

The Viking Xtreme valve range is robust, versatile and combines high performance with compact installation dimensions. Large flow capacity, short change-over times and low change-over pressure are important characteristics of this valve range.

Ports

- P2LAX: 1/8 inch NPT & BSPP
- P2LBX: 1/4 inch NPT & BSPP
- P2LCX: 3/8 inch NPT & BSPP
- P2LDX: 1/2 inch NPT & BSPP

Mounting

- Inline
- IEM aluminum bar

Solenoids

2.5 watts to 7.3 watts

- Conduit
- Grommet
- 22mm & 30mm 3-pin (DIN 43650)

- 12VDC to 240VAC

Certification / approval

- IP65 Rated, RoHS, CE
- ATEX option available

Mobile applications

- Viking Xtreme tested to +5g shock and vibration
- Solenoids operate with wide voltage tolerance bands
- Corrosion resistant design
- Passed 500 hour salt spray test

Material specifications

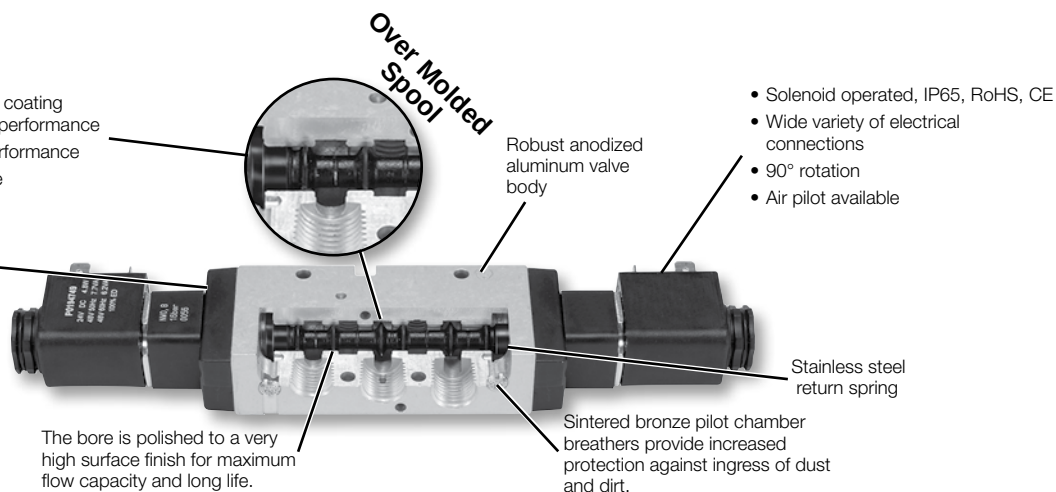
Body	Anodized aluminum
End caps	Anodized aluminum
Coils	Thermoplastic
Fasteners	Stainless steel
Spool	Aluminum and nitrile rubber
Springs	Stainless steel

Features

Over Molded Spool

- Aluminum spool with nitrile rubber coating ground to exact size for optimum performance
- Precision ground for maximum performance
- Wide operating temperature range
 - Low temperature to -40°

Diecast end covers with stainless steel screws to resist aggressive environments.



Operating information

Operating pressure:

Normal: Vacuum to 145 PSIG (Vacuum to 10 bar)
 Xtreme: (P2LAX & P2LBX) Vacuum to 232 PSIG (Vacuum to 16 bar)
 (P2LCX & P2LDX) Vacuum to 174 PSIG (Vacuum to 12 bar)

Minimum: See chart

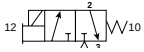
Operating temperature:

Normal: 14°F to 122°F (-10°C to 50°C)
 Xtreme: -40°F to 140°F (-40°C to 60°C)

Minimum operating pressure, PSIG (bar)

Valve type - Internal pilot	P2LAX	P2LBX	P2LCX	P2LDX
Single solenoid - spring return	46 (3.2)	51 (3.5)	51 (3.5)	51 (3.5)
Single remote pilot - spring return	46 (3.2)	51 (3.5)	51 (3.5)	51 (3.5)
Double solenoid - 2-position	22 (1.5)	22 (1.5)	22 (1.5)	22 (1.5)
Double remote pilot - 2-position	22 (1.5)	22 (1.5)	22 (1.5)	22 (1.5)
Double solenoid - 3-position (APB, PC, CE)	51 (3.5)	51 (3.5)	51 (3.5)	51 (3.5)
Double remote pilot - 3-position (APB, PC, CE)	51 (3.5)	51 (3.5)	51 (3.5)	51 (3.5)

Single Solenoid, 3-way, 2-position, Normal Operating Pressure / Temperature

	Solenoid	Port size (NPT)	Cv	Valve type	Response time (msec)	Weight lb (kg)	Voltage	Part number
	 22mm DIN	1/8"	0.7	P2LAX	18 / 40	0.84 (0.38)	24VDC 120VAC	P2LAX391ESNDDDB49 P2LAX391ESNDDB53
		1/4"	1.3	P2LBX	18 / 45	0.84 (0.38)	24VDC 120VAC	P2LBX392ESNDDDB49 P2LBX392ESNDDB53
		3/8"	2.5	P2LCX	25 / 75	1.72 (0.78)	24VDC 120VAC	P2LCX393ESNDDDB49 P2LCX393ESNDDB53
		1/2"	2.7	P2LDX	25 / 75	1.72 (0.78)	24VDC 120VAC	P2LDX394ESNDDDB49 P2LDX394ESNDDB53
		P2LAX 22mm DIN Shown						
	 18" Grommet	1/8"	0.7	P2LAX	18 / 40	0.84 (0.38)	24VDC 120VAC	P2LAX391ESNDDG49 P2LAX391ESNDDG53
		1/4"	1.3	P2LBX	18 / 45	0.84 (0.38)	24VDC 120VAC	P2LBX392ESNDDG49 P2LBX392ESNDDG53
		3/8"	2.5	P2LCX	25 / 75	1.72 (0.78)	24VDC 120VAC	P2LCX393ESNDDG49 P2LCX393ESNDDG53
		1/2"	2.7	P2LDX	25 / 75	1.72 (0.78)	24VDC 120VAC	P2LDX394ESNDDG49 P2LDX394ESNDDG53
		P2LAX 18" Grommet Shown						

Notes: Above valves are rated for an Operating Temperature from 14°F to 122°F (-10°C to 50°C). See Model Code Matrix for additional options.
 Response time: Actuate to 90% Pressure / Return to exhaust to 10% of Supply Pressure. (93 PS (6.3 bar) / temperature 68°F,+20°C)

Single Solenoid, 4-way, 2-position, Normal Operating Pressure / Temperature

	Solenoid	Port size (NPT)	Cv	Valve type	Response time (msec)	Weight lb (kg)	Voltage	Part number
	 22mm DIN	1/8"	0.7	P2LAX	15 / 35	0.49 (0.22)	24VDC 120VAC	P2LAX591ESNDDDB49 P2LAX591ESNDDB53
		1/4"	1.3	P2LBX	18 / 45	0.84 (0.38)	24VDC 120VAC	P2LBX592ESNDDDB49 P2LBX592ESNDDB53
		3/8"	2.5	P2LCX	27 / 75	1.68 (0.76)	24VDC 120VAC	P2LCX593ESNDDDB49 P2LCX593ESNDDB53
		1/2"	2.7	P2LDX	25 / 75	1.68 (0.76)	24VDC 120VAC	P2LDX594ESNDDDB49 P2LDX594ESNDDB53
		P2LBX 22mm DIN Shown						
	 18" Grommet	1/8"	0.7	P2LAX	15 / 35	0.49 (0.22)	24VDC 120VAC	P2LAX591ESNDDG49 P2LAX591ESNDDG53
		1/4"	1.3	P2LBX	18 / 45	0.84 (0.38)	24VDC 120VAC	P2LBX592ESNDDG49 P2LBX592ESNDDG53
		3/8"	2.5	P2LCX	27 / 75	1.68 (0.76)	24VDC 120VAC	P2LCX593ESNDDG49 P2LCX593ESNDDG53
		1/2"	2.7	P2LDX	25 / 75	1.68 (0.76)	24VDC 120VAC	P2LDX594ESNDDG49 P2LDX594ESNDDG53
		P2LAX 18" Grommet Shown						

Notes: Above valves are rated for an Operating Temperature from 14°F to 122°F (-10°C to 50°C). See Model Code Matrix for additional options.
 Response time: Actuate to 90% Pressure / Return to exhaust to 10% of Supply Pressure. (93 PS (6.3 bar) / temperature 68°F,+20°C)

 Most popular.

Double Solenoid, 4-way, 2-position, Normal Operating Pressure / Temperature

Solenoid	Port size (NPT)	Cv	Valve type	Response time (msec)	Weight lb (kg)	Voltage	Part number
  22mm DIN P2LBX 22mm DIN Shown	1/8"	0.7	P2LAX	10 / 10	0.60 (0.27)	24VDC 120VAC	P2LAX591EENDDB49 P2LAX591EENDDB53
	1/4"	1.3	P2LBX	12 / 12	0.93 (0.42)	24VDC 120VAC	P2LBX592EENDDB49 P2LBX592EENDDB53
	3/8"	2.5	P2LCX	17 / 17	1.78 (0.81)	24VDC 120VAC	P2LCX593EENDDB49 P2LCX593EENDDB53
	1/2"	2.7	P2LDX	17 / 17	1.78 (0.81)	24VDC 120VAC	P2LDX594EENDDB49 P2LDX594EENDDB53
 18" Grommet P2LAX 18" Grommet Shown	1/8"	0.7	P2LAX	10 / 10	0.60 (0.27)	24VDC 120VAC	P2LAX591EENDDG49 P2LAX591EENDDG53
	1/4"	1.3	P2LBX	12 / 12	0.93 (0.42)	24VDC 120VAC	P2LBX592EENDDG49 P2LBX592EENDDG53
	3/8"	2.5	P2LCX	17 / 17	1.78 (0.81)	24VDC 120VAC	P2LCX593EENDDG49 P2LCX593EENDDG53
	1/2"	2.7	P2LDX	17 / 17	1.78 (0.81)	24VDC 120VAC	P2LDX594EENDDG49 P2LDX594EENDDG53

Notes: Above valves are rated for an Operating Temperature from 14°F to 122°F (-10°C to 50°C). See Model Code Matrix for additional options.
Response time: Actuate to 90% Pressure / Return to exhaust to 10% of Supply Pressure. (93 PS (6.3 bar) / temperature 68°F,+20°C)

Double Solenoid, 4-way, 3-position All Ports Blocked, 3-position Center Exhaust, Normal Operating Pressure / Temperature

Solenoid	Port size (NPT)	Cv	Valve type	Response time (msec)	Weight lb (kg)	Voltage	Part number	
							All ports blocked	Center exhaust
  22mm DIN P2LBX 22mm DIN Shown	1/8"	0.5	P2LAX	18 / 40	0.62 (0.28)	24VDC 120VAC	P2LAX691EENDDB49 P2LAX691EENDDB53	P2LAX891EENDDB49 P2LAX891EENDDB53
	1/4"	0.9	P2LBX	22 / 55	0.97 (0.44)	24VDC 120VAC	P2LBX692EENDDB49 P2LBX692EENDDB53	P2LBX892EENDDB49 P2LBX892EENDDB53
	3/8"	1.8	P2LCX	30 / 90	2.45 (1.11)	24VDC 120VAC	P2LCX693EENDDB49 P2LCX693EENDDB53	P2LCX893EENDDB49 P2LCX893EENDDB53
	1/2"	1.9	P2LDX	30 / 90	2.45 (1.11)	24VDC 120VAC	P2LDX694EENDDB49 P2LDX694EENDDB53	P2LDX894EENDDB49 P2LDX894EENDDB53
 18" Grommet P2LBX 18" Grommet Shown	1/8"	0.5	P2LAX	18 / 40	0.62 (0.28)	24VDC 120VAC	P2LAX691EENDDG49 P2LAX691EENDDG53	P2LAX891EENDDG49 P2LAX891EENDDG53
	1/4"	0.9	P2LBX	22 / 55	0.97 (0.44)	24VDC 120VAC	P2LBX692EENDDG49 P2LBX692EENDDG53	P2LBX892EENDDG49 P2LBX892EENDDG53
	3/8"	1.8	P2LCX	30 / 90	2.45 (1.11)	24VDC 120VAC	P2LCX693EENDDG49 P2LCX693EENDDG53	P2LCX893EENDDG49 P2LCX893EENDDG53
	1/2"	1.9	P2LDX	30 / 90	2.45 (1.11)	24VDC 120VAC	P2LDX694EENDDG49 P2LDX694EENDDG53	P2LDX894EENDDG49 P2LDX894EENDDG53

Notes: Above valves are rated for an Operating Temperature from 14°F to 122°F (-10°C to 50°C). See Model Code Matrix for additional options.
Response time: Actuate to 90% Pressure / Return to exhaust to 10% of Supply Pressure. (93 PS (6.3 bar) / temperature 68°F,+20°C)

 Most popular.

