Size 02: 500 l/min

It is also possible to combine both sizes.

A wide range of valve types is available:

- 2 x 3/2-way valve
2x closed, 2x open or
1x closed and 1x open
- 5/2-way valve, single solenoid
- 5/2-way valve, double solenoid
- 5/2-way valve, double solenoid,
with dominating signal

- 5/3-way valve,
mid-position exhausted,
pressurised or closed
- Two pressure zones with different pressures (three with mixed sizes) can be created with the help of isolating discs for the supply and exhaust lines.

The standard model valve terminal is equipped with an M8 or M12 central plug.

Connection is also possible by means of individual standard plugs upon request.

Terminals are available in sizes 01 and 02. An adapter plate can be used to mix sizes, in which case assembly is started at the left with size 02.

Blanking plates

Blanking plates are used to seal off vacant valve positions.

Creating pressure zones

Different supply pressures are made possible within a single valve terminal by installing an isolating disc between two sub-bases. In doing so, the isolating disc must be inserted from the left into the sub-base.

Supply and exhaust are on the right. Usually, only line 1 has to be isolated. In special cases, isolating discs may also be inserted into exhaust lines 3 and 5.

Pilot control

Solenoid actuated valves are used.

The standard voltage is 24 V DC.

Other voltages are possible (12 V DC, 24 V AC, 110 V AC and 230 V AC). The square plug must be selected for 110 V AC and 230 V AC.

The selection of auxiliary pilot air for the entire valve terminal is made with the corresponding code letter in the order code. This assures selection of the correct valves.

Supply air can be taken from the main line, or from a separate air supply. A separate air supply is required in any event if supply pressure is less than 3 bar (including vacuum). In this case it is advisable to restrict pilot air to 6 bar with a suitable regulator.



Note

The various components which can be installed are included in the order tables.

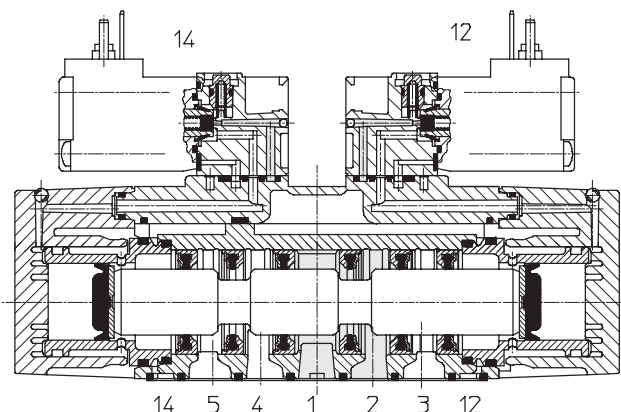
➔ 4 / 1.2-13

Valve terminal type 14 VDMA-01/02, ISO 15 407-1

Key features – Pneumatic components

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Port identification for pneumatic connections

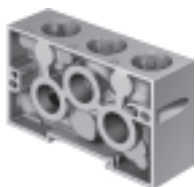


- 1 Compressed air supply
- 2 Working line
- 3 Exhaust, port 2
- 4 Working line
- 5 Exhaust, port 4
- 12 Pilot control exhaust (83, previously 82/84)
- 14 External supply of pilot air (81, previously 12/14)

Port 12 at the end plates is used for exhausting pilot air (83, previously 82/84). Even if pilot air is supplied internally this port must remain open or must be fitted with a silencer.

 Note
Never plug port 12 (83).

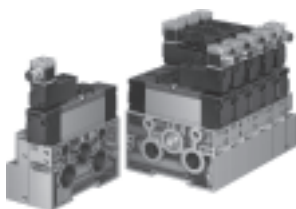
Valve terminal with mixed sizes



Lines 12 and 14 are interrupted within the adapter plate for adapting size 02 to size 01.

These must therefore be fed to both sides of the valve terminal if pilot air is supplied externally.

Isolating discs



Isolating discs allow for the creation of different pressure zones within a single valve terminal, or separate the exhaust lines in order to prevent the cylinders from influencing one another.

The isolating disc is inserted from the left, so that the valve mounted on the affected sub-base is supplied from, and exhausted to the right.

Manual override



The standard manual override is push-in, and is equipped with spring return.



A detenting manual override can be created with the help of a tool which can be attached to the respective valve as required.

Valve terminal type 14 VDMA-01/02, ISO 15 407-1

Key features – Pneumatic components

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Valve function				
Code	Circuit symbol	ISO		Description
		Size 01	Size 02	
without auxiliary pilot air				
K		■	■	• 2x 3/2-way valve • Normally closed
N		■	■	• 2x 3/2-way valve • Normally open
H		■	■	• 2x 3/2-way valve • Normal position 1x closed 1x open
M		■	■	• 5/2-way valve, single solenoid • Pneumatic spring
F		■	■	• 5/2-way valve, single solenoid • Spring return
J		■	■	• 5/2-way valve, double solenoid
D		■	■	• 5/2-way valve, double solenoid • Dominating signal at 14
B		■	■	• 5/3-way valve • Mid-position pressurised
E		■	■	• 5/3-way valve • Mid-position exhausted
G		■	■	• 5/3-way valve • Mid-position closed

ISO valve terminals
ISO 15 407-1 (VDMA 24 563)

1.2

Valve terminal type 14 VDMA-01/02, ISO 15 407-1

Key features – Pneumatic components

FESTO

ISO valve terminals
ISO 15 407-1 (VDMA 24 563)

