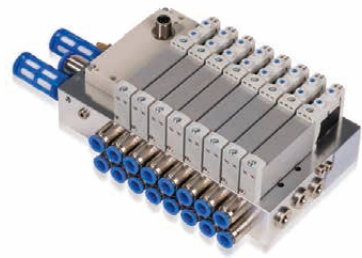


2.2 Valve terminals VTSA

Equipped with VTSA plate and semi in-line valve, with multi-pin plug interface and field bus interface, can achieve high-level communication.



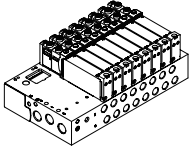
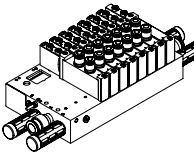
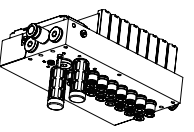



Key features

- IO-Link、Sub-D interface can be choose
- EtherCAT、ProfiNet/IP fieldbus interface can be choose
- Different electrical connections can be achieved by changing the electrical control box
- The IO-Link comes with a troubleshooting function
- Choice of quick push-in connectors
- Multiple pressure zones possible
- Internal or external pilot air with the same manifold rail possible by using blanking plugs
- Manual override: choose from non-detenting
- Sub-base and semi in-line valves for valve terminal VTSA
- Sub-base valves with working ports underneath for installation in control cabinets
- Reduce the assembly and installation time
- Easy mounting thanks to captive screws and seal
- Connection technology easy to change
- Fast troubleshooting thanks to LED display

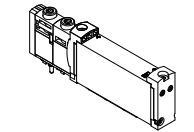
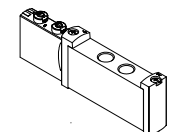
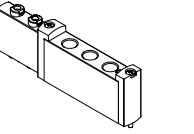
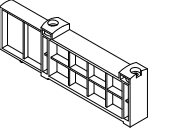

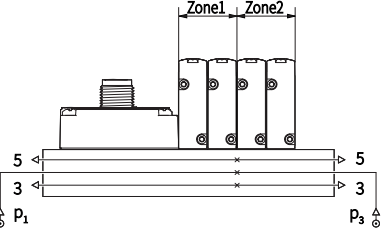
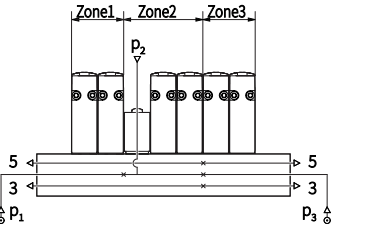



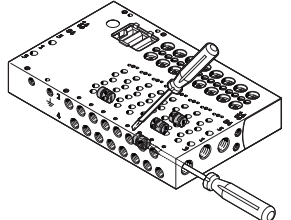
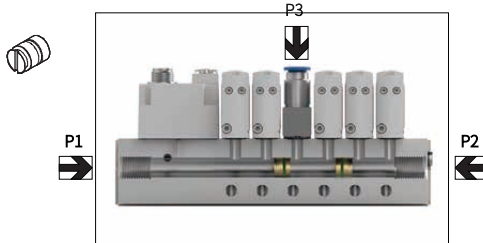
Summary

Valve terminals VTSA, equipped with VTSA plate and semi in-line valve, with multi-pin plug interface and field bus interface, can achieve high-level communication.

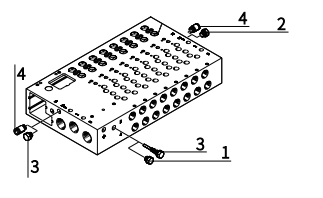
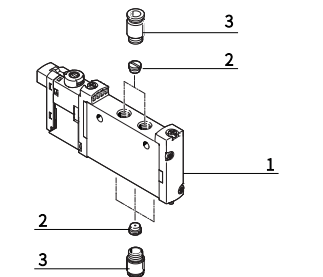
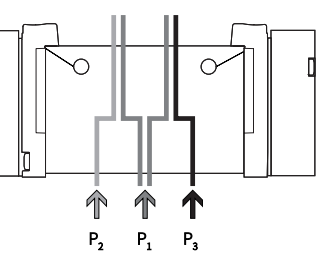
-Key features

Manifold rail			
For sub-base valves			
	<ul style="list-style-type: none"> ◆ The sub-base valves are supplied with external pilot air. The pilot air is set via the manifold rail. The scope of delivery of the manifold rail includes a short and a long blanking plug for setting the pilot air. ◆ For 2x 3/2-way, 3/2-way, 5/2-way and 5/3-way valves ◆ 4 to 24 valve positions with electrical links 		
For semi in-line valves		For control cabinet installation, outlet orientation underneath	
	<ul style="list-style-type: none"> ◆ The sub-base valves are supplied with external pilot air. The pilot air is set via the manifold rail. The scope of delivery of the manifold rail includes a short and a long blanking plug for setting the pilot air. ◆ For 2x 3/2-way, 3/2-way, 5/2-way and 5/3-way valves ◆ 4 to 24 valve positions with electrical links 		For sub-base valves M5 (size 10), G1/8 (size 14) and G1/4 (size 18)
Electrical interface			
Multi-pin interface Sub-D interface			
	<ul style="list-style-type: none"> ◆ The signal generated by the controller flows through the cable to the valve island, thus greatly reducing the installation time ◆ The valve terminal can be equipped with max. 48 solenoid coils. ◆ Sub-base valves and semi in-line valve can be choose, Up to 24 valve positions (max. 48 solenoid coils.) 		
Communication interface			
	<ul style="list-style-type: none"> ◆ The transmission of communication data and power supply is realized through the M12 plug on the valve island. Interface options: <ul style="list-style-type: none"> ◆ As an Ethernet interface for fieldbus nodes ◆ Direct connection to the upper position IO-Link main station. 		<ul style="list-style-type: none"> ◆ Ethernet interface for fieldbus ◆ Support for multiple protocols: EtherCAT; EtherNet / IP; Profinet; CC-link IEFB;