Single Solenoid, 3-way, 2-position, Xtreme Operating Pressure / Temperature

	Solenoid	Port size (NPT)	Cv	Valve type	Response time (msec)	Weight lb (kg)	Voltage	Part number		
 P2LBX 22mm DIN Shown	22mm DIN	1/8"	0.7	P2LAX	15 / 45	0.84 (0.38)	12VDC	P2LAX391ESHDDDB47		
							24VDC	P2LAX391ESHDDDB48		
		1/4"	1.3	P2LBX	25 / 65	0.84 (0.38)	12VDC	P2LBX392ESHDDDB47		
							24VDC	P2LBX392ESHDDDB48		
		3/8"	2.5	P2LCX	25 / 85	1.01 (0.46)	12VDC	P2LCX393ESHDDDB47		
							24VDC	P2LCX393ESHDDDB48		
		1/2"	2.7	P2LDX	25 / 85	1.01 (0.46)	12VDC	P2LDX394ESHDDDB47		
							24VDC	P2LDX394ESHDDDB48		
		 P2LBX 18" Grommet Shown	18" Grommet	1/8"	0.7	P2LAX	15 / 45	0.84 (0.38)	12VDC	P2LAX391ESHDDG47
									24VDC	P2LAX391ESHDDG48
1/4"	1.3			P2LBX	25 / 65	0.84 (0.38)	12VDC	P2LBX392ESHDDG47		
							24VDC	P2LBX392ESHDDG48		
3/8"	2.5			P2LCX	25 / 85	1.01 (0.46)	12VDC	P2LCX393ESHDDG47		
							24VDC	P2LCX393ESHDDG48		
1/2"	2.7			P2LDX	25 / 85	1.01 (0.46)	12VDC	P2LDX394ESHDDG47		
							24VDC	P2LDX394ESHDDG48		

Notes: Above valves have Mobile Rate Coils and are rated for an Operating Temperature from -40°F to 140°F (-40°C to 60°C). See Model Code Matrix for additional options.

Response time: Actuate to 90% Pressure / Return to exhaust to 10% of Supply Pressure. (93 PS (6.3 bar) / temperature 68°F,+20°C)

Single Solenoid, 4-way, 2-position, Xtreme Operating Pressure / Temperature

	Solenoid	Port size (NPT)	Cv	Valve type	Response time (msec)	Weight lb (kg)	Voltage	Part number	
 Sol 14 W #12 	22mm DIN	1/8"	0.7	P2LAX	15 / 45	0.84 (0.38)	12VDC	P2LAX591ESHDDDB47	
							24VDC	P2LAX591ESHDDDB48	
		1/4"	1.3	P2LBX	20 / 55	0.84 (0.38)	12VDC	P2LBX592ESHDDDB47	
							24VDC	P2LBX592ESHDDDB48	
		3/8"	2.5	P2LCX	25 / 85	1.01 (0.46)	12VDC	P2LCX593ESHDDDB47	
							24VDC	P2LCX593ESHDDDB48	
P2LBX 22mm DIN Shown		1/2"	2.7	P2LDX	25 / 85	1.01 (0.46)	12VDC	P2LDX594ESHDDDB47	
						24VDC	P2LDX594ESHDDDB48		
		18" Grommet	1/8"	0.7	P2LAX	15 / 45	0.84 (0.38)	12VDC	P2LAX591ESHDDG47
								24VDC	P2LAX591ESHDDG48
			1/4"	1.3	P2LBX	25 / 65	0.84 (0.38)	12VDC	P2LBX592ESHDDG47
								24VDC	P2LBX592ESHDDG48
3/8"			2.5	P2LCX	28 / 85	1.01 (0.46)	12VDC	P2LCX593ESHDDG47	
							24VDC	P2LCX593ESHDDG48	
P2LAX 18" Grommet Shown		1/2"	2.7	P2LDX	25 / 85	1.01 (0.46)	12VDC	P2LDX594ESHDDG47	
						24VDC	P2LDX594ESHDDG48		
Notes: Above valves have Mobile Rate Coils and are rated for an Operating Temperature from -40°F to 140°F (-40°C to 60°C). See Model Code Matrix for additional options. Response time: Actuate to 90% Pressure / Return to exhaust to 10% of Supply Pressure. (93 PS (6.3 bar) / temperature 68°F,+20°C)									

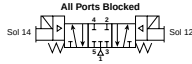
Most popular.

Double Solenoid, 4-way, 2-position, Xtreme Operating Pressure / Temperature

Solenoid	Port size (NPT)	Cv	Valve type	Response time (msec)	Weight lb (kg)	Voltage	Part number
  22mm DIN P2LBX 22mm DIN Shown	1/8"	0.7	P2LAX	11 / 11	0.60 (0.27)	12VDC 24VDC	P2LAX591EEHDDDB47 P2LAX591EEHDDDB48
	1/4"	1.3	P2LBX	13 / 13	0.93 (0.42)	12VDC 24VDC	P2LBX592EEHDDDB47 P2LBX592EEHDDDB48
	3/8"	2.5	P2LCX	18 / 18	1.06 (0.48)	12VDC 24VDC	P2LCX593EEHDDDB47 P2LCX593EEHDDDB48
	1/2"	2.7	P2LDX	18 / 18	1.06 (0.48)	12VDC 24VDC	P2LDX594EEHDDDB47 P2LDX594EEHDDDB48
	1/8"	0.7	P2LAX	11 / 11	0.60 (0.27)	12VDC 24VDC	P2LAX591EEHDDG47 P2LAX591EEHDDG48
	1/4"	1.3	P2LBX	13 / 13	0.93 (0.42)	12VDC 24VDC	P2LBX592EEHDDG47 P2LBX592EEHDDG48
	3/8"	2.5	P2LCX	18 / 18	1.06 (0.48)	12VDC 24VDC	P2LCX593EEHDDG47 P2LCX593EEHDDG48
	1/2"	2.7	P2LDX	18 / 18	1.06 (0.48)	12VDC 24VDC	P2LDX594EEHDDG47 P2LDX594EEHDDG48
 18" Grommet P2LAX 18" Grommet Shown	1/8"	0.7	P2LAX	11 / 11	0.60 (0.27)	12VDC 24VDC	P2LAX591EEHDDG47 P2LAX591EEHDDG48
	1/4"	1.3	P2LBX	13 / 13	0.93 (0.42)	12VDC 24VDC	P2LBX592EEHDDG47 P2LBX592EEHDDG48
	3/8"	2.5	P2LCX	18 / 18	1.06 (0.48)	12VDC 24VDC	P2LCX593EEHDDG47 P2LCX593EEHDDG48
	1/2"	2.7	P2LDX	18 / 18	1.06 (0.48)	12VDC 24VDC	P2LDX594EEHDDG47 P2LDX594EEHDDG48

Notes: Above valves have Mobile Rate Coils and are rated for an Operating Temperature from -40°F to 140°F (-40°C to 60°C). See Model Code Matrix for additional options.
Response time: Actuate to 90% Pressure / Return to exhaust to 10% of Supply Pressure. (93 PS (6.3 bar) / temperature 68°F,+20°C)

Double Solenoid, 4-way, 3-position All Ports Blocked, 3-position Center Exhaust, Xtreme Operating Pressure / Temperature

Solenoid	Port size	Cv	Valve type (NPT)	Response time (msec)	Weight lb (kg)	Voltage	Part number	
							All ports blocked	Center exhaust
  22mm DIN P2LBX 22mm DIN Shown	1/8"	0.5	P2LAX	18 / 40	0.62 (0.28)	12VDC 24VDC	P2LAX691EEHDDDB47 P2LAX691EEHDDDB48	P2LAX891EEHDDDB47 P2LAX891EEHDDDB48
	1/4"	0.9	P2LBX	22 / 55	0.97 (0.44)	12VDC 24VDC	P2LBX692EEHDDDB47 P2LBX692EEHDDDB48	P2LBX892EEHDDDB47 P2LBX892EEHDDDB48
	3/8"	1.8	P2LCX	30 / 90	2.45 (1.11)	12VDC 24VDC	P2LCX693EEHDDDB47 P2LCX693EEHDDDB48	P2LCX893EEHDDDB47 P2LCX893EEHDDDB48
	1/2"	1.9	P2LDX	30 / 90	2.45 (1.11)	12VDC 24VDC	P2LDX694EEHDDDB47 P2LDX694EEHDDDB48	P2LDX894EEHDDDB47 P2LDX894EEHDDDB48
 18" Grommet P2LBX 18" Grommet Shown	1/8"	0.5	P2LAX	18 / 40	0.62 (0.28)	12VDC 24VDC	P2LAX691EEHDDG47 P2LAX691EEHDDG48	P2LAX891EEHDDG47 P2LAX891EEHDDG48
	1/4"	0.9	P2LBX	22 / 55	0.97 (0.44)	12VDC 24VDC	P2LBX692EEHDDG47 P2LBX692EEHDDG48	P2LBX892EEHDDG47 P2LBX892EEHDDG48
	3/8"	1.8	P2LCX	30 / 90	2.45 (1.11)	12VDC 24VDC	P2LCX693EEHDDG47 P2LCX693EEHDDG48	P2LCX893EEHDDG47 P2LCX893EEHDDG48
	1/2"	1.9	P2LDX	30 / 90	2.45 (1.11)	12VDC 24VDC	P2LDX694EEHDDG47 P2LDX694EEHDDG48	P2LDX894EEHDDG47 P2LDX894EEHDDG48

Notes: Above valves have Mobile Rate Coils and are rated for an Operating Temperature from -40°F to 140°F (-40°C to 60°C). See Model Code Matrix for additional options.
Response time: Actuate to 90% Pressure / Return to exhaust to 10% of Supply Pressure. (93 PS (6.3 bar) / temperature 68°F,+20°C)

 Most popular.

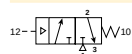
Single & Double Solenoid Operated Valves

Series	N	P2L A X 5 91 E S H D D G 49										
		Valve size		Series		Voltage / frequency						
		1/8"	A	Viking Xtreme X		42	24VAC					
		1/4"	B			45	12VDC					
Series	ADEX	3/8"		C			47*	12 VDC mobile				
		1/2"		D			48*	24 VDC mobile				
							49	24VDC				
							53	120VAC				
Series	B						57	240VAC				
							Blank	Valve less coil				
							* Only available with enclosures "A", "B" & "G". Additional voltages are available upon request. Contact customer support for more information.					
Series	Viking Xtreme	Valve type / function										
		Internal pilot supply to solenoid*										
		3/2 NC - 2-position		3								
		5/2 2-position		5								
Series	Viking Lite	5/3 3-position, APB		6								
		5/3 3-position, PC		7								
		5/3 3-position, CE		8								
		External pilot supply to the solenoids through ports #12 & #14										
Series	D	3/2 NC - 2-position		L								
		5/2 2-position		N								
		5/3 3-position, APB		P								
		5/3 3-position, PC		Q								
Series	Inline Valve Products	5/3 3-position, CE		R								
		* Size A & B solenoid valves can be field converted from internal to external pilot. See page 22 for details.										
Series	D	Main port thread										
		G1/8 (P2LA)		11								
		G1/4 (P2LB)		12								
		G1/4 (P2LB) NAMUR Mount		1N*								
Series	D	G3/8 (P2LC)		13								
		G1/2 (P2LD)		14								
		1/8" NPT (P2LA)		91								
		1/4" NPT (P2LB)		92								
Series	D	1/4" NPT (P2LB) NAMUR Mount		9N*								
		3/8" NPT (P2LC)		93								
		1/2" NPT (P2LD)		94								
		* NAMUR mount available for 5/2, 2-position only.										
Series	D	12 End operator										
		Double solenoid operated valve		E								
		Single solenoid spring return		S*								
		* Not available with 3-position valves.										
Series	D	Valve type										
		N		Normal vacuum to 145 PSIG (16 bar) 14°F to 122°F (-10°C to 50°C)								
		H*		Xtreme vacuum to 232 PSIG (10 bar) 14°F to 122° F (-10°C to 50°C)								
		* P2LC and P2LD solenoid operated valves have a maximum pressure rating of 175 PSIG (12 bar)										
Series	D	Enclosures / lead length										
		A		30mm square 3-pin – ISO 4400 Form A (male only)								
		B		22mm rectangular 3-pin – type B industrial (male only)								
		E*		Intrinsically safe, FM / CSA								
Series	D	F†		Hazardous duty, FM / CSA								
		G		Grommet - 18" leads								
		H		1/2" NPT conduit - 18" leads								
		N		Solenoid pilot operator less coil								
Series	D	* Only available with voltage code "49" & override option "A", valve type "N" Only.										
		† Valve Type "N" Only.										
Series	D	Overrides										
		A		No override								
		C*		Flush - locking								
		D		Extended non-locking								
Series	D	* Override for valve type N only.										
Series	D	Solenoid pilot type										
		D		Pilot exhaust vented								
		N		Tapped pilot exhaust (M5)								

 Most popular.



