



VALVES AND SOLENOID VALVES WITH "NAMUR" INTERFACE

COMPONENTS AND SISTEMS FOR AUTOMATION









Pneumax S.p.A.

Smart Technologies and Human Competence

Founded in 1976, **PNEUMAX S.p.A.** is today one of the leading, international manufacturers of components and systems for industrial and process automation, it is at the fore front of a group comprised of 23 companies, with over 660 employees worldwide.

Ongoing investment in research and development has allowed **Pneumax** to continually expand its range of standard products and customised solutions, adding to the well-established pneumatic technology, is a range of electric drive actuators and fluid control components.









The ability to provide various technologies and solutions for each of our clients applications is the main objective of our company, making us the ideal strategic partner.

What defines us is the "Pneumax Business Attitude", born out of the capacity to combine industry sectors, technology and our application skills via client collaboration with our business sector and product sector specialists. This represents the main distinguishing factor of what **Pneumax** has to offer.



Pneumatic technology



Electric actuation



Fluid control



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	VALVES AND SOLENOID VALVES Series T514 "TECNO-NAMUR"	
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	VALVES AND SOLENOID VALVES SerieS 514 - 515 "NAMUR"	
	General Valves and Solenoid valves 4/2-5/2, G1/4":	10
	Pneumatic - Differential / Pneumatic - Pneumatic / Pneumatic - Spring	
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0. 000	Solenoid - Differential / Solenoid - Spring, Universal kit	
	Valves and Solenoid valves 5/2, G1/4":	
	Pneumatic - Differential / Pneumatic - Pneumatic / Pneumatic - Spring	
	Pneumatic - Differential / Pneumatic - Pneumatic / Pneumatic - Spring Solenoid - Solenoid - Spring	

General

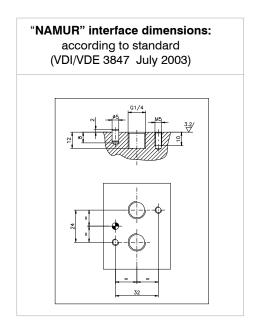


These are 2 stage valves actuated electro-pneumatically. A serie 300 directly operated solenoid valve actuates pneumatically the principal power distributor.

Everything is well integrated in a practical configuration that also permits applications where there is limited space. Used primarily to operate rotary actuators and wherever there is a "**NAMUR**" standard installation plan.

The pilot air is normally taken from the inlet port (autofeed) and the only actuating signal is electric.

The range of the solenoid valves, as far as dimensions and mechanical construction, is similar to series 200. We have therefore solenoid valves G 1/4" with identical pneumatic characteristics that are, however, actuated electrically. They have a balanced spool, insentive to presence or absence of pressure. They are constructed in 3 and 5 way with 1 solenoid (monostable) or 2 solenoids (bistable).



Construction characteristic

Body	Aluminium
Operators	Aluminium
Spools	Nickel plated steel
Seals	NBR
Spacers	Technopolymer
Springs	Spring steel
Screw	Zinc coated Steel

