



## X-Series Solenoid Valves

X-series solenoids are direct mount compatible with all Dixon® rack and pinion actuators. They are used with industrial and sanitary valves for quarter turn actuation in industrial, food, beverage, and pharmaceutical applications.

### Certifications/Approvals

- CSA/UL approved coil
- ATEX approved coil option

### Features

- Multiple voltages available (AC/DC)
- Standard duty, intrinsically safe and explosion proof models
- Water and dust-proof according to IP65; IP67 available
- Standard lockable manual override button
- Aluminum 4-way direct mount body, 2 position normally closed or fail-in-place



### Specifications

- Sizes: 1/4" NAMUR body
- Standard connections: 1/2" NPT connector standard
  - 1M flying leads (model XEX)
- Valve data
  - Minimum pressure: **30 PSI**
  - Maximum pressure: **120 PSI**
  - Maximum ambient temperature: see chart
- Materials of construction
  - Models XSC, XIS, XEX, & XHT
    - Body, spool, cap, and piston: aluminum
    - Spool cap assembly: polypropylene
    - End plate: carbon steel
    - Armature housing: brass/stainless steel
    - Fasteners: plated steel
    - Elastomers: nitrile rubber
    - Coil nut: technopolymer
  - Stainless steel enclosure
    - Body, spool, cap, and piston: stainless steel
    - Spool cap assembly: polypropylene
    - End plate: stainless steel
    - Armature housing: brass/stainless steel
    - Fasteners: stainless steel
    - Elastomers: nitrile rubber
    - Coil nut: technopolymer

### Model XSC Technical Data

Standard voltages	24 - 110 - 220V 50/60 Hz, 12 - 24V DC
Power input	60 Hz inrush 9.4VA holding 6.9VA
	DC 4.8W
Voltage tolerance	±10%
Coil insulation	Class "F"
Duty cycle	100%
Protection class	IP65
Air supply connection	1/4" NPT
Operating pressure	Minimum 2 bar ( <b>30 PSI</b> )
	Maximum 8 bar ( <b>120 PSI</b> )
DIN connector	1/2" NPT
Flow factor	Cv 1.1
Maximum operating frequency	600/1'
Ambient temperature limit	<b>-4°F to 158°F (-4°C to 70°C)</b>
Weight	0.80 lb

## X-Series Solenoid Valves - Technical Data

Model XIS Technical Data	
Standard voltages	24V DC
Power input	DC 1.6W
Voltage tolerance	±10%
Coil insulation	class "F"
Duty cycle	100%
Protection class	IP65
Air supply connection	1/4" NPT
Operating pressure	Minimum 2 bar ( <b>30 PSI</b> )
	Maximum 8 bar ( <b>115 PSI</b> )
DIN connector	Strain relief
Flow factor	Cv 1.1
Maximum operating frequency	600/1'
Ambient temperature limit	<b>-4°F to 122°F (-20°C to 50°C)</b>
Weight	0.80 lb
V max	28V DC
I max	115mA
Maximum valve pressure	<b>115 PSI</b>

### Hazardous Location Class:

Class I	Groups A, B, C, and D
Class II	Groups E, F, and G
Class III	Div. I

Model XEX Technical Data	
Standard voltages	24 - 110 - 220V 50/60 Hz, 12 - 24V DC
Power input	60 Hz inrush 7.5VA holding 5VA
	DC 6W
Voltage tolerance	±10%
Coil insulation	class "H"
Duty cycle	100%
Protection class	IP65
Air supply connection	1/4" NPT
Operating pressure	Minimum: 2 bar ( <b>30 PSI</b> )
	Maximum: 8 bar ( <b>120 PSI</b> )
DIN connector	1/2" NPT
Flow factor	Cv 1.1
Maximum operating frequency	600/1'
Ambient temperature limit	<b>-4°F to 140°F (-20°C to 60°C)</b>
Weight	0.95 lb