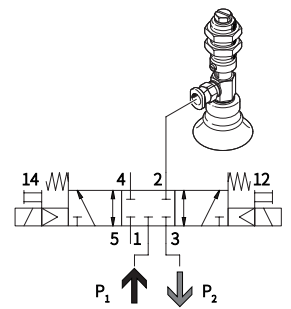
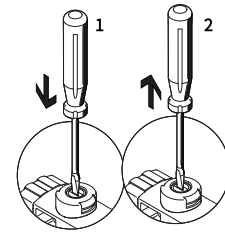
-Key features

Solenoid valve			
VTSA-B.....sub-base valves			VTSA-S.....semi in-line valves
	For the sub-base valves, the air source port (1,3 and 5) and the working air port (2,4) are connected to the valve by the air path (such as the air board)		
			Air source ports (1,3 and 5) are connected through a common gas path. Working port (2,4) is on the valve.
Manifold rail	Blind plate, used for vacancies	Separator	
	For passing the valve position auxiliary intake and exhaust (for ports 1,3 and 5)		Empty cover plate
			For creating pressure zones
Creating pressure zones and separating exhaust air			
Compressed air is supplied and exhausted via the manifold rail and via supply plates. The position of the supply plates and duct separations can be freely selected with the VTSA. A pressure zone is created by separating the internal supply ducts using a separator.			
Pressure zone separation can be used for the following ducts: <ul style="list-style-type: none"> ◆ Duct 1 ◆ Duct 3 ◆ Duct 5 			
Diagrammatic sketch			
Description	The pressure zones can be freely configured with the VTSA. The following duct separations are possible: <ul style="list-style-type: none"> Duct 1 closed  Duct 1, 3, 5 closed  Duct 3, 5 closed  		The number of pressure zones with theVTSAis limited by the number of valve positions on the manifold rail. Note: Each supply plate occupies one valve position.
Installation			

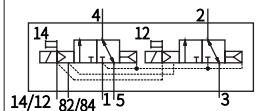
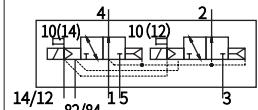
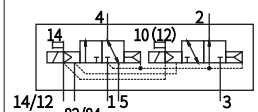
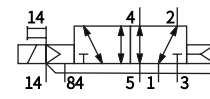
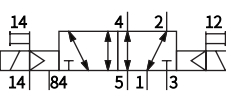
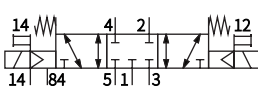
-Key features

Pilot air supply	
Internal pilot air supply	
Internal pilot air supply can be chosen with an operating pressure between 1.5 ... 8 bar, 2.0 ... 8 bar, or 2.5 ... 8 bar (depending on the valve used). The pilot air supply is branched from duct 1 (compressed air supply) using an internal connection.	
External pilot air supply	
External pilot air supply is required for vacuum operation or operating pressures above 8 bar. The port for external pilot air supply (port 12/14) is located on the manifold rail.	
Pilot exhaust air	
The pilot air is exhausted via duct 82/84 of the manifold rail.	
Pilot air supply	
	<ol style="list-style-type: none"> Blanking plug, short, with internal pilot air Blanking plug for duct 12/14 with internal pilot air Blanking plug, long, with external pilot air Push-in fitting in duct 12/14 with external pilot air <p>The manifold rails have an internal connection between duct 12/14 and duct 1. By inserting a blanking plug into this connection, it is possible to switch between internal and external pilot air</p>
Flow control	
	<ol style="list-style-type: none"> Valve Flow control valve Fitting <ul style="list-style-type: none"> Semi in-line valve, individual electrical connection: flow control valve can be fitted in port 1, 3, 5 and/or in port 2, 4 Sub-base valve, individual electrical connection: flow control valve can be fitted in port 2, 4 Valve terminal VTSA, With a multi-pin interface and a fieldbus interface, control valve can be fitted in port 2, 4
Operation with different pressures	
Vacuum operation	
<p>◆ The 3/2-way valves are available in a design with two valves in one valve body and with pneumatic spring return. With these valves, the force for the return movement is obtained from port 1. Vacuum operation is only possible at port 3 and 5, not at port 1. With external pilot air supply, vacuum can be connected at port 1, 3, 5 of the 5/2-way and 5/3-way valves.</p> <p>Note: Pressure must be present at port 1.</p>	
Reverse operation	
The 3/2-way valves with pneumatic spring are not suitable for reverse operation, since at least the minimum pilot pressure must be present in duct 1.	
Pressure divider (internal pilot air)	
	<p>If two different pressures are required, different pressures can be connected at duct 1, 3 and 5</p> <p>Advantages: Any pressure or vacuum can be connected at duct 3 and 5 both with external and internal pilot air</p> <p>Note: With internal pilot air, adhere to the minimum pilot pressure in duct 1 With 2x 3/2-way valves without spring return, Duct 1 always must be abide by the minimum pilot pressure</p>

