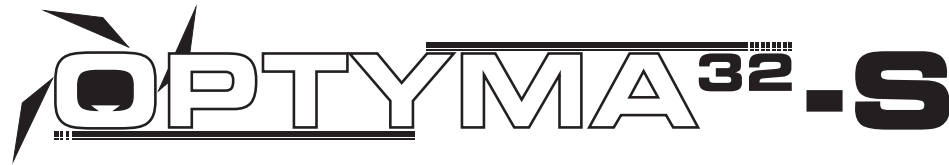


3/2-5/2-5/3 MANIFOLD VALVES (SUBBASE) Series OPTYMA32



General characteristics

Optyma32-S has been designed in order to complete the Optyma series of valves.

Optyma -S, 12.5mm size, integrates all the technical features already developed and implemented on the Optima T & F such as the integrated electrical connection. Further technical specifications are:

- Flow rate: up to 550[Nl/min], using the modular base with Ø8 quick fitting tube
- Modular base available with Ø4, Ø6, Ø8 quick fitting tube
- The solenoid pilots are low consumption and fitted on the same side of the valve
- Mono and bi-stable valves have the same dimension
- Easy and fast assembly on the sub base thanks to the "one screw" mounting solution
- Possibility to replace a valve without the need of disconnecting the pneumatic pipes
- Electrical and pneumatic connections positioned on the same side
- Possibility to operate with different pressures and vacuum
- Quick coupling connections for consumption, exhaust and air supply all on the same side
- Management of 32 electrical signals, (16 bi-stable or any combination off mono and bi-stable vales up to max 32 signals).
- The electrical connection is achieved thanks to a 37 pole connector, as an alternative it is possible to use a 25 pole connector which can handle a maximum of 22 electrical signals.
- The protection grade is IP65 directly integrated in the manifold components.
- Manifolds can be directly integrated with the most common field bus systems.

"Shifting time of pneumatic directional control valves or moving parts, logic devices were measured in accordance to ISO 12238:2001, Pneumatic fluid power-Directional control valves-Measurement of shifting time"

Main characteristics

- One size: 12.5mm thick
- Monostable and bistable valves with same dimensions
- Modular subbase with two positions
- Modular subbases assembled via tie rods
- Quick coupling connections directly integrated in the sub base
- Integrated and optimized electrical connections as standard
- IP65 protection grade as standard

Construction characteristics

Body	Technopolymer
Operators	Technopolymer
Spools	AISI 303 stainless steel
Spacers	Technopolymer
Seals	NBR
Piston seals	NBR
Springs	AISI 302 stainless steel
Pistons	Technopolymer

Technical characteristics

Voltage	24 VDC \pm 10% PNP (NPN and AC on request)
Pilot consumption	0,5 Watt
Valve working pressure [1]	from vacuum to 10 bar max.
Pilot working pressure [12-14]	from 2,5 to 7 bar max.
Operating temperature	from -5°C to +50°C
Protection degree	IP65
Life (standard operating conditions)	50.000.000
Fluid	Filtered and lubricated air or not (if lubricated air, the lubrication must be continuous)





SOLENOID VALVES OPTYMA

(series 2200, section 2)

PNEUMAX

	Symbol	Description	Code	Flow rate at 6 bar, Δp=1	Pressure range	Min. piloting pressure	
OPTYMA-S 	5/2	EV 5/2 Solenoid - Spring (A)	2241.52.00.39.*	550NI/min	From vacuum to 10 bar	2,5 bar	
		EV 5/2 Solenoid - Differential (B)	2241.52.00.36.*				
		EV 5/2 Solenoid - Solenoid (C)	2241.52.00.35.*				
	5/3	EV 5/3 Solenoid - Solenoid (E) (5/3 C.C.)	2241.53.31.35.*	400NI/min			
		2x3/2	EV 2x3/2 Sol. - Sol. N.C.-N.C. (F) (5/3 O.C.)	2241.62.44.35.*			420NI/min
			EV 2x3/2 Sol. - Sol. N.O.-N.O. (G) (5/3 P.C.)	2241.62.55.35.*			
			EV 2x3/2 Sol. - Sol. N.C.-N.O. (H)	2241.62.45.35.*			
EV 2x3/2 Sol. - Sol. N.O.-N.C. (I)	2241.62.54.35.*						

