

Torque & Cv Value

Torque Values

BREAK AWAY TORQUE NM		
Valve Size		150# & 300#
MM	Inch	
15	1/2"	18
20	3/4"	18
25	1"	36
32	1.1/4"	46
40	1.1/2"	55
50	2"	114
65	2.1/2"	131
80	3"	162
100	4"	221
125	5"	295
150	6"	450
200	8"	750
250	10"	1400
300	12"	1900

ACTUATOR SELECTION MULTIPLY THE ABOVE VALUES BY THE FOLLOWING FACTORS (F) TO GET THE ACTUATOR TORQUE.

SERVICE	FACTOR 'F'
RAW WATER	1.35
WET SERVICE	1.35
STEAM	1.25
GAS	1.40
SLURRY	1.80
VISCOUS LIQUID	2.00

Notes :

- 1 For GFT, CFT, GRFT & SS Filled PTFE Seats
Multiply The Above Values By 1.2
- 2 For Torque of lined valves please contact marketing person.

Flow Co - Efficients

Valve Size		Plug Valve Cv
MM	Inch	
15	1/2"	9
20	3/4"	14
25	1"	44
32	1.1/4"	66
40	1.1/2"	92
50	2"	175
65	2.1/2"	245
80	3"	290
100	4"	545
125	5"	650
150	6"	1070
200	8"	1580
250	10"	2165
300	12"	3159

Flow Coefficient (Cv) is a basic industry wide standard which is defined as "The rate of flow of water in US gallon's per minute that will generate a pressure drop of one pound per square inch across the valve".

$$Cv = \frac{Q}{\sqrt{\frac{\Delta P}{SG}}}$$

WHERE,

Q = FLOW RATE IN US gal / min

SG = SPECIFIC GRAVITY OF LIQUID (WATER =1)

ΔP = PRESSURE DROP ACROSS THE VALVE, PSI

Ky = Cv / 1.17

Testing and Test Duration

Pressure Test Chart

Test Pressure & Duration As Per API 598						
Pressure Rating	Hydro Test Pressure		Test Duration In Seconds			
	Body (Kg/cm ²)	Seat (Kg/cm ²)	Valve Size	Body (Minutes-Seconds)	Seat (Minutes-Seconds)	Back Seat (Minutes-Seconds)
150#	30	22	2" & Smaller	0.25 - 15	0.25 - 15	0.25 - 15
300#	80	58	2.1/2" to 6"	1 - 60	1 - 60	1 - 60
600#	155	115	8" to 12"	2 - 120	2 - 120	1 - 60
800#	211	151	14" & Larger	5 - 300	2 - 120	1 - 60
900#	233	170	Pneumatic (Air) Testing Only For Seat 7 Kg/cm ²			
1500#	393	286				
2500#	653	478				

Test Pressure & Duration As Per BS EN 12266-1						
			Test Duration In Seconds			
			Valve Size	Body (Minutes-Seconds)	Seat (Minutes-Seconds)	
PN 10	15	11	2" & Smaller	0.25 - 15	0.25 - 15	
PN 16	24	18				
PN 25	40	28	2.1/2" to 6"	1 - 60	1 - 60	
PN 40	60	45	8" to 12"	2 - 120	2 - 120	
PN 64	100	71	14" & Larger	5 - 30	2 - 120	

Hydraulic Testing



Plug Valve Features

GENERAL

"aira" Non lubricated Sleeved & Lined Plug Valve are designed In accordance with API 599 for ANSI Class Ratings 150 & 300. Nominal sizes from 1/2" to 12" Valves Have been design for use with various combinations of material Such as : Carbon Steel, Low Carbon Steel, Special Alloy, Stainless Steel, Monel, Inconel.

2 Way and Multiport Plug Valves are available for variety of applications.

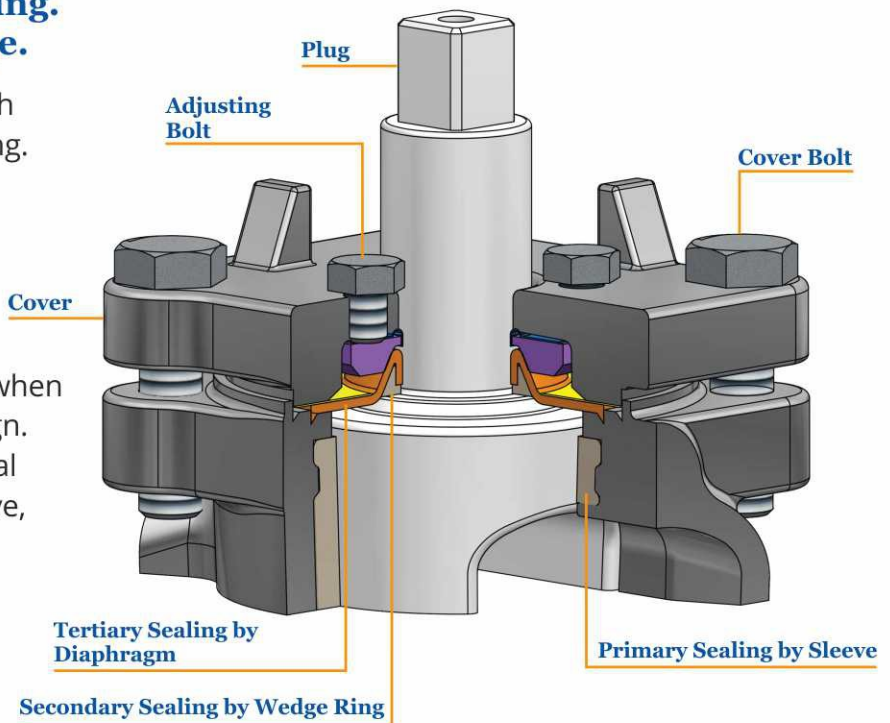
Construction & Working

Basic structure is plug, sleeve, body. Sleeve is inserted inside the body. Tapered plug is inserted into the sleeve. The sleeve acting as a soft seat completely surrounds plug creating areal sealing surfaces. Also not permitting any dead space in the flow path. Plug is rotating 90 degree. When it is aligned with the body port, flow is open. When the plug is rotated so that plug port is perpendicular to the body port the flow is blocked. The media kept in the plug while at closed position, will be contained in the plug port only, and when the valve is open again, the flow will flush the media out.

Unmatched Superior Sealing. Bi-directional Zero leakage.

Primary sealing by PTFE sleeve with high pressure ribs for In-line sealing.
Second by wedge ring.
Independent Tertiary sealing by diaphragm. Leaving absolutely no chance for atmospheric leakage.