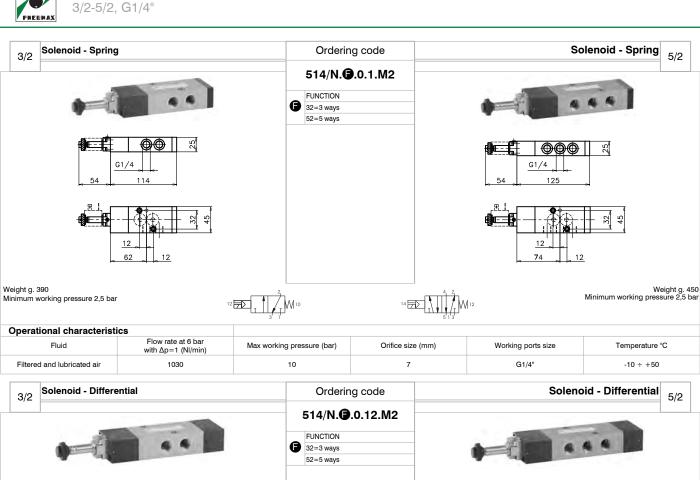
Use and maintenance

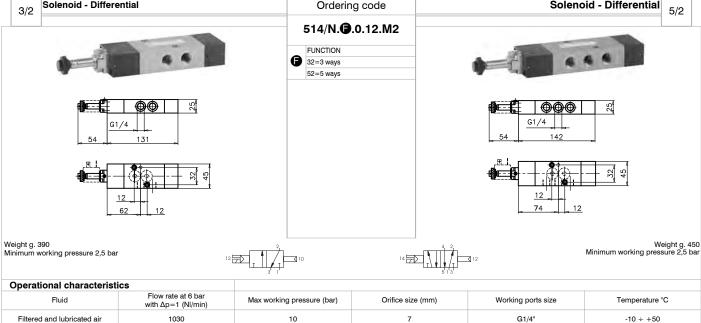
These valves have an average life of 15 million cycles depending on the application and air quality, filtered and lubricated air using specified lubricants will dramatically reduce the wear of the seals and ensures long and trouble free operation.

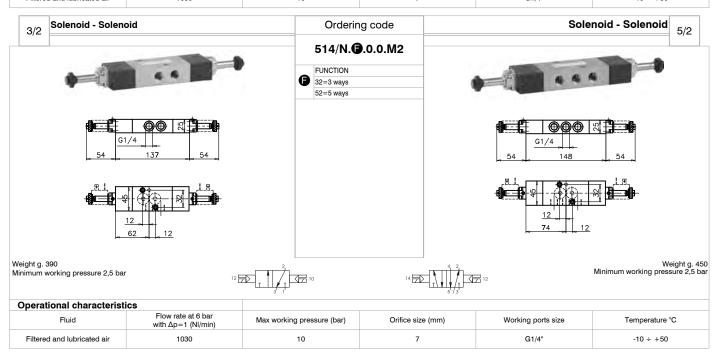
Please ensure that the valve is being used according with the manufacturers specification, such as air pressure and temperature and that exhaust ports 3 & 5 are protected against the possible ingress of dirt or debris.

Repair kits including the spool complete with seals are available for overhauling the valves; however, although this is a simple operation it should be carried out by a competent person.

ATTENTION: use hydraulic oil class H for lubrication such as MAGNA GC 32 (Castrol).









TECNO-NAMUR are 5/2 and 4/2 valves are solenoid valves pneumatically or electrically actuated. They are used in industrial automation applications or whenever a **NAMUR** mounting plane is available.

TECNO NAMUR is available in 5/2, 4/2 and all-purposes versions. The final user can switch from one version to another by simply changing interface plate and adding/removing a plug.

TECNO-NAMUR valves are produced using the most up to date technical features, granting flexible design and elevated characteristics over standard products.

Superior performance is further enhanced by the use of innovative materials of construction.

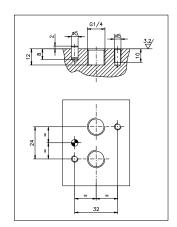
NOTE:

"Although accurately described, the 4/2 valve actually functions as a 3/2 normally closed valve and should be used as such."