* = List of voltage: **02** = micros. 24 VDC (PNP) - **12** = micros. 24 VDC (NPN) - **05** = micros. 24 VAC

Accessories











Closing plates	Modular base for monostable solenoid valve	Modular base for bistable solenoid valve	Intermediate Inlet/ Exhaust module	Diaphragm plug
2240.00	224*.01M	224*.01B	2240.10	2230.17
	* 4 = Quick fitting tube Ø4 6 = Quick fitting tube Ø6 8 = Quick fitting tube Ø8	** 1 = opened port 6 = separated ports 7 = port 1 separated 8 = port 3 - 5 separated		

Left Endplates				Right Endplates		Silencers polyethylene series SPLR	
37 Poles		25 Poles				SPLR-*	SPLR-**
2240.02.37P	2240.12.37P	2240.02.25P	2240.12.25P	2240.03.00	2240.03.25P		
2240.02.37N	2240.12.37N	2240.02.25N	2240.12.25N				
2240.02.37A	2240.12.37A	2240.02.25A	2240.12.25A				
02 = External feeding base (12/14 divided from conduit 1) 12 = Self-feeding Base (12/14 connected with conduit 1)				00 = Closed outlet electrical connection 25P = 25 Poles PNP connection		* Diameter 6,0 mm ** Diameter 10,0 mm	

Tie-rod M3	Nut
2240.KT.*	2240.KD.00
* : Nr. Positions (02, 04...32)	

Cable complete with connector 25 poles IP65	Description	Code	Cable complete with connector 25 poles IP65	Description	Code
	3 meters - In line	2300.25.03.10		3 meters - In line	2400.25.03.25
	5 meters - In line	2300.25.05.10		5 meters - In line	2400.25.05.25
	10 meters - In line	2300.25.10.10		10 meters - In line	2400.25.10.25
	3 meters - 90° angle	2300.25.03.90			
	5 meters - 90° angle	2300.25.05.90			
	10 meters - 90° angle	2300.25.10.90			
	3 meters - In line	2400.37.03.10			
	5 meters - In line	2400.37.05.10			
	10 meters - In line	2400.37.10.10			
	3 meters - 90° angle	2400.37.03.90			
	5 meters - 90° angle	2400.37.05.90			
	10 meters - 90° angle	2400.37.10.90			

Serial systems OPTYMA-S

Module 8 Inputs/Outputs 2240.08S	Slave CANopen [®] 5522.32S	Slave DeviceNet 5422.32S	Slave PROFIBUS DP 5322.32S
	 Outlets, maximum n.: 32 Maximum n. outlets that can be actuated simult.: 32	 Outlets, maximum n.: 32 Maximum n. outlets that can be actuated simult.: 32	 Outlets, maximum n.: 32 Maximum n. outlets that can be actuated simult.: 32
Slave EtherCAT [®] 5722.32S.EC	Slave PROFINET IO RT/IRT 5722.32S.PN	Slave EtherNet/IP 5722.32S.EI	
 Outlets, maximum n.: 32 Maximum n. outlets that can be actuated simult.: 32	 Outlets, maximum n.: 32 Maximum n. outlets that can be actuated simult.: 32	 Outlets, maximum n.: 32 Maximum n. outlets that can be actuated simult.: 32	
Slave Powerlink 5722.32S.PL	Slave Modbus TCP 5722.32S.MT	Module 8 Inputs	
 Outlets, maximum n.: 32 Maximum n. outlets that can be actuated simult.: 32	 Outlets, maximum n. : 32 Maximum n. outlets that can be actuated simult.: 32	 Maximum n. inlet module: 4	

