

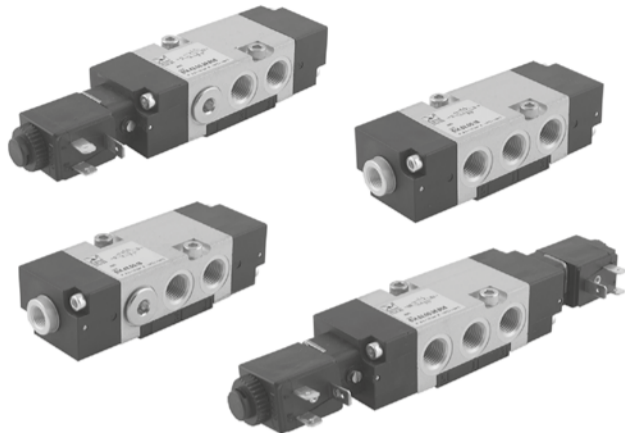


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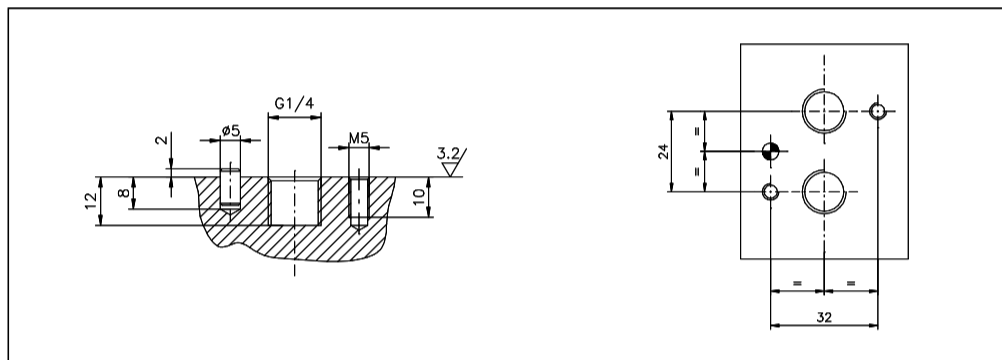
## ISTRUZIONI DI INSTALLAZIONE, USO E MANUTENZIONE VALVOLE ED ELETTROVALVOLE CON INTERFACCIA "NAMUR" SERIE 514 E SERIE 515 HIGH PERFORMANCE

### Descrizione prodotto:

Le NAMUR serie 514 sono valvole ed elettrovalvole 5/2 e 4/2 pilotate elettricamente o pneumaticamente utilizzate principalmente per azionare attuatori rotanti e in generale ovunque sia presente un piano di posa a norme NAMUR. Sono classificate per l'impiego in ambienti potenzialmente esplosivi (direttiva 2014/34/EU). Le NAMUR sono state realizzate per garantire flessibilità e un'elevata capacità di portata superiore alle medie delle tradizionali valvole a spola. È stata inoltre costruita con materiali innovativi che garantiscono elevate prestazioni, in termini di portata, temperatura, adatte per uso all'esterno in condizioni ambientali critiche. Connessioni disponibili NPT e GAS. Le elettrovalvole sono disponibili con classi di protezione per zone 2-22, 1-21 bobine Ex ec, Ex mb, Ex ia, approvazioni internazionali IECEx, FM e CSA.