Single Remote Pilot, 3-way, 2-position, Xtreme Operating Pressure / Temperature



P2LAX Shown

Port size (NPT)	Cv	Response time (msec)	Weight lb (kg)	Valve type	Part number
1/8"	0.7	15 / 45	0.68 (0.31)	P2LAX	P2LAX391PS
1/4"	1.3	25 / 65	0.68 (0.31)	P2LBX	P2LBX392PS
3/8"	2.5	25 / 65	0.88 (0.40)	P2LCX	P2LCX393PS
1/2"	2.7	25 / 65	0.88 (0.40)	P2LDX	P2LDX394PS

Single Remote Pilot, 4-way, 2-position, Xtreme Operating Pressure / Temperature



P2LAX Shown

Port size (NPT)	Cv	Response time (msec)	Weight lb (kg)	Valve type	Part number
1/8"	0.7	15 / 45	0.33 (0.15)	P2LAX	P2LAX591PS
1/4"	1.3	20 / 55	0.68 (0.31)	P2LBX	P2LBX592PS
3/8"	2.5	25 / 85	0.90 (0.41)	P2LCX	P2LCX593PS
1/2"	2.7	25 / 85	0.90 (0.41)	P2LDX	P2LDX594PS

Double Remote Pilot, 4-way, 2-position, Xtreme Operating Pressure / Temperature



P2LBX Shown

Port size (NPT)	Cv	Response time (msec)	Weight lb (kg)	Valve type	Part number
1/8"	0.7	11 / 11	0.33 (0.15)	P2LAX	P2LAX591PP
1/4"	1.3	13 / 13	0.68 (0.31)	P2LBX	P2LBX592PP
3/8"	2.5	18 / 18	0.90 (0.41)	P2LCX	P2LCX593PP
1/2"	2.7	18 / 18	0.90 (0.41)	P2LDX	P2LDX594PP

Double Remote Pilot, 4-way, 3-position All Ports Blocked, 3-position Center Exhaust, Xtreme Operating Pressure / Temperature



P2LBX Shown

Port size (NPT)	Cv	Response time (msec)	Weight lb (kg)	Valve type	Part number	
					All ports blocked	Center exhaust
1/8"	0.5	18 / 50	0.31 (0.14)	P2LAX	P2LAX691PP	P2LAX891PP
1/4"	0.9	25 / 65	0.73 (0.33)	P2LBX	P2LBX692PP	P2LBX892PP
3/8"	1.8	30 / 90	0.93 (0.42)	P2LCX	P2LCX693PP	P2LCX893PP
1/2"	1.9	30 / 90	0.93 (0.42)	P2LDX	P2LDX694PP	P2LDX894PP

Notes: Above valves are rated for an Operating Temperature from 14°F to 122°F (-10°C to 50°C). See Model Code Matrix for additional options.
Response time: Actuate to 90% Pressure / Return to exhaust to 10% of Supply Pressure. (93 PS (6.3 bar) / temperature 68°F, +20°C)

Remote Air Pilot Operated Valves

P2L A X 5 91 PS

Valve size	
1/8"	A
1/4"	B
3/8"	C*
1/2"	D*

* P2LCX and P2LDX manual & remote air pilot valves have a maximum pressure rating of 175 PSIG (12 bar).

Operators / return	
PP	Double remote pilot
PS*	Single remote pilot, spring return

* Not available with 3-position valves.

Main port thread	
11	G1/8 (P2LA)
12	G1/4 (P2LB)
13	G3/8 (P2LC)
14	G1/2 (P2LD)
91	1/8" NPT (P2LA)
92	1/4" NPT (P2LB)
93	3/8" NPT (P2LC)
94	1/2" NPT (P2LD)

Note: NAMUR Mount for P2LBX is available upon request.

Valve type / function	
Internal pilot supply to solenoid	
3/2 NC - 2-position	3
5/2 2-position	5
5/3 3-position, APB	6
5/3 3-position, PC	7
5/3 3-position, CE	8

Most popular.



ATEX Certified Single & Double Solenoid Operated Valves

Vacuum to 145 PSIG (vacuum to 10 bar)
14°F to 122°F 22mm coils (enclosure option M)
-4°F to 122°F 30mm coils (enclosure option S)

N	Series
AD	Series
B	Series
Viking Xtreme	Series
Viking Lite	Series
D	Inline Valve Products

P2L A X 5 91 E S A D D M 49

Valve size	
1/8"	A
1/4"	B
3/8"	C
1/2"	D

Valve type / function	
Internal Pilot Supply to Solenoid	
2-position valve	5
3-position valve APB	6
3-position valve PC	7
3-position valve CE	8
External Pilot Supply to Solenoids through Ports #12 & #14	
2-position valve	N
3-position valve APB	P
3-position valve PC	Q
3-position valve CE	R

Main port thread	
G1/8 (P2LA)	11
G1/4 (P2LB)	12
G3/8 (P2LC)	13
G1/2 (P2LD)	14
1/8" NPT (P2LA)	91
1/4" NPT (P2LB)	92
3/8" NPT (P2LC)	93
1/2" NPT (P2LD)	94

Voltage	
49	24VDC

Enclosures	
M	ATEX 8-22T EExm T4 135°C
S	ATEX 8-30T EExm T6 85°C

Overrides	
D	Extended non-locking

Solenoid pilot type	
D	Vented pilot exhaust
N	Tapped pilot exhaust (M5)

12 end operator	
E	Double solenoid operated valve
S	Single solenoid spring return

NOTE: For ATEX certified remote air pilot valves, build the valve part number from the model number index for remote pilot and add "-EX" following the number.

Example: P2LAX591PS-EX

Note: all valves include a 3 meter sealed cable with assembly.



ATEX Certified Solenoid Pilot Assemblies

P2F S 1 3 A 3 D M 49

Voltage	
49	24VDC

Enclosures	
M	ATEX 8-22T EExm T4 135°C
S	ATEX 8-30T EExm T6 85°C

Note: all valves include a 3 meter sealed cable with assembly.

IEM Bar Manifold, Viking Xtreme Solenoid / Remote Pilot Valves



Valve series	Valve function	## -Stations	Manifold only (NPT)	Manifold only (BSPP)
P2LAX*	3-way	02 - 12	P2LAXMAXG##NP	P2LAXMAXG##GP
P2LAX*	4-way	02 - 12	P2LAXMAXN##NP	P2LAXMAXN##GP
P2LBX*	3-way	02 - 12	P2LBXMAXG##NP	P2LBXMAXG##GP
P2LBX*	4-way	02 - 12	P2LBXMAXN##NP	P2LBXMAXN##GP
P2LCX / P2LDX	3-way / 4-way	02 - 12	P2LCXMAXN##NP	P2LCXMAXN##GP

Kits include: (1) manifold, valve hold down bolts and o-rings. Replace ## with number of valve stations.

* 30mm solenoid coil option "A" not available on IEM bar manifold P2LAX or P2LBX.

IEM Bar Manifold Add-A-Fold Assembly (Viking Xtreme Solenoid / Remote Pilot Valves Only)



Valve series	Valve function	## -Stations	Manifold only (NPT)	Manifold only (BSPP)
P2LAX*	3-way	02 - 12	AAPL2AXMAXG##NP	AAPL2AXMAXG##GP
P2LAX*	4-way	02 - 12	AAPL2AXMAXN##NP	AAPL2AXMAXN##GP
P2LBX*	3-way	02 - 12	AAPL2BXMAXG##NP	AAPL2BXMAXG##GP
P2LBX*	4-way	02 - 12	AAPL2BXMAXN##NP	AAPL2BXMAXN##GP
P2LCX / P2LDX	3-way / 4-way	02 - 12	AAPL2CXMAXN##NP	AAPL2CXMAXN##GP

Kits include: (1) manifold, valve hold down bolts, o-rings and assembly. Replace ## with number of valve stations.

* 30mm solenoid coil option "A" not available on IEM bar manifold P2LAX or P2LBX.

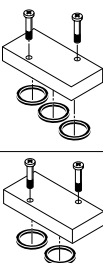
How to Order: 1. List Add-A-Fold assembly part number as line item 1

2. List the desired valves series part number in subsequent line items after the Add-A-Fold Assembly part number to complete the ordering code. Include all valves and blanking kits required. The left most station is station # 1 looking at the #12 end of the manifold.

Example: B3, 4-way manifold with station #1 blanked off with valves assembled

Line	Qty	Part number	Comment
1	1	AAPL2BXMAXN02NP	Add-A-Fold Assembly, 2-station IEM bar manifold
2	2	P2LBX591ESNNDDDB49	4-way, Station 1, 2

Blanking Plate



Type	Kit number
P2LAX 4-way	P2LAXK20P
P2LBX 4-way	P2LBXK20P
P2LCX 3 & 4 way	P2LCXK20P
P2LAX 3-way	912132BPSXZ
P2LBX 3-way	912132BPSXZ

Kit includes: plate, screws, o-rings

Manifold Bolts

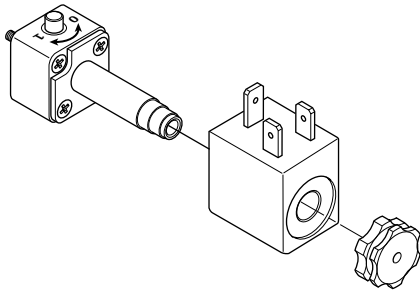
Type	Qty.	Kit number
P2LAX	12	P2LAXK87P
P2LBX	12	P2LBXK87P
P2LCX	12	P2LCXK87P

Manifold O-rings

Type	Qty.	Kit number
P2LAX	30	P2LAXK84P
P2LBX	18	P2LBXK84P
P2LCX	12	P2LCXK84P

Most popular.

22mm Solenoid Pilot Operators & Coils



22mm solenoid pilot options

The P2FP13*4* (NC) 3/2 solenoid pilot operators are designed for piloting pneumatic control valves with compressed air or other inert gases.

The P2FP operator is available for Normal operating pressures up to 10 bar or the Xtreme maximum operating pressure of 16 bar and wide band voltage tolerances required for mobile applications.

Corrosion resistant design

The pilot valve body is manufactured in thermoplastic PA6 material and the core tube brass / stainless steel. The plunger / core is made from stainless steel and the valve seats from FKM.

Solenoid pilot exhaust

These operators all exhaust out of the top of the core tube which is tapped M5. The standard solenoid nut (Solenoid pilot type "D") fitted to the core tube is a diffuser nut which allows the exhaust to escape to atmosphere. This nut also minimizes ingress of dirt into the valve through this port. The alternative plastic knurled nut (Solenoid pilot type "N") can be specified (refer to part number system) if the exhaust air needs captured and piped away using the M5 tapped port.

Mobile applications

Viking Xtreme valves are tested to +5g shock and vibration. Solenoid operated valves are designed to operate with wide voltage tolerance bands within the ambient temperature ranges stated in the technical section.

Coils

Coils are wound with enameled copper wire, having a temperature index of 180°C with class F insulation (155°C) and are encapsulated in Thermoplastic resin. When fitted with suitable connector and correct gasket, they give protection to IP65.