Accessories

POWER SUPPLY connector

Female straight connector
M12A 4P
5312A.F04.00








INPUT connector



Male straight connector
M8 3P
5308A.M03.00



NETWORK connectors

Female straight connector M12A 5P 5312A.F05.00	Male straight connector M12A 5P 5312A.M05.00	Female straight connector M12B 5P 5312B.F05.00	Male straight connector M12B 5P 5312B.M05.00	Male straight connector M12D 4P 5312D.M04.00
 For Bus CANopen [®] and DeviceNet	 For Bus CANopen [®] and DeviceNet	 For Bus PROFIBUS DP	 For Bus PROFIBUS DP	 For Bus EtherCAT [®] , EtherNet/IP, PROFINET IO RT/IRT, Powerlink and Modbus/TCP

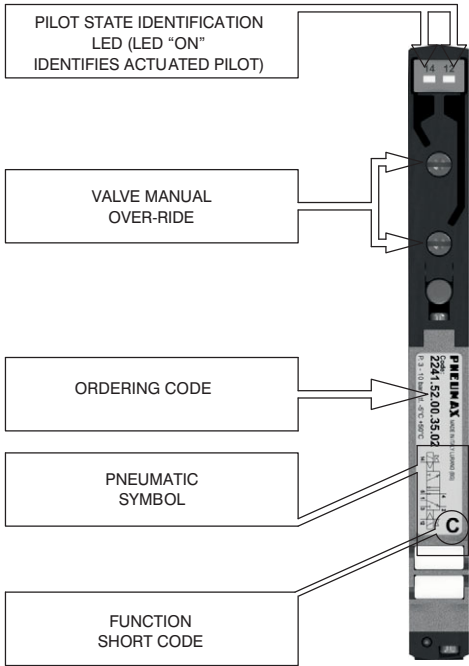
Plugs

Plug M8 5300.T08	Plug M12 5300.T12
	

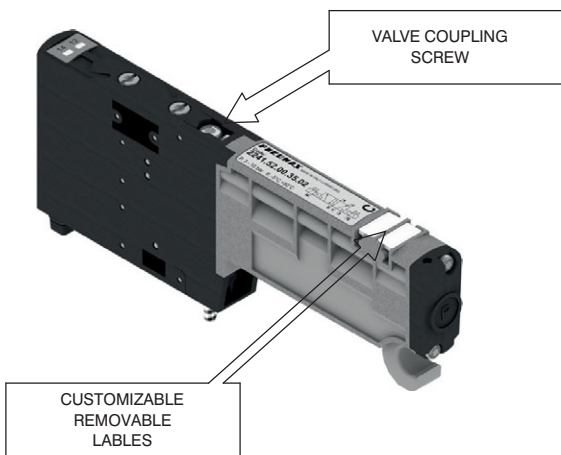
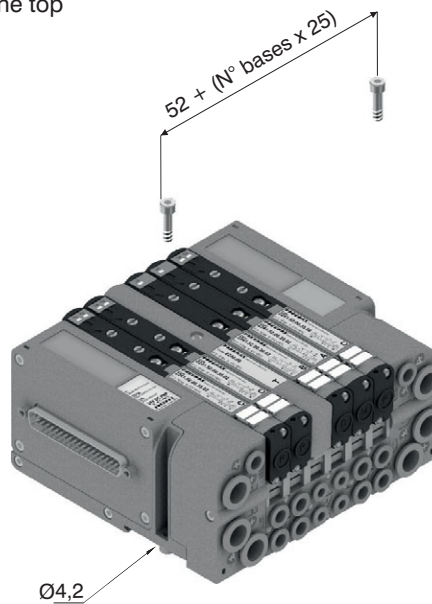
The 2200 series is certified by UL in compliance with both Canadian and USA safety requirements as recognized component and included in the **UL file MH49479**. The manifolds assembled and tested by Pneumax are UL certified and bear the "UL Recognized Component" marking. Optyma-S manifolds, since they are devices for "class 2 circuits", according with UL standard UL 429/CSA C22.2 N°139, are not considered dangerous for electric shock or fire and thus a **UL certification is not required for cables and connectors**.