-Key features

Vacuum, ejector pulse and normal position	
	Vacuum, ejector pulse and normal position with internal pilot air can be achieved by connecting vacuum at duct 3 and pressure for the ejector pulse at duct 1
Manual override	
Manual override with automatic return (non-detenting)	
	<ol style="list-style-type: none"> Press in the plunger of the MO with a pointed object or screwdriver. The pilot valve switches and actuates the main valve Remove the pointed object or screwdriver. The spring force pushes the plunger of the manual override back. The pilot valve returns to its normal position as does the main single solenoid valve (not the case with double solenoid valve code)

Valve functions overview

Code	Diagram	Valve	Description	Size		
				M5	G1/8	G1/4
23R		2x 3/2-way valve/ Normally closed	Pneumatic spring	■	■	■
23U		2x 3/2-way valve/ Normally open	Pneumatic spring	■	■	■
23H		3/2-way valve/ Normally open/ Normally open/ Normally closed/	Pneumatic spring	■	■	■
25M		5/2-way single solenoid valve	-	■	■	■
25B		5/2-way double solenoid valve	Pneumatic spring	-	■	-
35C		5/3-way valve/ Mid-position closed	Mechanical spring	■	■	■

- Valve functions overview

Code	Diagram	Valve	Description	Size		
				M5	G1/8	G1/4
35P		5/3-way valve/Mid-position pressured	Mechanical spring	■	■	■
35E		5/3-way valve/Mid-position exhausted	Mechanical spring	■	■	■

Type codes

VTSA	-B	14	-PN	-Z	-V1	Q10	-L	L	U	L	Q4S	2	R
Valve terminal	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	1)	2)	3)
①	-Valve type S=Semi-inline valve B=Sub-base valve												
②	Size mm: 10;14;18												
③	-Electrical interface type:												
	S25	Sub-D 25pin	EC	EtherCAT	CC	CC-link IEFB	LK	IO-Link	EN	EtherNet/IP	PN	Profinet	
④	-Pilot air:None=Internal, Z=External												
⑤	Material of fittings: None=Brass, nickel-plated; V1=Stainless steel												
⑥	-Compressed air supply connection:												
	Blank	No fitting			Q6	Push-in connector 6 mm, For valve width 10		Q8	Push-in connector 8 mm, For valve width 10				
	Q10	Push-in connector 10 mm, For valve width 14			Q12	Push-in connector 12 mm, For valve width 14、18		Q16	Push-in connector 16 mm, For valve width 18				
⑦	-Compressed air supply connection position:												
	Blank	Both sides			L	Left		R	Right				
	F	Bottom, both sides, for control cabinet			FL	Bottom, left, for control cabinet		FR	Bottom, right, for control cabinet				
⑧	Connection: None=Straight, L=Elbow fitting												
⑨	Silencer: None=nothing; U=Silencer												
⑩	Silencer installation:												
	Blank	Both sides			L	Left							
	R	Right			F	Bottom, for control cabinet							
[Note]	When different valve joints and different valve functions are required, 1) + 2) + 3), refer to [Example]; For different valve port definitions and pressure zones, please consult our company												
1)	Valve connection:												
	Blank	Nothing			Q4S	Push-in connector 4 mm, For valve width 10、14		Q8S	Push-in connector 8 mm, For valve width 14、18				
	Q6S	Push-in connector 6 mm, For valve width 10、14、18											
2)	The number of valve: 2=2; 3=3 24=24, each valve function and quantity can be selected according to actual needs												
3)	-Function and code of the valve												
	R	2×Normally close/pneumatic spring	M	Single solenoid valve/pneumatic spring	C	Mid-position closed	T	Empty blind plate					
	U	2×Normally open/pneumatic spring	B	Double solenoid valve	P	Mid-position pressured	X	Supply plates					
	H	Open closed 1 normally open 1 normally close/pneumatic spring			E	Mid-position exhaust	D	Via separator					
[For example]	VTSA-B14-PN-ZV1-Q10LLL-UL-Q6S3M Q8S3B 2T, represent: 14mm; Profinet protocol control; external pilot control air source, stainless steel connector; left left installed 10mm quick plug L connector; left installed muffler; 1~3 # valve position two five single electric control, working port 6mm quick through connector, 4~6 # valve two five double electric control, 8mm working port, 7~8 # valve position is empty blind.												

Data sheet-VTSA-S/B...