"NAMUR" interface dimensions: according to standard

(VDI/VDE 3847 July 2003)





Construction characteristic

Body	Technopolymer
Operators	Technopolymer
Spools	Nickel plated steel
Seals	Nitrile rubber
Spacers	Technopolymer
Springs	Stainless Steel
Screw	Zinc coated Steel





4/2 5/2

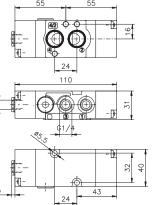
Ordering code

T514.**②**.00.**♡**

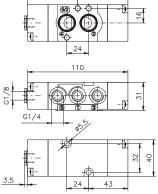
_	FUNCTION
9	42=4 ways
	52=5 ways
	VERSION











		ļ a -	24			-24 -43 	
Weight g. 140 Minimum pilot pressure 2,5 bar	12	4-10 14-513 12	12 - 10	14 - 12	12-13-11-10	14 - 5 1 3	Maximum fixing torque fittings 9 N

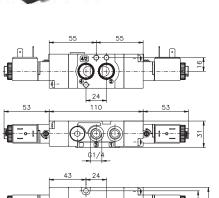
Operational characteristics					
Fluid	Flow rate at 6 bar with Δp=1 (NI/min)	Max working pressure (bar)	Orifice size (mm)	Working ports size	Temperature °C
Filtered and lubricated air	1100	10	8	G1/4"	-10 ÷ +50

Solenoid - Solenoid

4/2 5/2

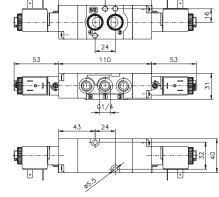
	•	FUNCTION
		42=4 ways
		52=5 ways
	•	VOLTAGE
		B04=12 VDC
		B05=24 VDC
		B09=24 VDC (2W)
		B56=24V (50-60 Hz)
		B57=110V (50-60 Hz)
		B58=230 V (50-60 Hz)











		4,	2,	
14	1		/,	12
		5 1	3	

Operational characteristics					
Fluid	Flow rate at 6 bar with Δp=1 (NI/min)	Max working pressure (bar)	Orifice size (mm)	Working ports size	Temperature °C
Filtered and lubricated air	1100	10	8	G1/4"	-10 ÷ +50

Solenoid - Differential / Solenoid - Spring

4/2 5/2

Ordering code

T514.**②**.00.**Ⅴ**.**①**

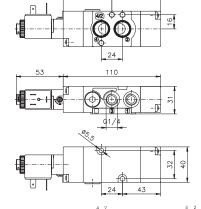
_	FUNCTION
Ø	42=4 ways
	52=5 ways
	VERSION

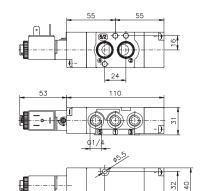
36=Solenoid - Differential 39=Solenoid - Spring VOLTAGE B04=12 VDC

B05=24 VDC B09=24 VDC (2W) B56=24V (50-60 Hz) B57=110V (50-60 Hz) B58=230 V (50-60 Hz)











Weight g. 200 Minimum pilot pressure 2,5 bar Maximum fixing torque for fittings 9 N/m

Operational characteristics					
Fluid	Flow rate at 6 bar with Δp=1 (NI/min)	Max working pressure (bar)	Orifice size (mm)	Working ports size	Temperature °C
Filtered and lubricated air	1100	10	8	G1/4"	-10 ÷ +50

Universal kit

Ordering code

T514.92.00.**♥**.**①**

VERSION

16=Pneumatic - Differential

18=Pneumatic - Pneumatic

19=Pneumatic - Spring

35=Solenoid - Solenoid

36=Solenoid - Spring

VOLTAGE

B04=12 VDC

B05=24 VDC

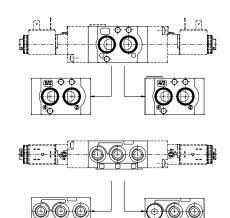
■ B09=24 VDC (2W)

B56=24V (50-60 Hz)

B57=110V (50-60 Hz)

B58=230 V (50-60 Hz)





Weight g. 170 Minimum pilot pressure 2,5 bar Maximum fixing torque for fittings 9 N/m