Technical modifications keep in reserve !

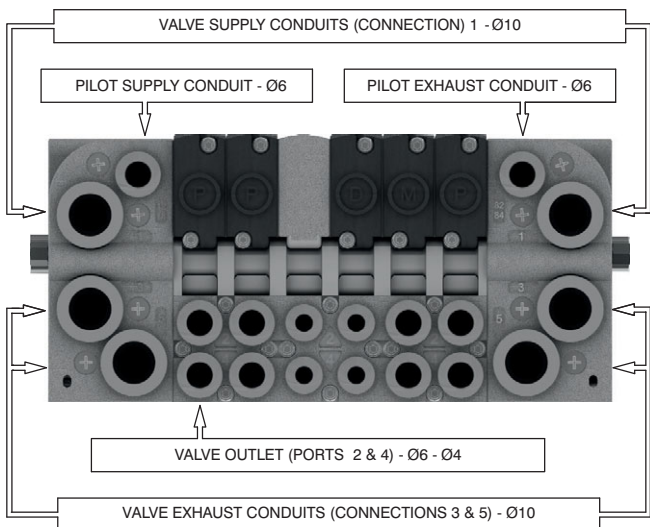
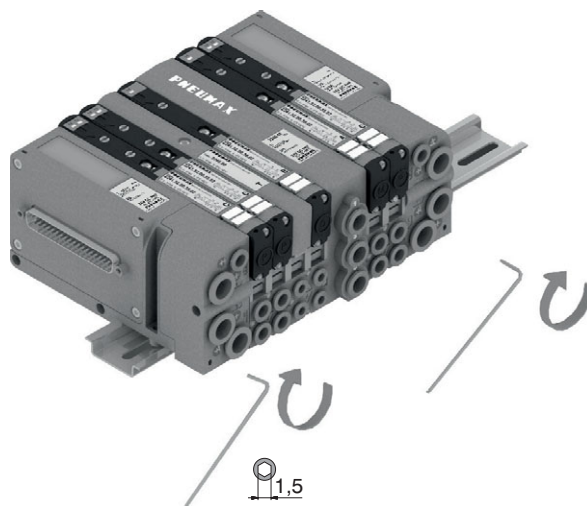
(2019/07)



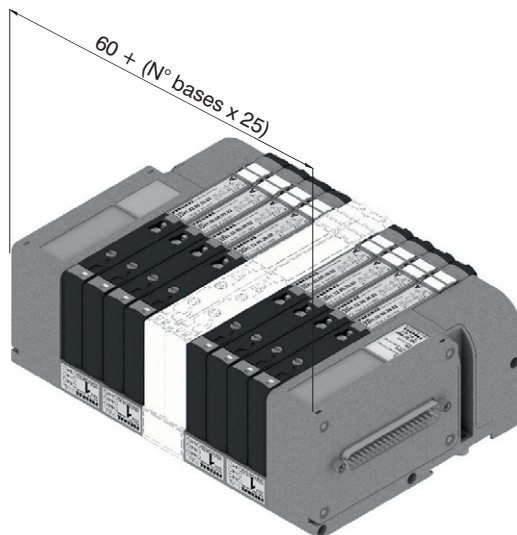
From the top



DIN rail fixing



Maximum possible size
According to valves used



Technical modifications keep in reserve !

(2019/07)

OPTYMA³².T

General characteristics

With the introduction of the "T" configuration of solenoid valves with integrated pneumatic connections fitted directly on the sub base the 2500 series (called OPTYMA) is now richer than ever.

Many technical features make the new product interesting:

- Flow rate of 800 NI/min
- Low consumption coils placed all in one side of the valve
- Quick mounting of the valve to the base using just one screw
- Possibility to use different pressures along the manifold (including vacuum)
- Possibility to replace the valve without the need to disconnect the connections
- IP65 environmental protection
- Electrical connection directly integrated into the base, 32 electrical signals available (can be used to build up a manifold of 32 monostable valves, 16 bistable valves or any combination within that limit).