General technical data			
Valve function	2x3/2-way valve		5/2-way valve
Normal position	R	U	H
Stable position	Monostable		Bistable
Pneumatic spring	Yes		NO
Mechanical spring	NO		Yes
The fastest action frequency /S	10		15
Vacuum operation at port 1	NO		With external pilot air
Design	Piston spool		
Sealing principle	Soft		
Actuation type	Electrical		
Type of control	Piloted		
Pilot air supply	External		
Exhaust function	Can be throttled		
Manual override	Non-detenting		
Type of mounting	On manifold rail		
Mounting position	Any		
Overlap	Positive overlap		Indeterminate lap
Signal status indication	LED		
Operating and environmental conditions			
Operating medium	Compressed air to ISO 8573-1:2010 [7:4:4]		
Ambient temperature °C	- 5 ... +60		
Temperature of medium °C	- 5 ... +60		
Electrical data			
Electrical connection	Via E-box		
Operating voltage	[V DC]	24 ±10%	
Power	[W]	1/0.4 (25 ms 后)	
Duty cycle	[%]	100	
Max. switching frequency	[Hz]	3	
Degree of protection to EN 60529 ¹⁾	Individual valve	IP65, IP67	
	Valve terminal VTSA	IP40, IP67/IP65	
Safety characteristics			
Max. positive test pulse with 0 signal	[µs]	1600	
Max. negative test pulse with 1 signal	[µs]	3000	
Shock resistance	Shock test with severity level 2 to FN 942017-5 and EN 60068-2-27		
Vibration resistance	Transport application test with severity level 2 to FN 942017-4 and EN 60068-2-6		
Information on materials			
Housing	Wrought aluminium alloy		
Seals	HNBR, NBR		

Note¹⁾ Depending on the selected configuration

- Data sheet-VTSA-S/B...

Size: 10 Semi in-line valves/Sub-base valve	
Main technical parameters and external dimensions	
Picture	
Type	Semi in-line valves VTSA-S10- Sub-base valve VTSA-B10-
Type	-23R -23U -23H -25M -25B -35C -35P -35E -23R -23U -23H -25M -25B -35C -35P -35E
Flow rate	180 280 180 180 280 180
Ports 1 3 5	G1/8 on the busplate G1/8 on the busplate
Ports 2 4	M5 is on the housing M5 on the busplate
Internal pilot MPa	0.2-0.8 0.25-0.8 0.15-0.8 0.2-0.8 0.2-0.8 0.25-0.8 0.15-0.8 0.2-0.8
External pilot MPa	0.15-0.8 -0.09-0.8, 0.25-0.8 0.15-0.8 -0.09-0.8
Note	When the pilot is used and the main valve adopts negative pressure, the pilot pressure is 0.25-0.8Mpa, When the main valve adopts positive pressure, external pilot pressure ≥ main valve pressure
Dimensions	
Blind board size	

- Data sheet-VTSA-S/B...

Size 14mm Semi in-line valves /Sub-base valve	
Main technical parameters and external dimensions	
Picture	
Type	Semi in-line valves VTSA-S14- Sub-base valve VTSA-B14-
Code	-23R -23U -23H -25M -25B -35C -35P -35E -23R -23U -23H -25M -25B -35C -35P -35E
Flow rate	520 530 500 530 500 520 530 500 530 500
Ports 1 3 5	G1/4 on the busplate G1/4 on the busplate
Ports 2 4	The G1 / 8 is on the valve body G1/8 on the busplate
Internal pilot MPa	0.15-0.8 0.2-0.8 0.15-0.8 0.2-0.8
External pilot MPa	0.15-0.8 -0.09-0.8 0.15-0.8 -0.09-0.8
Note	When the external pilot is used and the main valve adopts negative pressure, the external pilot pressure is 0.2 Mpa;When the main valve adopts positive pressure, External pilot pressure ≥ main valve pressure.
Dimension	
Air source plate size	
Blind board size	

- Data sheet-VTSA-S/B...

