

# Valve terminals VTUG with multi-pin plug connection

Technical data – Multi-pin plug connection

The following multi-pin plug connections are available for the valve terminal VTUG:

- Sub-D (25-pin)
- Sub-D (44-pin)
- Flat cable (26-pin)
- Flat cable (50-pin)



## Electrical multi-pin plug

Each pin on the multi-pin plug can actuate exactly one solenoid coil.

If the maximum configurable number of valve positions is 24, this means that 48 valve functions can be addressed.

The valves can be switched by means of positive or negative logic (positive switching or negative switching).

Mixed operation is generally not possible; however, an exception is made for the V22 ... V25 variants with 25-pin Sub-D. With these variants, a specific range of valve positions (e.g. Com 16...19) is supplied with common voltage.

This allows these ranges to be switched with positive or negative logic and valve groups to be switched off independently of the other ranges. Mixed operation within a range is not permitted.

 Note

A double solenoid valve occupies one valve position and two pins on the multi-pin plug. This means that the number of double solenoid valves per manifold rail is limited. (Pin allocation → page 184)

General technical data				
Type	VAEM-L1-S-M1-25	VAEM-L1-S-M1-44	VAEM-L1-S-M3-26	VAEM-L1-S-M3-50
Number of pins	25-pin	44-pin	26-pin	50-pin
Electrical connection	Sub-D plug		Flat cable plug	
Max. no. of valve positions	24		24	
Degree of protection to EN 60529	IP67		IP40	
Material	PA		PA	
Note on materials	RoHS compliant		RoHS compliant	
Certification	c UL us - Recognized (OL)			
	c CSA us (OL)			
CE mark (see declaration of conformity) <sup>1)</sup>	In accordance with EU EMC Directive			
Corrosion resistance class CRC <sup>2)</sup>	2			
Weight [g]	53		45	48

1) For information about the applicability of the component see the manufacturer's EC declaration of conformity at: [www.festo.com/sp](http://www.festo.com/sp) → Certificates.

If the component is subject to restrictions on usage in residential, office or commercial environments or small businesses, further measures to reduce the emitted interference may be necessary.

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

Moderate corrosion stress. Indoor applications in which condensation may occur. External visible parts with primarily decorative requirements for the surface and which are in direct contact with the ambient atmosphere typical for industrial applications.

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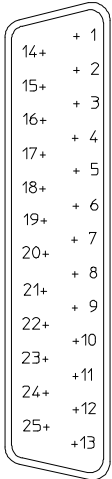
Pin allocation – Sub-D plug, 25-pin												
	Pin	Wire colour <sup>1)</sup>	M1-25 (V20)								M1-25V1 (V22)	
			12x double solenoid		8x double solenoid 8x single solenoid		4x double solenoid 16x single solenoid		24x single solenoid			
	1	WH	VP0	14	VP0	14	VP0	14	VP0	14	VP0	14
	2	BN	VP0	12	VP0	12	VP0	12	VP23	14	VP0	12
	3	GN	VP1	14	VP1	14	VP1	14	VP1	14	VP1	14
	4	YE	VP1	12	VP1	12	VP1	12	VP22	14	VP1	12
	5	GY	VP2	14	VP2	14	VP2	14	VP2	14	VP2	14
	6	PK	VP2	12	VP2	12	VP2	12	VP21	14	VP2	12
	7	BU	VP3	14	VP3	14	VP3	14	VP3	14	VP3	14
	8	RD	VP3	12	VP3	12	VP3	12	VP20	14	VP3	12
	9	BK	VP4	14	VP4	14	VP4	14	VP4	14	VP4	14
	10	VT	VP4	12	VP4	12	VP19	14	VP19	14	VP4	12
	11	GY PK	VP5	14	VP5	14	VP5	14	VP5	14	VP5	14
	12	RD BU	VP5	12	VP5	12	VP18	14	VP18	14	VP5	12
	13	GN WH	VP6	14	VP6	14	VP6	14	VP6	14	VP6	14
	14	BN GN	VP6	12	VP6	12	VP17	14	VP17	14	VP6	12
	15	YE WH	VP7	14	VP7	14	VP7	14	VP7	14	VP7	14
	16	BN YE	VP7	12	VP7	12	VP16	14	VP16	14	VP7	12
	17	GY WH	VP8	14	VP8	14	VP8	14	VP8	14	VP8	14
	18	BN GY	VP8	12	VP15	14	VP15	14	VP15	14	VP8	12
	19	WH PK	VP9	14	VP9	14	VP9	14	VP9	14	VP9	14
	20	BN PK	VP9	12	VP14	14	VP14	14	VP14	14	VP9	12
	21	BU WH	VP10	14	VP10	14	VP10	14	VP10	14	Com 16 ... 19	
	22	BN BU	VP10	12	VP13	14	VP13	14	VP13	14	Com 12 ... 15	
	23	RD WH	VP11	14	VP11	14	VP11	14	VP11	14	Com 8 ... 11	
	24	BN RD	VP11	12	VP12	14	VP12	14	VP12	14	Com 4 ... 7	
	25	BK WH	Com		Com		Com	Com	Com		Com 0 ... 3	