The electrical connection is made via 37 pin SUB-D connector.

Possibility to integrate with Field Bus modules (all the most common protocols will be available).

Possibility to connect input modules (even on the base that does not have the Field Bus module).

Large use of technopolymer material reduces the overall weight of the manifold.

"Shifting time of pneumatic directional control valves or moving parts, logic devices were measured in accordance to ISO 12238:2001, Pneumatic fluid power-Directional control valves-Measurement of shifting time".

Main characteristics

Integrated and optimized electrical connection system

IP65 protection degree

Only one 19mm size

Electrical line connections on one side

Monostable and bistable solenoid valves with the same size dimensions

Easy and fast manifold assembly - tie rod system to hold the sub bases together

All pneumatic connections (push-in) on the same side of the manifold

Construction characteristics

Body	Technopolymer
Operators	Technopolymer
Spools	Nikel plated steel / Technopolymer
Spacers	Technopolymer
Seals	NBR
Piston seals	NBR
Springs	AISI 302 stainless steel
Pistons	Technopolymer

Technical characteristics

Voltage	24 VDC \pm 10% PNP (NPN and AC on request)
Pilot consumption	1,3 Watt
Valve working pressure [1]	from vacuum to 10 bar max.
Pilot working pressure [12-14]	From 3 to 7 bar max.
Operating temperature	-5°C+50°C
Protection degree	IP65
Life (standard operating conditions)	50.000.000
Fluid	Filtered and lubricated air or not (if lubricated air, the lubrication must be continuous)

Technical modifications keep in reserve !

(2019/07)





SOLENOID VALVES OPTYMA

(series 2500, section 2)

PNEUMAX

	Symbol	Description	Code	Flow rate at 6 bar, Δp=1	Pressure range	Min. piloting pressure
OPTYMA-T 	5/2	Solenoid - Spring (A)	2541.52.00.39.*	750NI/min	From vacuum to 10 bar	3 bar
		Solenoid - Differential (B)	2541.52.00.36.*			
		Solenoid - Solenoid (C)	2541.52.00.35.*			
	5/3 2x3/2	Solenoid - Solenoid (E) (5/3 C.C.)	2541.53.31.35.*	600NI/min		
		Solenoid - Solenoid N.C.-N.C. (F) (5/3 O.C.)	2541.62.44.35.*	700NI/min		
		Solenoid - Solenoid N.O.-N.O. (G) (5/3 P.C.)	2541.62.55.35.*			
		Solenoid - Solenoid N.C.-N.O. (H)	2541.62.45.35.*			
Solenoid - Solenoid N.O.-N.C. (I)	2541.62.54.35.*					

* = List of voltage: **02** = micros. 24 VDC (PNP) - **12** = micros. 24 VDC (NPN) - **05** = micros. 24 VAC

Accessories

Closing plates	Modular base for monostable solenoid valve	Modular base for bistable solenoid valve	Intermediate Inlet/Exhaust module	Diaphragm plug
2530.00	254*.01M	254*.01B	2540.10	2530.17
	* 1 = Connection G 1/8" female 4 = Cartridge Ø 4	6 = Quick fitting tube Ø 6 8 = Quick fitting tube Ø 8		

Left Endplates				Right Endplates		Silencers polyethylene series SPLR	
37 Poles		25 Poles		2540.03.00	2540.03.25P	SPLR-*	SPLR-**
2540.02.37P	2540.12.37P	2540.02.25P	2540.12.25P				
2540.02.37N	2540.12.37N	2540.02.25N	2540.12.25N				
2540.02.37A	2540.12.37A	2540.02.25A	2540.12.25A				
				00 = Closed outlet electrical connection 25P = 25 Poles PNP connection		* Diameter 8 mm ** Diameter 12 mm	

Tie-rod M4	Nut	Tie-rod joint	Extension
2540.KT.*	2540.KD.00	2540.KG.00	2540.KP.01
* : Nr. Position (01 - 16)			