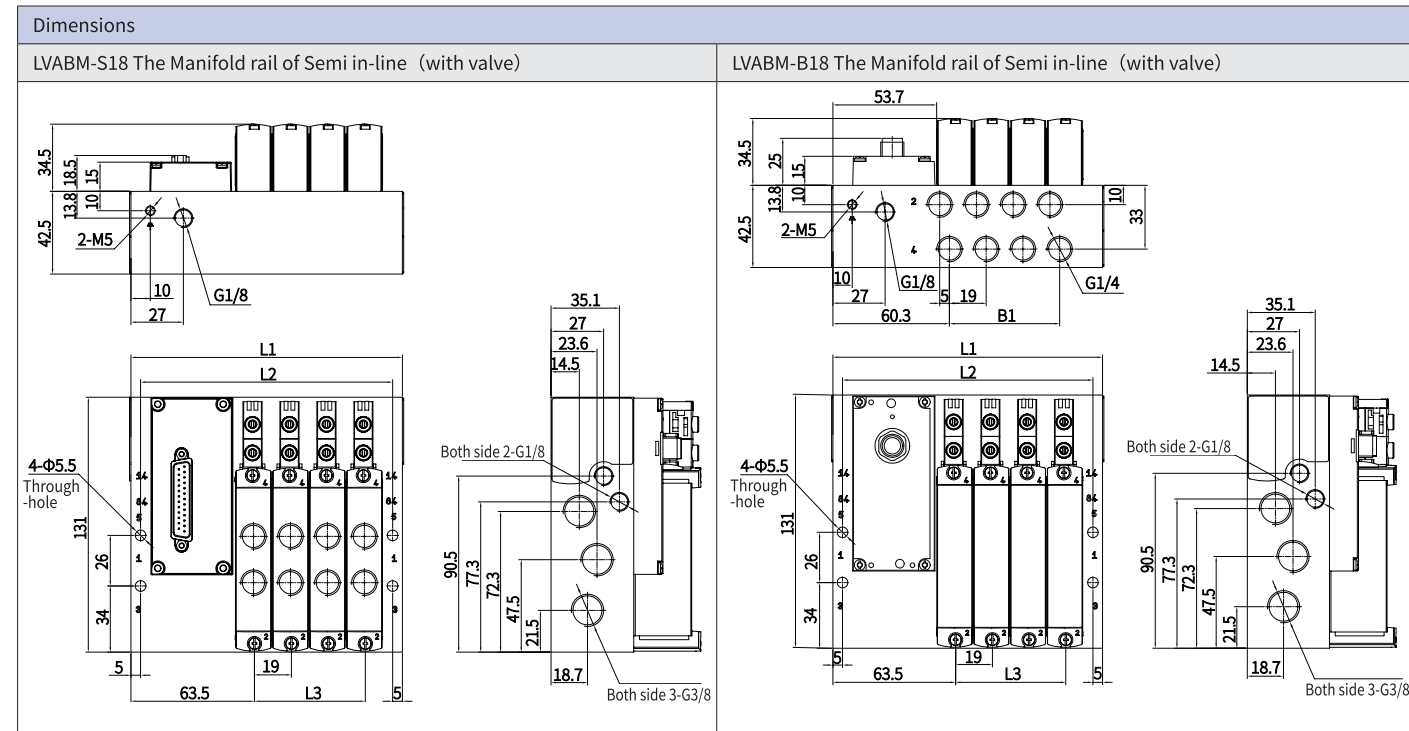
Size 18mm Semi in-line valves /Sub-base valve																		
Main technical parameters and external dimensions																		
Picture																		
	Type	Semi in-line valves VTSA-S18-								Sub-base valve VTSA-B18-								
Code	-23R	-23U	-23H	-25M	-25B	-35C	-35P	-35E	-23R	-23U	-23H	-25M	-25B	-35C	-35P	-35E		
Flow rate	1100			1200			1100			1100			1200			1100		
Ports 1 3 5	G3/8 on the busplate								G3/8 on the busplate									
Ports 2 4	G1 / 4 is on the valve body								G1/4 on the busplate									
Internal pilotMPa	0.15-0.8				0.2-0.8				0.15-0.8				0.2-0.8					
External pilotMPa	0.15-0.8			-0.09-0.8			0.15-0.8			-0.09-0.8								
Note	When the external pilot is used and the main valve adopts negative pressure, the external pilot pressure is ≥ 0.2 Mpa, When the main valve adopts positive pressure, the external pilot pressure is \geq the main valve pressure.																	
Dimension																		
	Retaining screw 82, Gasket, 2-G1/4, 21, 30.5, 3, 14.7, 95.8								Retaining screw 82, Gasket, 2-G1/4, 21, 30.5, 3, 14.7, 95.8									
Blind board size																		
	Retaining screw 82, Gasket, 10, 3								Retaining screw 82, Gasket, 10, 3									

Technical parameter -Manifold rail LVABM

Main technical parameter				
Manifold rail	Size 10	Size 14	Size 18	
Grid dimension	[mm]	10.5	16	19
Mounting position	Any			
Connection type	Semi in-line/sub-base			
Max. no. of valve positions	24			
Connection	12/14	M5	M5	G1/8
	82/84	M5	M5	G1/8
	2, 4	M5	G1/8	G1/4
	1, 3, 5	G1/8	G1/4	G3/8
Storage temperature	[°C]	-20 ... 60		

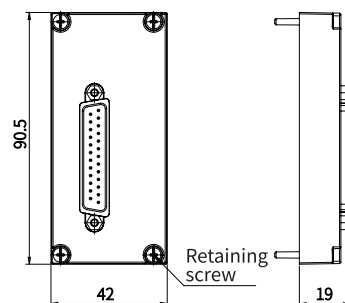
Dimensions	
LVABM-S10 The Manifold rail of Semi in-line (with valve)	LVABM-B10 The Manifold rail of sub-base (with valve)
LVABM-S14 The Manifold rail of Semi in-line (with valve)	LVABM-B14 The Manifold rail of Semi in-line (with valve)

- Technical parameter -Manifold rail LVABM



LVABM	Size 10			Size 14			Size 18		
	L1	L2	L3	L1	L2	L3	L1	L2	L3
4	103	94	31.5	128	118	48	139.5	129.5	57
5	113.5	104.5	42	144	134	64	158.5	148.5	76
6	124	115	52.5	160	150	80	177.5	167.5	95
7	134.5	125.5	63	176	166	96	196.5	186.5	114
8	145	136	73.5	192	182	112	215.5	205.5	133
9	155.5	146.5	84	208	198	128	234.5	224.5	152
10	166	157	94.5	224	214	144	253.5	243.5	171
12	187	178	115.5	256	246	176	291.5	281.5	209
16	229	220	157.5	320	310	240	367.5	357.5	285
20	271	262	199.5	384	374	304	443.5	433.5	361
24	313	304	241.5	448	438	368	519.5	509.5	437