1.2

Valve function				
Code	Circuit symbol	ISO		Description
		Size 01	Size 02	
with auxiliary pilot air				
K		■	■	• 2x 3/2-way valve • Normally closed
N		■	■	• 2x 3/2-way valve • Normally open
H		■	■	• 2x 3/2-way valve • Normal position 1x closed 1x open
M		■	■	• 5/2-way valve, single solenoid • Pneumatic spring
F		■	■	• 5/2-way valve, single solenoid • Spring return
J		■	■	• 5/2-way valve, double solenoid
D		■	■	• 5/2-way valve, double solenoid • Dominating signal at 14
B		■	■	• 5/3-way valve • Mid-position pressurised
E		■	■	• 5/3-way valve • Mid-position exhausted
G		■	■	• 5/3-way valve • Mid-position closed

Valve terminal type 14 VDMA-01/02, ISO 15 407-1

Key features – Pneumatic components

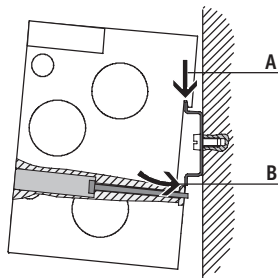


Horizontal linking				
Code		ISO Size 01	Size 02	Description
A		■	■	Blanking plate
W		■	■	Intermediate plate, size 02/size 01
U		■	■	Isolating discs, line 3/5
V		■	■	Isolating disc, line 1

Valve terminal type 14 VDMA-01/02, ISO 15 407-1

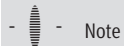
Key features – Assembly

H-rail mounting of valve terminal



The valve terminal is attached to the H-rail (see arrow A).

The terminal is then rotated on the H-rail and secured by tightening the retaining screw (see arrow B).



Note

Avoid dynamic loads when using H-rail mounting. Otherwise the valve terminal can detach from the H-rail.

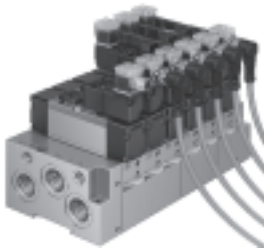
Valve terminal type 14 VDMA-01/02, ISO 15 407-1

Key features – Electrical components

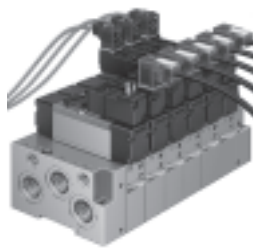
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Electrical connection

M12 central plug



Standard connection



The electrical side of the valve terminal type 14 is established using pre-assembled cables.

The connection to the controller can be established with individual cables.

Pin allocation for M12 central plug

Connection diagrams	Pin	Electrical connection	Cable colour ¹⁾	Designation
2-pin				
	1	–	brown	unused
	2	–	white	unused
	3	com (–)	blue	0 V
	4	Signal (+) Solenoid 14 ²⁾	black	Pilot solenoid coil 14
3-pin				
	1		brown	unused
	2	Signal (+) Solenoid 12 ²⁾	white	Pilot solenoid coil 12
	3	com (–)	blue	0 V
	4	Signal (+) Solenoid 14 ²⁾	black	Pilot solenoid coil 14

1) When using the socket with cable MSSD-EB-M12... or KMEB-1...

2) Connect max. 24 V (–15%/+10%)

Electrical accessories

Code		Description
M12 central plug		
S		Plug socket M12, 4-pin, angled, Pg7
K		Pre-assembled cable with socket M12, 1 m long
Standard connection		
E		Standard plug socket
F		Plug socket with LED and cable, 2.5 m long
G		Plug socket with LED and cable, 5 m long
I		Plug socket for 230 V with cable, 2.5 m long
J		Plug socket for 230 V with cable, 5 m long

ISO valve terminals
ISO 15 407-1 (VDMA 24 563)

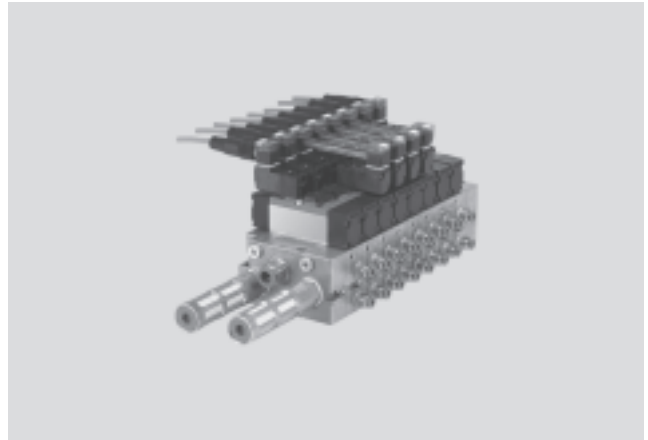
1.2

Valve terminal type 14 VDMA-01/02, ISO 15 407-1

Technical data

FESTO

-  Flow rate
VDMA size 01: 1000 l/min
VDMA size 02: 500 l/min
-  Valve width
Size 01: 26 mm
Size 02: 18 mm
-  Voltage
24 V DC
12 V DC
24 V AC
110 V AC
230 V AC

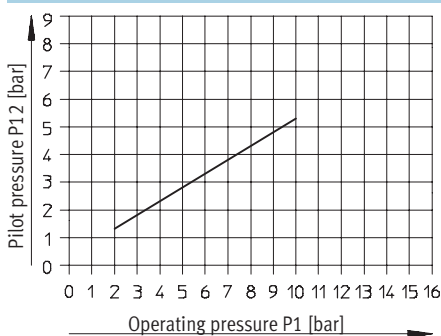


General technical data					
ISO		Size 01		Size 02	
Constructional design, valves		Piston spool valve with sealing ring cartridge			
Width	[mm]	27		19	
Nominal size	[mm]	8		6	
Type of mounting, valve		On sub-base with connection to VDMA 24 563			
Mounting position		Any			
Manual override		Push-type, self-resetting/detenting (tool)			
Pneumatic connections					
Supply port	1	G1/4 (sub-base)		G1/8 (sub-base)	
Exhaust port	3/5	G1/4 (sub-base)		G1/8 (sub-base)	
Working lines	2/4	G1/4 (sub-base)		G1/8 (sub-base)	
Pilot air port	12/14	M5 (sub-base)			
Pilot exhaust air port	82/84	M5 (sub-base), only valves with code K, N, H			