### Hazardous Location Class:

Class I	Groups A, B, C, and D
Class II	Groups E, F, and G
Class III	Div. I

### X-Series Solenoid Valve - Part Number Key

X-Series Solenoid Valves Part Number Key Example: XSC-A1S-024D-F1		Series	Model	Enclosure	Operator	Coil Options	Voltage	Connector Options	Seals			
		X	SC	-	A	1	S	-	024D	F	-	1
<b>Series</b>	<b>Code</b>											
NAMUR mount solenoid	X											
<b>Model</b>	<b>Code</b>											
IP65, industrial for coil (standard)	SC											
Intrinsically safe, form A coil (24VDC only)	IS											
Explosion proof, class H coil with 1/2" NPT and leads	EX											
High temperature, IP65, class H, form A coil	HT											
<b>Enclosure</b>	<b>Code</b>											
2 pos., 1/4" NAMUR aluminum body, single coil/dual coil	A											
2 pos., 1/4" NAMUR stainless steel body, single coil only	S											
3 pos., 1/4" NAMUR aluminum body, dual coils only	D											
<b>Operator</b>	<b>Code</b>											
Left pilot, normal closed, single coil (2 position only)	1											
Dual pilots, fail in place, dual coils (2 position only)	2											
Dual pilots, fail to open centers, dual coils (3 position only)	3											
Dual pilots, fail to close centers, dual coils (3 position only)	4											
<b>Coil Options</b>	<b>Code</b>											
CSA/UL coil (standard)	S											
Asi 2.5W low power level 3 (model SC only)	L											
ATEX approved coil	X											
<b>Voltage</b>	<b>Code</b>											
Refer to table 1 for options	-											
<b>Connector Options</b>	<b>Code</b>											
None	A											
<b>Model SC Only</b>												
Industrial form, 1/2" NPT (standard)	B											
Industrial form, 1/2" NPT with grommet	C											
Molded lead, industrial form, 1M lead	D											
Molded lead, industrial form, 3M lead	E											
12V AC/DC LED industrial form, 1/2" NPT	F											
24V AC/DC LED industrial form, 1/2" NPT	G											
120V AC/DC LED industrial form, 1/2" NPT	H											
220V AC/DC LED industrial form, 1/2" NPT	I											
24V AC/DC molded LED, industrial form, 1M leads	J											

Model	12VDC	24VDC	24VAC	48VDC	120VAC	220VAC
SC	012D	024D	024A	048D	120A	220A
IS	-	024D	-	-	-	-
EX	012D	024D	024A	-	120A	220A
HT	-	024D	-	-	120A	220A
LT	-	024D	-	-	-	-

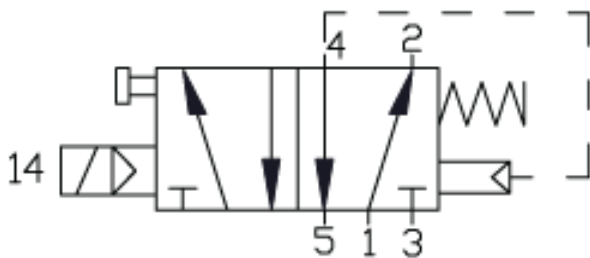
NOTE: Continue part number selection on page 5.

### X-Series Solenoid Valve - Part Number Key

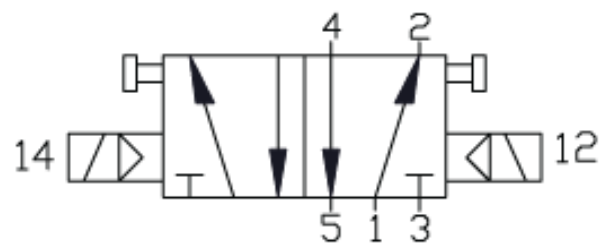
X-Series Solenoid Valves Part Number Key Example: XSC-A1S-024D-F1		Series	Model	Enclosure	Operator	Coil Options	Voltage	Connector Options	Seals			
		X	SC	-	A	1	S	-	024D	F	-	1
120V AC/DC molded LED, industrial form, 1M leads	K											
24V AC/DC molded LED, industrial form, 2M leads	L											
120V AC/DC molded LED, industrial form, 2M leads	M											
IP67 kit	N											
M12, industrial form	O											
<b>Model HT and IS only</b>												
Form A, 3/8" NPT with grommet (standard)	P											
Form A, 1/2" NPT with grommet	Q											
Molded lead, form A, 1M lead	R											
<b>Model EX only</b>												
1/2" NP connection with 1M flying leads (standard)	S											
<b>Seals</b>	<b>Code</b>											
Nitrile rubber (standard for models SC, HT, IS, EX)	1											
Low temperature nitrile rubber	2											