### Dimensioni piano di posa NAMUR: secondo direttiva (VDI/VDE 3847 luglio 03)



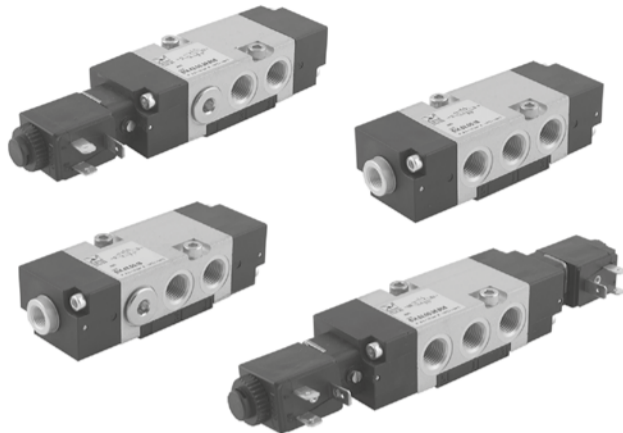


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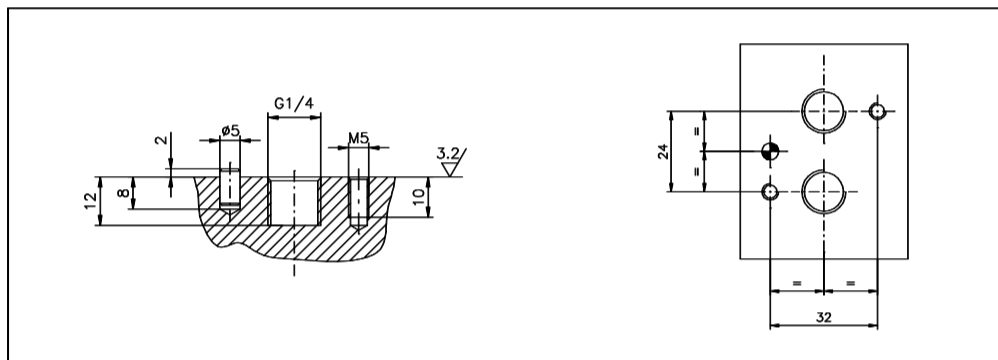
## INSTALLATION, USE AND MAINTENANCE INSTRUCTIONS FOR VALVE AND SOLENOID VALVES WITH 'NAMUR' INTERFACE SERIES 514 AND SERIES 515 HIGH PERFORMANCE

### Product description:

The 514 series valves are designed with interface connections in compliance with NAMUR standards. The range includes 5/2 and 4/2 versions with pneumatic or electric actuation and with NPT or BSPT connections. This series is classified for use in potentially explosive atmospheres (Directive 2014/34/EU). NAMUR valves have been designed to guarantee flexibility and an increased flow rate capacity exceeding that of traditional spool valves. Innovative materials guarantee high performances also in critical environment conditions. The solenoid valves are available with protection classes for zones 2-22, 1-21 solenoids Ex ec, Ex mb, Ex ia, international approvals IECEx, FM and CSA.



### NAMUR interface dimensions: according to standard (VDI/VDE 3847 July 2003)



### Assembly and Installation:



**WARNING!**  
Undertake the installation respecting the safety requirements with regards to the system and components for hydraulic and pneumatic transmissions. Pay particular attention to external factors such as the nearness of live wires, magnetic fields, metallic objects providing magnetic conduction very close to the device, which may influence and disturb the electric drive system.

Install the device as close as possible to the point of use. The assembly is possible in any position. During the components discharge, high levels of noise occur. The use of a silencer in the discharge port is recommended. Ensure there is sufficient space for assembly during the installation process. Please ensure that the discharge port is always clear, and in case silencers are used, periodically verify that they are not obstructed.

### Startup:



**WARNING!**  
Incorrect connections may damage the device.

Connect the solenoid valves with appropriate pneumatic fittings, paying attention to the connection ports indications.

### Care and Maintenance:



**WARNING!**  
Before carrying out any operation, it is essential to remove the pneumatic and power supply to the device and wait for the residual pressure to be completely discharged.

Periodically remove any dust deposits from the valve using a damp cloth. For maintenance operations on internal components, please consult with PNEUMAX SPA.

### Usage:

Use the product respecting the applications system pressure and temperature indicated. Ensure an adequate preparation of the compressed air, in terms of filtration and lubrication. If lubrication is used, it must be used continuously. It is advisable to apply the air supply gradually, in order to avoid unexpected and uncontrolled movements. Use the device without making any changes to it. Any unauthorised change will avoid the device's warranty and/or certification of suitability. Observe the warnings and indications contained within this instruction document.

### Electrical connection:



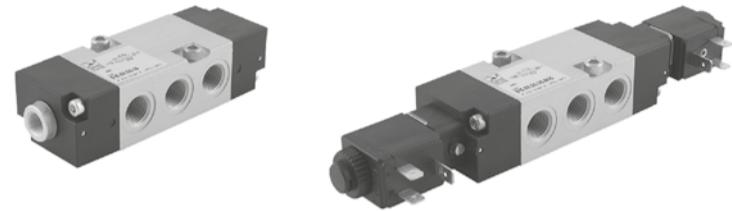
**WARNING!**  
The electrical connection must be made exclusively by specialized personnel, using components that have no voltage present. Only use power supplies which can guarantee a safe electrical isolation of the working voltage in accordance to IEC/EN 60204-1. Additionally, observe the requirements anticipated by the PELV circuits in accordance to IEC/EN 60204-1.

Before connecting with the dedicated cable connector, clean the installation area of dust, as this may enter the connector device and invalidate the IP protection.