Operating pressure [bar]											
Valve function order code		K	N	H	M	F	J	D	B	E	G
Size 01	without auxiliary pilot air	2 ... 10			2 ... 10				3 ... 10		
	with auxiliary pilot air	2 ... 10			-0.9 ... +16						
Size 02	without auxiliary pilot air	2 ... 10			2 ... 10		2 ... 10		3 ... 10		
	with auxiliary pilot air	2 ... 10			-0.9 ... +10						

Pilot pressure [bar]										
Valve function order code		K	N	H	M	F	J	D	B	E G
Size 01		2 ... 10			2 ... 10		2 ... 10		3 ... 10	
Size 02		2 ... 10			2 ... 10		2 ... 10		3 ... 10	

Minimal pilot pressure p12 as a function of the operating pressure p1 (with auxiliary pilot air)



Valve terminal type 14 VDMA-01/02, ISO 15 407-1

Technical data

FESTO

ISO valve terminals
ISO 15 407-1 (VDMA 24 563)

1.2

Valve response times [ms]											
Valve function order code		K	N	H	M	F	J	D	B	E	G
Size 01	on	22	22	22	31	31	–	16	23	23	23
	off	33	33	33	43	43	–	18	52	52	52
	change-over	–	–	–	–	–	18	–	–	–	–
Size 02	on	15	15	15	23	23	–	–	18	18	17
	off	16	16	16	27	27	–	–	30	28	22
	change-over	–	–	–	–	–	16	16	–	–	–

Operating and environmental conditions											
Valve function order code		K	N	H	M	F	J	D	B	E	G
Operating medium		Filtered compressed air, lubricated or unlubricated, or vacuum → 4 / 1.1-19									
Ambient temperature [°C]		–10 ... +50									
Temperature of medium [°C]		–5 ... +50									
Storage temperature [°C]		–20 ... +40									
Corrosion resistance class CRC ¹⁾		2									

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 surrounding industrial atmosphere or media such as cooling or lubricating agents.

Electrical data											
Valve function order code		K	N	H	M	F	J	D	B	E	G
Electromagnetic compatibility		Interference emission tested to EN 61 000-6-4, industry Interference immunity ¹⁾ tested to EN 61 000-6-2, industry									
Protection against electric shock (protection against direct and indirect contact to EN 60204-1/IEC 204)		By means of PELV power supply unit (12/14 V DC)									
Operating voltage [V] • D.C. voltage • A.C. voltage		12, 24 +10%/–15% 24, 110/230 ±10%, 50 ... 60 Hz									
Electrical power consumption [W] • D.C. voltage • A.C. voltage		1.5 Pull: 3 Hold: 2.4									
Duty cycle		100%									
Protection class to EN 60 529		IP65 (with plug socket)									

Materials											
Valve function order code		K	N	H	M	F	J	D	B	E	G
Valve		Die-cast aluminium, polyacetate (POM)									
Seal		Nitrile rubber (perbunan)									

Product weight [g]		Approx. weights									
Valve function order code		K	N	H	M	F	J	D	B	E	G
Size 01		320			340		320		270		
Size 02		210			220		210		160		

Nominal flow rate [l/min]											
Valve function order code		K	N	H	M	F	J	D	B	E	G
Size 01		950			1000						
Size 02		490			500						