This gives highest level of sealing when compared to any other valve design. (When compared with conventional ball valve, butterfly valve, gate valve, globe valve designs)



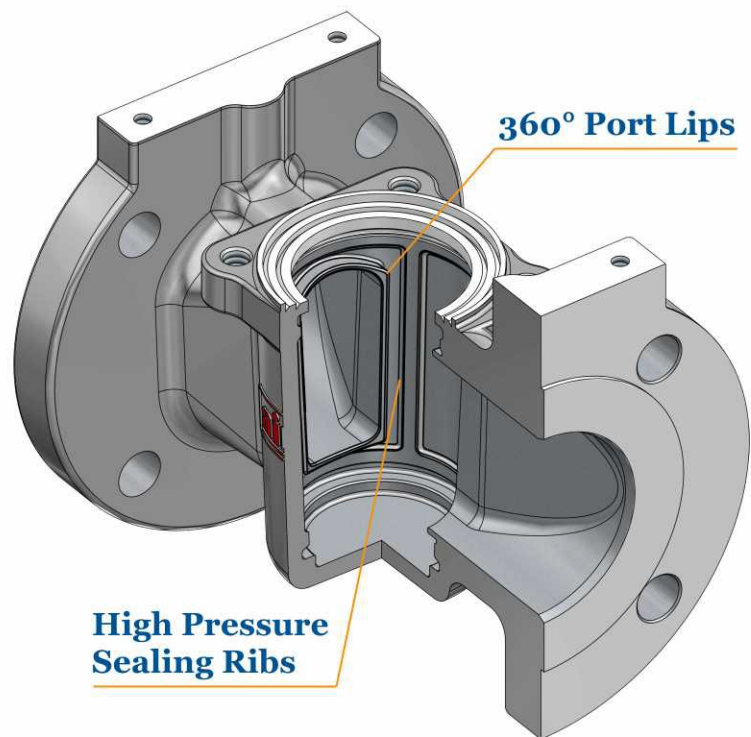
Plug Valve Features

Inherently Cavity Free.

No dead space. No fluid accumulation. No contamination. No sticking of media on plug.

360° port lips.

360° port lips provide a self-cleaning action to remove scaling and adhering media. PTFE even through high grade plastic which is vulnerable to cold flow (permanent deformation) when subjected to varying loads and temperature. In a plug valve the 360° port acts along with upper and lower boundary restrict the sleeve preventing cold flow.



Less Joints. Less Problems.

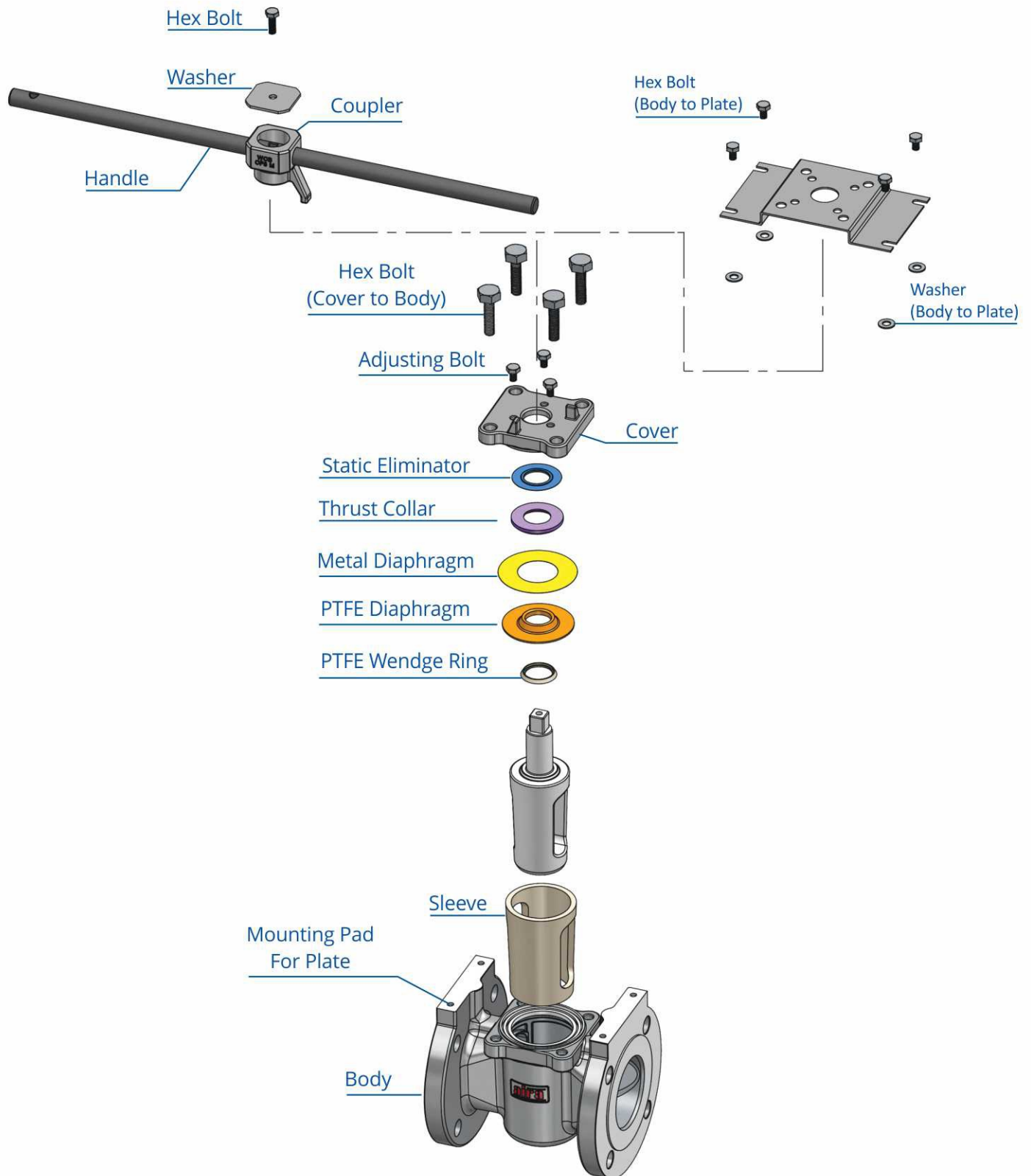
Single piece body, tapered plug, cover. Improved monolithic compact design ensures lower costs and better performance.

No maintenance.

In case of PTFE sleeve wear from usage, a slight turn of adjusting bolt presses the plug down regaining sealing pressure making valve as good as new.

No lubrication is needed even after long period of inactivity, thanks to low co-efficient of friction of PTFE sleeves and smooth finished surface of plug. And even in case of regular maintenance plug valves are top entry valves, hence, need not be removed from the line and can be easily serviced.

Plug Valve Exploded View



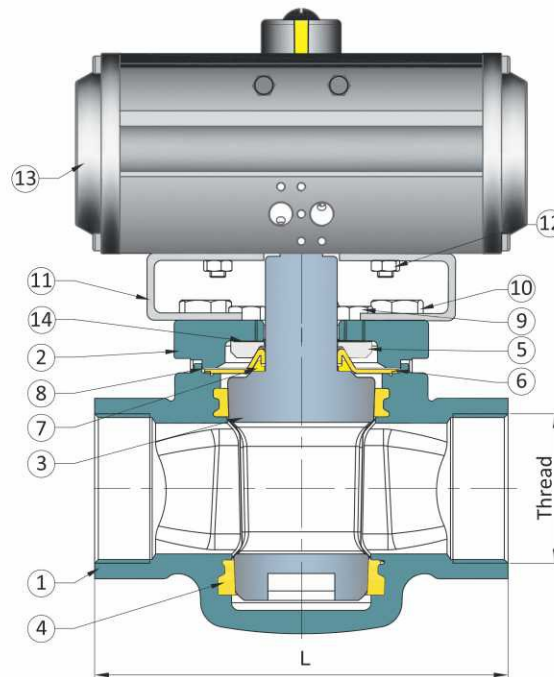
“GLO” Series 2 Way Plug Valve Screwed (BSP / NPT)

aira Plug valves are designed to offer superior performance in various industrial applications. Design inherent reduction in pressure drop leads to higher efficiency and better flow rates. Long service life, unmatched sealing capacity and ease of maintenance thanks to ingenious design make the **aira** plug valves a preferred choice in severe service conditions.