### Product description:

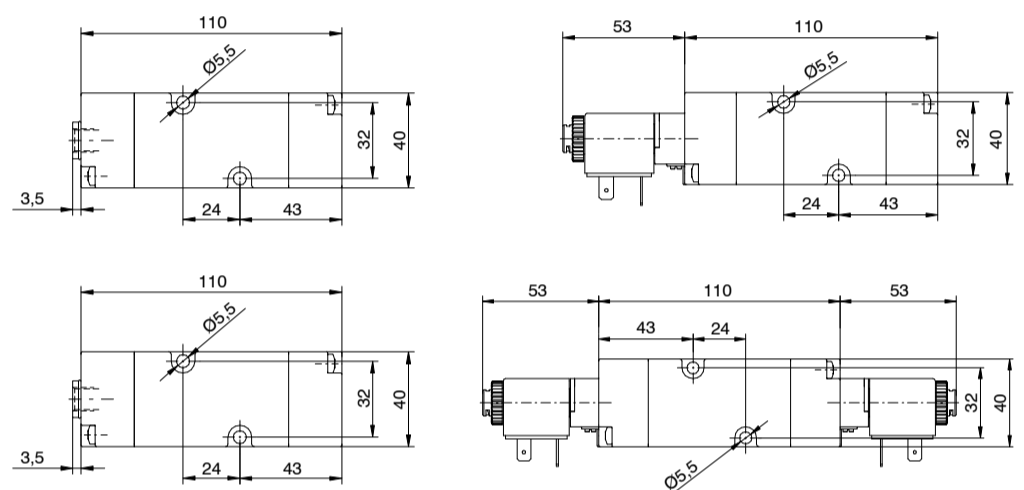
The 515 series valves are designed with interface connections in compliance with NAMUR standards. The range includes 5/2 version with pneumatic or electric actuation and with NPT or BSPT connections. This series is classified for use in potentially explosive atmospheres (Directive 2014/34/EU). NAMUR valves have been designed to guarantee flexibility and an increased flow rate capacity exceeding that of traditional spool valves. Innovative materials guarantee high performances also in critical environment conditions. The solenoid valves are available with protection classes for zones 2-22, 1-21 solenoids Ex ec, Ex mb, Ex ia, international approvals IECEx, FM and CSA.

ATTENTION: It differs from version 514 because it is supplied without plate.



### Construction characteristics

Body	Aluminium
Spacer	Technopolymer
Springs	Stainless steel
Operators	Technopolymer
Spools	Steel
Screws	Zinc coated steel / Stainless steel



### Markings and protective methods:

Voltages	Valve marking with ATEX solenoid coil	Protection method of the ATEX solenoid coil		
<b>B00:</b> Ø10 stem without solenoid coil to be used with the following solenoid coils	II 2G Ex h IIC T5 Gb X II 2D Ex h IIIC T96°C Db X	/		
<b>B04:</b> 12 VDC - for all models <b>B05:</b> 24 VDC - for all models <b>B09:</b> 24 VDC (2W) - only for standard model <b>B56:</b> 24 VAC (50-60 Hz) - for all models <b>B57:</b> 110 VAC (50-60 Hz) - for all models <b>B58:</b> 230 VAC (50-60 Hz) - for all models	II 3G Ex h IIC T4 Gc X II 3D Ex h IIIC T120°C Dc X IP65	<b>Ex ec</b> <b>Ex tc</b>		
<b>C04:</b> 12 VDC - for all models <b>C05:</b> 24 VDC - for all models <b>C09:</b> 24 VDC (2W) - only for standard model <b>C56:</b> 24 VAC (50-60 Hz) - for all models <b>C57:</b> 110 VAC (50-60 Hz) - for all models <b>C58:</b> 230 VAC (50-60 Hz) - for all models				
<b>F00:</b> Ø9 stem without solenoid coil to be used with the following solenoid coils			II 2G Ex h IIC T5 Gb X II 2D Ex h IIIC T96°C Db X	/
<b>X05:</b> 24 VDC - only for ATEX model <b>X56:</b> 24 VAC (50-60 Hz) - only for ATEX model <b>X57:</b> 110 VAC (50-60 Hz) - only for ATEX model <b>X58:</b> 230 VAC (50-60 Hz) - only for ATEX model			II 2G Ex h IIC T4 Gb X II 2D Ex h IIIC T135°C Db X IP65	<b>Ex mb</b>
<b>MHC:</b> 32 VDC T6 - only for ATEX model complete with connector <b>MH4:</b> 32 VDC T4 - only for ATEX model <b>MH6:</b> 32 VDC T6 - only for ATEX model			II 2G Ex h IIB/IIC T4 Gb X II 2D Ex h IIIC T130°C Db X IP65	<b>Ex ia</b>
<b>L04:</b> 12 VDC - only for FM APPROVED model <b>L05:</b> 24 VDC - only for FM APPROVED model <b>L39:</b> 120 VAC - only for FM APPROVED model <b>L41:</b> 240 VAC - only for FM APPROVED model				
<b>FM APPROVED valve (-20°C ... +50°C) - only with solenoid coils "L#"</b>				

### Operational characteristics:

Supply and connection ports	G1/4" - 1/4"NPT	
Pilot connections	G1/8"	
Maximum working pressure	10 bar	
Minimum working pressure	2,5 bar	
Flow rate at 6 bar with Δp=1 (NI/min)	1100	
Cv	1.11	
kv	16.66	
Fluid	Filtered and lubricated air	
Operating temperature and seals	STANDARD valve	NBR -10°C ... +50°C
	Low-temperature LT valves	NBR-LT -30°C ... +50°C
	Atex valves and coils B##,C## and X##	NBR-LT -20°C ... +40°C
	Atex valves and coils MHC,MH#	NBR-LT -30°C ... +50°C
	FM APPROVED valves	NBR-LT -20°C ... +50°C