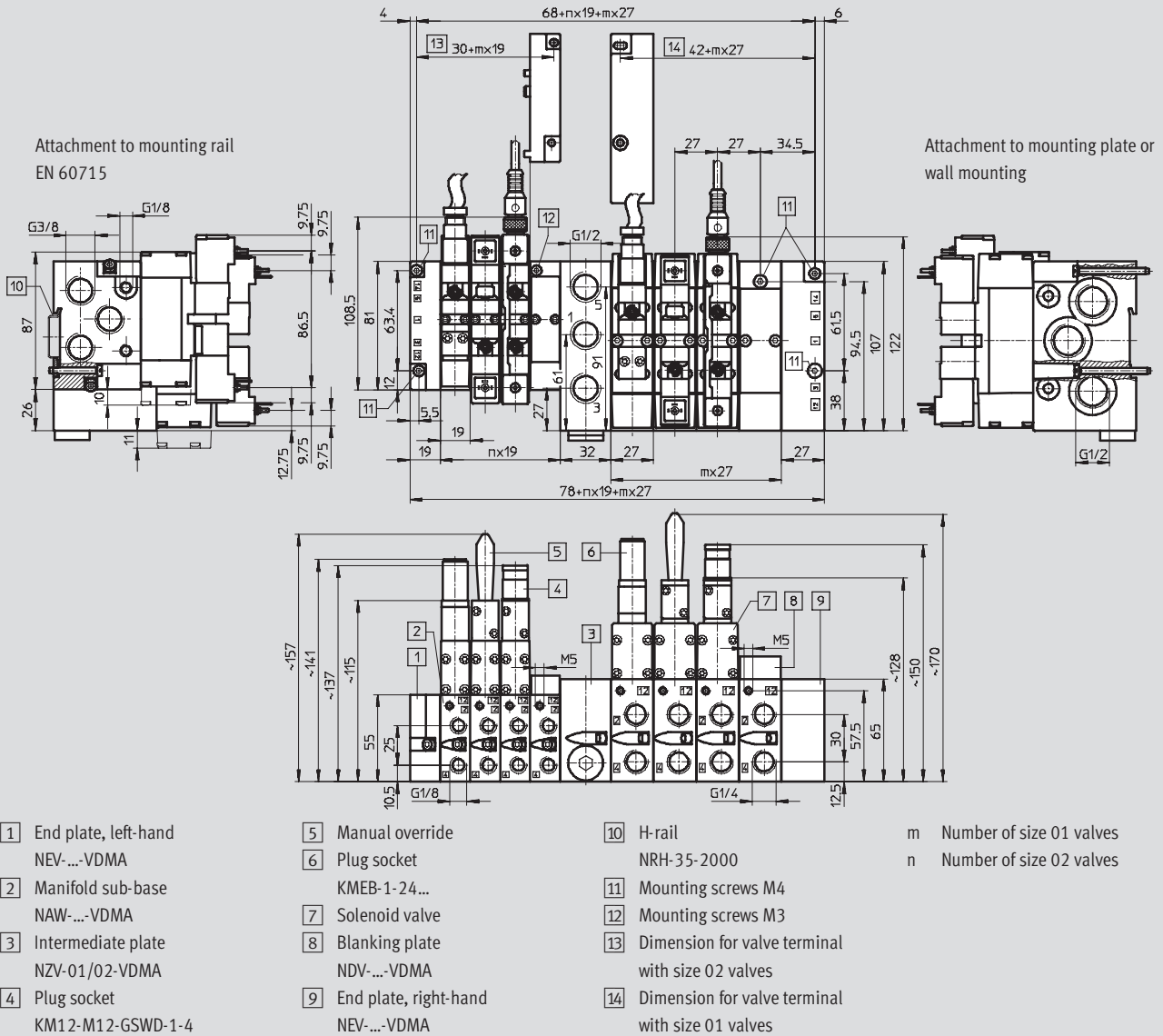
Valve terminal type 14 VDMA-01/02, ISO 15 407-1

Technical data

FESTO

Dimensions

Download CAD data → www.festo.com/en/engineering



Valve terminal VDMA-01/02, ISO 15 407-1

Ordering data – Modular products

FESTO

[M] Mandatory data →

Module No.	Valve terminal type 14, pneumatic components	Size	Solenoid voltage	Auxiliary pilot air supply	Electrical connection
191 403	14P	01 02	P Q R S	Y E	Z W
Ordering example					
191 403	14P	- 02	- Q	Y	W
1	2	3	4	5	6

Ordering table					
			Condi- tions	Code	Enter code
[M]	1 Module No.	191 403			
	2 Valve terminal type 14, pneumatic components	Valve terminal with ISO and VDMA valves		14P	14P
	3 Size	VDMA 01		-01	
		VDMA 02		-02	
	4 Solenoid voltage	24 V DC		-P	
		110 V AC	1	-Q	
		230 V AC	1	-R	
		12 V DC/24 V AC		-S	
	5 Auxiliary pilot air supply	Internal auxiliary pilot air		Y	
		External auxiliary pilot air		E	
	6 Electrical connection	M12 central plug	2	Z	
		Standard connection (square plug)		W	

1 **Q, R** Only with electrical connection W (standard connection).

2 **Z** Only with solenoid voltage 24 V DC (P) or 12 V DC/24 V AC (S).

Transfer order code

191 403	14P	-		-			
1	2	3	4	5	6		

Valve terminal VDMA-01/02, ISO 15 407-1

Ordering data – Modular products

FESTO

Mandatory data

Equipment at valve position 0 ... 15

7 Valves: M, F, J, D, B, E, G, K, N, H, A

8 Isolating disc 1: U

9 Isolating disc 2: V

10 Intermediate plate, size 02/01: W

Valve position

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

: B M M + 2E
7 + 8 + 9 + 10 11

Options

Accessories

...S, ...K, ...E, ...F,
...G, ...I, ...J

Ordering table

Module No.	191 403	Condi- tions	Code	Enter code
Equipment at valve position 0 ... 15		3	-	-
7 Valves	5/2-way valve, single solenoid		M	Enter equip- ment selection for valve positions in order code.
Valve position 0 ... 15	5/2-way valve, single solenoid, mechanical spring		F	
	5/2-way valve, double solenoid		J	
	5/2-way valve, double solenoid, with dominating signal		D	
	5/3-way valve, mid-position pressurised		B	
	5/3-way valve, mid-position exhausted		E	
	5/3-way valve, mid-position closed		G	
	2x 3/2-way valve, normally closed		K	
	2x 3/2-way valve, normally open		N	
	2x 3/2-way valve, 1x normally open, 1x normally closed		H	
	Blanking plate		A	
8 Isolating disc 1	Isolating discs, duct 3/5	4	U	
Valve position 0 ... 15				
9 Isolating disc 2	Isolating disc for duct 1	4	V	
Valve position 0 ... 15				
10 Intermediate plate	Intermediate plate	5	W	
Valve position 0 ... 14	size 02/size 01			
11 Accessories			+	+
Plug socket M12, angled, 4-pin Pg7	1 ... 99	6	...S	
Assembled cable with 1 m socket M12	1 ... 99	6	...K	
Standard plug socket for M12	1 ... 99	7	...E	
Plug socket with LED and 2.5 m cable	1 ... 99	7	...F	
5 m	1 ... 99	7	...G	
Plug socket for 230 V 2.5 m	1 ... 99	7	...I	
with cable	1 ... 99	7	...J	

3 Equipment at valve position 0 ... 15

At least 2 valves.