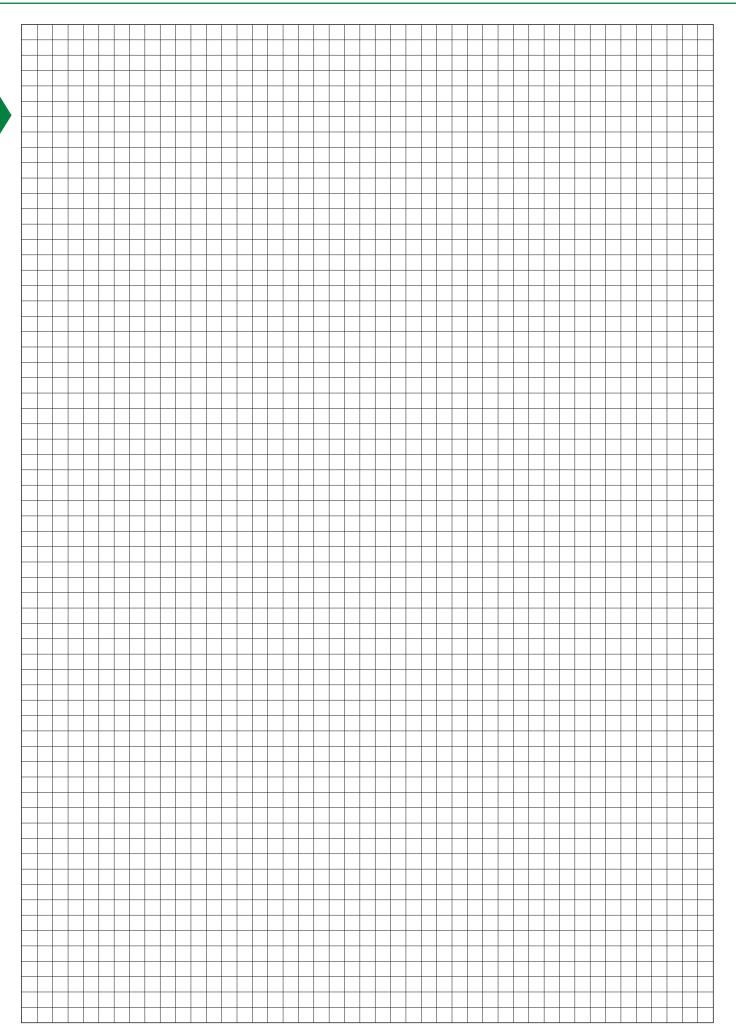




To change a 5/2 valve into a 4/2: Simply replace the bottom plate with the one included in the universal kit (cod. T514.92...) and by plugating port 5

						1314.82) and by plugging port 3
Operational characteristics						
	Fluid	Flow rate at 6 bar with Δp=1 (NI/min)	Max working pressure (bar)	Orifice size (mm)	Working ports size	Temperature °C
	Filtered and lubricated air	1100	10	8	G1/4"	-10 ÷ +50







NAMUR valves are 5/2 and 4/2 valves and electrovalves, piloted electrically or pneumatically, utilised primarily to operate rotary actuators and wherever there is a **NAMUR** standard installation plan.

The product is available in 5/2 and 4/2 versions or in a universal version which can be configured by the end user by replacing the fitting plate and adding a stopper.

The product is classified for use in potentially explosive atmospheres (Directive 2014/34/EU).

NAMUR valves have been developed using the latest, technical design solutions which guarantee flexibility and an increased flow rate capacity exceeding that of traditional, spool valves.

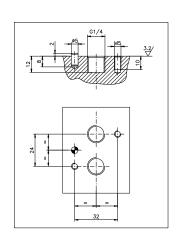
In addition, they have been produced with innovative materials which guarantee increased performance.

NOTE:

"Although accurately described, the 4/2 valve actually functions as a 3/2 normally closed valve and should be used as such."

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





Construction characteristic

Body	Aluminium
Operators	Technopolymer
Spools	Steel
Seals	Nitrile rubber
Spacers	Technopolymer
Springs	Stainless Steel
Screw	Zinc coated Steel / Stainless steel

IMPORTANT: Version 515 (available only in 5/2), differs from version 514 because it is supplied without a plate.