Technical parameters -multi-pin plug connection V-M1-25



Each pin in the multi-pin plug can drive one solenoid, and 25 pins can drive up to 24 solenoids, which means that all dual electronic controls can be configured with up to 12 valve positions, and all single electronic controls can be configured with up to 24 valve positions. (A dual electric solenoid valve occupies one valve position and two pins in the multi-pin plug)

Main technical parameters	
Code	V-M1-25
Number of pins	25 pins
Electrical interface	Sub-D plug
Max number of Valve positions	24
Degree of protection to EN 60529	IP67
Material	PA

-Technical parameters -multi-pin plug connection V-M1-25

Dimension										
Pin allocation –VP valve position (V20)										
Sub-D Plug, 25 pins	Pin	Wire colour	12x Double solenoid	8x Double solenoid		4x Double solenoid		24x Single solenoid		
				8x Single solenoid	16x Single solenoid					
	1	WH	VP0	14	VP0	14	VP0	14	VP0	14
	2	BN	VP0	12	VP0	12	VP0	12	VP23	14
	3	GN	VP1	14	VP1	14	VP1	14	VP1	14
	4	YE	VP1	12	VP1	12	VP1	12	VP22	14
	5	GY	VP2	14	VP2	14	VP2	14	VP2	14
	6	PK	VP2	12	VP2	12	VP2	12	VP21	14
	7	BU	VP3	14	VP3	14	VP3	14	VP3	14
	8	RD	VP3	12	VP3	12	VP3	12	VP20	14
	9	BK	VP4	14	VP4	14	VP4	14	VP4	14
	10	VT	VP4	12	VP4	12	VP19	14	VP19	14
	11	GY PK	VP5	14	VP5	14	VP5	14	VP5	14
	12	RD BU	VP5	12	VP5	12	VP18	14	VP18	14
	13	GN WH	VP6	14	VP6	14	VP6	14	VP6	14
	14	BN GN	VP6	12	VP6	12	VP17	14	VP17	14
	15	YE WH	VP7	14	VP7	14	VP7	14	VP7	14
	16	BN YE	VP7	12	VP7	12	VP16	14	VP16	14
	17	GY WH	VP8	14	VP8	14	VP8	14	VP8	14
	18	BN GY	VP8	12	VP15	14	VP15	14	VP15	14
	19	WH PK	VP9	14	VP9	14	VP9	14	VP9	14
	20	BN PK	VP9	12	VP14	14	VP14	14	VP14	14
	21	BU WH	VP10	14	VP10	14	VP10	14	VP10	14
	22	BN BU	VP10	12	VP13	14	VP13	14	VP13	14
	23	RD WH	VP11	14	VP11	14	VP11	14	VP11	14
	24	BN RD	VP11	12	VP12	14	VP12	14	VP12	14
	25	BK WH	Com		Com		Com	Com	Com	Com

Not:
A gray field means that a double solenoid valve can be used. Only single solenoid valves can be used for fields with a white background

Multi-pin plug connection				
	Description		Length	Code
	Sub-D socket, straight	<ul style="list-style-type: none"> • 25-pin, up to 24 coils, IP40 • Open cable end, 25-wire 	2.5 m	V-M1-25-G-2.5
			5 m	V-M1-25-G-5
	Sub-D socket, angled	<ul style="list-style-type: none"> • 25-pin, up to 24 coils, IP65 • Open cable end, 25-wire 	2.5 m	V-M1-25-K-2.5
			5 m	V-M1-25-K-5

Technical parameters – IO-Link I-Port interface/IO-Link



Main technical parameters			
Types of communication		IO-Link	
Baud rates	COM3	[kbps]	230.4
	COM2	[kbps]	38.4
Electrical interface		<ul style="list-style-type: none"> • Plug M12, 5-pin • A-coded 	
Intrinsic current consumption, logic supply PS		[mA]	30
Intrinsic current consumption, valve supply PL		[mA]	30
Max. number of solenoid coils	L1-S-8-PT		16
	L1-S-16-PT		32
	L1-S-24-PT		48
Max. no. of valve positions	L1-S-8-PT		8
	L1-S-16-PT		16
	L1-S-24-PT		24
Ambient temperature		[° C]	- 5 ... +50
Degree of protection to EN 60529			IP67

Dimensions		Status LED				
		Status LED X1	RD GN BU	Colour	Status	Meaning
				Illuminated green		Data communication faulty
				Flashes green		Normal operating status
				Flashes alternately between red/ green		24 V load voltage supply faulty
				Flashes red		Device error
				Flashes red		24 V load voltage supply and data communication faulty
		Off		No 24 V operating voltage supply or under voltage		

Pin allocation – I-Port interface/IO-Link			
	Pin	Allocation	Description
	1	24V _{EL/SEN}	Operating voltage supply (electronics, sensors/inputs)
	2	24V _{VAL/OUT}	Load voltage supply (valves/outputs)
	3	0V _{EL/SEN}	Operating voltage supply (electronics, sensors/inputs)
	4	C/Q	Data communication
	5	0V _{VAL/OUT}	Load voltage supply (valves/outputs)
Housing ,FE			Electrical grounding

