



Force Control Industries, Inc.
3660 Dixie Highway Fairfield, Ohio 45014 USA
Phone: 513-868-0900 Fax: 513-868-2105

Posidyne X Class Specifications

Size	Logic	Clutch Torque (Lb.In.)			Brake Torque Lb. In.)			Max RPM	Max. KE per Engmt. (Ft. Lbs)	Avg. Thermal HP			Cyclic Inertia Lb.Ft.^2	Air Per Engmt. (cu. In)	Oil Capacity (oz)			Overhung Load Cap. (Lbs. Pull)	Weight (Ft. Lbs.)
		Static (Lb.In.)	Dyn. (Lb.In.)	Air Pr. (PSI)	Static (Lb.In.)	Dyn. (Lb.In.)	Air Pr. (PSI)			Hz.	VIU	VID			Horiz.	VIU	VID		
X1	S	99	85	70	106	90	45	1800	3765	0.4	0.4	0.4	0.005	1.52	37	54	50	167	42
	SA	90	77	80	104	88	30												
	P	110	95	60	110	95	60												
	A	90	77	80	49	42	---												
	C	99	85	70	---	---	---						0.0033						
X2	S	198	170	70	213	181	45	1800	7530	0.5	0.4	0.44	0.006	1.52	37	54	50	167	42
	SA	179	154	80	208	177	40												
	P	220	189	60	220	189	60												
	A	179	154	80	98	84	---												
	C	198	170	70	---	---	---						0.0048						
X3	S	468	402	80	531	451	60	1800	15600	0.41	0.4	0.34	0.011	1.61	53	59	59	464	57
	SA	359	304	80	480	408	40												
	P	512	440	70	512	440	70												
	A	359	309	80	189	163	---												
	C	468	402	80	---	---	---						0.0087						
X4	P	1039	894	60	1039	894	60	1800	21150	0.66	N/A	N/A	0.049	0.221	76	N/A	N/A	597	103
	A	777	668	80	444	382	---												
	C	1000	860	70	---	---	---						0.0462						

THP ratings at 100° F maximum temperature rise, and 226° F maximum oil temperature.
Overhung load request based on load at midpoint of the shaft.

Posidyne X Class Size Selection Chart

Selecting a Posidyne X Class Clutch Brake is as simple as using HP and RPM in the selection chart. Find the correct RPM and over to the HP dropping down to see the size recommended.

HP	1800 RPM									1200 RPM							
	1/2	3/4	1	1 1/2	2	3	5	1 1/2	10	1/2	3/4	1	1 1/2	2	3	5	
X1	X1	X1	X1							X1	X1						
X2			X2	X2	X2					X2	X2	X2					
X3						X3	X3						X3	X3			
X4								X4	X4						X4	X4	

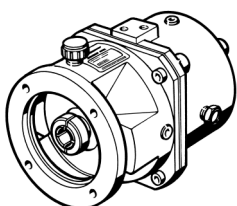
THP ratings at 100° F maximum temperature rise, and 226° F maximum oil temperature.
Overhung load request based on load at midpoint of the shaft.

NOTE:

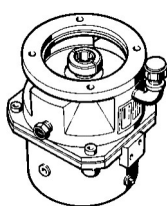
Detailed selection procedures should be used for applications requiring higher cycle rates (+40 CPM) or other extra-ordinary application requirements.

Contact Force Control for assistance.

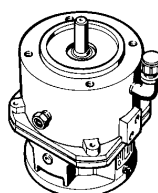
Posidyne X Class Mounting Options



Horizontal



Vertical Input Up
Not available X4



Vertical Input Down
Not available X4

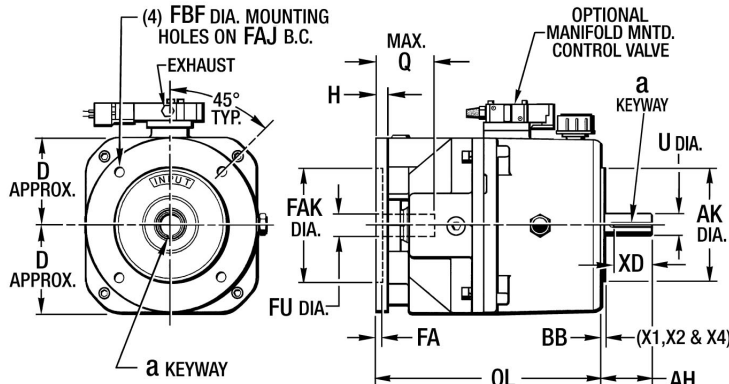


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Posidyne X Class Dimensions

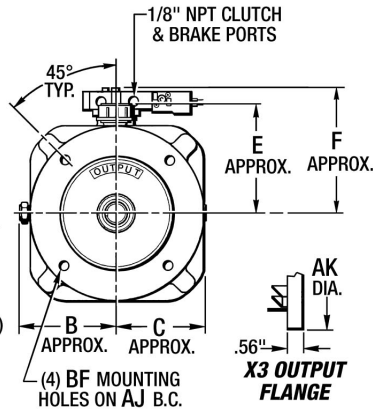
INPUT MODULE #2 & #3 (C Face)