Certifications available:

SOLENOID VALVES WITH XMB or XMC 3GD COIL

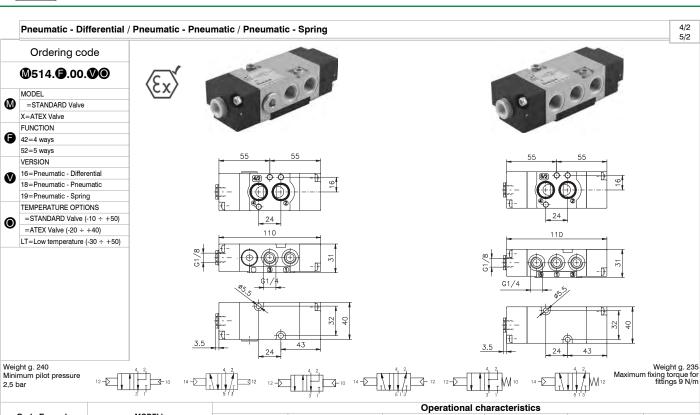
CE W II 3G Ex h IIB T4 Gc X CE W II 3D Ex h IIIC T120°C Dc X IP65

MECHANICAL AND PNEUMATIC VALVES WITHOUT COILS



CE S II 2G Ex h IIB T5 Gc X

C€ S II 2D Ex h IIIC T96°C Dc X IP65



Code Example	MODELL	Operational characteristics						
		Fluid	Flow rate at 6 bar with Δp=1 (NI/min)	Max working pressure (bar)	Orifice size (mm)	Working ports size	Temperature °C	
514. ⑤ .00. ∅	STANDARD Valve	Filtered and lubricated air					-10 ÷ +50	
514. ⊕ .00. ⊘ LT	LT "Low Temperture" Valve			1100	10	8	G1/4"	-30 ÷ +50
X514. ⊕ .00. ♥	ATEX Valve						-20 ÷ +40	

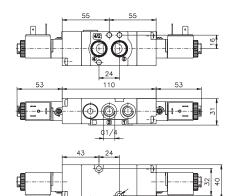
4/2 5/2 Solenoid - Solenoid



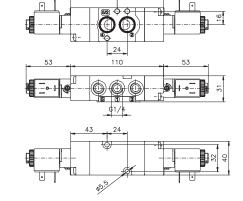
Ø514.**₱**.00.35.**₱⊚**

	MODEL
()	=STANDARD Valve
	X=ATEX Valve
	FUNCTION
	42=4 ways
	52=5 ways
	VOLTAGE
	B04=12 VDC
	B05=24 VDC
	B09=24 VDC (2W)
	B56=24V (50-60 Hz)
	B57=110V (50-60 Hz)
	B58=230 V (50-60 Hz)
	C04=12 VDC
•	C05=24 VDC
U	C09=24 VDC (2W)
	C56=24V (50-60 Hz)
	C57=110V (50-60 Hz)
	C58=230 V (50-60 Hz)
	F04=12 VDC
	F05=24 VDC
	F56=24V (50-60 Hz)
	F57=110V (50-60 Hz)
	F58=230 V (50-60 Hz)
	TEMPERATURE OPTIONS
	=STANDARD Valve (-10 ÷ +50)
•	=ATEX Valve (-20 ÷ +40)









"LT" and "ATEX" Versions are not available with MF coils
Weight g. 410
Minimum pilot pressure 2,5 bar
Maximum fixing torque for fittings 9 N/m

LT=Low temperature (-30 ÷ +50)





	MODELL	Operational characteristics						
Code Example		Fluid	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Max working pressure (bar)	Orifice size (mm)	Working ports size	Temperature °C	
514. ⑤ .00. ⑥	STANDARD Valve	Filtered and lubricated air					-10 ÷ +50	
514. @ .00. ⊕ LT	LT "Low Temperture" Valve			1100	10	8	G1/4"	-30 ÷ +50
X514. ② .00. ①	ATEX Valve						-20 ÷ +40	