4 U, V Only once per terminal.

5 W Can only be selected with size 02.
Max. one intermediate plate per terminal.

6 S, K Only with electrical connection Z (M12 central plug).

7 E, F, G, I, J

Only with electrical connection W (standard connection).

Transfer order code

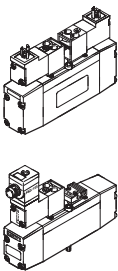
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

7 + 8 + 9 + 10 11

Valve terminal type 14 VDMA-01/02, ISO 15 407-1

Ordering data – Individual valve

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Ordering data						
Valves on individual sub-base						
	Code	Valve function	ISO	Voltage	Type	Part No.
without auxiliary pilot air						
	K	• 2x 3/2-way valve • Normally closed	01	24 V DC	MN2H-2x3G-01	187 970
				12 V DC, 24 V AC	MN2H-2x3G-01-12DCA	191 342
				110 V AC	MN2H-2x3G-01-110VAC	191 344
				230 V AC	MN2H-2x3G-01-230AC	191 346
				24 V DC, central plug	MN2H-2x3G-01-ZSR	191 340
			02	24 V DC	MN2H-2x3G-02	187 976
				12 V DC, 24 V AC	MN2H-2x3G-02-12DCA	191 372
				110 V AC	MN2H-2x3G-02-110VAC	191 374
				230 V AC	MN2H-2x3G-02-230AC	191 376
				24 V DC, central plug	MN2H-2x3G-02-ZSR	191 370
	N	• 2x 3/2-way valve • Normally open	01	24 V DC	MN2H-2x3O-01	187 971
				12 V DC, 24 V AC	MN2H-2x3O-01-12DCA	191 350
				110 V AC	MN2H-2x3O-01-110VAC	191 352
				230 V AC	MN2H-2x3O-01-230VAC	191 354
				24 V DC, central plug	MN2H-2x3O-01-ZSR	191 348
			02	24 V DC	MN2H-2x3O-02	187 977
				12 V DC, 24 V AC	MN2H-2x3O-02-12DCA	191 380
				110 V AC	MN2H-2x3O-02-110VAC	191 382
				230 V AC	MN2H-2x3O-02-230VAC	191 384
				24 V DC, central plug	MN2H-2x3O-02-ZSR	191 378
	H	• 2x 3/2-way valve • Normal position 1x open 1x closed	01	24 V DC	MN2H-2x3O-G-01	187 972
				12 V DC, 24 V AC	MN2H-2x3O-G-01-12DCA	191 358
				110 V AC	MN2H-2x3O-G-01-110VAC	191 360
				230 V AC	MN2H-2x3O-G-01-230AC	191 362
				24 V DC, central plug	MN2H-2x3O-G-01-ZSR	191 356
			02	24 V DC	MN2H-2x3O-G-02	187 978
				12 V DC, 24 V AC	MN2H-2x3O-G-02-12DCA	191 388
				110 V AC	MN2H-2x3O-G-02-110VAC	191 390
				230 V AC	MN2H-2x3O-G-02-230AC	191 392
				24 V DC, central plug	MN2H-2x3O-G-02-ZSR	191 386

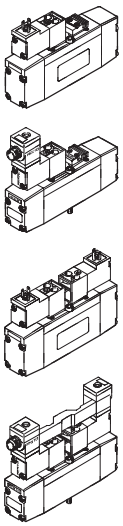
ISO valve terminals
ISO 15 407-1 (VDMA 24 563)

1.2

Valve terminal type 14 VDMA-01/02, ISO 15 407-1

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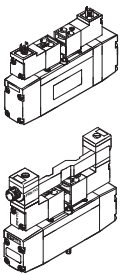
Ordering data – Individual valve

Ordering data						
Valves on individual sub-base						
	Code	Valve function	ISO	Voltage	Type	Part No.
without auxiliary pilot air						
	M	5/2-way valve, single solenoid	01	24 V DC	MN2H-5/2-D-01	161 067
				12 V DC, 24 V AC	MN2H-5/2-01-12DCA	187 876
				110 V AC	MN2H-5/2-D-01-110AC	161 880
				230 V AC	MN2H-5/2-D-01-230AC	161 894
				24 V DC, central plug	MN2H-5/2-01-ZSR	191 309
			02	24 V DC	MN2H-5/2-D-02	161 088
				12 V DC, 24 V AC	MN2H-5/2-02-12DCA	187 890
				110 V AC	MN2H-5/2-D-02-110AC	161 908
	F	5/2-way valve, single solenoid - Spring return	01	24 V DC	MN2H-5/2-D-01-FR	161 069
				12 V DC, 24 V AC	MN2H-5/2-01-FR-12DCA	187 878
				110 V AC	MN2H-5/2-D-01-FR-110AC	161 882
				230 V AC	MN2H-5/2-D-01-FR-230AC	161 896
				24 V DC, central plug	MN2H-5/2-01-FR-ZSR	191 311
			02	24 V DC	MN2H-5/2-D-02-FR	161 090
				12 V DC, 24 V AC	MN2H-5/2-02-FR-12DCA	187 926
				110 V AC	MN2H-5/2-D-02-FR-110AC	161 910
	J	5/2-way valve, double solenoid	01	24 V DC	JMN2H-5/2-D-01	161 071
				12 V DC, 24 V AC	JMN2H-5/2-01-12DCA	187 880
				110 V AC	JMN2H-5/2-D-01-110AC	161 884
				230 V AC	JMN2H-5/2-D-01-230AC	161 898
				24 V DC, central plug	JMN2H-5/2-01-ZSR	191 319
			02	24 V DC	JMN2H-5/2-D-02	161 092
				12 V DC, 24 V AC	JMN2H-5/2-02-12DCA	187 928
				110 V AC	JMN2H-5/2-D-02-110AC	161 912
	D	5/2-way valve, double solenoid - Dominating signal	01	230 V AC	JMN2H-5/2-D-02-230AC	161 926
				24 V DC, central plug	JMN2H-5/2-02-ZSR	191 333
			02	24 V DC	JMN2H-5/2-D-02	161 094
				12 V DC, 24 V AC	JMN2H-5/2-02-12DCA	187 930
				110 V AC	JMN2H-5/2-D-02-110AC	161 914
			01	230 V AC	JMN2H-5/2-D-02-230AC	161 928
				24 V DC, central plug	JMN2H-5/2-02-ZSR	191 335
				24 V DC	JMN2DH-5/2-D-01	161 073
			02	12 V DC, 24 V AC	JMN2DH-5/2-01-12DCA	187 882
				110 V AC	JMN2DH-5/2-D-01-110AC	161 886
				230 V AC	JMN2DH-5/2-D-01-230AC	161 900
				24 V DC, central plug	JMN2DH-5/2-01-ZSR	191 321
				24 V DC	JMN2DH-5/2-D-02	161 094
				12 V DC, 24 V AC	JMN2DH-5/2-02-12DCA	187 930
				110 V AC	JMN2DH-5/2-D-02-110AC	161 914
				230 V AC	JMN2DH-5/2-D-02-230AC	161 928
				24 V DC, central plug	JMN2DH-5/2-02-ZSR	191 335