Cable complete with connector 25 poles IP65	Description	Code	Cable complete with connector 25 poles IP65	
	3 meters - In line	2300.25.03.10		
	5 meters - In line	2300.25.05.10		
	10 meters - In line	2300.25.10.10		
	3 meters - 90° angle	2300.25.03.90		
	5 meters - 90° angle	2300.25.05.90		
	10 meters - 90° angle	2300.25.10.90		
Cable complete with connector 37 poles IP65	Description	Code	Description	Code
	3 meters - In line	2400.37.03.10	3 meters - In line	2400.25.03.25
	5 meters - In line	2400.37.05.10	5 meters - In line	2400.25.05.25
	10 meters - In line	2400.37.10.10	10 meters - In line	2400.25.10.25
	3 meters - 90° angle	2400.37.03.90		
	5 meters - 90° angle	2400.37.05.90		
	10 meters - 90° angle	2400.37.10.90		

Technical modifications keep in reserve !

(2019/07)



Serial systems OPTYMA-T

Module 8 Inputs 2540.08T	Slave CANopen [®] 5525.32T	Slave DeviceNet 5425.32T	Slave PROFIBUS DP 5325.32T
	Outlets, maximum n. : 32 Maximum n. outlets that can be actuated simult.: 32 	Outlets, maximum n. : 32 Maximum n. outlets that can be actuated simult.: 32 	Outlets, maximum n. : 32 Maximum n. outlets that can be actuated simult.: 32
Slave EtherCAT [®] 5725.32T.EC	Slave PROFINET IO RT/IRT 5725.32T.PN	Slave EtherNet/IP 5725.32T.EI	Slave Powerlink 5725.32T.PL
Outlets, maximum n. : 32 Maximum n. outlets that can be actuated simult.: 32 	Outlets, maximum n. : 32 Maximum n. outlets that can be actuated simult.: 32 	Outlets, maximum n. : 32 Maximum n. outlets that can be actuated simult.: 32 	Outlets, maximum n. : 32 Maximum n. outlets that can be actuated simult.: 32
Slave Modbus TCP 5725.32T.MT	Module 8 inputs - M8 5225.08T	Module 8 inputs - M12 5225.12T	2 Input module 5225.2 _ . _ _ T
Outlets, maximum n. : 32 Maximum n. outlets that can be actuated simult.: 32 	Maximum n. inlet module for Canopen [®] , DeviceNet and EtherCAT [®] : 4 Maximum n. inlet module for PROFIBUS DP, PROFINET IO RT/IRT, EtherNet/IP and Powerlink : 8 	Maximum n. inlet module for Canopen [®] , DeviceNet and EtherCAT [®] : 4 Maximum n. inlet module for PROFIBUS DP, PROFINET IO RT/IRT, EtherNet/IP and Powerlink : 8 	Maximum n. inlet module for Canopen [®] , DeviceNet PROFIBUS DP and EtherCAT [®] : 1 Maximum n. inlet module for PROFINET IO RT/IRT, EtherNet/IP and Powerlink : 2
	2 Input module - Pt100 5225.2P . 0 _ T	2 Input module - Pt100 extended range 5225.2P . 1 _ T	
	Maximum n. inlet module for Canopen [®] , DeviceNet PROFIBUS DP and EtherCAT [®] : 1 Maximum n. inlet module for PROFINET IO RT/IRT, EtherNet/IP and Powerlink : 2 	Maximum n. inlet module for Canopen [®] , DeviceNet PROFIBUS DP and EtherCAT [®] : 1 Maximum n. inlet module for PROFINET IO RT/IRT, EtherNet/IP and Powerlink : 2 	

Accessories

POWER SUPPLY connector

Female straight connector M12A 4P
5312A.F04.00

INPUT connectors

Male straight connector M8 3P	Male straight connector M12A 5P
5308A.M03.00	5312A.M05.00