Manual override options

The pilot operators can be supplied with locking or non-locking manual override. The standard manual override is the monostable (spring return) extended brass override. Alternatively the bistable (locking) override can be specified as an alternative for the Normal duty 10 bar option.

Spares

Solenoid operators are available as spares complete with mounting screws and seals. Coils and connectors should be ordered separately unless ATEX certified and intrinsically safe is needed. ATEX certified operators and coils must be ordered together.

Transients

Interrupting the current through the solenoid coil produces momentary voltage peaks which, under unfavorable conditions, can amount to several hundred times the rated operating voltage. Normally, these transients do not cause problems, but to achieve the maximum life of relays in the circuit (and particularly of transistors, thyristors and integrated circuits) it is desirable to provide protection by means of voltage-dependent resistors (varistors). All connectors / cable plugs with LEDs include this type of circuit protection.

Materials

Pilot Valve	
Body	Polyamide
Armature tube:	
Normal pilot operator	Brass
Xtreme pilot operator	Stainless steel
Plunger & core.....	Corrosion resistant CR-NI steel
Seals	FKM (viton™)
Screws.....	Stainless steel
Coil	
Encapsulation material.....	Thermoplastic

ATEX



ATEX is a European Directive (94/9/EC) valid for products to be used within an explosive atmosphere.

Both ATEX certified solenoid, remote pilot and manual operated valves, as well as complete solenoid pilot assemblies are available. For specific information regarding ATEX certification please visit www.parker/pneumatics.

Pilot Operator Kits

P2F

P

1

3

N

4

C

Type

Pilot operator kit

P

Pressure / temperature

145 PSIG (10 bar)
14°F to 122°F (-10°C to 50°C)

N

232 PSIG (16 bar)
-40°F to 158°F (-40°C to 70°C)

H

Overrides

A

No override

C*

Locking (bistable) flush - plastic

D

Non-locking (monostable) extended - brass

* Only available with "N" Pressure / temperature option.



Solenoid Kits

P2F

C

A

4

49

Type

Solenoid Kit

C

Enclosures / lead length

30mm square 3-pin – ISO 4400 Form A (male only)

A

22mm rectangular 3-pin – Type B Industrial (male only)

B

Hazardous duty, FM / CSA

F*

Grommet - 18" leads

G

1/2" NPT conduit - 18" leads

H

Grommet 72" leads

Q

1/2" conduit 72" leads

R

Voltage / frequency

42

24VAC

45

12VDC

47*

12 VDC mobile

48*

24 VDC mobile

49

24VDC

53

120VAC

57

240VAC

* Only available with enclosures "A", "B" & "G".
Additional voltages are available upon request.
Contact customer support for more information.

Solenoid Enclosures



Option A

30mm Square,
3-Pin ISO 4400, DIN 43650A



Option B

22mm Rectangular,
3-Pin DIN, Type B Industrial



Option G & Q

Grommet, 18" or 72" Leads



Option H & R

1/2" Conduit, 18" or 72" Leads

Solenoid Information (Solenoids are rated for continuous duty.)

Voltage		Enclosure "A"			Enclosure "B" to "R"		
Code	AC	DC	Power consumption	Holding (amps)	Power consumption	Holding (amps)	
	60Hz 50Hz						
42	24	22	3.9VA	.14	7.3VA	.31	
45	—	—	12	2.6W	.21	4.6W	.37
47*	—	—	12	6.2W	.52	5.5W	.46
48*	—	—	24	6.8W	.29	6.0W	.25
49	—	—	24	2.7W	.11	4.8W	.20
53	120	110	—	4.1VA	.04	6.3VA	.05
57	240	230	—	3.7VA	.02	6.4VA	.03

* Mobile voltages. Solenoid voltage characteristics for all coils located on page 23.

Replacement Solenoid Nut

Description	Part number	Description	Part number
 Solenoid diffuser nut	PS1556	 Solenoid vented nut	PS2892P

 Most popular.



N Series

ADEX Series

B Series

Viking Xtreme Series

Viking Lite Series

D Inline Valve Products

Intrinsically safe solenoid valves ("E" option)

Hazardous location class:

Class I; Groups A, B, C & D

Class II; Groups E, F, & G

Class III; Div. I

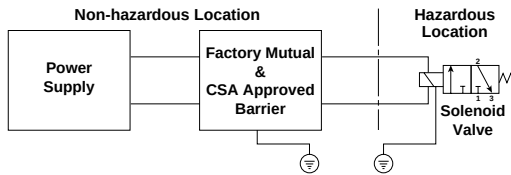
For use in low voltage (24VDC) Intrinsically Safe applications. NO OTHER VOLTAGE IS APPROVED.

Comes standard with non-lighted solenoid connector.

36mm Coil width.

Must be connected to an FM approved Barrier.

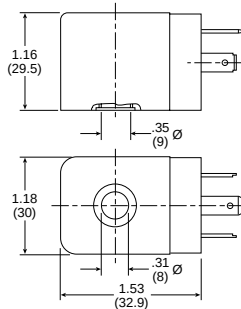
For dimensions, reference standard solenoid models. Maximum internally piloted valve pressure is 115 PSIG. Pressures to 145 PSIG can be used when external pilot is utilized and pilot pressure is limited to 115 PSIG.



Intrinsically safe solenoid pilot assembly kits

Description	Part number
24VDC	P2FS13N1AE49

Kit includes: coil, connector, o-ring & screws



Viking Xtreme Series Valves Intrinsically Safe Valves, Pilot Conversion

Hazardous duty solenoid valves ("F" option)

Hazardous location class:

Class I; Zone I EX, M, II & T4

Class I; Div. I, Groups A, B, C, & D

Class II & III; Div. I, Groups E, F, & G

Comes standard with 1/2" conduit connection.

Voltage range = $\pm 10\%$

Ambient temperature range = -20°C (-4°F) to 60°C (140°F)

Duty factor = 100%

IP65 Rated (with connected conduit connector)

Notes:

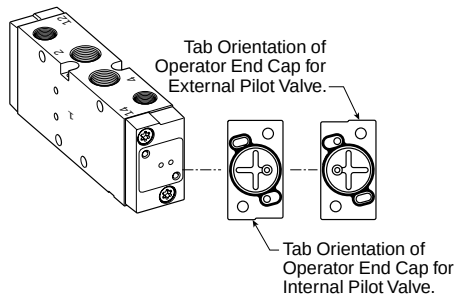
1. Maximum non-hazardous location voltage not to exceed 250V RMS.
2. Connect per Barrier Manufacturers instructions.
3. Factory Mutual requires connections per ISA RP 12.6 instructions.
4. CSA requires "Installation to be in accordance with the Canadian Electrical Code, Part I."
5. The hazardous duty coils are wider in size than size A, B, C & D valves.
If mounted on a manifold, the valves need to be staggered to fit.



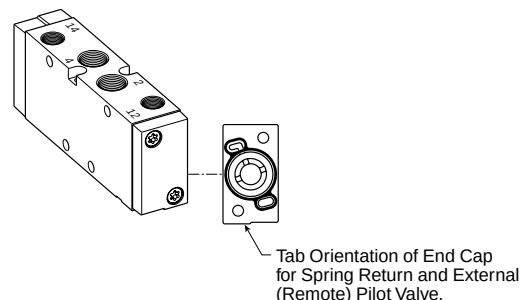
**Option F
 Hazardous Duty FM / CSA**

Internal to external pilot conversion (size A & B only)

To convert from Internal to External Pilot Valve, simply remove the (2) fasteners that attach the end cap to the valve body. Rotate the end cap 180° and attach back to the valve body. For single solenoid valves, only the 14-End needs to be rotated. For double solenoid valves, both ends must be converted for proper function.



The 12 & 14-Ports are always tapped no matter what Valve Type / Function is selected. For Internal Pilot Function, ports do NOT need to be plugged.



Operating temperature

- **Normal**.....14°F to 122°F (-10°C to 50°C)
- **Xtreme**..... -40°F to 158°F (-40°C to 70°C)

Flow Rating

Valve size	Port size	2-position	3-position
P2LAX	1/8"	0.7	0.5
P2LBX	1/4"	1.3	0.9
P2LCX	3/8"	2.5	1.8
P2LDX	1/2"	2.7	1.9

Operating pressure*

Maximum: Normal Valve Type.....145 PSIG (10 bar)
Xtreme Valve Type.....232 PSIG (16 bar)

Minimum:

Valve type - internal pilot	Minimum PSIG (bar)			
	P2LAX	P2LBX	P2LCX	P2LDX
Single solenoid - spring return	46 (3.2)	51 (3.5)	51 (3.5)	51 (3.5)
Single remote pilot - spring return	46 (3.2)	51 (3.5)	51 (3.5)	51 (3.5)
Double solenoid - 2-position	22 (1.5)	22 (1.5)	22 (1.5)	22 (1.5)
Double remote pilot - 2-position	22 (1.5)	22 (1.5)	22 (1.5)	22 (1.5)
Double solenoid - 3-position (APB, PC, CE)	51 (3.5)	51 (3.5)	51 (3.5)	51 (3.5)
Double remote pilot - 3-position (APB, PC, CE)	51 (3.5)	51 (3.5)	51 (3.5)	51 (3.5)

Valve type - External pilot	P2LAX	P2LBX	P2LCX	P2LDX
All Viking series	Vacuum			

* P2LC and P2LD solenoid operated valves have a maximum pressure rating of 175 PSIG (12 bar)

Viking Xtreme Series Valves Flow, Operating Pressure & Response Times

Solenoid voltage characteristics

Non-mobile coils

+10% / -10% for all coils with Normal and Xtreme Operators

Mobile coils - normal pilot operator

22mm 12 & 24VDC - Mobile (47 & 48 voltage code)

Minimum inlet pressure (bar)	Operating temperature		
	-10°C	+10°C	+50°C
3	+30 / -25% VDC	+30 / -20% VDC	+25 / -15% VDC
6	+30 / -30% VDC	+30 / -25% VDC	+25 / -20% VDC
8	+30 / -30% VDC	+30 / -30% VDC	+25 / -25% VDC
10	+30 / -30% VDC	+30 / -30% VDC	+25 / -30% VDC

30mm 12 & 24VDC - Mobile (47 & 48 voltage code)

Minimum inlet pressure (bar)	Operating temperature		
	-10°C	+10°C	+50°C
3	+30 / -30% VDC	+30 / -30% VDC	+25 / -30% VDC
6	+30 / -30% VDC	+30 / -30% VDC	+25 / -30% VDC
8	+30 / -30% VDC	+30 / -30% VDC	+25 / -30% VDC
10	+30 / -30% VDC	+30 / -30% VDC	+25 / -30% VDC

Mobile coils - Xtreme pilot operator

22mm 12 & 24VDC - Mobile (47 & 48 voltage code)

Minimum inlet pressure (bar)	Operating temperature			
	-40°C	+10°C	+50°C	+70°C
4	+30 / -25% VDC	+30 / -25% VDC	+30 / -10% VDC	+20 / -10% VDC
8	+30 / -30% VDC	+30 / -25% VDC	+30 / -15% VDC	+20 / -15% VDC
12	+30 / -30% VDC	+30 / -30% VDC	+30 / -15% VDC	+20 / -15% VDC
16	+30 / -30% VDC	+30 / -30% VDC	+30 / -20% VDC	+20 / -20% VDC

30mm 12 & 24VDC - Mobile (47 & 48 voltage code)

Minimum inlet pressure (bar)	Operating temperature			
	-40°C	+10°C	+50°C	+70°C
4	+30 / -30% VDC	+30 / -30% VDC	+25 / -30% VDC	+15 / -30% VDC
8	+30 / -30% VDC	+30 / -30% VDC	+25 / -30% VDC	+15 / -30% VDC
12	+30 / -30% VDC	+30 / -30% VDC	+25 / -30% VDC	+15 / -30% VDC
16	+30 / -30% VDC	+30 / -30% VDC	+25 / -30% VDC	+15 / -30% VDC

Note: All table ratings are based on 100% continuous duty and 5G shock vibration. At 50% continuous duty all ratings are +30% / -30% for all Temperatures and Pressures.

