

# SOLENOID VALVES

# In Nema 4 and Nema 7



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# SV Direct Solenoids

### **Description**

Based on NAMUR standard (32×24), the S4 Series AIR-CON NAMUR solenoid valve functions as 5/2 or 3/2NC and is available for the operation of double-acting and spring-return pneumatic actuators. Working pressure from 30 to 120 psi and the working voltage from 12~48 VDC, 110~240 VAC.



NEMA 4,4X IP66





### TECHNICAL DATA

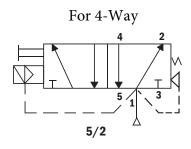
Spool Valve/Body	Extruded Aluminum		
Coating	Anodized Coated		
Air Port	1/4"NPT		
cv	1.4 (25 mm²)		
Installation and Connection	24x32 Namur, Manual Override On Body		
Medium Temperature*	20°F ~ 175°F 30 ~ 120 psi		
Working Pressure			
Working Medium	Less Than 40µm Filtered and Dried Air		
Working Life	More Than 1,000,000 Cycle (On The Normal Working Comdition		

#### **SOLENOID COIL**

Insulation	F Class (H Class On Requiring	
Voltage Tolerance	±10%	
Insulated Voltage		
Duty Cycle	100% Continuous  IP66  -5°F ~ 175°F	
Weather Proof		
Operating Temp.*		

#### **MODEL CHOICE**

	For 3-Way			
	2			
L		3 1		
	3/2 NC			



Model	Туре	Voltage	Power Consumption	Wiring Connector	Cable Size
S3-12A		120VAC	4.5VA		
S3-24D	3-WAY Conduit	24VDC	4W		
S3-12D	Single Solenoid	12VDC	4W	1/2"NPT	/
S3-22A	NAMUR Valve	220VAC	5VA		
S3-24A		24VAC	4.5VA		
S4-12A		120VAC	4.5VA		
S4-24D	4-WAY Conduit	24VDC	4W		
S4-12D	Single Solenoid	12VDC	4W	1/2"NPT	/
S4-22A	NAMUR Valve	220VAC	5VA		
S4-24A		24VAC	4.5VA		
S3ND120		120VAC	4.5VA		
S3ND24	3-WAY Conduit	24VDC	4W		
S3ND12	Single Solenoid	12VDC	4W	DIN PLUG	Dia.6-8mm
S3ND220	NAMUR Valve	220VAC	5VA		
S3ND120		24VAC	4.5VA		
S4ND120		120VAC	4.5VA		
S4ND24V	4-WAY Conduit	24VDC	4W		
S4ND12	Single Solenoid	12VDC	4W	DIN PLUG	Dia.6-8mm
S4ND220	NAMUR Valve	220VAC	5VA		
S4ND24V		24VAC	4.5VA		

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➤ Based on NAMUR standard (32×24), the AIR-CON NAMUR solenoid valve can be adapted for 3/2 NC or 5/2 functions for controlling double-acting and singleacting pneumatic actuators. It is excellent for being used in hazardous area (Ex ia IIC T6). Working pressure from 30 to 120 psi and the working voltage is 24 VDC.









Based on NAMUR standard (32×24), the AIR-CON NAMUR solenoid valve can be adapted for 3/2 NC or 5/2 functions for controlling double-acting and singleacting pneumatic actuators. It is excellent for being used in hazardous area (Ex ia IIB T6 Ga). Working pressure from 30 to 120 psi and the working voltage is 24 VDC.









#### TECHNICAL DATA

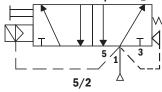
Spool Valve/Body	Extruded Aluminum	
Coating	Anodized Coated	
Air Port	1/4" NPT	
cv	1.1.(19.63 mm²)	
Installation and Connection	24x32 Namur, Manual Override On Body -5°F ~ 175°F 30 ~ 120 psi	
Medium Temperature*		
Working Pressure		
Working Medium	Less Than 40µm Filtered and Dried Air	
Working Life	More Than 1,000,000 Cycle (On The Normal Working Comdition)	

### **SOLENOID COIL (C3)**

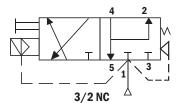
Insulation	F Class	
Voltage Tolerance	±10%	
Insulated Voltage	1000 V 100% Continuous IP64	
Duty Cycle		
Weather Proof		
Area Classification	Ex ia IIC T6	
Operating Temp.*	15°F ~ 120°F	

#### SOLENOID COIL (C7)

SOLLINGID COIL (OI)			
Insulation	H Class		
Voltage Tolerance	±10%		
Coil Enclosure	Die-casting Aluminum +Epoxy Coated		
Insulated Voltage	1000 V 100% Continuous IP67		
Duty Cycle			
Weather Proof			
Area Classification	Ex ia IIB T6 Ga (Class 1 Zone 0 AEx ia IIB T6 Ga)		
Operating Temp.*	15°F ~ 120°F		



For 4-Way



For 3-Way

### MODEL CHOICE

Model	Туре	Voltage	Power Consumption	Wiring Connector	Cable Size
C/F	3-Way or 4-Way Conduit Explosion Proof Solenoid NAMUR Valve	24VDC	0.7W	DIN PLUG	Dia.3-5.5mm
C/F	3-Way or 4-Way Conduit Explosion Proof Solenoid NAMUR Valve	24VDC	0.98W	1/2" NPT	1



➤ Based on NAMUR standard (32×24), the AIR-CON solenoid valve can be adapted for 3/2 NC or 5/2 functions for controlling double-acting and single-acting pneumatic actuators. Working pressure from 30 to 120 psi and the working voltage from 24VDC, 110/220VAC.