4/2 5/2

Solenoid - Differential / Solenoid - Spring

Ordering code

Ø514.**₱**.00.**♥**.**₽⊚**



39=Solenoid - Spring

VOLTAGE B04=12 VDC B05=24 VDC B09=24 VDC (2W) B56=24V (50-60 Hz) B57=110V (50-60 Hz)

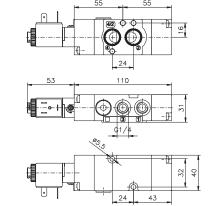
B58=230 V (50-60 Hz) C04=12 VDC C05=24 VDC (2W) C56=24V (50-60 Hz) C57=110V (50-60 Hz)

C58=230 V (50-60 Hz) F04=12 VDC F05=24 VDC F56=24V (50-60 Hz) F57=110V (50-60 Hz) F58=230 V (50-60 Hz) TEMPERATURE OPTIONS =STANDARD Valve (-10 ÷ +50) =ATEX Valve (-20 ÷ +40)

①

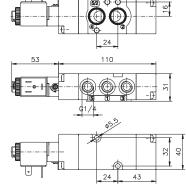
LT=Low temperature (-30 ÷ +50) "LT" and "ATEX" Versions are not available with MF coils Weight g. 330 Minimum pilot pressure 2,5 bar





12







Weight g. 325

Maximum fixing torque for fittings 9 N/m		411	ш	3 1	513	513		
Code Example		Operational characteristics						
	MODELL	Fluid	Flow rate at 6 bar with Δp=1 (NI/min)	Max working pressure (bar)	Orifice size (mm)	Working ports size	Temperature °C	
514. ② .00. ◎①	STANDARD Valve	Filtered and		10	8	G1/4"	-10 ÷ +50	
514. ⊕ .00. ♥⊕ LT	LT "Low Temperture" Valve		1100				-30 ÷ +50	
X514. ᢙ .00. ♥❶	ATEX Valve						-20 ÷ +40	

12

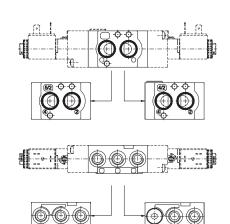
Universal kit

Ordering code

Ø514.92.00.**♥**.**₽⊚**

w	J5 14.92.00. V . U
_	MODEL
(=STANDARD Valve
	X=ATEX Valve
	VERSION
	16=Pneumatic - Differential
_	18=Pneumatic - Pneumatic
V	19=Pneumatic - Spring
	35=Solenoid - Solenoid
	36=Solenoid - Differential
	39=Solenoid - Spring
	VOLTAGE
	B04=12 VDC
	B05=24 VDC
	B09=24 VDC (2W)
	B56=24V (50-60 Hz)
	B57=110V (50-60 Hz)
	B58=230 V (50-60 Hz)
_	C04=12 VDC
U	C05=24 VDC
	C09=24 VDC (2W)
	C56=24V (50-60 Hz)
	C57=110V (50-60 Hz)
	C58=230 V (50-60 Hz)
	F04=12 VDC
	F05=24 VDC
	F56=24V (50-60 Hz)
	F57=110V (50-60 Hz)
	TEMPERATURE OPTIONS
(=STANDARD Valve (-10 ÷ +50)
9	=ATEX Valve (-20 ÷ +40)





LT=Low temperature (-30 ÷ +50) "LT" and "ATEX" Versions are not available with MF coils
Weight g. 405
Minimum pilot pressure 2,5 bar
Maximum fixing torque for fittings 9 N/m





To change a 5/2 valve into a 4/2: Simply replace the bottom plate with the one included in the universal kit (cod. 514.92....) and by plugging port 5