Female Electrical Connectors / Accessories

30mm Square 3-Pin – ISO 4400, DIN 43650A (Use with Enclosure “A”)

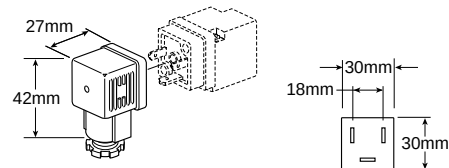
Description	Connector with 6' (2m) cord	Connector
Unlighted	PS2028JCP	PS2028BP
Light – 6-48V, 50/60Hz, 6-48VDC	PS2032J79CP*	PS203279BP
Light – 120V/60Hz	PS2032J83CP*	PS203283BP
Light – 240V/60Hz	N/A	PS203283BP

* LED with surge suppression.

Note: Max ø6.5mm cable size required for connector w/o 6' (2m) cord. IP65 rated when properly installed.

Engineering data:

Conductors: 2 poles plus ground; cable range (connector only): 8 to 10mm (0.31 To 0.39 Inch); contact spacing: 18mm.



Series N

Series ADEX

Series B

Series Viking Xtreme

Series Viking Lite

D

Inline Valve Products

22mm Rectangular 3-Pin – Type B Industrial (Use with Enclosure “B”)

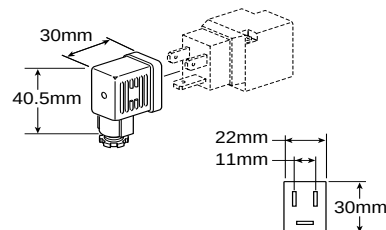
Description	Connector with 6' (2m) cord	Connector
Unlighted	PS2429JBP	PS2429BP
Light – 24V60Hz, 24VDC	PS2430J79BP*	PS243079BP
Light – 120V/60Hz	PS2430J83BP*	PS243083BP
Light – 240V/60Hz	N/A	PS243087BP

* LED with surge suppression.

Note: Max ø6.5mm cable size required for connector w/o 6' (2m) cord. IP65 rated when properly installed.

Engineering data:

Conductors: 2 poles plus ground; cable range (connector only): 6 to 8mm (0.24 To 0.31 Inch); contact spacing: 11mm.



Exhaust Mufflers

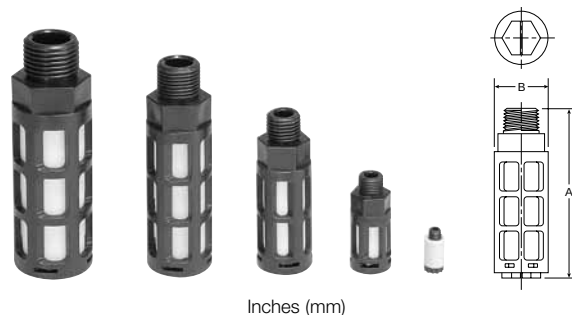
Pipe thread	Part number
M5	P6M-PAC5
1/8" NPT	EM12
1/4" NPT	EM25
3/8" NPT	EM37
1/2" NPT	EM50

P6M - Plastic; EM - Sintered bronze



Plastic Silencers

Thread size	A (mm)	B (mm)	Part number	
			NPT	BSPT
M5	.43 (11)	.32 (8)	AS-5	
1/8"	1.57 (40)	.63 (16)	ASN-6	AS-6
1/4"	2.56 (65)	.83 (21)	ASN-8	AS-8
3/8"	3.35 (85)	.98 (25)	ASN-10	AS-10
1/2"	3.74 (95)	1.18 (30)	ASN-15	AS-15



Inches (mm)

Exhaust Protector

Features

- • 1/8 and 1/4 NPT male sizes
- • Fitted with a brass pipe adapter and a fluorocarbon membrane
- • Resistant to rust, clog, wash down and contamination

Applications

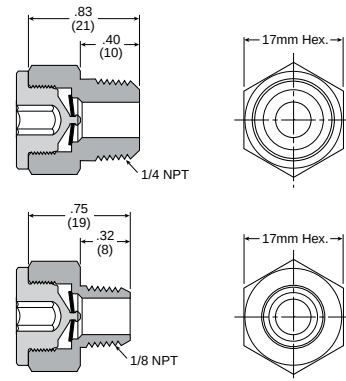
These protectors are intended for mobile applications, quick venting applications and alternative exhaust port breathers that require protection against clogging.

Ideal for valves exposed to harsh environmental conditions (which can cause a "caking up" in the exhaust pipe ports where the bronze mufflers or breather vents are installed).

Particularly suitable for time-sensitive applications such as axle-lift suspensions or pushers or tag axles.

Flow data (SCFM)

Size	60 PSIG Inlet	90 PSIG Inlet	125 PSIG Inlet	Part number
1/8"	40.1	56.5	75.5	E90016
1/4"	44.6	62.7	83.5	E90017



Operating information

Operating pressure:	0 to 150 PSIG (0 to 10 bar)
Operating temperature:	-40°F to 140°F (-40°C to 60°C)

Material specifications

Body & pipe adapter	Brass
Membrane	Fluorocarbon

Spool Service Kits

Description	Includes items (qty.)	Part number
Size A, 4-way, 2-position, solenoid & air pilot valves	1 (1), 3 (2), 4 (2)	P2LAXSK1
Size A, 4-way, 3-position, solenoid & air pilot valves	1 (1), 2 (2), 3 (2), 4 (2)	P2LAXSK2
Size A, 4-way, 2-position, manual valves	Spool only (not shown)	P2LAXSK3
Size A, 4-way, 3-position, manual valves	Spool only (not shown)	P2LAXSK4
Size B, 4-way, 2 & 3-position valves	1 (1), 3 (2), 4 (2)	P2LBXSK1
Size C & Size D, 4-way, 2 & 3-position valves	1 (1), 3 (2), 4 (2)	P2LCXDXSK1

A - 30mm Square
3-Pin ISO Form A

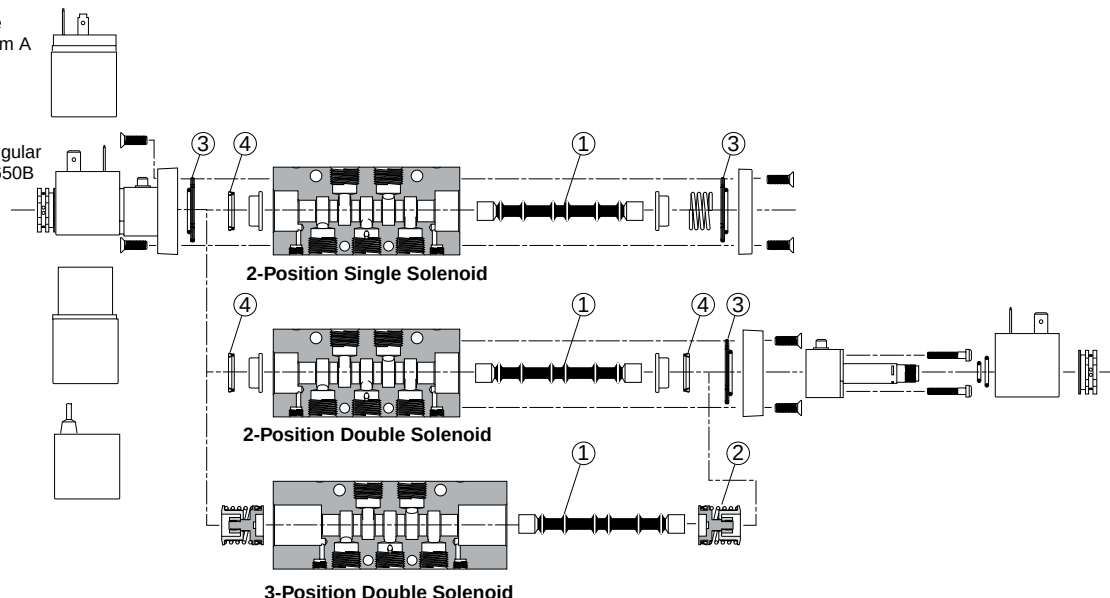
B - 22mm Rectangular
3-Pin DIN 43650B

H - 1/2" Conduit
18" Leads

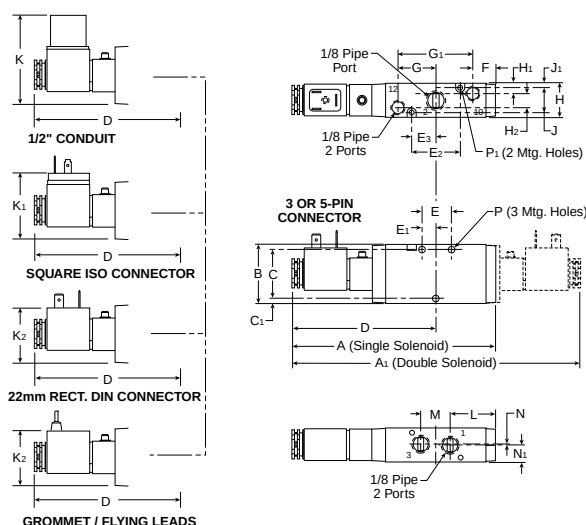
R - 1/2" Conduit
72" Leads

G - Grommet
18" Leads

Q - Grommet
72" Leads



P2LAX 3/2 Single & Double Operators – Solenoid

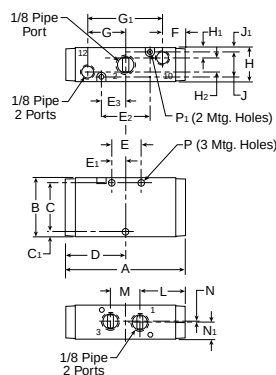


P2LAX 3/2 (solenoid)

A	A ₁	B	C	C ₁
5.35 (136)	7.60 (193)	1.57 (40)	1.26 (32)	.16 (4)
D	E	E ₁	E ₂	E ₃
3.80 (97)	.79 (20)	.39 (10)	1.26 (32)	.63 (16)
F	G	G ₁	H	H ₁
.55 (14)	.98 (25)	1.97 (50)	.87 (22)	.26 (6.6)
H ₂	J	J ₁	K	K ₁
.35 (9)	.65 (16.5)	.11 (2.9)	2.36 (60)	1.61 (41)
K ₂	L	M	N	N ₁
1.50 (38)	1.14 (29)	.79 (20)	.02 (0.5)	.42 (11)
P	P ₁			
Ø .17 Ø (4.3)	Ø .12 Ø (3.1)			

Inches (mm)

P2LAX 3/2 Single & Double Operators – Remote Pilot

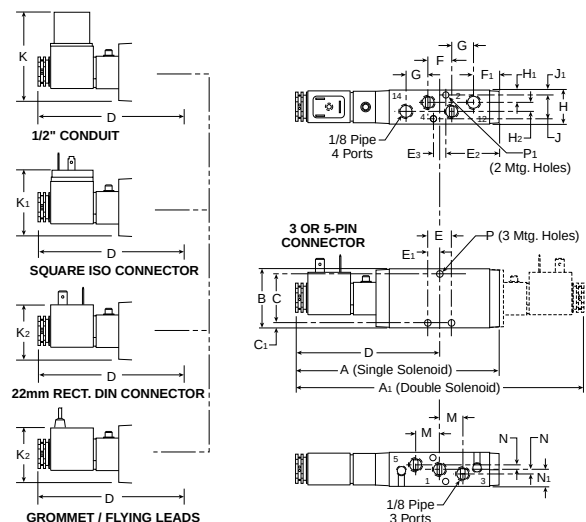


P2LAX 3/2 (remote)

A	B	C	C ₁	D
3.07 (78)	1.57 (40)	1.26 (32)	.16 (4)	1.54 (39)
E	E ₁	E ₂	E ₃	F
.79 (20)	.39 (10)	1.26 (32)	.63 (16)	.55 (14)
G	G ₁	H	H ₁	H ₂
.98 (25)	1.97 (50)	.87 (22)	.26 (6.6)	.35 (9)
J	J ₁	L	M	N
.65 (16.5)	.11 (2.9)	1.14 (29)	.79 (20)	.02 (0.5)
N ₁	P	P ₁		
.42 (11)	Ø .17 Ø (4.3)	Ø .12 Ø (3.1)		

Inches (mm)

P2LAX 5/2 & 5/3 Single & Double Operators, 4-way

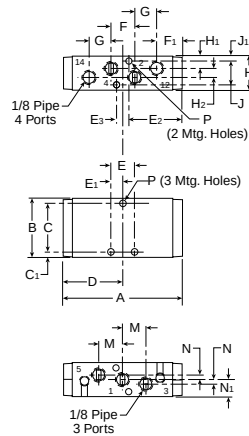


P2LAX 5/2 & 5/3 (solenoid)