### **TECHNICAL DATA**

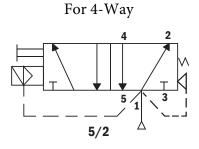
Spool Valve/Body	Extruded Aluminum	
Coating	Anodized Coated	
Air Port	1/4" NPT	
cv	1.1.(19.63 mm²)	
Installation and Connection	24x32 Namur, Manual Override On Body -5°F ~ 175°F 30 ~ 120 psi	
Medium Temperature*		
Working Pressure		
Working Medium	Less Than 40µm Filtered and Dried Air	
Working Life	More Than 1,000,000 Cycle (On The Normal Working Comdition)	





### **SOLENOID COIL**

Insulation	H Class		
Voltage Tolerance	±10%		
Insulated Voltage	1000 V		
Duty Cycle	100% Continuous		
Weather Proof	IP66		
Area Classification	Ex mb II T4 or T5		
Operating Temp.*	-15°F ~ 150°F		





### **MODEL CHOICE**

For 3-Way	
4 2	
	1
3/2 NC	\   

Model	Туре	Voltage	Power Consumption	Wiring Connector	Cable Size
3-Way or 4-Way	24VDC	3W		Dia.6-7mm	
C/F	Conduit Explosion Proof Solenoid	110VAC	4VA	1.2m Cable Connection	Dia.6-7mm
NAMUR Valve	NAMUR Valve	220VAC	4VA		Dia.6-7mm

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➤ Based on NAMUR standard, the AIR-CON NAMUR solenoid valve can be adapted for 3/2 NC or 5/2 functions for controlling double-acting and single-acting pneumatic actuators. The C1/C2 coil working pressure from 30 to120 psi .The C1 coil working voltage from 24VDC,110/220VAC.The C2 coil working voltage is 24VDC.





Coil

➤ Based on NAMUR standard (32×24), the AIR-CON NAMUR solenoid valve functions as 5/2 or 3/2NC and is available for the operation of double-acting and spring-return pneumatic actuators which located in hazardous (Ex d IIC T6 Gb) area. Working pressure from 2 bar to 8 bar and the working voltage from 12-48VDC, 110-240VAC.





#### TECHNICAL DATA

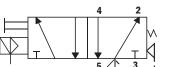
Spool Valve/Body	Extruded Aluminum	
Coating	Anodized Coated	
Air Port	1/4" NPT	
cv	1.1.(19.63 mm²)	
Installation and Connection	24x32 Namur, Manual Override On Body	
Medium Temperature*	-5°F ~ 175°F	
Working Pressure	30 ~ 120 psi	
Working Medium	Less Than 40µm Filtered and Dried Air	
Working Life	More Than 1,000,000 Cycle (On The Normal Working Comdition)	

### SOLENOID COIL (C1/C2)

Insulation	F Class	
Voltage Tolerance	±10%	
Insulated Voltage	1000 V	
Duty Cycle	100% Continuous	
Weather Proof	IP64	
Operating Temp.*	15°F ~ 120°F	

#### **SOLENOID COIL (C5)**

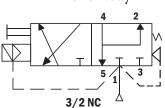
Insulation	F Class (H Class On Requiring)
Voltage Tolerance	±10%
Coil Enclosure	Die-casting Aluminum +Epoxy Coated
Insulated Voltage	1000 V
Duty Cycle	100% Continuous
Weather Proof	IP67
Area Classification	Ex d IIC T6 Gb (Class 1 Zone 1 AEx d IIC T6 Gb)
Operating Temp.*	-5°F ~ 140°F



For 4-Way

For 3-Way

5/2



#### **MODEL CHOICE**

Model	Туре	Voltage	Power Consumption	Wiring Connector	Cable Size
	3-Way or 4-Way Conduit Solenoid NAMUR Valve	24VDC	2.5W	DIN PLUG	
C/F		110VAC	2.8VA		
		220VAV	2.8VA		Dia.3-5.5mm
C/F		24VDC	1W		
	3-Way or 4-Way Conduit Explosion Proof Solenoid NAMUR Valve	12VDC	3.5W		
		24VDC	3.5W		
		48VDC	3.5W		
C/F		110VAC	4VA	1/2"NPT	/
		210VAC	4VA		
		220VAC	4VA		
		240VAC	4VA		



► Based on NAMUR standard (32×24), the AIR-CON NAMUR solenoid valve can be adapted for 3/2 NC or 5/2 functions for controlling double-acting and spring-return pneumatic actuators. Armed with stainless steel enclosure coilthis solenoid valve, it is excellent for being used in hazardous area. Working pressure from 30 to 120psi and the working voltage from 12~48 VDC, 110~240 VAC.