NETWORK connectors

Female straight connector M12A 5P	Male straight connector M12A 5P	Female straight connector M12B 5P	Male straight connector M12B 5P	Male straight connector M12D 4P
5312A.F05.00	5312A.M05.00	5312B.F05.00	5312B.M05.00	5312D.M04.00
For Bus CANopen [®] and DeviceNet	For Bus CANopen [®] and DeviceNet	For Bus PROFIBUS DP	For Bus PROFIBUS DP	For Bus EtherCAT [®] , EtherNet/IP, PROFINET IO RT/IRT, Powerlink and Modbus/TCP

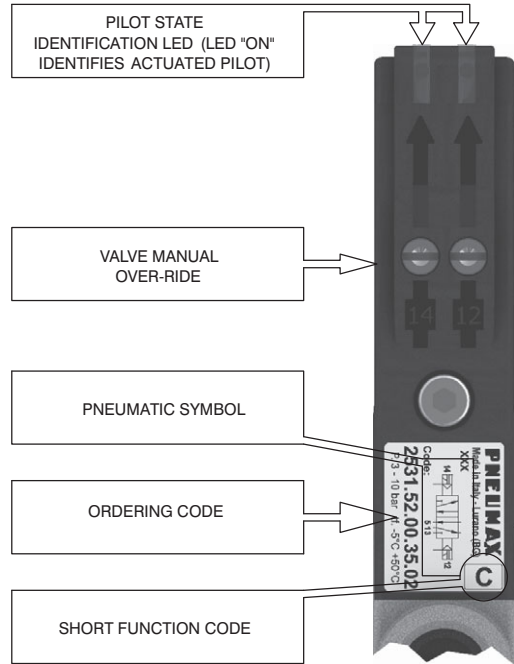
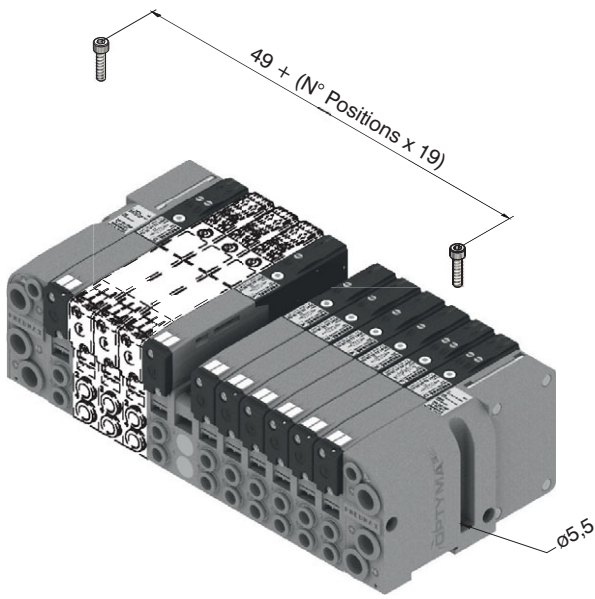
Plugs