Connecting cable, for IO-Link			
Description	Length (m)	Code	
	2	M12-F5T-2	
	5	M12-F5T-5	
	10	M12-F5T-10	
In-line plug, M12,5-pin, 60V AC / DC, working temperature-25~85 °C, IP65			

Technical parameters – The Ethernet interface is used for the fieldbus nodes

•The following bus can be supported:LK=IO-Link;CC=CC-link IEFB;EC= EtherCAT;EN=EtherNet/IP;PN=Profinet

General technical data			
Types of communication		Ethernet	
Electrical interface		M12 socket, 4 pins, size A	
Bus communication interface(OUT)		M12 plug , 4 pins, sizeD	
Bus communication interface(IN)			
Baud rate	COM1	[kbps]	100
	COM2	[kbps]	100
Inherent current consumption, the logical power supply PS		[mA]	30
Inherent current consumption, the valve power supply PL		[mA]	30
Valve positions For EtherCAT、PROFINET、EtherNet/IP、CC-link IEFB	CTEU-MPL-8		8
	CTEU-MPL-16		16
	CTEU-MPL-24		24
Valve position, For EtherCAT	CTEU-ECT-8		8
	CTEU-ECT-16		16
	CTEU-ECT-24		24
Ambient temperature		[° C]	- 5 ... +50
Degree of protection to EN 60529			IP67


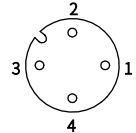
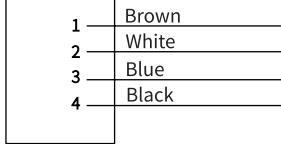

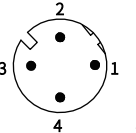
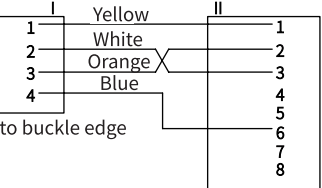
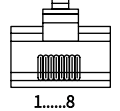

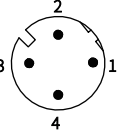
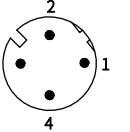
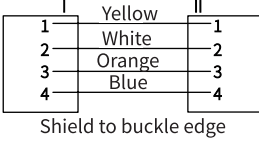
Dimensions	

Pin allocation-Ethernet interface				
	PWR	Pin	Name	Description
		1	UA	Actuator power (electronics, sensors/outputs)
		2	GND(grounding)	
		3	US	Bus power
4	GND			
	OUT	Pin	Name	Description
		1	Tx+	Send data +
		2	Rx+	Receive data +
		3	Tx-	Send data -
	IN	Pin	Name	Description
		1	Tx+	Send data +
		2	Rx+	Receive data +
		3	Tx-	Send data -
		Pin	Name	Description
		4	Rx-	Receive data -

-Technical parameters – The Ethernet interface is used for the fieldbus nodes

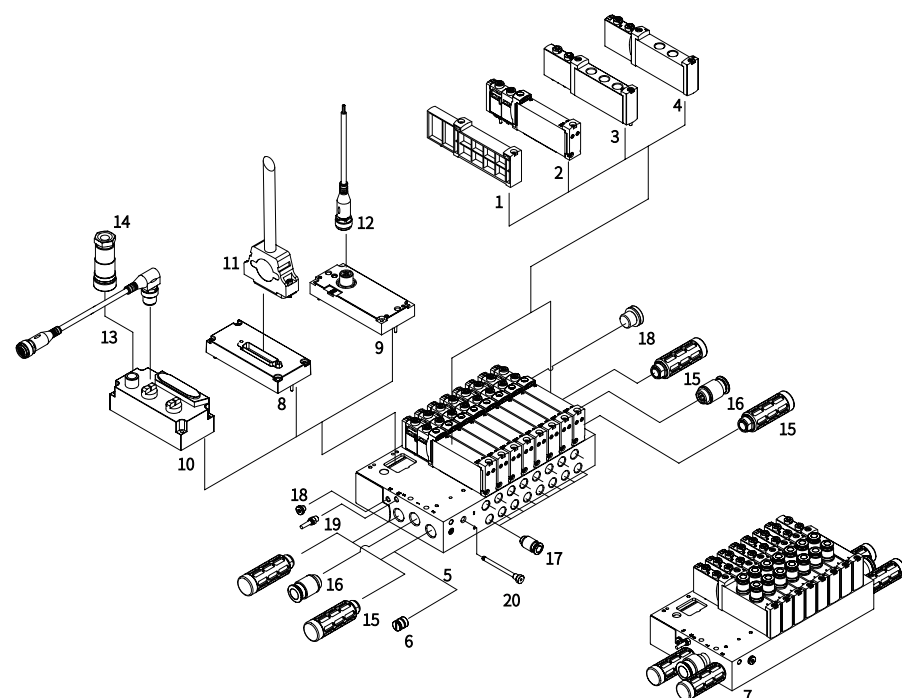
Status LED		
LED	Indication	Function
PT	Green	Ethernet/IP
	Orange	Profinet
	Blue	EtherCAT
	White	CC-link IEFB
X1	Illuminated green	Status: the equipment is working normally
	Flashes green	Stand-by: The equipment is not configured
	Flashes alternately between red/ green	Automatic control: The equipment is undergoing a startup test
	Flashes red 1HZ	Fault recovery
	Illuminated red	No fault recovery
	Off	The US has no input voltage
X2	Illuminated green	Connected
	Flashes green 1HZ	Unconnected
	Flashes alternately between red/ green	Self-test; the equipment is undergoing a startup test
	Flashes red 1HZ	Overtime
	Illuminated red	IP repeat
	Off	The US has no input voltage or no IP address
L/A1	Illuminated green	The device (IN) is connected to the Ethernet
	Flashes yellow	The Device (IN) sends and receives the Ethernet
	Off	The device (IN) is not connected to the Ethernet
L/A2	Illuminated green	The Device (OUT) is connected to the Ethernet network
	Flashes yellow	The Device (OUT) sends / receives Ethernet frames
	Off	The device (OUT) is not connected to the Ethernet network
US	Green	The input voltage is normal
	Flashes red	Low input voltage (<18V)
UA	Green	The output voltage is normal
	Flashes red	Low Output voltage (<18V)
	Illuminated red	No output voltage is present (<11 V)