### X-Series Solenoid - Flow Diagrams

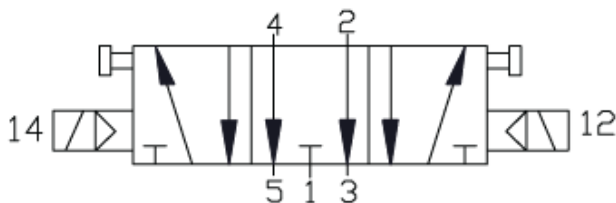
Single Coil Left Pilot



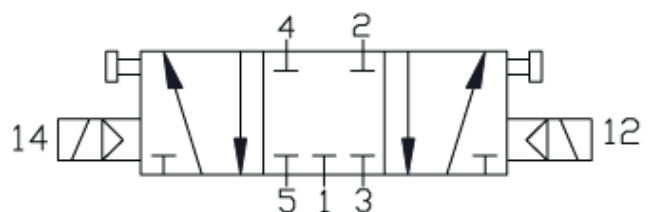
Dual Pilot



3-Position Open Center



3-Position Closed Center



**X-Series Solenoid Valve - Coil Data**

**Model XSC**

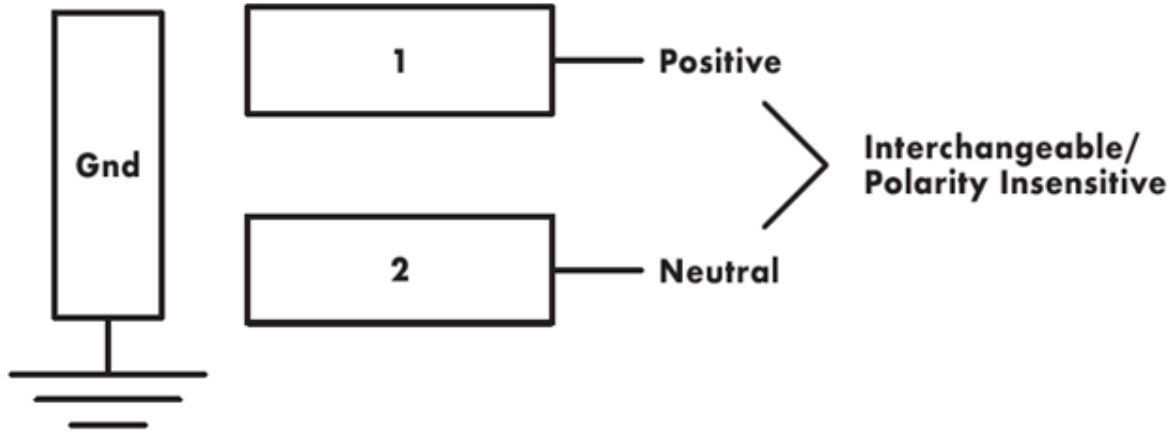
Voltage (primary)	Voltage (secondary)	Watts (DC)/VA (AC)	Insulation Class	Resistance (ohms)	Inrush Power Draw (AC only)	IP Rating	Ambient Temperature
12 VDC	24 VAC	6.9	F	40.1	10.2	65/67	-4°F to 122°F (-20°C to 50°C)
24 VDC	48 VAC	6.9	F	97.9	-	65/67	-4°F to 122°F (-20°C to 50°C)
120 VAC	-	6.9	F	619	12.4	65/67	-4°F to 122°F (-20°C to 50°C)
230 VDC	125 VAC	6.9	F	2475	-	65/67	-4°F to 122°F (-20°C to 50°C)
24 VDC	-	3.0	F	200	-	65	5°F to 122°F (-15°C to 50°C)
24 VDC	-	2.7	H	216	-	65	-4°F to 176°F (-20°C to 80°C)
120 VAC	-	3.7	H	741	6.84	65	-4°F to 176°F (-20°C to 80°C)
240 VAC	-	3.7	H	2924	6.72	65	-4°F to 176°F (-20°C to 80°C)

**Model XEX**

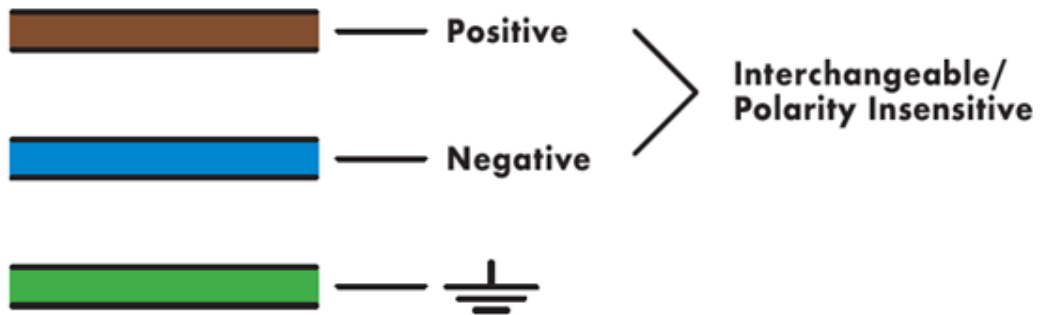
Voltage (primary)	Voltage (secondary)	Watts (DC)/VA (AC)	Insulation Class	Resistance (ohms)	Inrush Power Draw (AC only)	IP Rating	Ambient Temperature
12 VDC	-	4.5	H	32.2	-	65	-4°F to 140°F (-20°C to 60°C)
24 VDC	-	4.6	H	126	-	65	-4°F to 140°F (-20°C to 60°C)
110/120 VAC	-	6.8	H	530	12.3	65	-4°F to 140°F (-20°C to 60°C)
220/240 VAC	-	6.8	H	2345	12.3	65	-4°F to 140°F (-20°C to 60°C)
24 VAC	-	-	F	-	-	65	-4°F to 122°F (-20°C to 50°C)
125 VDC	-	-	F	-	-	65	-4°F to 122°F (-20°C to 50°C)