Size Range : 1/2" to 2" (15 MM to 50 MM)

Standard

Design And Manufacturer	: API 599 / BS 5353
Valve Face To Face Dimension	: As Per Mfg Std.
Thread End Standard Conformity	: ASME B 1.20.1
Inspection & Testing	: API 598 / EN 12266 - 1
Leakage Class	: CLASS VI ISO - 5208



150# Dimensions :

Valve Model	Valve Size		L Screwed	Weight Approx.
	MM	Inch		
GLE - 15	15	1/2"	82.5	1.100
GLE - 20	20	3/4"	82.5	1.100
GLE - 25	25	1"	118	2.250
GLE - 32	32	1.1/4"	118	2.520
GLE - 40	40	1.1/2"	140	3.500
GLE - 50	50	2"	165	6.150

(All Dimensions mm & Weight are for bare shaft only)

Sr. No.	Description	Material
01	Body	WCB / CF8 / CF8M / CF3M / CD4MCU
02	Cover	WCB / CF8 / CF8M / CF3M / CD4MCU
03	Plug	CF8 / CF8M / CF3M / CD4MCU
04	Plug Sleeve	PTFE / CFT / GFT
05	Thrust Collar	S.S.304
06	PTFE Diaphragm	PTFE / CFT / GFT
07	PTFE Wedge Ring	PTFE / CFT / GFT
08	Metal Diaphragm	S.S. 304
09	Adjusting Hex Bolt	S.S. 304
10	Body Fitting Hex Bolt	S.S. 304
11	Act. Fitting Plate	S.S. 304
12	Act. Plate Fitting Hex Bolt	S.S. 304
13	Actuator	STD.
14	Static Eliminator	S.S. 304

Note : Special Metal & Higher Alloys available on request.



“GLO” Series 2 Way Plug Valve Flanged 150# & 300#

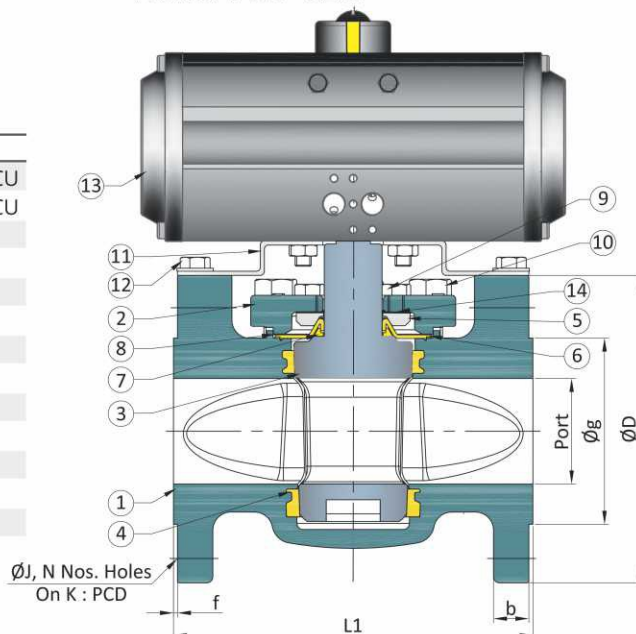
aira Plug valves are designed to offer superior performance in various industrial applications. Design inherent reduction in pressure drop leads to higher efficiency and better flow rates. Long service life, unmatched sealing capacity and ease of maintenance thanks to ingenious design make the **aira** plug valves a preferred choice in severe service conditions.

Size Range : 1/2" to 12" (15 MM to 300 MM) 150# & 300# Standard

Design And Manufacturer : API 599 / BS 5353
 Valve Face To Face Dimension : ASME B 16.10
 Flange Standard Conformity : ASME B 16.5 Class 150# / 300#
 Inspection & Testing : API 598 / EN 12266 - 1
 Leakage Class : CLASS VI ISO - 5208

Sr. No.	Description	Material
01	Body	WCB / CF8 / CF8M / CF3M / CD4MCU
02	Cover	WCB / CF8 / CF8M / CF3M / CD4MCU
03	Plug	CF8 / CF8M / CF3M / CD4MCU
04	Plug Sleeve	PTFE / CFT / GFT
05	Thrust Collar	S.S.304
06	PTFE Diaphragm	PTFE / CFT / GFT
07	PTFE Wedge Ring	PTFE / CFT / GFT
08	Metal Diaphragm	S.S. 304
09	Adjusting Hex Bolt	S.S. 304
10	Body Fitting Hex Bolt	S.S. 304
11	Act. Fitting Plate	S.S. 304
12	Act. Plate Fitting Hex Bolt	S.S. 304
13	Actuator	STD.
14	Static Eliminator	S.S. 304

Note : Special Metal & Higher Alloys available on request.



150# Dimensions :

Valve Model	Valve Size		L1 150#	Weight Approx.
	MM	Inch		
GLM - 15	15	1/2"	108	2.200
GLM - 20	20	3/4"	117	2.405
GLM - 25	25	1"	127	3.950
GLM - 32	32	1.1/4"	140	4.400
GLM - 40	40	1.1/2"	165	6.500
GLM - 50	50	2"	178	10.500
GLM - 65	65	2.1/2"	190	14.400
GLM - 80	80	3"	203	16.750
GLM - 100	100	4"	229	25.050
GLM - 125	125	5"	254	31.200
GLM - 150	150	6"	267	43.000
GLM - 200	200	8"	292	76.000
GLM - 250	250	10"	330	112.00
GLM - 300	300	12"	356	168.20

(All Dimensions mm & Weight are for bare shaft only)

300# Dimensions :

Valve Model	Valve Size		L1 300#	Weight Approx.
	MM	Inch		
GLN - 15	15	1/2"	140	2.450
GLN - 20	20	3/4"	152	3.400
GLN - 25	25	1"	165	5.450
GLN - 32	32	1.1/4"	178	6.300
GLN - 40	40	1.1/2"	190	9.000
GLN - 50	50	2"	216	12.600
GLN - 65	65	2.1/2"	241	16.700
GLN - 80	80	3"	282	21.600
GLN - 100	100	4"	305	35.600
GLN - 125	125	5"	381	48.200
GLN - 150	150	6"	403	68.000
GLN - 200	200	8"	419	107.80
GLN - 250	250	10"	457	164.00
GLN - 300	300	12"	502	241.00

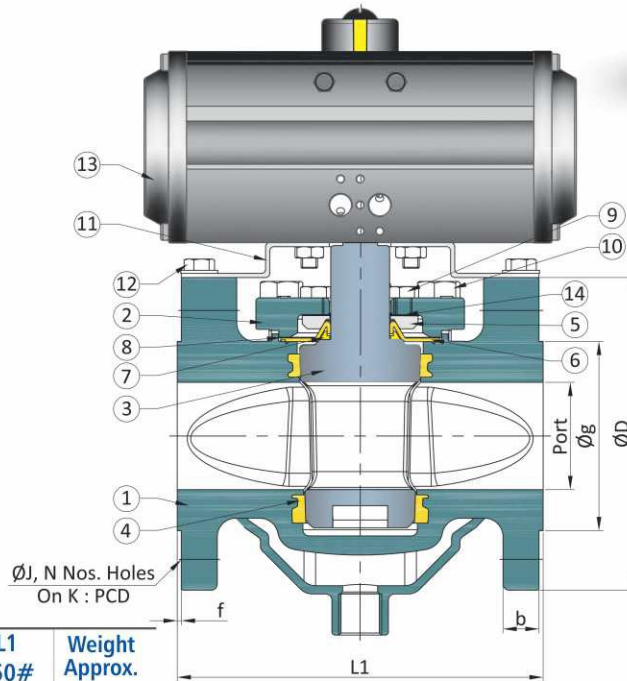
Note : Please refer page no. : 14 for Flange Dimensions.