-Technical parameters – The Ethernet interface is used for the fieldbus nodes

Connecting cable				
	Description		Length	Code
	 	In-line plug, M12,4-pin, 250V AC / DC, working temperature-40~80°C IP68	3	M415-PH0434-030
			5	M415-PH0434-050
	  <p>Shield to buckle edge</p> 	M12 straight head / RJ 45 straight head, 4 needles, 60V AC / DC, working temperature-20~60°C IP68	0.5	E834-PHGPNC-005
			1.5	E834-PHGPNC-015
			5	E834-PHGPNC-050
	   <p>Shield to buckle edge</p>	M12 straight male head, 4 needles, 60V AC/DC, working temperature-20~60°C IP68	0.5	M414-PHGPNC-005
			1.5	M414-PHGPNC-015
			5	M414-PHGPNC-050

Type of mounting

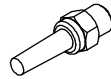
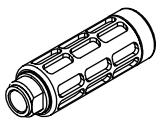


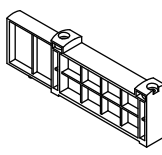
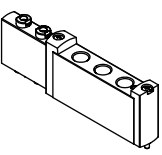

· Peripherals overview



· Installation of components and list of accessories

Serial number	Names	Type	Description
1	Cover plate	VABB-L1...	For covering a vacant position
2	Solenoid valve	VTSA...	Sub-base valves M5,G1/8, G1/4
3	Intake board	VABF-L1-...	For air supply at port 1 and ports 3 and 5
4	Solenoid valve	VTSA...	Semi in-line valve M5,G1/8, G1/4
5	Manifold rail	VABM-L1...	For 4 to 10, 12, 16, 20 and 24 valve positions, Sub-base valves
6	Separator	VABD...	For creating pressure zones
7	Manifold rail	VABM-L2-...	For 4 to 10, 12, 16, 20 and 24 valve positions, in-line valve
8	Electrical interface	V-M1-25	Sub-D
9	Electrical interface	VAEM-L1-S-...-PT	IO-Link
10	Electrical interface	CTEU-...	Bus node
11	Connecting cable	V-M1-25-...	Sub-D cable
12	Connecting cable	M12-F5T-...	Straight, IO-Link
13	Connecting cable	FCC-M414-...	For Bus node
14	Connecting cable	PH0434-...	Power supply for bus nodes
15	Silencer	PSLU...plastics	For port 3 and 5
16	Push-in fitting	PPS4...	For air supply, port 1
17	Push-in fitting	PPS4...	For port 2 and 4
18	Blanking plug	SP01...	For internal/external pilot air
19	Silencer	UC-M5...Cementation	
20	Long Blanking plug	-...	For external pilot air

Accessories

	Description	Type
Silencer		
	For M5	BSL-M5
	For M5	PSU-M5
	For G1/8	PSU-01
	For G1/4	PSU-02
Push-in fitting		
	With an O-ring-straight pipe thread	
	For thread G1 / 8, tube diameter 4mm	PC04-01
	For thread G1 / 8, tube diameter 6mm	PC06-01
	For thread G1 / 8, tube diameter 8mm	PC08-01
	For thread G1 / 4, tube diameter 6mm	PC06-02
	For thread G1 / 4, tube diameter 8mm	PC08-02
	For thread G1 / 4, tube diameter 10mm	PC10-02
For thread G1 / 4, tube diameter 12mm	PC12-02	
Blanking plug		
	M5 thread	BP-M5
	G1/8 thread	BP-G01
	G1/4 thread	BP-G02
Cover plate		
	Width 10 mm (With screws and gasket)	VABB-10-T
	Width 14 mm (With screws and gasket)	VABB-14-T
	Width 18 mm (With screws and gasket)	VABB-18-T
Manifold rail		
	Supply ports 1, 3, 5, width 10 mm (With screws and gasket)	X10-M7-T1
	Supply ports 1, 3, 5, width 14 mm (With screws and gasket)	X14-G18-T1
	Supply ports 1, 3, 5, width 18 mm (With screws and gasket)	X18-G14-T1
Separator		
	For manifold rail, size 10, M5/ sub-base valves	VABD-10-B
	For all manifold rails, size 14	VABD-14-B
	For all manifold rails, size 18	VABD-18-B

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