Valve terminal type 14 VDMA-01/02, ISO 15 407-1

Ordering data – Individual valve

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Ordering data						
Valves on individual sub-base						
	Code	Valve function	ISO	Voltage	Type	Part No.
without auxiliary pilot air						
	B	5/3-way valve - Mid-position pressurised	01	24 V DC	MN2H-5/3B-D-01	161 079
				12 V DC, 24 V AC	MN2H-5/3B-01-12DCA	187 888
				110 V AC	MN2H-5/3B-D-01-110AC	161 892
				230 V AC	MN2H-5/3B-D-01-230AC	161 906
				24 V DC, central plug	MN2H-5/3B-01-ZSR	191 317
			02	24 V DC	MN2H-5/3B-D-02	161 100
				12 V DC, 24 V AC	MN2H-5/3B-02-12DCA	187 936
				110 V AC	MN2H-5/3B-D-02-110AC	161 920
				230 V AC	MN2H-5/3B-D-02-230AC	161 934
				24 V DC, central plug	MN2H-5/3B-02-ZSR	191 331
	E	5/3-way valve - Mid-position exhausted	01	24 V DC	MN2H-5/3E-D-01	161 077
				12 V DC, 24 V AC	MN2H-5/3E-01-12DCA	187 886
				110 V AC	MN2H-5/3E-D-01-110AC	161 890
				230 V AC	MN2H-5/3E-D-01-230AC	161 905
				24 V DC, central plug	MN2H-5/3E-01-ZSR	191 315
			02	24 V DC	MN2H-5/3E-D-02	161 098
				12 V DC, 24 V AC	MN2H-5/3E-02-12DCA	187 934
				110 V AC	MN2H-5/3E-D-02-110AC	161 918
				230 V AC	MN2H-5/3E-D-02-230AC	161 932
				24 V DC, central plug	MN2H-5/3E-02-ZSR	191 329
	G	5/3-way valve - Mid-position closed	01	24 V DC	MN2H-5/3G-D-01	161 075
				12 V DC, 24 V AC	MN2H-5/3G-01-12DCA	187 884
				110 V AC	MN2H-5/3G-D-01-110AC	161 888
				230 V AC	MN2H-5/3G-D-01-230AC	161 902
				24 V DC, central plug	MN2H-5/3G-01-ZSR	191 313
			02	24 V DC	MN2H-5/3G-D-02	161 096
				12 V DC, 24 V AC	MN2H-5/3G-02-12DCA	187 932
				110 V AC	MN2H-5/3G-D-02-110AC	161 916
				230 V AC	MN2H-5/3G-D-02-230AC	161 930
				24 V DC, central plug	MN2H-5/3G-02-ZSR	191 327

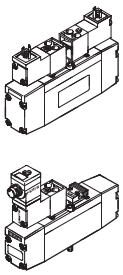
ISO valve terminals
ISO 15 407-1 (VDMA 24 563)

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Valve terminal type 14 VDMA-01/02, ISO 15 407-1

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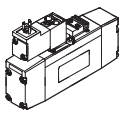
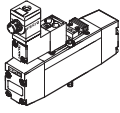
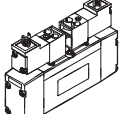
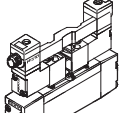
Ordering data – Individual valve