"GLO" Series 2 Way Plug Valve Flanged 150# & 300# JACKETED

aira Plug valves are designed to offer superior performance in various industrial applications. Design inherent reduction in pressure drop leads to higher efficiency and better flow rates. Long service life, unmatched sealing capacity and ease of maintenance thanks to ingenious design make the **aira** plug valves a preferred choice in severe service conditions.

Size Range : 1/2" to 12" (15 MM to 300 MM) 150# / 300# Standard

Design And Manufacturer : API 599 / BS 5353
Valve Face To Face Dimension : ASME B 16.10
Flange Standard Conformity : ASME B 16.5 Class 150# / 300#
Inspection & Testing : API 598 / EN 12266 - 1
Leakage Class : CLASS VI ISO - 5208



150# Dimensions :

Valve Model	Valve Size		L1 150#	Weight Approx.
	MM	Inch		
GJM - 15	15	1/2"	108	2.580
GJM - 20	20	3/4"	117	2.780
GJM - 25	25	1"	127	4.650
GJM - 32	32	1.1/4"	140	5.250
GJM - 40	40	1.1/2"	165	7.400
GJM - 50	50	2"	178	11.750
GJM - 65	65	2.1/2"	190	16.000
GJM - 80	80	3"	203	18.850
GJM - 100	100	4"	229	28.300
GJM - 125	125	5"	254	36.500
GJM - 150	150	6"	267	49.000
GJM - 200	200	8"	292	88.000
GJM - 250	250	10"	330	152.500
GJM - 300	300	12"	356	182.000

(All Dimensions mm & Weight are for bare shaft only)

Note : Please refer page no. : 14 for Flange Dimensions.

Sr. No.	Description	Material
01	Jacketed Body	WCB / CF8 / CF8M / CF3M / CD4MCU
02	Cover	WCB / CF8 / CF8M / CF3M / CD4MCU
03	Plug	CF8 / CF8M / CF3M / CD4MCU
04	Plug Sleeve	PTFE / CFT / GFT
05	Thrust Collar	S.S.304
06	PTFE Diaphragm	PTFE / CFT / GFT
07	PTFE Wedge Ring	PTFE / CFT / GFT
08	Metal Diaphragm	S.S. 304
09	Adjusting Hex Bolt	S.S. 304
10	Body Fitting Hex Bolt	S.S. 304
11	Act. Fitting Plate	S.S. 304
12	Act. Plate Fitting Hex Bolt	S.S. 304
13	Actuator	STD.
14	Static Eliminator	S.S. 304

Note : Special Metal & Higher Alloys available on request.

“GLO” Series 2 Way Plug Valve Screwed (BSP / NPT)

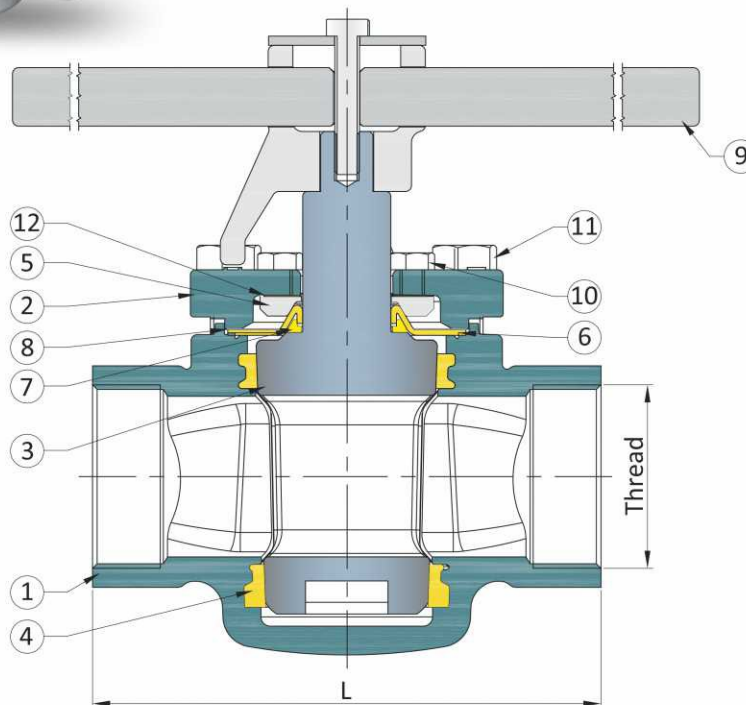


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Size Range : 1/2" to 2" (15 MM to 50 MM)

Standard

Design And Manufacturer : API 599 / BS 5353
 Valve Face To Face Dimension : As Per Mfg Std.
 Thread End Standard Conformity : ASME B 1.20.1
 Inspection & Testing : API 598 / EN 12266 - 1
 Leakage Class : CLASS VI ISO - 5208



150# Dimensions :

Valve Model	Valve Size		L Screwed	Weight Approx.
	MM	Inch		
GLS - 15	15	1/2"	82.5	1.100
GLS - 20	20	3/4"	82.5	1.100
GLS - 25	25	1"	118	2.250
GLS - 32	32	1.1/4"	118	2.520
GLS - 40	40	1.1/2"	140	3.500
GLS - 50	50	2"	165	6.150

(All Dimensions mm & Weight are for bare shaft only)

Sr. No.	Description	Material
01	Body	WCB / CF8 / CF8M / CF3M / CD4MCU
02	Cover	WCB / CF8 / CF8M / CF3M / CD4MCU
03	Plug	CF8 / CF8M / CF3M / CD4MCU
04	Plug Sleeve	PTFE / CFT / GFT
05	Thrust Collar	S.S. 304
06	PTFE Diaphragm	PTFE / CFT / GFT
07	PTFE Wedge Ring	PTFE / CFT / GFT
08	Metal Diaphragm	S.S. 304
09	Handle Rod	S.S. 304
10	Adjusting Hex Bolt	S.S. 304
11	Body Fitting Hex Bolt	S.S. 304
12	Static Eliminator	S.S. 304

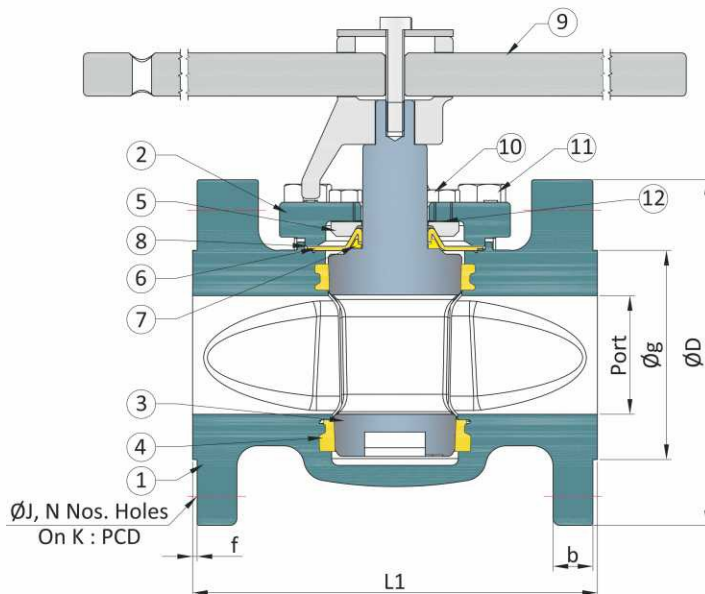
Note : Special Metal & Higher Alloys available on request.