A	A ₁	B	C	C ₁
5.47 (139)	7.72 (196)	1.57 (40)	1.30 (33)	.14 (3.5)
D	E	E ₁	E ₂	E ₃
3.86 (98)	.63 (16)	.31 (8)	1.42 (36)	.33 (8.5)
F	F ₁	G	H	H ₁
.63 (16)	.67 (17)	.59 (15)	.87 (22)	.31 (8)
H ₂	J	J ₁	K	K ₁
.24 (6)	.63 (16)	.12 (3.9)	2.36 (60)	1.61 (41)
K ₂	M	N	N ₁	P
1.50 (38)	.63 (16)	.12 (3)	.43 (11)	Ø .17 Ø (4.3)
P ₁				
Ø .12 Ø (3.1)				

Inches (mm)

P2LAX 5/2 & 5/3 Single & Double Operators – Remote Pilot

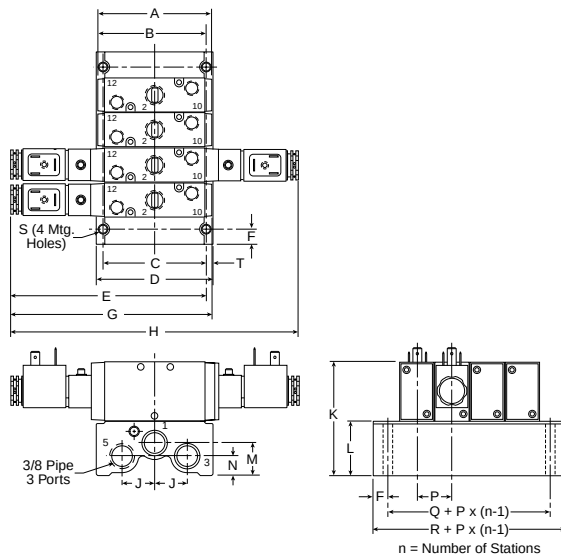


P2LAX 5/2 & 5/3 (remote)

A	B	C	C ₁	D
3.19 (81)	1.57 (40)	1.30 (33)	.14 (3.5)	1.59 (40.5)
E	E ₁	E ₂	E ₃	F
1.47 (16)	.31 (8)	1.42 (36)	.33 (8.5)	.63 (16)
F ₁	G	H	H ₁	H ₂
.67 (17)	.59 (15)	.87 (22)	.31 (8)	.24 (6)
J	J ₁	M	N	N ₁
.63 (16)	.12 (3)	.63 (16)	.12 (3)	.43 (11)
P	P ₁			
Ø .17 Ø (4.3)	Ø .12 Ø (3.1)			

Inches (mm)

P2LAX 3/2 Single & Double Operators – IEM Aluminum Bar Manifold

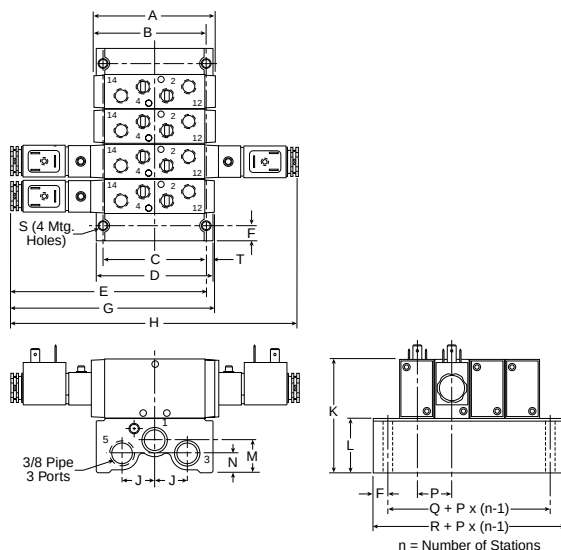


P2LAX 3/2 IEM Aluminum bar manifold

A	B	C	D	E
3.07 (78)	2.83 (72)	2.76 (70)	3.12 (79)	5.18 (132)
F	G	H	J	K
41 (10.5)	5.35 (136)	7.72 (193)	.87 (22)	3.11 (79)
L	M	N	P	Q
1.54 (39)	.87 (22)	.52 (13.2)	.93 (23.5)	1.56 (39.5)
R	S	T		
2.36 (60)	Ø .22 Ø (5.5)	.18 (4.5)		

Inches (mm)

P2LAX 5/2 & 5/3 Single & Double Operators – IEM Aluminum Bar Manifold

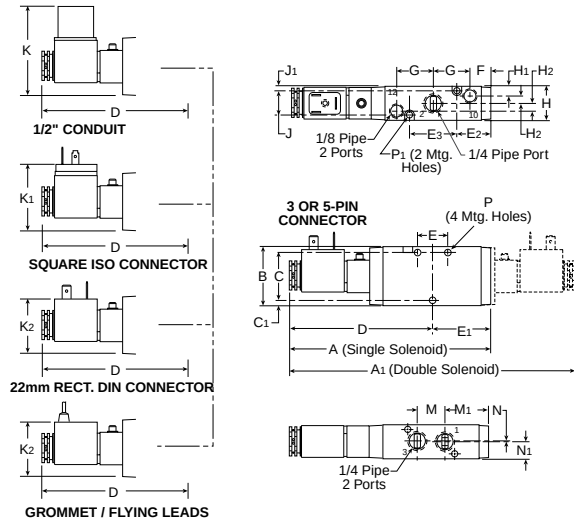


P2LAX 5/2 & 5/3 IEM Aluminum bar manifold

A	B	C	D	E
3.19 (81)	2.97 (76)	2.76 (70)	3.12 (79)	5.26 (134)
F	G	H	J	K
41 (10.5)	5.47 (139)	7.72 (196)	.87 (22)	3.11 (79)
L	M	N	P	Q
1.54 (39)	.87 (22)	.52 (13.2)	.93 (23.5)	1.56 (39.5)
R	S	T		
2.36 (60)	Ø .22 Ø (5.5)	.18 (4.5)		

Inches (mm)

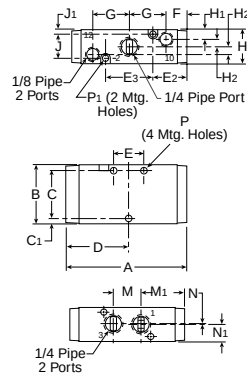
P2LBX 3/2 Single & Double Operators – Solenoid



P2LBX 3/2 (solenoid)

A	A ₁	B	C	C ₁
5.35 (136)	7.60 (193)	1.57 (40)	1.26 (32)	.16 (4)
D	E	E ₁	E ₂	E ₃
3.80 (96.5)	.79 (20)	1.54 (39)	.51 (13)	1.26 (32)
F	G	H	H ₁	H ₂
.55 (14)	.98 (25)	.87 (22)	.26 (6.6)	.18 (4.5)
J	J ₁	K	K ₁	K ₂
.65 (16.5)	.11 (2.9)	2.36 (60)	1.61 (41)	1.50 (38)
M	M ₁	N	N ₁	P
.79 (20)	1.14 (29)	.02 (0.5)	.42 (11)	Ø .17 Ø (4.3)
P ₁ Ø .12 Ø (3.1)				
Inches (mm)				

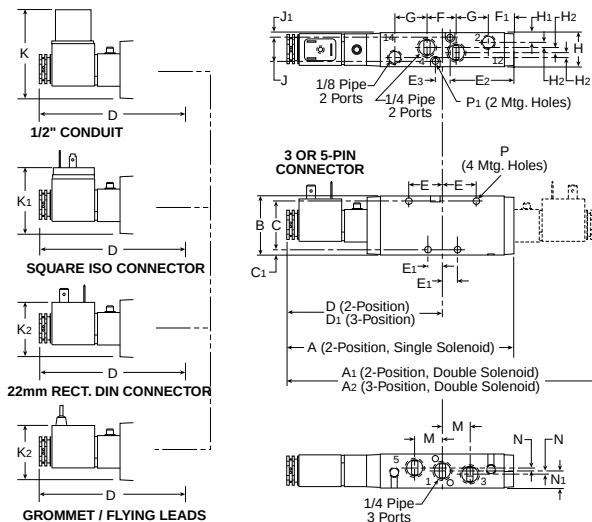
P2LBX 3/2 Single & Double Operators – Remote Pilot



P2LBX 3/2 (remote)

A	B	C	C ₁	D
3.08 (78)	1.57 (40)	1.26 (32)	.16 (4)	1.54 (39)
E	E ₂	E ₃	F	G
.79 (20)	.51 (13)	1.26 (32)	.55 (14)	.98 (25)
H	H ₁	H ₂	J	J ₁
.87 (22)	.26 (6.6)	.18 (4.5)	.65 (16.5)	.11 (2.9)
M	M ₁	N	N ₁	P
.79 (20)	1.14 (29)	.02 (0.5)	.42 (11)	Ø .17 Ø (4.3)
P ₁ Ø .12 Ø (3.1)				
Inches (mm)				

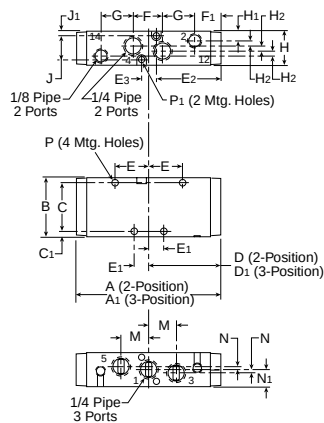
P2LBX 5/2 & 5/3 Single & Double Operators – Solenoid



P2LBX 5/2 & 5/3 (solenoid)

A	A ₁	A ₂	B	C
6.14 (156)	8.39 (213)	9.23 (235)	1.57 (40)	1.26 (32)
C ₁	D	D ₁	E	E ₁
.16 (4)	4.21 (107)	4.64 (118)	.91 (23)	.39 (10)
E ₂	E ₃	F	F ₁	G
1.73 (44)	.39 (10)	.79 (20)	.67 (17)	.87 (22)
H	H ₁	H ₂	J	J ₁
.87 (22)	.26 (6.6)	.12 (3)	.65 (16.5)	.12 (3)
K	K ₁	K ₂	M	N
2.36 (60)	1.61 (41)	1.50 (38)	.79 (20)	.08 (2)
N ₁	P	P ₁		
.43 (11)	Ø .17 Ø (4.3)	Ø .12 Ø (3.1)		
Inches (mm)				

P2LBX 5/2 & 5/3 Single & Double Operators – Remote Pilot

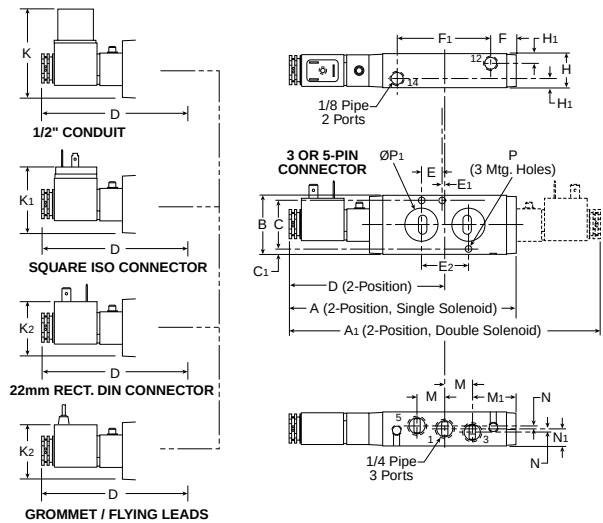


P2LBX 5/2 & 5/3 (remote)

A	A1	B	C	C1
3.95 (100)	4.61 (117)	1.57 (40)	1.26 (32)	.16 (4)
D	D1	E	E1	E2
1.93 (49)	2.28 (58)	.91 (23)	.39 (10)	1.73 (44)
E3	F	F1	G	H
.39 (10)	.79 (20)	.67 (17)	.87 (22)	.8 (22)
H1	H2	J	J1	K
.26 (6.6)	.12 (3)	.65 (16.5)	.11 (2.8)	2.90 (74)
M	N	N1	P	P1
.79 (20)	.08 (2)	.43 (11)	Ø .17 Ø (4.3)	Ø .12 Ø (3.1)