### X-Series Solenoid Valve - Wiring Diagram

DIN Connector

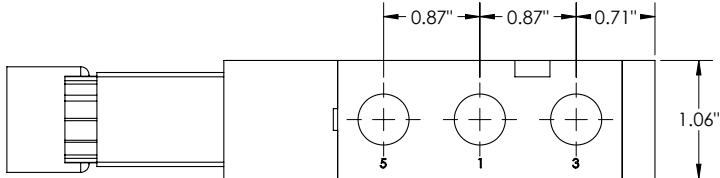
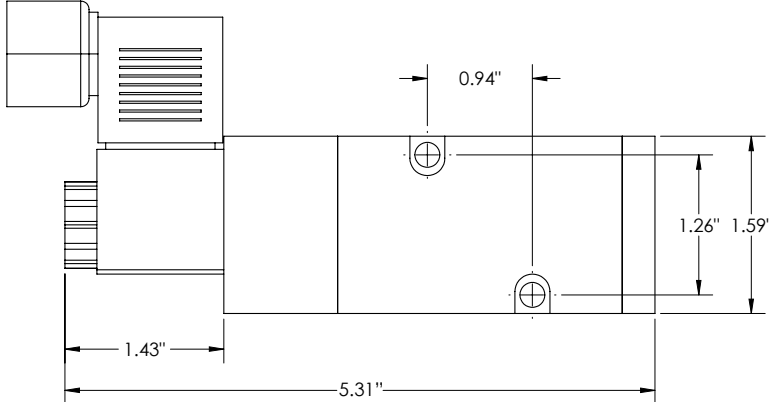


Flying Leads

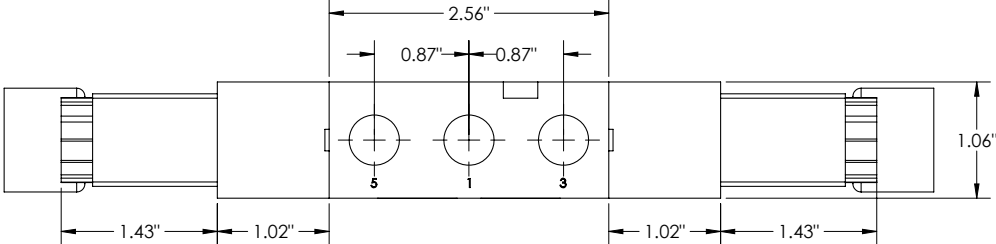
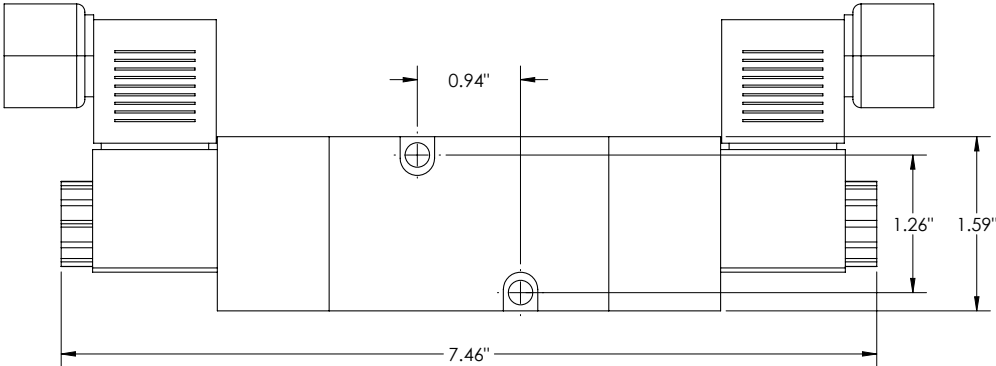