"GLO" Series 2 Way Plug Valve Flanged 150# & 300#

aira Plug valves are designed to offer superior performance in various industrial applications. Design inherent reduction in pressure drop leads to higher efficiency and better flow rates. Long service life, unmatched sealing capacity and ease of maintenance thanks to ingenious design make the **aira** plug valves a preferred choice in severe service conditions.

Size Range : 1/2" to 6" (15 MM to 150 MM) 150# & 300# Standard

Design And Manufacturer : API 599 / BS 5353
 Valve Face To Face Dimension : ASME B 16.10
 Flange Standard Conformity : ASME B 16.5 Class 150# / 300#
 Inspection & Testing : API 598 / EN 12266 - 1
 Leakage Class : CLASS VI ISO - 5208



Sr. No.	Description	Material
01	Body	WCB / CF8 / CF8M / CF3M / CD4MCU
02	Cover	WCB / CF8 / CF8M / CF3M / CD4MCU
03	Plug	CF8 / CF8M / CF3M / CD4MCU
04	Plug Sleeve	PTFE / CFT / GFT
05	Thrust Collar	S.S. 304
06	PTFE Diaphragm	PTFE / CFT / GFT
07	PTFE Wedge Ring	PTFE / CFT / GFT
08	Metal Diaphragm	S.S. 304
09	Handle Rod	S.S. 302
10	Adjusting Hex Bolt	S.S. 304
11	Body Fitting Hex Bolt	S.S. 304
12	Static Eliminator	S.S. 304

Note : Special Metal & Higher Alloys available on request.

150# Dimensions :

Valve Model	Valve Size		L1 150#	Weight Approx.
	MM	Inch		
GLK - 15	15	1/2"	108	2.050
GLK - 20	20	3/4"	117	2.450
GLK - 25	25	1"	127	4.250
GLK - 32	32	1.1/4"	140	4.700
GLK - 40	40	1.1/2"	165	7.000
GLK - 50	50	2"	178	11.500
GLK - 65	65	2.1/2"	190	15.400
GLK - 80	80	3"	203	18.000
GLK - 100	100	4"	229	27.600
GLK - 125	125	5"	254	34.700
GLK - 150	150	6"	267	46.400

(All Dimensions mm & Weight are for bare shaft only)

Note : Please refer page no. : 14 for Flange Dimensions.

300# Dimensions :

Valve Model	Valve Size		L1 300#	Weight Approx.
	MM	Inch		
GLL - 15	15	1/2"	140	2.500
GLL - 20	20	3/4"	152	3.500
GLL - 25	25	1"	165	5.150
GLL - 32	32	1.1/4"	178	6.600
GLL - 40	40	1.1/2"	190	9.700
GLL - 50	50	2"	216	13.700
GLL - 65	65	2.1/2"	241	18.000
GLL - 80	80	3"	282	23.000
GLL - 100	100	4"	305	37.800
GLL - 125	125	5"	381	51.800
GLL - 150	150	6"	403	70.500

(All Dimensions mm & Weight are for bare shaft only)

Note : Please refer page no. : 14 for Flange Dimensions.

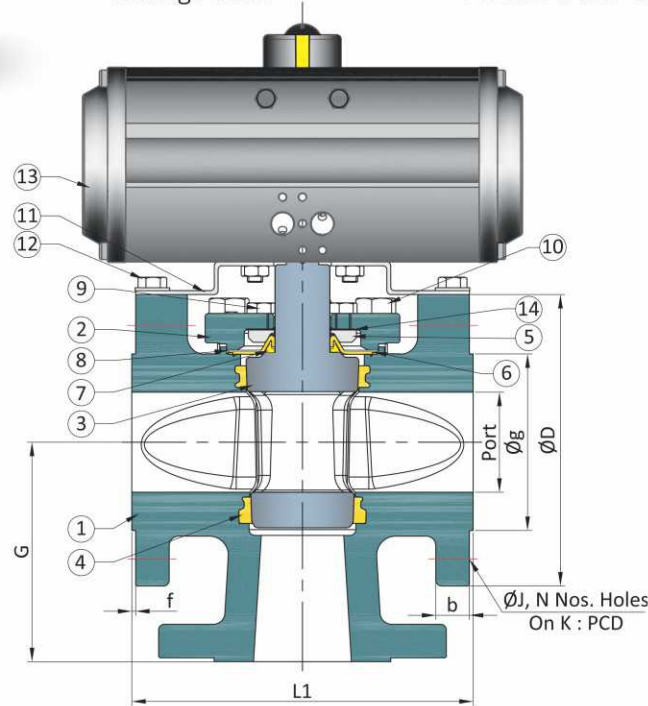
"GLO" Series 3 Way Plug Valve Flanged 150#



aira Plug valves are designed to offer superior performance in various industrial applications. Design inherent reduction in pressure drop leads to higher efficiency and better flow rates. Long service life, unmatched sealing capacity and ease of maintenance thanks to ingenious design make the **aira** plug valves a preferred choice in severe service conditions.

Size Range : 1/2" to 6" (15 MM to 150 MM) 150# Standard

Design And Manufacturer : API 599 / BS 5353
Valve Face To Face Dimension : ASME B 16.10
Flange Standard Conformity : ASME B 16.5 Class 150#
Inspection & Testing : API 598 / EN 12266 - 1
Leakage Class : CLASS VI ISO - 5208



Sr. No.	Description	Material
01	Body	WCB CF8 / CF8M / CF3M / CD4MCU
02	Cover	WCB CF8 / CF8M / CF3M / CD4MCU
03	Plug	CF8 / CF8M / CF3M / CD4MCU
04	Plug Sleeve	PTFE / CFT / GFT
05	Thrust Collar	S.S. 304
06	PTFE Diaphragm	PTFE / CFT / GFT
07	PTFE Wedge Ring	PTFE / CFT / GFT
08	Metal Diaphragm	S.S. 304
09	Adjusting Hex Bolt	S.S. 304
10	Body Fitting Hex Bolt	S.S. 304
11	Act. Fitting Plate	S.S. 304
12	Act. Plate Fitting Hex Bolt	S.S. 304
13	Actuator	STD.
14	Static Eliminator	S.S. 304

Note : Special Metal & Higher Alloys available on request.