Inches (mm)

P2LBX 5/2 Single & Double Operators – Solenoid _ NAMUR

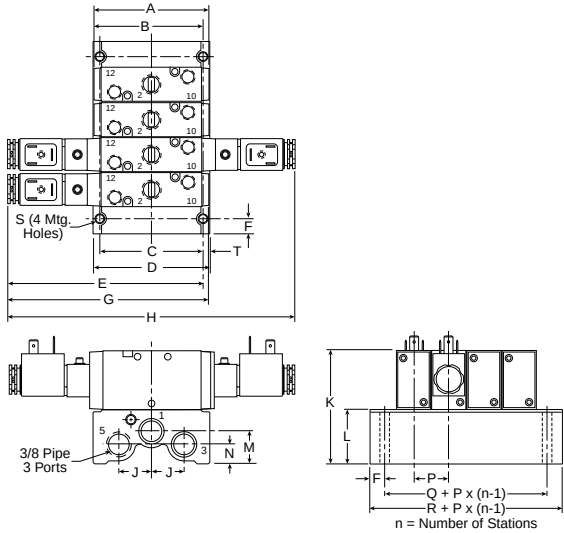


P2LBX 5/2 (NAMUR)

A	A1	B	C	C1
6.15 (156)	8.39 (213)	1.57 (40)	1.26 (32)	.16 (4)
D	E	E1	E2	F
4.21 (107)	.47 (12)	.08 (2)	.94 (24)	.67 (17)
F1	H	H1	M	M1
2.52 (64)	.87 (22)	.26 (6.6)	.79 (20)	1.14 (29)
N	N1	P	P1	
.08 (2)	.43 (11)	Ø .22 Ø (5.5)	Ø .76 Ø (19.4)	

Inches (mm)

P2LBX 3/2 Single & Double Operators – IEM Aluminum Bar Manifold

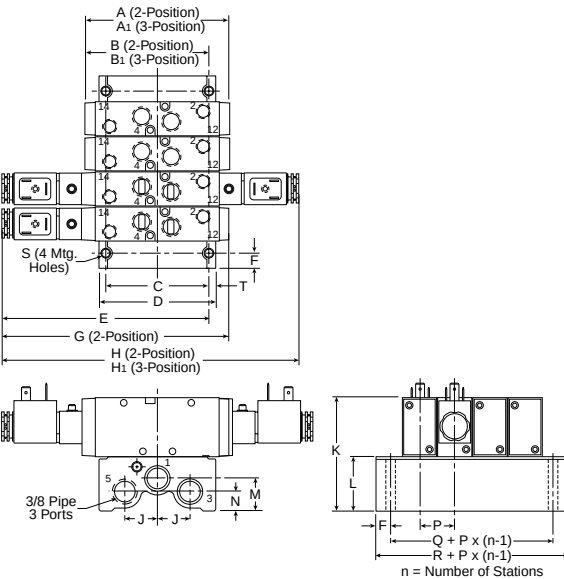


P2LBX 3/2
IEM Aluminum bar manifold

A	B	C	D	E
3.86 (78)	2.91 (74)	2.76 (70)	3.12 (79)	5.17 (131)
F	G	H	J	K
.40 (10.2)	5.33 (136)	7.6 (193)	.87 (22)	3.11 (79)
L	M	N	P	Q
1.47 (37)	.87 (22)	.52 (13.2)	.93 (23.5)	1.56 (39.6)
R	S	T		
2.36 (60)	Ø .22 (5.5)	.18 (4.6)		

Inches (mm)

P2LBX 5/2 & 5/3 Single & Double Operators – IEM Aluminum Bar Manifold

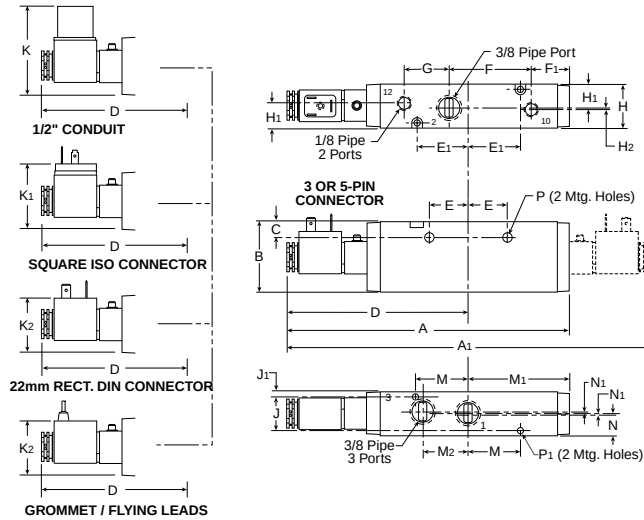


P2LBX 5/2 & 5/3
IEM Aluminum bar manifold

A	A ₁	B	B ₁	C
3.86 (98)	4.70 (120)	3.42 (84)	3.73 (95)	2.76 (70)
D	E	F	G	H
3.12 (79)	5.59 (142)	.40 (10.2)	6.14 (156)	8.39 (213)
H ₁	J	K	L	M
9.23 (235)	.87 (22)	3.11 (79)	1.47 (37)	.87 (22)
N	P	Q	R	S
.52 (13.2)	.93 (23.5)	1.56 (39.6)	2.36 (60)	Ø .22 (5.5)
T				
.18 (4.6)				

Inches (mm)

P2LCX 3/2 Single & Double Operators – Solenoid

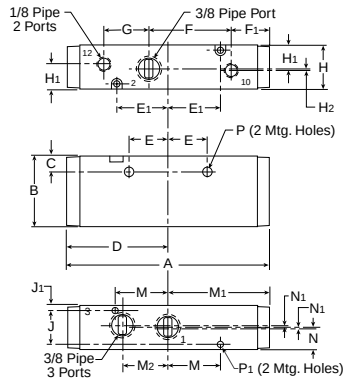


P2LCX 3/2 (solenoid)

A	A ₁	B	C	D
7.66 (194.5)	9.80 (249)	1.89 (48)	.43 (11)	4.90 (124.5)
E	E ₁	F	F ₁	G
1.04 (26.5)	1.40 (35.5)	2.24 (57)	1.02 (26)	1.22 (31)
H	H ₁	H ₂	J	J ₁
1.18 (30)	.67 (17)	.02 (0.5)	.91 (23)	.14 (3.5)
K	K ₁	K ₂	M	M ₁
2.52 (64)	1.77 (45)	1.65 (42)	1.40 (35.5)	2.76 (70)
M ₂	N	N ₁	P	P ₁
1.18 (30)	.55 (14)	.04 (1)	Ø .27 Ø (6.9)	Ø .17 Ø (4.4)

Inches (mm)

P2LCX 3/2 Single & Double Operators – Remote Pilot



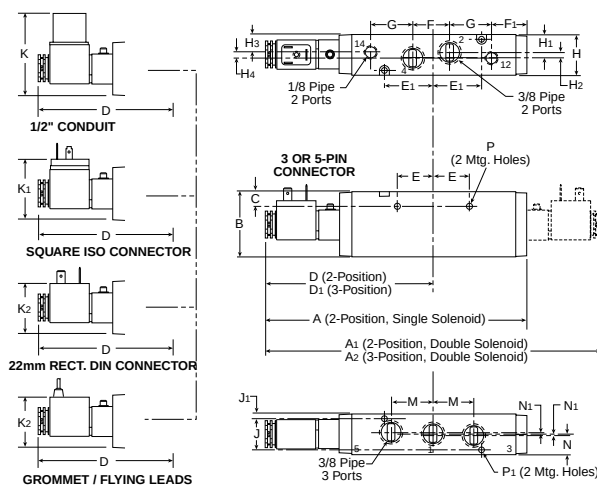
P2LCX 3/2 (remote)

A	B	C	D	E
5.51 (140)	1.89 (48)	.43 (11)	2.76 (70)	1.04 (26.5)
E ₁	F	F ₁	G	H
1.40 (35.5)	2.24 (57)	1.02 (26)	1.22 (31)	1.18 (30)
H ₁	H ₂	J	J ₁	M
.67 (17)	.02 (0.5)	.91 (23)	.14 (3.5)	1.40 (35.5)
M ₁	M ₂	N	N ₁	P
2.76 (70)	1.18 (30)	.55 (14)	.04 (1)	Ø .27 Ø (6.9)

P₁
 Ø .17
 Ø (4.4)

Inches (mm)

P2LCX 5/2 & 5/3 Single & Double Operators – Solenoid

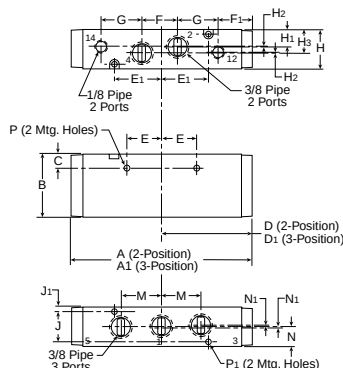


P2LCX 5/2 & 5/3 (solenoid)

A	A ₁	A ₂	B	C
7.68 (195)	9.84 (250)	10.71 (272)	1.89 (48)	.43 (11)
D	D ₁	E	E ₁	F
4.92 (125)	5.35 (136)	1.04 (26.5)	1.40 (35.5)	1.06 (27)
F ₁	G	H	H ₁	H ₂
1.02 (26)	1.22 (31)	1.18 (30)	.53 (13.5)	.12 (3)
H ₃	H ₄	J	J ₁	K
.51 (13)	.16 (4)	.91 (23)	.14 (3.5)	2.52 (64)
K ₁	K ₂	M	N	N ₁
1.77 (45)	1.65 (42)	1.18 (30)	.55 (14)	.04 (1)
P	P ₁			
Ø .27 Ø (6.9)	Ø .17 Ø (4.4)			

Inches (mm)

P2LCX 5/2 & 5/3 Single & Double Operators – Remote Pilot

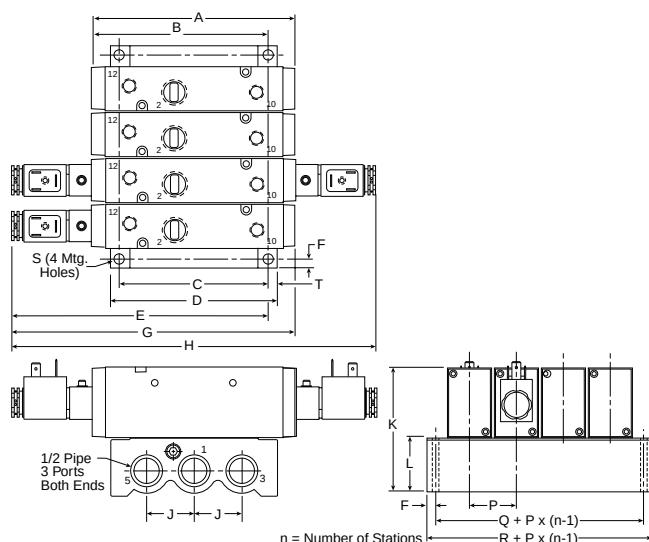


P2LCX 5/2 & 5/3 (remote)

A	A ₁	B	C	D
5.51 (140)	6.38 (162)	1.89 (48)	.43 (11)	2.76 (70)
D ₁	E	E ₁	F	F ₁
3.18 (81)	1.04 (26.5)	1.40 (35.5)	1.06 (27)	1.02 (26)
G	H	H ₁	H ₂	H ₃
1.22 (31)	1.18 (30)	.51 (13)	.02 (0.5)	.12 (3)
J	J ₁	M	N	N ₁
.91 (23)	.14 (3.5)	1.18 (30)	.55 (14)	.04 (1)
P	P ₁			
Ø .27 (6.9)	Ø .17 (4.4)			

Inches (mm)