Code Example	MODELL	Operational characteristics						
		Fluid	Flow rate at 6 bar with Δp=1 (NI/min)	Max working pressure (bar)	Orifice size (mm)	Working ports size	Temperature °C	
514.92.00.❷❶	STANDARD Valve	Filtered and 1100		10	8	G1/4"	-10 ÷ +50	
514.92.00. ♥⊕ LT	LT "Low Temperture" Valve		1100				-30 ÷ +50	
X514.92.00. ♥①	ATEX Valve						-20 ÷ +40	



Pneumatic - Differential / Pneumatic - Pneumatic / Pneumatic - Spring

Ordering code

5/2, G1/4'

Ø515.52.00.**♥⊚**

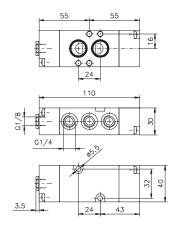
0 =STANDARD Valve X=ATEX Valve VERSION 16=Pneumatic - Differential Ø 18=Pneumatic - Pneumatic 19=Pneumatic - Spring TEMPERATURE OPTIONS

=STANDARD Valve (-10 ÷ +50) =ATEX Valve (-20 ÷ +40)

LT=Low temperature (-30 ÷ +50)







Weight g. 245 Minimum pilot pressure 2,5 bar



Maximum fixing torque for fittings 9 N/m

Code Example	MODELL	Operational characteristics							
		Fluid	Flow rate at 6 bar with $\Delta p = 1$ (NI/min)	Max working pressure (bar)	Orifice size (mm)	Working ports size	Temperature °C		
515.52.00.♥	STANDARD Valve	Filtered and lubricated air					-10 ÷ +50		
515.52.00. ØL T	LT "Low Temperture" Valve						10	8	G1/4"
X515.52.00. ⊕	ATEX Valve						-20 ÷ +40		

Solenoid - Solenoid

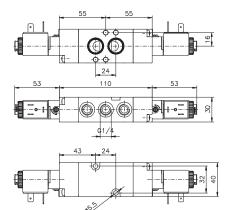
Ordering code

Ø515.52.00.35.**₽⊚**

MODEL lacktriangledown=STANDARD Valve X=ATEX Valve VOLTAGE B04=12 VDC B05=24 VDC B09=24 VDC (2W) B56=24V (50-60 Hz) B57=110V (50-60 Hz) B58=230 V (50-60 Hz) C04=12 VDC C05=24 VDC C09=24 VDC (2W) C09=24 VDC (2W) C56=24V (50-60 Hz) C57=110V (50-60 Hz) C58=230 V (50-60 Hz) F04=12 VDC F05=24 VDC F56=24V (50-60 Hz) F57=110V (50-60 Hz) F58=230 V (50-60 Hz) TEMPERATURE OPTIONS =STANDARD Valve (-10 ÷ +50) =ATEX Valve (-20 \div +40) LT=Low temperature (-30 ÷ +50)







"LT" and "ATEX" Versions are not available with MF coils Weight g. 415 Minimum pilot pressure 2,5 bar

Maximum fixing torque for fittings 9 N/m



Code Example 515.52.00.35.		Operational characteristics						
	MODELL	Fluid	Flow rate at 6 bar with Δp=1 (NI/min)	Max working pressure (bar)	Orifice size (mm)	Working ports size	Temperature °C	
515.52.00.35.	STANDARD Valve	Filtered and lubricated air					-10 ÷ +50	
515.52.00.35. @ LT	LT "Low Temperture" Valve			1100	10	8	G1/4"	-30 ÷ +50
X515.52.00.35.	ATEX Valve						-20 ÷ +40	



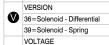
Solenoid - Differential / Solenoid - Spring

Ordering code

Ø515.52.00.**♥.©**







B04=12 VDC B05=24 VDC B09=24 VDC (2W) B56=24V (50-60 Hz) B57=110V (50-60 Hz)