150# Dimensions :

Valve Model	Valve Size		L1 150#	G	Weight Approx.
	MM	Inch			
3GLO - 15	15	1/2"	108	70	2.500
3GLO - 20	20	3/4"	117	73	3.100
3GLO - 25	25	1"	127	89	4.900
3GLO - 32	32	1.1/4"	140	95	5.700
3GLO - 40	40	1.1/2"	165	105	7.700
3GLO - 50	50	2"	178	114.5	12.300
3GLO - 65	65	2.1/2"	190	130.25	17.800
3GLO - 80	80	3"	203	130.25	20.300
3GLO - 100	100	4"	229	152.5	30.800
3GLO - 150	150	6"	267	190.5	56.000

(All Dimensions mm & Weight are for bare shaft only)

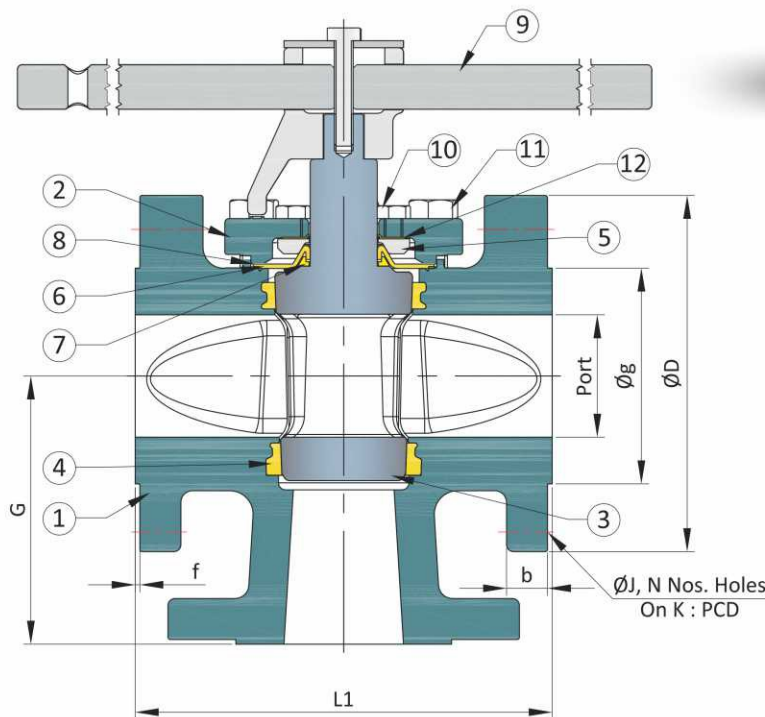
Note : Please refer page no. : 14 for Flange Dimensions.

“GLO” Series 3 Way Plug Valve Flanged 150#

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Size Range : 1/2" to 6" (15 MM to 150 MM) 150# Standard

Design And Manufacturer : API 599 / BS 5353
Valve Face To Face Dimension : ASME B 16.10
Flange Standard Conformity : ASME B 16.5 Class 150# / 300#
Inspection & Testing : API 598 / EN 12266 - 1
Leakage Class : CLASS VI ISO - 5208



150# Dimensions :

Valve Model	Valve Size		L1 150#	G	Weight Approx.
	MM	Inch			
3GLP - 15	15	1/2"	108	70	2.630
3GLP - 20	20	3/4"	117	73	3.150
3GLP - 25	25	1"	127	89	5.150
3GLP - 32	32	1.1/4"	140	95	5.900
3GLP - 40	40	1.1/2"	165	105	8.400
3GLP - 50	50	2"	178	114.5	13.700
3GLP - 65	65	2.1/2"	190	130.25	19.200
3GLP - 80	80	3"	203	130.25	21.500
3GLP - 100	100	4"	229	152.5	33.350
3GLP - 150	150	6"	267	190.5	60.800

(All Dimensions mm & Weight are for bare shaft only)

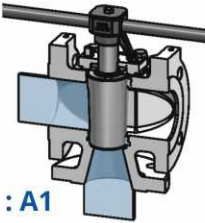
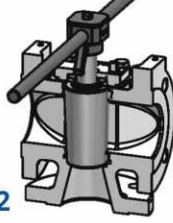
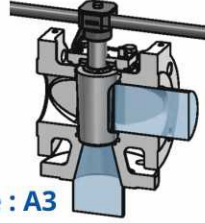
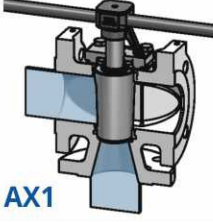
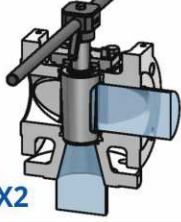
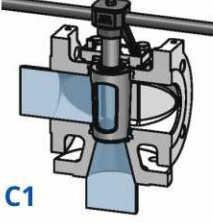
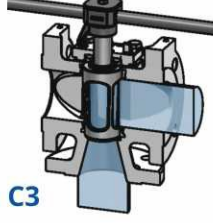
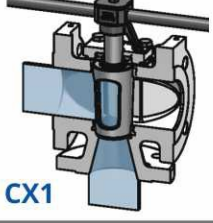
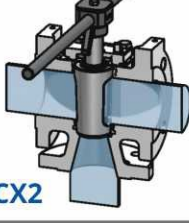
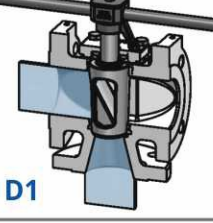
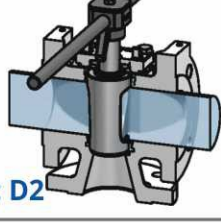
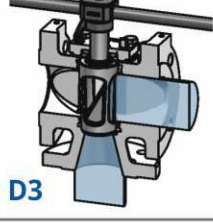
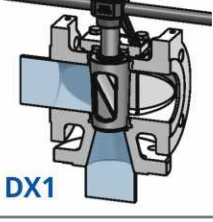
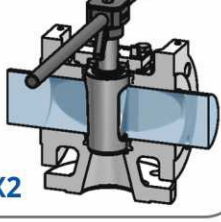
Note : Please refer page no. : 14 for Flange Dimensions.

Sr. No.	Description	Material
01	Body	WCB / CF8 / CF8M / CF3M / CD4MCU
02	Cover	WCB / CF8 / CF8M / CF3M / CD4MCU
03	Plug	CF8 / CF8M / CF3M / CD4MCU
04	Plug Sleeve	PTFE / CFT / GFT
05	Thrust Collar	S.S. 304
06	PTFE Diaphragm	PTFE / CFT / GFT
07	PTFE Wedge Ring	PTFE / CFT / GFT
08	Metal Diaphragm	S.S. 304
09	Handle Rod	S.S. 304
10	Adjusting Hex Bolt	S.S. 304
11	Body Fitting Hex Bolt	S.S. 304
12	Static Eliminator	S.S. 304

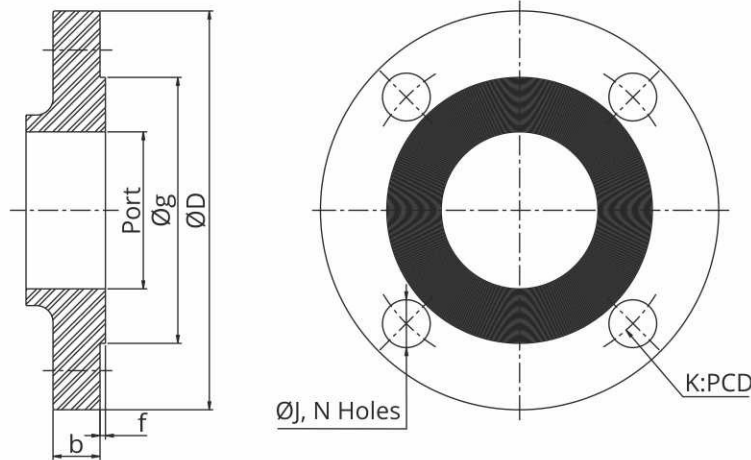
Note : Special Metal & Higher Alloys available on request.

Multiport Valves

The versatility of 3GLO multiport valves and the variety of flow arrangements in which they are available make these valves ideal for many types of piping systems handling liquids, gases, slurries or other applications where tight shut - off is required.