5/8" or 7/8" Dia. FU, 4.50" AK, Split Clamped Quill
(56/143TC or 145TC frame)

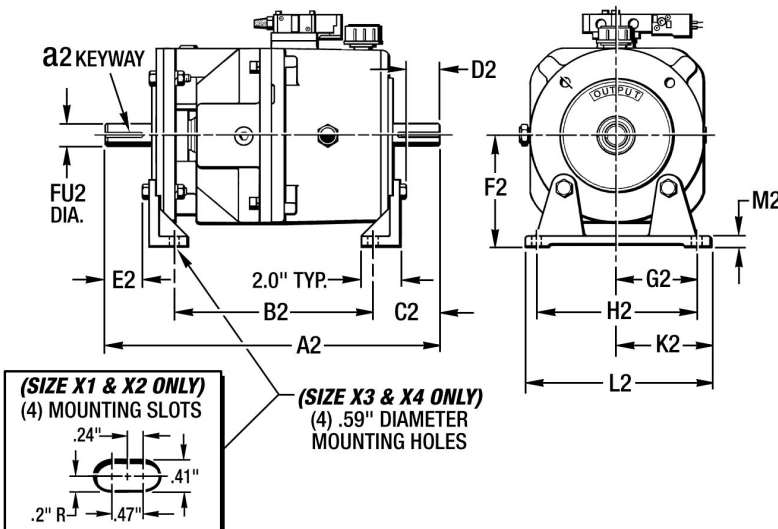


INPUT MODULE #4 (C Face)

1 1/8" Dia. FU, 8.50" AK, Split Clamped Quill
(182TC/184TC frame)



Unit Size	Input Dimensions (inches)							Keyway a	Output Dimensions (inches)							Overall Dimensions (inches)					
	FAK	FA	FU	H	Q	FBF	FAJ		AK	BB	U	AH	XD	BF	AJ	B	C	D	E	F	OL
X1	4.5	0.28	0.625	0.5	2.38	0.41	5.875	3/16 X 3/32	4.500	0.160	0.625	2.060	1.500	3/8 X 3/4	5.875	3.87	3.44	3.44	4.29	4.94	
X2			0.875								0.875	2.120	1.750								9.00
X3	8.5	0.19	1.125	0.8	2.75	0.53	7.25	1/4 X 1/8	8.500	---	1.125	2.630	2.120	1/2 X 1	7.250	4.44	4.44	4.50	5.09	4.94	11.00
X4			1.375	0.63	3.13	0.53		5/16 X 5/32		0.250	1.375	3.130	2.500			5.00	4.50	4.50	5.67	6.00	11.75



Manifold Mounted Valve

Reduced Reaction Time—By mounting the valve directly on the unit, the reaction time is reduced by as much as 15 ms (more if long hoses are used). The maximum cycle rate is also increased considerably (up to 300 CPM).

Improved Consistency—This reduction in response time also leads to a more consistent and accurate stopping position.

Reduced Cost—Using the manifold mounted valves eliminates the need to mount and connect the valve, and can add to air leaks.

Unit Size	Dimensions (inches)												a2
	A2	B2	C2	D2	E2	F2	G2	H2	K2	L2	L2	FU2	
X1	13.69	7.16	3.16	1.50	1.83	4.50	3.19	6.38	3.75	7.50	0.15	0.265	3/16 X 3/32
X2	13.75		3.21									0.875	
X3	17.00	9.50	3.63	1.88	2.2	5.25	4.00	8.00	4.75	9.50	0.50	1.125	1/4 X 1/8
X4	18.62	10.50	4.13	2.36	2.62							1.375	5/16 X 5/32



Posidyne X Class Accessories & Kits

To make the X Class Clutch/Brakes adaptable to many applications, several accessories are available.

Mounting Foot Kit

A foot kit is available for those applications where the Posidyne X Class clutch/brake may not be mounted on a C-Face motor or reducer. The foot kit includes two feet that bolt onto the clutch/brake. They are made of heavy gauge steel X1 and X2, or cast iron X3 and X4, and hardcoat epoxy coated.