1) To IEC 60757  
VP Valve position


Note  
A grey field means that a double solenoid valve can be used, while a white field means that only single solenoid valves can be used.

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Pin allocation – Sub-D plug, 25-pin								Pin allocation – Sub-D plug, 44-pin				
	Pin	Wire colour <sup>1)</sup>	M1-25V2 (V23)	M1-25V3 (V24)	M1-25V4 (V25)			Pin	Wire colour <sup>1)</sup>	M1-44 (V21)		
											18x double solenoid, 6x single solenoid	
	1	WH	VP0	14	VP0	14	VP0	14	1	WH	VP0	14
	2	BN	VP0	12	VP0	12	VP1	14	2	BN	VP0	12
	3	GN	VP1	14	VP1	14	VP2	14	3	GN	VP1	14
	4	YE	VP1	12	VP1	12	VP3	14	4	YE	VP1	12
	5	GY	VP2	14	VP2	14	VP4	14	5	GY	VP2	14
	6	PK	VP2	12	VP2	12	VP5	14	6	PK	VP2	12
	7	BU	VP3	14	VP3	14	VP6	14	7	BU	VP3	14
	8	RD	VP3	12	VP3	12	VP7	14	8	RD	VP3	12
	9	BK	VP4	14	VP4	14	VP8	14	9	BK	VP4	14
	10	VT	VP4	12	VP5	14	VP9	14	10	VT	VP4	12
	11	GY PK	VP5	14	VP6	14	VP10	14	11	GY PK	VP5	14
	12	RD BU	VP5	12	VP7	14	VP11	14	12	RD BU	VP5	12
	13	GN WH	VP6	14	VP8	14	VP12	14	13	GN WH	VP6	14
	14	BN GN	VP6	12	VP9	14	VP13	14	14	BN GN	VP6	12
	15	YE WH	VP7	14	VP10	14	VP14	14	15	YE WH	VP7	14
	16	BN YE	VP7	12	VP11	14	VP15	14	16	BN YE	VP7	12
	17	GY WH	VP8	14	VP12	14	VP16	14	17	GY WH	VP8	14
	18	BN GY	VP9	14	VP13	14	VP17	14	18	BN GY	VP8	12
	19	WH PK	VP10	14	VP14	14	VP18	14	19	WH PK	VP9	14
	20	BN PK	VP11	14	VP15	14	VP19	14	20	BN PK	VP9	12
	21	BU WH	Com 16 ... 19		Com 16 ... 19		Com 16 ... 19		21	BU WH	VP10	14
	22	BN BU	Com 12 ... 15		Com 12 ... 15		Com 12 ... 15		22	BN BU	VP10	12
	23	RD WH	Com 8 ... 11		Com 8 ... 11		Com 8 ... 11		23	RD WH	VP11	14
	24	BN RD	Com 4 ... 7		Com 4 ... 7		Com 4 ... 7		24	BN RD	VP11	12
	25	BK WH	Com 0 ... 3		Com 0 ... 3		Com 0 ... 3		25	BK WH	VP12	14
	-							26	BK BN	VP12	12	
	-							27	GN GY	VP13	14	
	-							28	YE GY	VP13	12	
	-							29	GN PK	VP14	14	
	-							30	YE PK	VP14	12	
	-							31	GN BU	VP15	14	
	-							32	YE BU	VP15	12	
	-							33	RD GN	VP16	14	
	-							34	RD YE	VP16	12	
	-							35	BK GN	VP17	14	
	-							36	BK YE	VP17	12	
	-							37	BU GY	VP18	14	
	-							38	BU PK	VP19	14	
	-							39	RD GY	VP20	14	
	-							40	RD PK	VP21	14	
	-							41	BK GY	VP22	14	
	-							42	BK PK	VP23	14	
	-							43	BK BU	com		
	-							44	BK RD			

1) To IEC 60757  
VP Valve position

-  - Note  
A grey field means that a double solenoid valve can be used, while a white field means that only single solenoid valves can be used.