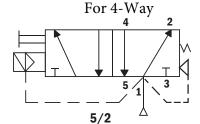
#### TECHNICAL DATA

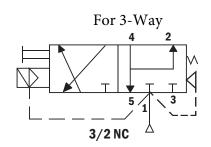
Spool Valve/Body	SS316 Stainless Steel
Coating	Electropolishing
Air Port	1/4" NPT
cv	1.1.(19.63 mm²)
Installation and Connection	24x32 Namur, Manual Override On Body
Medium Temperature*	-5°F ~ 175°F
Working Pressure	30 ~ 120 psi
Working Medium	Less Than 40µm Filtered and Dried Air
Working Life	More Than 1,000,000 Cycle (On The Normal Working Comdition)

#### SOLENOID COIL

Insulation	F Class (H Class On Requiring)	
Voltage Tolerance	±10%	
Insulated Voltage	1000 V	
Duty Cycle	100% Continuous	
Weather Proof		
Area Classification	Ex d IIC T6 Gb	
Operating Temp.*	-5°F ~ 140°F	







#### MODEL CHOICE

Model	Туре	Voltage	Power Consumption	Wiring Connector	Cable Size
	3-Way or 4-Way Conduit Explosion Proof Solenoid NAMUR Valve	12VDC	3.5W		
C/F		24VDC	3.5W	1/2" NPT	1
		48VDC	3.5W		
	3-Way or 4-Way C/F Conduit Explosion Proof Solenoid NAMUR Valve	110VAC	4VA		
C/F		210VAC	4VA	1/2" NPT	1
		220VAC	4VA		
	240VAC	4VA			

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# **3-Way Explosion Proof Single Solenoid NAMUR Valve**



- Cv = 1.68
- **Ports** =1/4" NPT
- **Duty Cycle** = 100% Continuous
- **Power Consumption** = 4.6 watts
- **Pressure Range** = 20 to 120 psig
- Temperature Range = 35° to 130° F

Model	Voltage	Inrush
S3X-12A	120VAC	62mA
S3X-24D	24VDC	108mA
S3X-12D	12VDC	204mA
S3X-22A	220VAC	31mA

# 4-Way Explosion Proof Single Solenoid NAMUR Valve



- Cv = 1.68
- **Ports** =1/4" NPT
- **Duty Cycle** = 100% Continuous
- **Power Consumption** = 4.6 watts
- Pressure Range = 20 to 120 psig
- Temperature Range = 35° to 130° F

Model	Voltage	Inrush
S4X-12A	120VAC	62mA
S4X-24D	24VDC	108mA
S4X-12D	12VDC	204mA
S4X-22A	220VAC	31mA

# OTHER OPTIONS

# **Description**

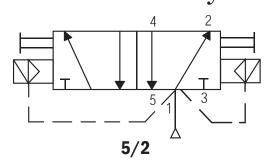
The AIR-CON NAMUR mount solenoid valve is a cost effective dual coil solenoid valve. These solenoid valves are offered as dual coil IP65 (C0A), dual coil explosion proof (C0E).



**Explosion Proof** 



### **Ordinary Locations**



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### **Dual Coil Solenoid Valves for Special Applications**

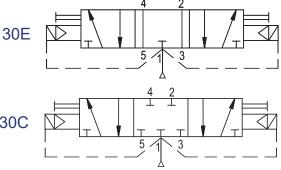
#### OPEN CENTERS

The 30E open centers solenoid valve is a specially designed solenoid valve made for double acting actuators in three position applications.

#### CLOSED CENTERS

The 30C closed centers solenoid valve is a specially designed solenoid valve made for spring return actuators in three position applications. During the mid position, the air is trapped inside the solenoid valve, keeping 30C the springs from decompressing and keeping the actuator open or in a semi-open position.





#### ► LIGHTED DIN CONNECTORS

Lighted DIN connectors offer clear housings, two poles with ground, ½" NPT or conduit connections. These DIN connectors allow for easy verification if the solenoid coil is energized or deenergized. Each lighted DIN connector is available with flying leads which allow for easy wiring.

#### > SPEED CONTROLS

Air-con offers NPT brass and stainless steel speed control mufflers for solenoid valves. These are needed for exhaust ports on solenoid valves to control the opening and closing speed of the valve assembly.





#### **► MUFFLERS**

return applications.

Air-con offers NPT brass and stainless steel speed control mufflers for solenoid valves. These are needed to help reduce the noise of exhausting air when a solenoid valve actuates. These can also be installed in the exhaust port of an actuator for spring



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