Type	0° Position	90° Position	180° Position
A 	 Code : A1	 Code : A2	 Code : A3
AX 	 Code : AX1	 Code : AX2	
C 	 Code : C1	 Code : C2	 Code : C3
CX Only 90° 	 Code : CX1	 Code : CX2	
D 	 Code : D1	 Code : D2	 Code : D3
DX Only 90° 	 Code : DX1	 Code : DX2	

Plug Valves Flanged Standard Dimensions Table



As Per ASME B16.5 150# Dimensions Table

Valve Size		Port	L1	ØD	Øg	b	f	ØJ	N	PCD
MM	Inch									
15	1/2"	13	108	90	34.9	9.6	2	15.9	4	60.3
20	3/4"	19	117	100	42.9	11.2	2	15.9	4	69.9
25	1"	25	127	110	50.8	12.7	2	15.9	4	79.4
32	1.1/4"	32	140	115	63.5	14.3	2	15.9	4	88.9
40	1.1/2"	38	165	125	73	15.9	2	15.9	4	98.4
50	2"	49	178	150	92.1	17.5	2	19.05	4	120.7
65	2.1/2"	62	190	180	104.8	20.7	2	19.05	4	139.7
80	3"	74	203	190	127	22.3	2	19.05	4	152.4
100	4"	100	229	230	157.2	22.3	2	19.05	8	190.5
125	5"	125	254	255	185.7	22.3	2	22.2	8	215.9
150	6"	150	267	280	215.9	23.9	2	22.2	8	241.3
200	8"	201	292	345	269.9	27	2	22.2	8	298.5
250	10"	252	330	405	323.8	28.6	2	25.4	12	362
300	12"	303	610	485	381	30.2	2	25.4	12	431.8

As Per ASME B16.5 300# Dimensions Table

Valve Size		Port	L1	ØD	Øg	b	f	ØJ	N	PCD
MM	Inch									
15	1/2"	13	140	95	34.9	12.7	2	15.9	4	66.7
20	3/4"	19	152	115	42.9	14.3	2	19.05	4	82.6
25	1"	25	165	125	50.8	15.9	2	19.05	4	88.9
32	1.1/4"	32	178	135	63.5	17.5	2	19.05	4	98.4
40	1.1/2"	38	190	155	73	19.1	2	22.2	4	114.3
50	2"	49	216	165	92.1	20.7	2	19.05	8	127
65	2.1/2"	62	241	190	104.8	23.9	2	22.2	8	149.2
80	3"	74	282	210	127	27	2	22.2	8	168.3
100	4"	100	305	255	157.2	30.2	2	22.2	8	200
125	5"	125	381	280	185.7	33.4	2	22.2	8	235
150	6"	150	403	320	215.9	35	2	22.2	12	269.9
200	8"	201	419	380	269.9	39.7	2	25.4	12	330.2
250	10"	252	457	445	323.8	46.1	2	28.6	16	387.4
300	12"	303	648	520	381	49.3	2	31.75	16	450.8

Accessories For Pneumatic Actuator

Model : APP-1200-L APP-1200-R      CCCO Nagpur	"aira" Rotary / Liner Type Pneumatic - Pneumatic Valve Positioner Input Signal : 3 ~ 15psi (0.2-1.0 kgf/cm²) Supply Air Pressure : 100 psi Max. (7.0 kgf/cm²) Standard Stroke : 10 ~ 80mm Air Piping Connection : 1/4" NPT (F) Temperature : -20 °C to 70 °C Pressure Gauge : Stainless Steel Explosion-Proof : Ex 'd' II CT6 Degree of Protection : IP66 Pressure Gauge : Stainless Steel 0-2 kg/cm² 0-4 kg/cm² / 0-10 kg/cm² Output Characteristics : Rotary Linearity : Within ± 1.0% F.S. Sensitivity : Within 0.2% F.S. Hysteresis : Within 0.2% F.S. Repeatability : Within ± 0.75% F.S. Air Consumption : 5.0 LPM (1.4 kg/cm²) Supply Flow Capacity : 80 LPM (1.4 kg/cm²) Supply Material : Aluminium Die cast Body Weight : 1.8 Kg. (Approx)
  	"aira" Weatherproof Micro Limit Switch Box Dom Indicator Type On/Off Indicator Type : Mechanical Switch X 2 / Proximity Sensors P&F Make Model : LA4 - FLP - 01 Switch : Honeywell V15 / Honeywell V15 / NJ2-V3-N (Upto 8V) / NBB3-V3-Z4 (Upto 10 to 60 VDC) Type : 1 NO + 1 NC / 2 NO + 2 NC Switch Rating : AC 250V 3A, 125V 5A & DC 250V 0.2A, 125V 0.4A, 30V 4A Enclosure Protection : IP 67 Temperature : -20 °C ~ 80 °C Conduit Entry : NPT 1/2" (PT 1/2", PF 1/2, M20, PG 13.5) Terminal Mounting : 8 Points Bracket : Namur VDI / VDE 3845, ISO 5211 Material : Aluminum Pressure Die Cast
  	"aira" Flameproof Micro Limit Switch Box with Stainless Steel 304 / 316 Type : Mechanical Switch X 2 / Proximity Sensors P&F Make Model : LS4 - FLP-01 Switch : Honeywell V15 / Honeywell V15 PCB Type / NJ2-V3-N (Upto 8V) / NBB3-V3-Z4 (Upto 10 to 60 VDC) Type : 1 NO + 1 NC / 2 NO + 2 NC Switch Rating : AC 250V 3A, 125V 5A & DC 250V 0.2A, 125V 0.4A, 30V 4A Enclosure Protection : IP 67 Temperature : -20 °C ~ 80 °C Conduit Entry : NPT 1/2" (PT 1/2", PF 1/2, M20, PG 13.5) Terminal Mounting : 8 Points Bracket : Namur VDI / VDE 3845, ISO 5211 Material : Stainless Steel 304 / 316
Model : AEP-1000-L AEP-1000-R      CCCO Nagpur	"aira" Rotary / Liner Flameproof cum Weatherproof Electro Pneumatic Valve Positioner Input Signal : 4~20 mA DC Input Resistance : 235 ±15 Supply Air Pressure : 20 ~ 100psi (7.0 kg/cm²) Standard Stroke : 10 ~ 80mm Air Piping Connection : 1/4" NPT (F) Conduit Connection : 1/2" NPT (F) Explosion-proof : Ex 'd' II CT6 Degree of Protection : IP66 Temperature : -20 °C to 70 °C Pressure Gauge : Stainless Steel 0-2 kg/cm² 0-4 kg/cm² / 0-10 kg/cm² Output Characteristics : Rotary Linearity : Within ± 1.0% F.S. Sensitivity : Within 0.2% F.S. Hysteresis : Within 0.75% F.S. Repeatability : Within ± 0.5% F.S. Air Consumption : 5.0 LPM (1.4 kg/cm²) Supply Flow Capacity : 80 LPM (1.4 kg/cm²) Supply Material : Alluminium Die Cast Body Weight : 2.8 Kg. With a terminal box
      CCCO Nagpur	"aira" Flameproof Limit Switch Box Type : Mechanical Switch X 2 / Proximity Sensors P&F Make Model : MLS - BX - FLP - 01 Switch : Honeywell V15 / Honeywell V15 PCB Type / NJ2-V3-N (Upto 8V) / NBB3-V3-Z4 (Upto 10 to 60 VDC) Type : 1 NO + 1 NC / 2 NO + 2 NC Switch Rating : AC 250V 3A, 125V 5A & DC 250V 0.2A, 125V 0.4A, 30V 4A Enclosure Protection : IP 67 Temperature : -20 °C ~ 80 °C Conduit Entry : NPT 1/2" (PT 1/2", PF 1/2, M20, PG 13.5) Terminal Mounting : 8 Points Bracket : Namur VDI / VDE 3845, ISO 5211 Material : Aluminum Pressure Die Cast
  	"aira" Weatherproof Limit Switch Box Type : Mechanical Switch X 2 / Proximity Sensors P&F Make Model : MMLS - BX - WP - 01 Switch : Honeywell ZM / NJ2 - V3 - N (Upto 8 Voltage) / NBB - V3 - Z4 (Upto 10 to 60 VDC) Type : 1 NO + 1 NC Switch Rating : AC 250V 3A, 125V 5A & DC 250V 0.2A, 125V 0.4A, 30V 4A Enclosure Protection : IP 67 Temperature : -20 °C ~ 80 °C Conduit Entry : NPT 1/2" (PT 1/2", PF 1/2, M20, PG 13.5) Terminal Mounting : 8 Points Bracket : Namur VDI / VDE 3845, ISO 5211 Material : Aluminum Pressure Die Cast