Ordering data						
Valves on individual sub-base						
	Code	Valve function	ISO	Voltage	Type	Part No.
with auxiliary pilot air						
	K	• 2x 3/2-way valve • Normally closed	01	24 V DC	MN2H-2x3G-01-S	187 973
				12 V DC, 24 V AC	MN2H-2x3G-01-S-12DCA	191 343
				110 V AC	MN2H-2x3G-01-S-110AC	191 345
				230 V AC	MN2H-2x3G-01-S-230AC	191 347
				24 V DC, central plug	MN2H-2x3G-01-S-ZSR	191 341
			02	24 V DC	MN2H-2x3G-02-S	187 979
				12 V DC, 24 V AC	MN2H-2x3G-02-S-12DCA	191 373
				110 V AC	MN2H-2x3G-02-S-110AC	191 375
				230 V AC	MN2H-2x3G-02-S-230AC	191 377
				24 V DC, central plug	MN2H-2x3G-02-S-ZSR	191 371
	N	• 2x 3/2-way valve • Normally open	01	24 V DC	MN2H-2x30-01-S	187 974
				12 V DC, 24 V AC	MN2H-2x30-01-S-12DCA	191 351
				110 V AC	MN2H-2x30-01-S-110VAC	191 353
				230 V AC	MN2H-2x30-01-S-230VAC	191 355
				24 V DC, central plug	MN2Hx-2x30-01-S-ZSR	191 349
			02	24 V DC	MN2H-2x30-02-S	187 980
				12 V DC, 24 V AC	MN2H-2x30-02-S-12DCA	191 381
				110 V AC	MN2H-2x30-02-S-110VAC	191 383
				230 V AC	MN2H-2x30-02-S-230VAC	191 385
				24 V DC, central plug	MN2Hx-2x30-02-S-ZSR	191 379
	H	• 2x 3/2-way valve • Normal position 1x open 1x closed	01	24 V DC	MN2H-2x30-G-01-S	187 975
				12 V DC, 24 V AC	MN2H-2x30-G-01-S-12DCA	191 359
				110 V AC	MN2H-2x30-G-01-S-110AC	191 361
				230 V AC	MN2H-2x30-G-01-S-230AC	191 363
				24 V DC, central plug	MN2H-2x30-G-01-S-ZSR	191 357
			02	24 V DC	MN2H-2x30-G-02-S	187 981
				12 V DC, 24 V AC	MN2H-2x30-G-02-S-12DCA	191 389
				110 V AC	MN2H-2x30-G-02-S-110AC	191 391
				230 V AC	MN2H-2x30-G-02-S-230AC	191 393
				24 V DC, central plug	MN2H-2x30-G-02-S-ZSR	191 387

Valve terminal type 14 VDMA-01/02, ISO 15 407-1

Ordering data – Individual valve

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Ordering data						
Valves on individual sub-base						
	Code	Valve function	ISO	Voltage	Type	Part No.
with auxiliary pilot air						
   	M	• 5/2-way valve, single solenoid	01	24 V DC	MN2H-5/2-D-01-S	161 068
				12 V DC, 24 V AC	MN2H-5/2-01-S-12DCA	187 877
				110 V AC	MN2H-5/2-D-01-S-110AC	161 881
				230 V AC	MN2H-5/2-D-01-S-230AC	161 895
				24 V DC, central plug	MN2H-5/2-01-S-ZSR	191 310
			02	24 V DC	MN2H-5/2-D-02-S	161 089
				12 V DC, 24 V AC	MN2H-5/2-02-S-12DCA	187 891
				110 V AC	MN2H-5/2-D-02-S-110AC	161 909
				230 V AC	MN2H-5/2-D-02-S-230AC	161 923
				24 V DC, central plug	MN2H-5/2-02-S-ZSR	191 324
	F	• 5/2-way valve, single solenoid • Spring return	01	24 V DC	MN2H-5/2-D-01-FR-S	161 070
				12 V DC, 24 V AC	MN2H-5/2-01-FR-S-12DCA	187 879
				110 V AC	MN2H-5/2-D-01-FR-S-110AC	161 883
				230 V AC	MN2H-5/2-D-01-FR-S-230AC	161 897
				24 V DC, central plug	MN2H-5/2-01-FR-S-ZSR	191 312
			02	24 V DC	MN2H-5/2-D-02-FR-S	161 090
				12 V DC, 24 V AC	MN2H-5/2-02-FR-S-12DCA	187 926
				110 V AC	MN2H-5/2-D-02-FR-S-110AC	161 910
				230 V AC	MN2H-5/2-D-02-FR-S-230AC	161 924
				24 V DC, central plug	MN2H-5/2-02-FR-S-ZSR	191 325
	J	• 5/2-way valve, double solenoid	01	24 V DC	JMN2H-5/2-D-01-S	161 072
				12 V DC, 24 V AC	JMN2H-5/2-01-S-12DCA	187 881
				110 V AC	JMN2H-5/2-D-01-S-110AC	161 885
				230 V AC	JMN2H-5/2-D-01-S-230AC	161 899
				24 V DC, central plug	JMN2H-5/2-01-S-ZSR	191 320
			02	24 V DC	JMN2H-5/2-D-02-S	161 093
				12 V DC, 24 V AC	JMN2H-5/2-02-S-12DCA	187 929
				110 V AC	JMN2H-5/2-D-02-S-110AC	161 913
				230 V AC	JMN2H-5/2-D-02-S-230AC	161 927
				24 V DC, central plug	JMN2H-5/2-02-S-ZSR	191 334
	D	• 5/2-way valve, double solenoid • Dominating signal	01	24 V DC	JMN2DH-5/2-D-01-S	161 074
				12 V DC, 24 V AC	JMN2DH-5/2-01-S-12DCA	187 883
				110 V AC	JMN2DH-5/2-D-01-S-110AC	161 887
				230 V AC	JMN2DH-5/2-D-01-S-230AC	161 901
				24 V DC, central plug	JMN2DH-5/2-01-S-ZSR	191 322
			02	24 V DC	JMN2DH-5/2-D-02-S	161 095
				12 V DC, 24 V AC	JMN2DH-5/2-02-S-12DCA	187 931
				110 V AC	JMN2DH-5/2-D-02-S-110AC	161 915
				230 V AC	JMN2DH-5/2-D-02-S-230AC	161 929
				24 V DC, central plug	JMN2DH-5/2-02-S-ZSR	191 336