Note: The Posidyne X Class Clutch/Brake cannot be C-Faced mounted to the motor or reducer with feet installed.

Male Input Shaft Assembly

For applications where a belt drive may be required on the input, an input shaft assembly is available to convert the quill input to an extended shaft. It consists of a mounting plate with a bearing and stainless steel shaft that bolts to the C-Face mounting flange. The shaft is then locked into the Split Clamped Quill.

Manifold Mounted Valve

Add the convenience and performance of a Manifold Mounted Valve. Mounting the valve directly on the unit eliminates extra plumbing, improves response time, increases cycle rate, and improves positioning accuracy.

Foot Mounting Kit	
X1 & X2 Foot Kit (Pair of feet)	02-X1-FT-KIT
X1 & X2 Foot Kit Washdown (Steel It Epoxy)	02-X1-FT-KITW
X3 & X4 Foot Kit (Pair of feet)	02-X4-FT-KIT
X3 & X4 Foot Kit Washdown (Steel It Epoxy)	02-X4-FT-KITW
Extended Input Shaft Assembly	
Input Shaft Ass'y. X1, 5/8" Shaft	02-X1-1A-KIT
Input Shaft Ass'y. X1, 5/8" Shaft Washdown	02-X1-1A-KITW
Input Shaft Ass'y. X2, 7/8" Shaft	02-X2-1A-KIT
Input Shaft Ass'y. X2, 7/8" Shaft, Washdown	02-X2-1A-KITW
Input Shaft Ass'y. X3, 1-1/8" Shaft	02-X3-1A-KIT
Input Shaft Ass'y. X3, 1-1/8" Shaft, Washdown	02-X3-1A-KITW
Input Shaft Ass'y. X4, 1-3/8" Shaft	02-X4-1A-KIT
Input Shaft Ass'y. X4, 1-3/8" Shaft, Washdown	02-X4-1A-KITW
C Face Kit	
	03-X1-CFT-KIT
	02-X3-CFT-KIT
	02-X4-CFT-KIT

Pneumatic Control Valves	
Control Valve, 434A Series, Manifold	09-056-A3NN-00
Control Valve, 434A Series, Manifold Mounted, 24VDC, 1.0Cv	09-056-A1NN-00
Control Valve, 35A Series, A Logic,	01-56-147-08
Control Valve, 35A Series, A Logic, 7.3 Watt, 24VDC, .21Cv, Shipped	01-56-148-08

NOTE:

All valves are washdown duty. Optional Hazardous Duty is available.



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Posidyne X Class—How To Order

X	1	2	3	4	5	6
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(1) Size

1	=X1
2	=X2
3	=X3
4	=X4

(2) Input Module

2	= 4 1/2 FAK, 5/8" FU	56C	X1 & X2
3	= 4 1/2 FAK, 7/8" FU	143TC 145TC	
4	= 8 1/2 AK, 1 1/8 FU	182TC 184TC	X3
5	= 8 1/2 AK, 1 3/8 FU	213TC 215TC	X4

(3) Control Logic

S	= S - Air set clutch / light spring set brake with Air assist
A	= A - Air set clutch / medium spring set
C	= C - Air set clutch / no brake
D	= SA - Air set clutch / medium spring
P	= P - Air set clutch / Air set brake (without springs)

(5) Package Type

S	= Standard
F	= Food Grade Fluid, (USDA H-2)
W	= Washdown, nickel plated shafts, SS hardware, Steel-It Epoxy paint, food grade fluid (USDA H-2)
E	= Washdown, nickel plated shafts, SS hardware, White Epoxy paint, food grade fluid

(4) Output Module

2	= 4 1/2 FAK, 5/8" FU	56C	X1 & X2
3	= 4 1/2 FAK, 7/8" FU	143TC 145TC	
C	= 4 1/2 FAK, 7/8" FU <i>Optical Encoder</i>	143TC 145TC	X1 & X2
4	= 8 1/2 AK, 1 1/8 FU	182TC 184TC	X3
5	= 8 1/2 AK, 1 3/8 FU	213TC 215TC	X4

(6) Mounting Position

H*	= Horizontal (No extra oil)
N**	= Horizontal/Vertical*
D	= Vertical, Input Down
U	= Vertical, Input Up

* "H" = horizontal mounting only. No extra oil is included

** "N" = horizontal or vertical mounting by changing sight gauge and breather location. 1 qt. extra oil included.