Accessories For Pneumatic Actuator

	"aira" 3/2 Way Namur Direct Acting Solenoid Valve Model : NAM-SA-32 Coil Voltage : All Std. Voltage Available Frequency : 50 - 60 Hz Connection Type : 1/4" (BSP / NPT) Conduit : PF 1/2" Coil Insulation Grade : Class "F" Temperature : -20 °C ~ 70 °C (-4 ~ 158 °F) MOC : Aluminium Seals : NBR (Viton On Request) Working Pressure : Upto 8 BAR This 3/2 Namur is suitable for actuator model : 5412-S / ARA-49S / ARA-50S		"aira" 3/2 & 5/2 Way Convertible Poppet Type Single Namur Solenoid Valve Model : OTX - PPT - 32 / OTX - PPT - 52 Coil Voltage : All Std. Voltage Available Frequency : 50 - 60 Hz Connection Type : 1/4" (BSP / NPT) Conduit : PF 1/2" Coil Insulation Grade : Class "F" Temperature : -20 °C ~ 70 °C (-4 ~ 158 °F) MOC : Aluminium Seals : NBR (Viton On Request) Working Pressure : Upto 8 BAR
	"aira" 3/2 & 5/2 Way Convertible Poppet Type Double Namur Solenoid Valve Model : 2OTX - PPT - 52 Coil Voltage : All Std. Voltage Available Frequency : 50 - 60 Hz Connection Type : 1/4" (BSP / NPT) Conduit : PF 1/2" Coil Insulation Grade : Class "F" Temperature : -20 °C ~ 70 °C (-4 ~ 158 °F) MOC : Aluminium Seals : NBR (Viton On Request) Working Pressure : Upto 8 BAR		"aira" 3/2 & 5/2 Way Convertible Spool Type Single Namur Solenoid Valve Model : AMV-NAM-220 Coil Voltage : All Std. Voltage Available Frequency : 50 - 60 Hz Connection Type : 1/4" (BSP / NPT) Conduit : PF 1/2" Coil Insulation Grade : Class "F" Temperature : -20 °C ~ 70 °C (-4 ~ 158 °F) Body Material : Aluminium Seals : NBR (Viton On Request) Working Pressure : Upto 8 BAR
	"aira" 3/2 & 5/2 Way Convertible Spool Type Double Namur Solenoid Valve Model : 2AMV-NAM-220 Coil Voltage : All Std. Voltage Available Frequency : 50 - 60 Hz Connection Type : 1/4" (BSP / NPT) Conduit : PF 1/2" Coil Insulation Grade : Class "F" Temperature : -20 °C ~ 70 °C (-4 ~ 158 °F) Body Material : Aluminium Seals : NBR (Viton On Request) Working Pressure : Upto 8 BAR		CJ Series 3/2 Way Direct Acting Solenoid Valve (Normally Open & Closed) Model : CIDS-09-202 Size : 1/4" BSP Body : Aluminium Pressure Die Cast Orifice : 2 MM Pressure : 10 Kg/cm² Temp. : Upto 50 °C Leakage : Bubble Tight Frequency : 50 ~ 60 Hz Coil Insulation Grade : Class "F" Media : Air (Filtered & Lubricated) Voltage : All Std. Voltage Available
 (4FQ / 8FQ) (FRJ)	"aira" Filter + Regulator Air Combination Model : 4FQ / 8 FQ / FRJ Air Connection : 1/4" BSP Max. Supply Pressure : 4FQ : 0.5 to 4 Kg/cm² 8FQ : 0.5 to 8 Kg/cm² 1 to 9 Kg/cm² Gauge Connection : 1/8" Ambient Temperature : -20 °C ~ 120 °C (High Temp.) -40 °C ~ 120 °C (Low Temp.) Mini Filtering Size : 5 Micron Material : Aluminium Pressure Die Cast		"aira" Air Volume Booster Model : VLB Size : 1/4" to 1" BSP MOC : Aluminum / S. S. 304 / 316 Seals : NBR Max. Supply Pressure : Max. 1Mpa (10 Bar) Max. Output Pressure : Max. 0.7 Mpa (7 Bar) Temperature : -20 °C ~ 70 °C (Standard) -20 °C ~ 120 °C (High) -40 °C ~ 70 °C (Low) Linearity : 1 : 1 Hysteresis : 1%
 DALV SALV	"aira" Single & Double Air Lock Valve Model : SALV / DALV Material : Aluminum / Stainless Steel 304 Max. Supply Pressure : Max. 10.2 Kg/cm² (142 PSI) Max. Single Pressure : Max. 7.1 Kg/cm² (1000 PSI) Setting Pressure Range : 1.4-7.1 Kg/cm² (20 ~ 100 PSI) Flow Capacity (Cv) : 0.9 In/Output Port Connection : 1/4" NPT Signal Port Connection : 1/4" NPT Differential Pressure : Below 0.1 Kg/cm² (1.4 PSI) Hysteresis : 1% ambient Temp. : -20 °C ~ 70 °C		"aira" Manual Override Clutch Type (MO) Model : AMO Torque : 200 Nm to 10000 Nm Body : Aluminum Pressure Die Cast / S. G. Iron Lever Wheel : Stainless Steel Hand Wheel : S. S. / M. S. (Fabricated)

Applications

- Process & Chemical
- Refineries & Petrochemicals
- Drugs & Pharmaceuticals
- Thermal Power Stations
- Dyes & Intermediates
- Breweries & Distilleries
- Steel Plants
- Onshore & Offshore Platforms
- Nitrogen Plants

- Solvents Extraction Plants
- Sewage
- Cooling Water
- Ship Yards & Marine Management
- LPG Bottling Plants
- Water Works
- Pulp & Paper
- Fertilizers

- Textile
- Sugar
- Nuclear
- Paints &
- Soaps &
- Slurry &
- Food &
- Effluent

- This Products is Generally made to use on the High Pressure Piping system, It is widely Applied for Major Industries Sectors.
- This Products of also performing exceptionally well in high vacuum & high sealing applications.



Ship Yards & Marine Management
Thermal Power Station
Dyes & Intermediates

Marine Tankers- Ship Building Off Shore Plants

Military Application Foundary Pulp & Paper Plants
Process & Chemical

& Atomic Power Stations
& Varnishes
& Detergents
& Ash Handling
Oil Industries
& Water Treatment



Chemical and Dyeing Fluids in Textile Processing
Solvent Extraction Plants
Nuclear & Atomic Power Stations
Water Treatment – Purification
Food Plants
Tobacco Industries
Steel & metal Plants