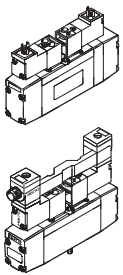
ISO valve terminals
ISO 15 407-1 (VDMA 24 563)

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Valve terminal type 14 VDMA-01/02, ISO 15 407-1

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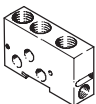
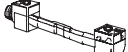
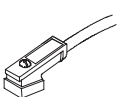
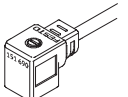
Ordering data – Individual valve

Ordering data						
Valves on individual sub-base						
	Code	Valve function	ISO	Voltage	Type	Part No.
with auxiliary pilot air						
	B	5/3-way valve - Mid-position pressurised	01	24 V DC	MN2H-5/3B-D-01-S	161 080
				12 V DC, 24 V AC	MN2H-5/3B-01-S-12DCA	187 889
				110 V AC	MN2H-5/3B-D-01-S-110AC	161 893
				230 V AC	MN2H-5/3B-D-01-S-230AC	161 907
				24 V DC, central plug	MN2H-5/3B-01-S-ZSR	191 318
			02	24 V DC	MN2H-5/3B-D-02-S	161 101
				12 V DC, 24 V AC	MN2H-5/3B-02-S-12DCA	187 937
				110 V AC	MN2H-5/3B-D-02-S-110AC	161 921
				230 V AC	MN2H-5/3B-D-02-S-230AC	161 935
				24 V DC, central plug	MN2H-5/3B-02-S-ZSR	191 332
	E	5/3-way valve - Mid-position exhausted	01	24 V DC	MN2H-5/3E-D-01-S	161 078
				12 V DC, 24 V AC	MN2H-5/3E-01-S-12DCA	187 887
				110 V AC	MN2H-5/3E-D-01-S-110AC	161 891
				230 V AC	MN2H-5/3E-D-01-S-230AC	161 905
				24 V DC, central plug	MN2H-5/3E-01-S-ZSR	191 316
			02	24 V DC	MN2H-5/3E-D-02-S	161 099
				12 V DC, 24 V AC	MN2H-5/3E-02-S-12DCA	187 935
				110 V AC	MN2H-5/3E-D-02-S-110AC	161 919
				230 V AC	MN2H-5/3E-D-02-S-230AC	161 933
				24 V DC, central plug	MN2H-5/3E-02-S-ZSR	191 330
	G	5/3-way valve - Mid-position closed	01	24 V DC	MN2H-5/3G-D-01	161 076
				12 V DC, 24 V AC	MN2H-5/3G-01-12DCA	187 885
				110 V AC	MN2H-5/3G-D-01-110AC	161 889
				230 V AC	MN2H-5/3G-D-01-230AC	161 903
				24 V DC, central plug	MN2H-5/3G-01-ZSR	191 314
			02	24 V DC	MN2H-5/3G-D-02	161 097
				12 V DC, 24 V AC	MN2H-5/3G-02-12DCA	187 933
				110 V AC	MN2H-5/3G-D-02-110AC	161 917
				230 V AC	MN2H-5/3G-D-02-230AC	161 931
				24 V DC, central plug	MN2H-5/3G-02-ZSR	191 328

Valve terminal type 14 VDMA-01/02, ISO 15 407-1

Accessories

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Ordering data				
Designation		ISO	Type	Part No.
	Blanking plate	01	NDV-01-VDMA	161 107
		02	NDV-02-VDMA	161 114
	Intermediate plate, size 02/size 01		NZV-01/02-VDMA	161 108
	Isolating discs	01	NSC-1/2-01-VDMA	161 105
		02	NSC-3/8-01-VDMA	161 113
	Identification clip – holder		MN2H-BTZ-10x	161 936
	Inscription label 9x17		IBS-9x17	161 937
	Inscription label 9x20		IBS-9x20	250 702
	Manual override tool, detenting	02	AHB-MEB	157 601
	Plug socket, VDMA valves with central plug, for self-assembly		MSSD-EB	151 687
	Plug socket, VDMA valves with central plug M12 (MONO)		MSSD-EB-M12-MONO	188 024
	Plug socket, VDMA valves with central plug M12 (DUO)	02	MSSD-EB-M12-DUO	188 025
	Cable with socket, angled supply socket M12, 4-pin, 5 m cable		SIM-M12-4WD-5-PU	164 258
	Cable with socket, straight supply socket M12, 4-pin, 5 m cable		SIM-M12-4GD-5-PU	164 259
	Cable with socket, straight supply socket M12, 5-pin, 2.5 m cable		SIM-M12-5GD-2,5-PU	175 715
	Cable with socket, straight supply socket M12, 5-pin, 5 m cable		SIM-M12-5GD-5-PU	175 716
	Cable with socket, pre-assembled cable, M12 cube, 0.5 m		KMEB-2-24-M12-0,5-LED	177 677
	Cable with socket, pre-assembled cable, M12 cube, 2.5 m		KMEB-2-24-M12-2,5-LED	177 679
	Cable with socket, cube 24 V DC, PUR, 2.5m		KMEB-2-24-2,5-LED	174 844
	Cable with socket, cube 24 V DC, PUR, 5m		KMEB-2-24-5-LED	174 845
	Cable with socket, cube 0 ... 240 V AC, PUR, 2.5m		KMEB-2-230-2,5	174 846
	Cable with socket, cube 0 ... 240 V AC, PUR, 5m		KMEB-2-230-5	174 847
	Connecting cable, M12, 4-pin, 2.5 m		KM12-M12-GSGD-2,5	18 684
	Connecting cable, M12, 4-pin, 5 m		KM12-M12-GSGD-5,0	18 686

ISO valve terminals
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