B58=230 V (50-60 Hz) C04=12 VDC C05=24 VDC C09=24 VDC (2W) C56=24V (50-60 Hz) C57=110V (50-60 Hz) C58=230 V (50-60 Hz)

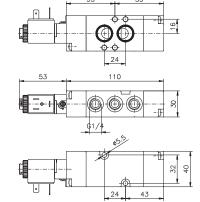
F04=12 VDC F05=24 VDC F56=24V (50-60 Hz) F57=110V (50-60 Hz) F58=230 V (50-60 Hz) TEMPERATURE OPTIONS =STANDARD Valve (-10 ÷ +50) =ATEX Valve (-20 ÷ +40) •



LT=Low temperature (-30 ÷ +50)





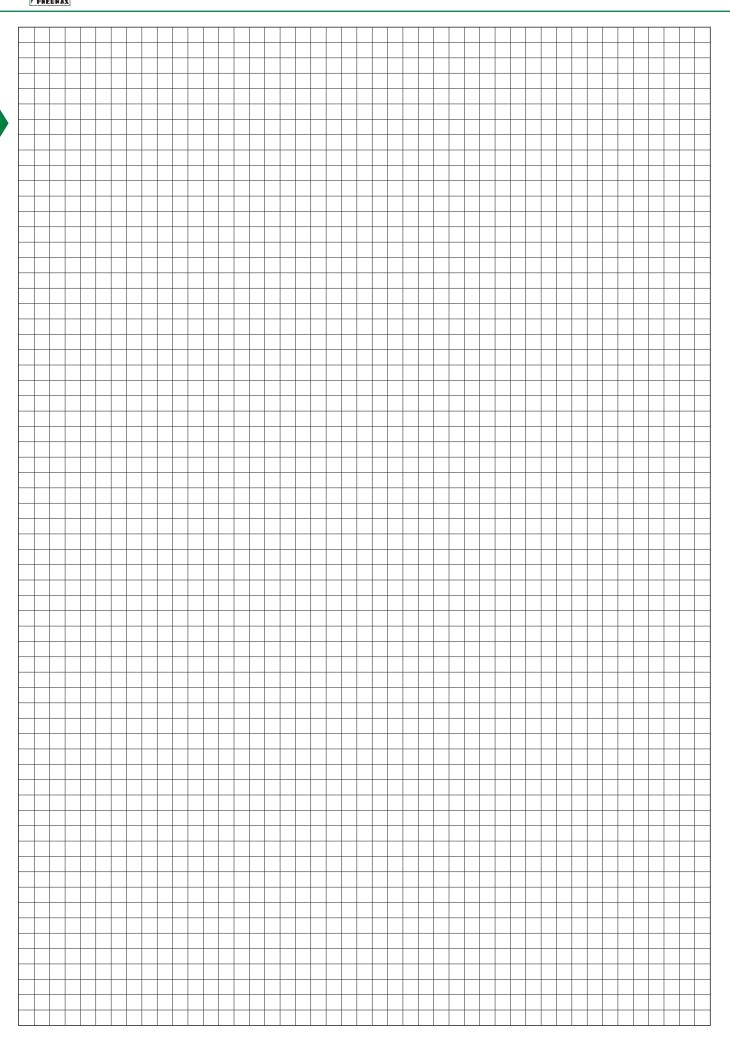






Code Example 515.52.00. ②. ① 515.52.00. ②. ① LT	MODELL	Operational characteristics								
		Fluid	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Max working pressure (bar)	Orifice size (mm)	Working ports size	Temperature °C			
515.52.00.♥.❶	STANDARD Valve	Filtered and lubricated air					-10 ÷ +50			
515.52.00. Ø.⊕L T	LT "Low Temperture" Valve						1100	10	8	G1/4"
X515.52.00. ♥.①	ATEX Valve						-20 ÷ +40			

AIR DISTRIBUTION









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