P2LCX 3/2 Single & Double Operators – IEM Aluminum Bar Manifold



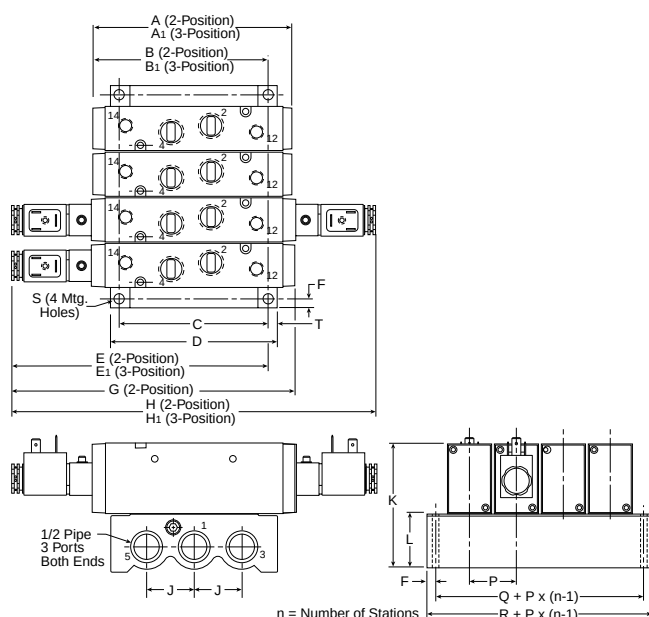
P2LCX 3/2

IEM Aluminum bar manifold

A	B	C	D	E
5.51 (140)	4.96 (126)	3.94 (100)	4.41 (112)	7.11 (180.5)
F	G	H	J	K
.24 (6)	7.66 (194.5)	9.80 (249)	1.26 (32)	3.43 (87)
L	P	Q	R	S
1.54 (39)	1.24 (31.5)	1.77 (45)	2.24 (57)	Ø .26 (6.5)
T				
.24 (6)				

Inches (mm)

P2LCX 5/2 & 5/3 Single & Double Operators – IEM Aluminum Bar Manifold



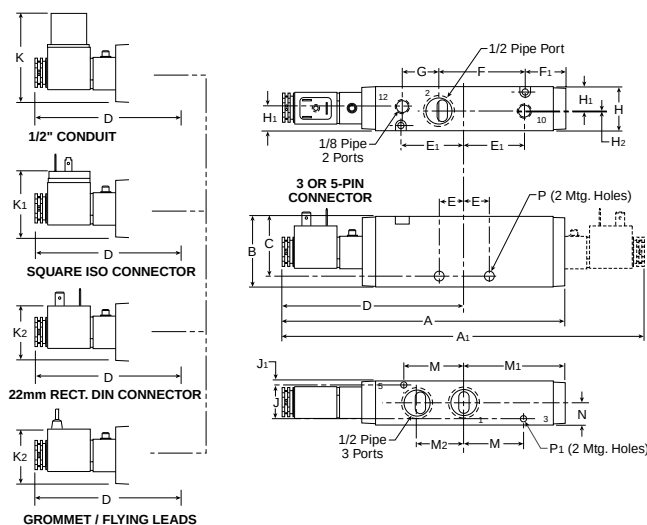
P2PCX 5/2 & 5/3

IEM Aluminum bar manifold

A	A ₁	B	B ₁	C
5.51 (140)	6.38 (162)	4.72 (120)	5.16 (131)	3.94 (100)
D	E	E ₁	F	G
4.41 (112)	6.89 (170)	7.13 (181)	.24 (6)	7.68 (195)
H	H ₁	J	K	L
9.84 (250)	10.71 (272)	1.26 (32)	3.43 (87)	1.54 (39)
P	Q	R	S	T
1.24 (31.5)	1.77 (45)	2.24 (57)	Ø .26 (6.5)	.24 (6)

Inches (mm)

P2LDX 3/2 Single & Double Operators – Solenoid

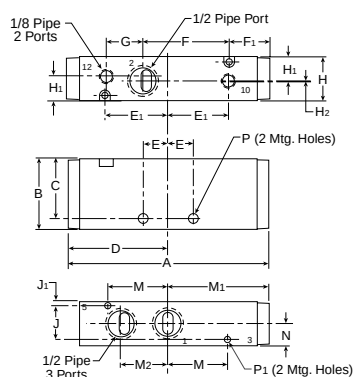


P2LDX 3/2 (solenoid)

A	A ₁	B	C	D
7.66 (194.5)	9.80 (249)	1.89 (48)	1.59 (40.5)	4.90 (124.5)
E	E ₁	F	F ₁	G
.67 (17)	1.65 (42)	2.36 (60)	1.08 (27.5)	.98 (25)
H	H ₁	H ₂	J	J ₁
1.18 (30)	.67 (17)	.02 (0.5)	.91 (23)	.14 (3.5)
K	K ₁	K ₂	M	M ₁
2.52 (64)	1.77 (45)	1.65 (42)	1.65 (42)	2.76 (70)
M ₂	N	P	P ₁	
1.30 (33)	.59 (15)	Ø .26 Ø (6.6)	Ø .17 Ø (4.4)	

Inches (mm)

P2LDX 3/2 Single & Double Operators – Remote Pilot

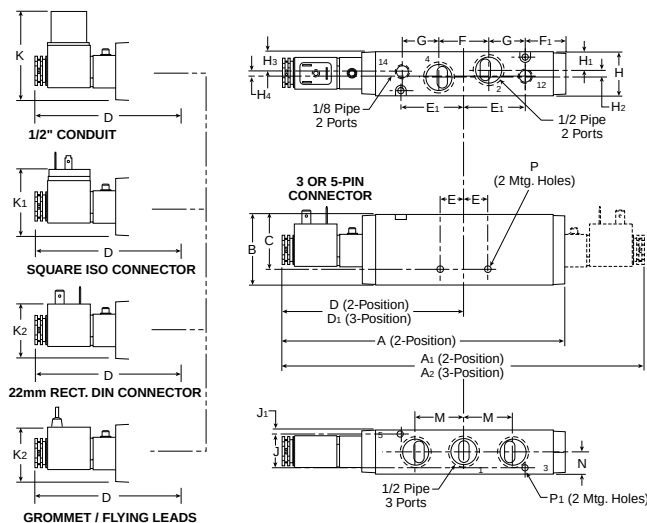


P2LDX 3/2 (remote)

A	B	C	D	E
5.51 (140)	1.89 (48)	1.59 (40.5)	2.76 (70)	.67 (17)
E ₁	F	F ₁	G	H
1.65 (42)	2.36 (60)	1.08 (27.5)	.98 (25)	1.18 (30)
H ₁	H ₂	J	J ₁	M
.67 (17)	.02 (0.5)	.91 (23)	.14 (3.5)	1.65 (42)
M ₁	M ₂	N	P	P ₁
2.76 (70)	1.30 (33)	.59 (15)	Ø .26 Ø (6.6)	Ø .17 Ø (4.4)

Inches (mm)

P2LDX 5/2 & 5/3 Single & Double Operators – Solenoid

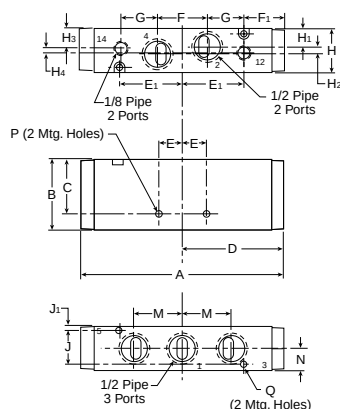


P2LDX 5/2 & 5/3 (solenoid)

A	A ₁	A ₂	B	C
7.67 (195)	9.84 (250)	10.7 (272)	1.89 (48)	1.59 (40.5)
D	D ₁	E	E ₁	F
4.92 (125)	5.79 (147)	.67 (17)	1.65 (42)	1.34 (34)
F ₁	G	H	H ₁	H ₂
1.10 (28)	.98 (25)	1.18 (30)	.49 (12.5)	.20 (5)
H ₃	H ₄	J	J ₁	K
.51 (13)	.16 (4)	.91 (23)	.14 (3.5)	2.52 (64)
K ₁	K ₂	M	N	P
1.77 (45)	1.65 (42)	1.30 (33)	.59 (15)	Ø .26 Ø (6.6)
P ₁				
Ø .17 Ø (4.4)				

Inches (mm)

P2LDX 5/2 & 5/3 Single & Double Operators – Remote Pilot

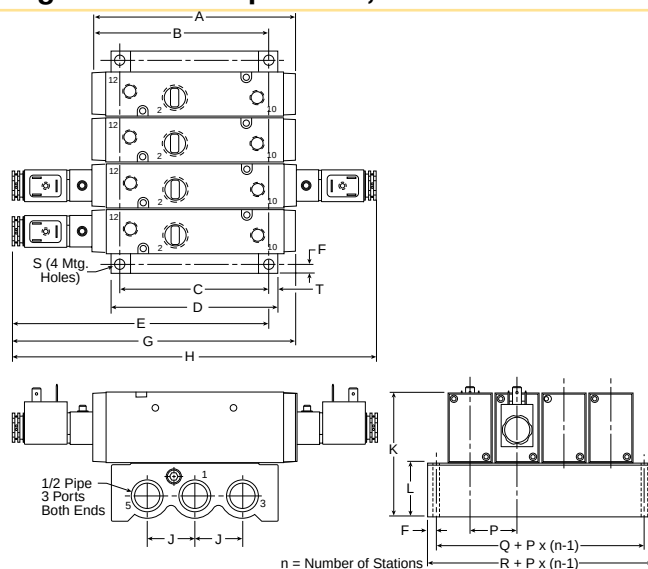


P2LDX 5/2 & 05/3 (remote)

A	B	C	D	E
5.47 (139)	1.89 (48)	1.59 (40.5)	2.63 (67)	.67 (17)
E1	F	F1	G	H
1.65 (42)	1.34 (34)	1.08 (27.5)	.98 (25)	1.18 (30)
H1	H2	H3	H4	J
.49 (12.5)	.20 (5)	.51 (13)	.16 (4)	.91 (23)
J1	P	M	N	Q
.14 (3.5)	Ø .26 Ø (6.6)	1.29 (32.7)	.59 (15)	Ø .17 Ø (4.4)

Inches (mm)

P2LDX 3/2 Single & Double Operators, – IEM Aluminum Bar Manifold



P2LDX 3/2

IEM Aluminum bar manifold

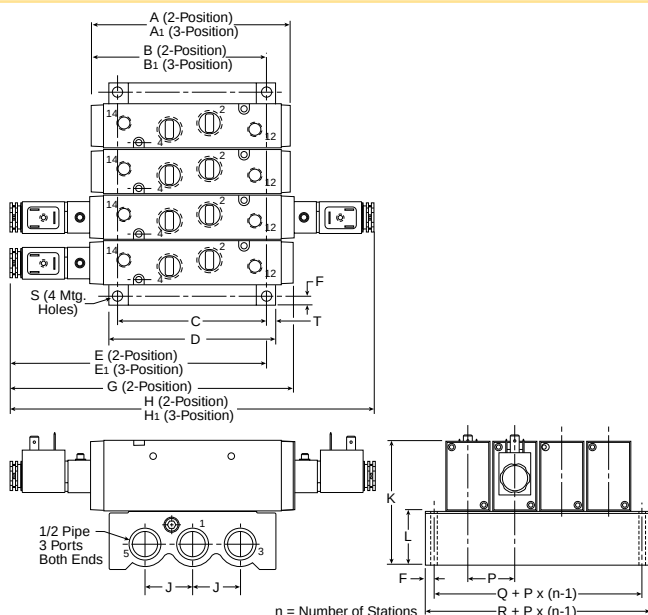
A	B	C	D	E
5.51 (140)	4.96 (126)	3.94 (100)	4.41 (112)	7.11 (180.5)
F	G	H	J	K
.24 (6)	7.66 (194.5)	9.80 (249)	1.26 (32)	3.43 (87)
L	P	Q	R	S
1.54 (39)	1.24 (31.5)	1.77 (45)	2.24 (57)	Ø .26 Ø (6.5)

T

.24
(6)

Inches (mm)

P2LDX 5/2 & 5/3 Single & Double Operators – IEM Aluminum Bar Manifold



P2LDX 5/2 & 5/3

IEM Aluminum bar manifold

A	A1	B	B1	C
5.51 (140)	6.38 (162)	4.72 (120)	5.16 (131)	3.94 (100)
D	E	E1	F	G
4.41 (112)	6.89 (170)	7.13 (181)	.24 (6)	7.68 (195)
H	H1	J	K	L
9.84 (250)	10.71 (272)	1.26 (32)	3.43 (87)	1.54 (39)
P	Q	R	S	T
1.24 (31.5)	1.77 (45)	2.24 (57)	Ø .26 Ø (6.5)	.24 (6)

Inches (mm)