### X-Series Solenoid Valve - Dimensions

Model XSC Single Coil



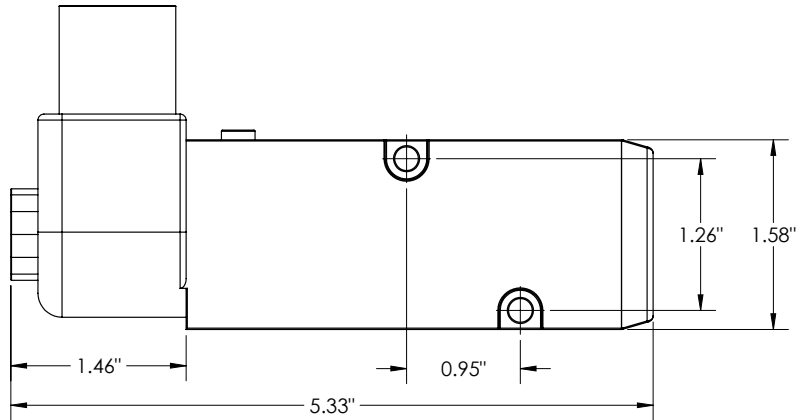
Model XSC Dual Coil



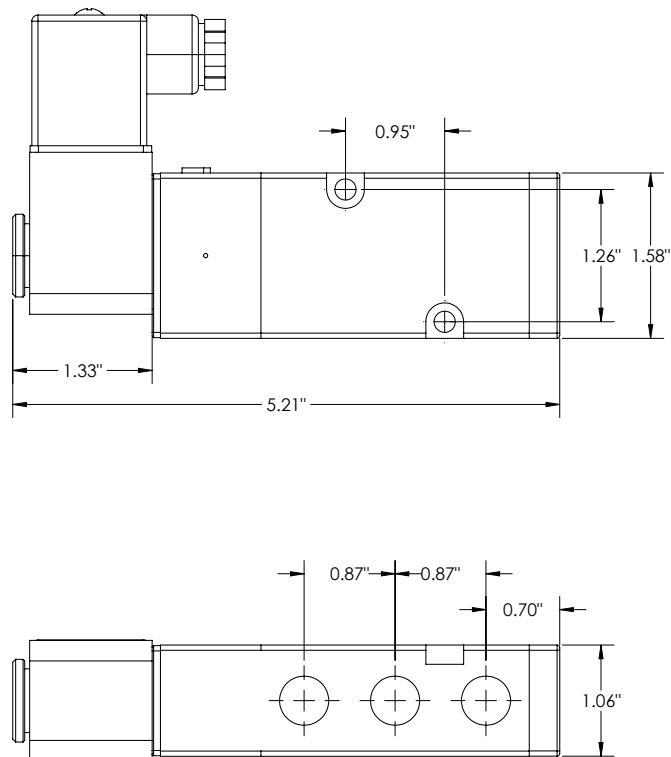


## X-Series Solenoid Valve - Dimensions

### Model XEX Single Coil

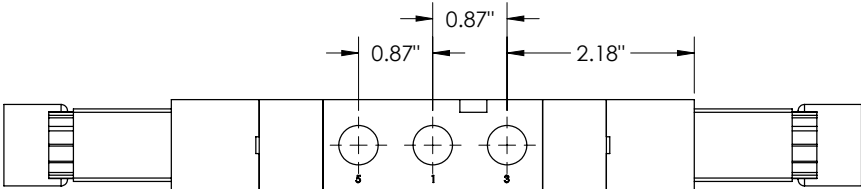
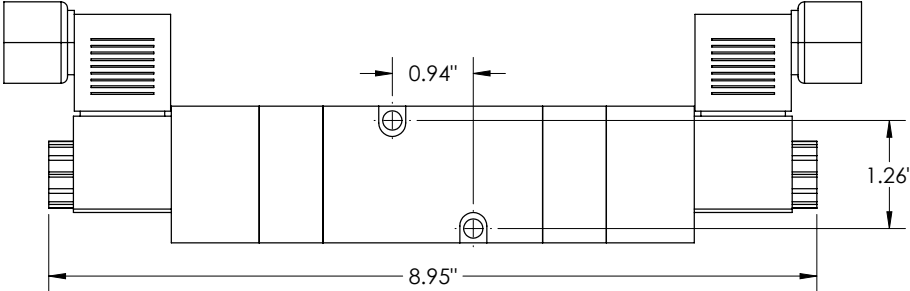


### Model XIS Single Coil



### X-Series Solenoid Valve - Dimensions

Model XSC 3 Position



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