Plug M8	Plug M12
5300.T08	5300.T12

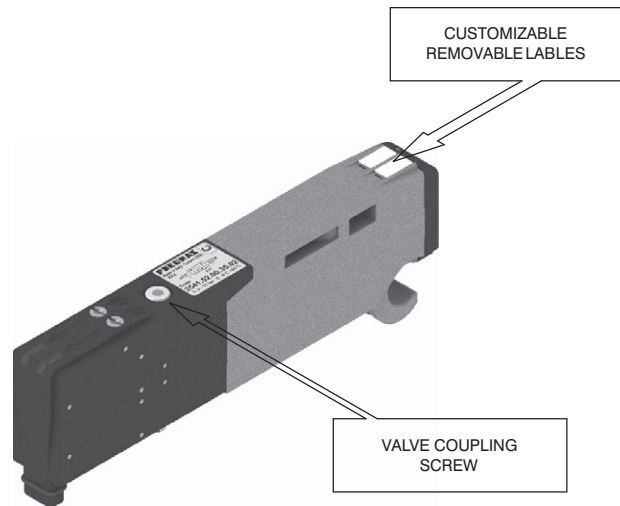
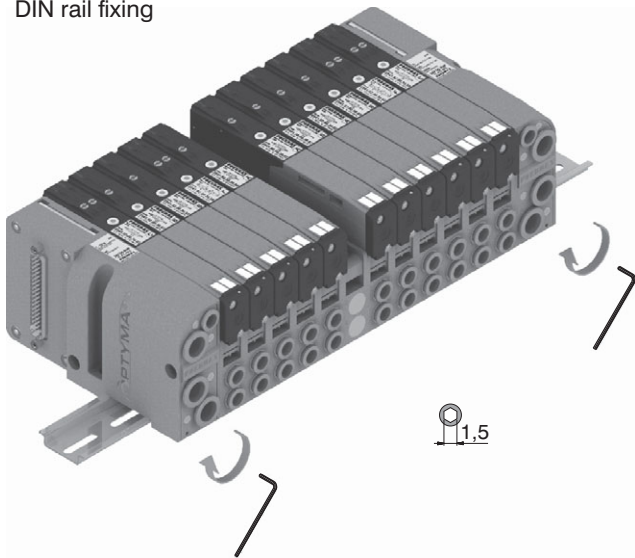
Technical modifications keep in reserve !

(2019/07)

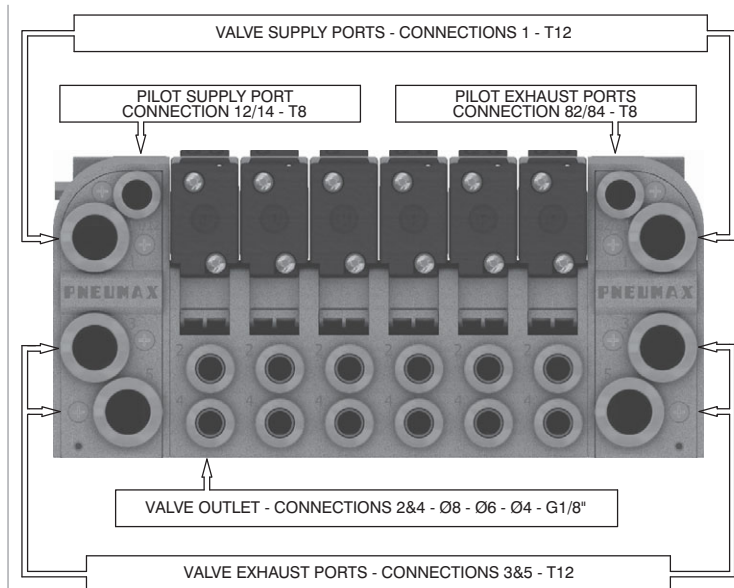
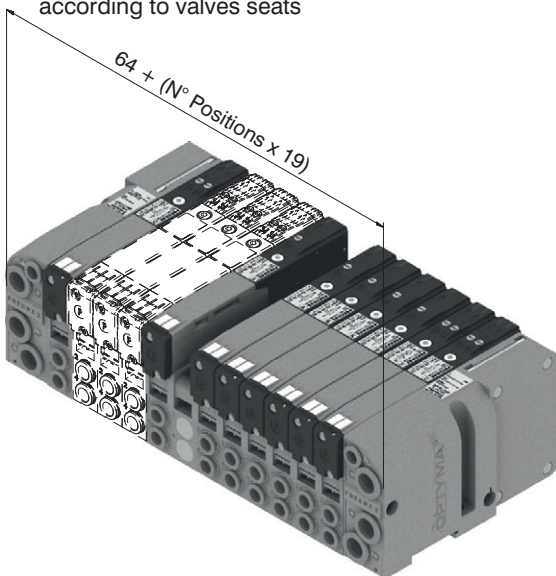
From the top



DIN rail fixing



Maximum possible size according to valves seats



Technical modifications keep in reserve !

(2019/07)