



JWB USA

Valves & Accessories

PRICE LIST 2015

Valves & Actuators

1 Manual, pneumatic & electric valves page 2 to 15

2 Pneumatic actuators page 16 to 29

3 Pneumatic actuator accessories and spare parts page 30 to 33

4 Electric actuators page 34 to 41



THE COMPANY :

JWB USA is the fully owned subsidiary of TUNING Fluid Solutions Sarl, based in Rognac, France. Industrial valves specialist since 1996, TUNING Fluid Solutions started, as soon as 2007, designing, developing and manufacturing its own range of ball valves and pneumatic actuators. From the very start, TUNING Fluid Solutions and JWB USA have grown with the ambition of becoming your preferred partner and supplier of manual and automated valves. Today, we supply our products to more than 40 countries around the globe. The wide acceptance of our products is a testimony to our ability to understand and efficiently respond to the requirements and needs of the industry around the world.

OUR PRODUCT RANGE :

Our range of industrial valves is designed and produced following the strictest quality procedures and in accordance to the latest directives and certifications. Our quality insurance department develops and designs our products, controls the manufacturing process and deals with after sales quality issues. Our company and products are certified CE, DESP97/23/CE, ATEX 94/9/EC, API 607 5th Ed., RoHs and TA-LUFT.

We are supplying :

- 1 - A full range of ball valves with threaded, flanged or to be welded end connections. We can supply both ANSI 150/300/600 and 900 or PN16/20/25/40/50 series valves.
- 2 - A full range of pneumatic and electric actuators, as well as automation and regulation accessories.
- 3 - A full range of threaded, ISO or NAMUR solenoid valves and limit switch boxes according to VDI/VDE 3845.

SERVICES :

I – TECHNICAL SUPPORT:

Our deep knowledge of the specific needs and requirements of the chemical, petroleum, pulp and paper and water treatment industries at the international level, allows us to suggest technical solutions perfectly suited to your specific needs.

II – MANUFACTURING & BUILD TO ORDER:

All our automated valves are built to order. Each and every automated valve is fully tested upon assembly and is adjusted if needed before shipment. We can also automate your in-site valves after appropriate study by our technical department.

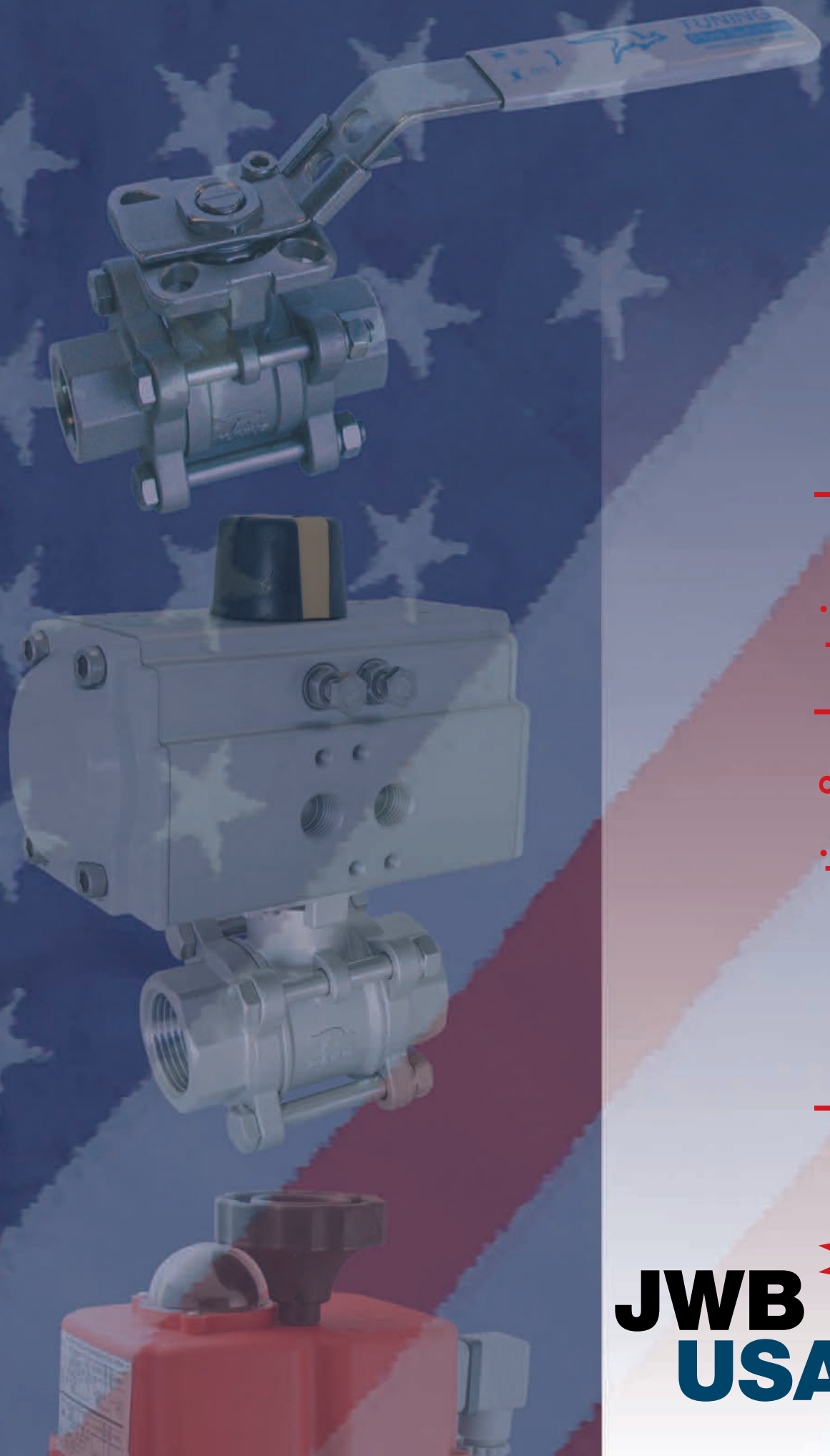
III - INVENTORY & DISTRIBUTION:

We keep ready for delivery more than 7 000 valves in different materials and configurations, representing more than 3 million US\$ stock at your service. We are operating a Distribution center that allows:

- Same day delivery for finished products for all orders received before 10 AM
- 48 hours delivery time for manufactured items

TUNING FLUID SOLUTIONS STOCKS ONLINE

Later this year, all our distributors will be able to check on line stock availability. They will be able to check their order status, download their shipping documents, their invoices and the technical sheets of the ordered products.

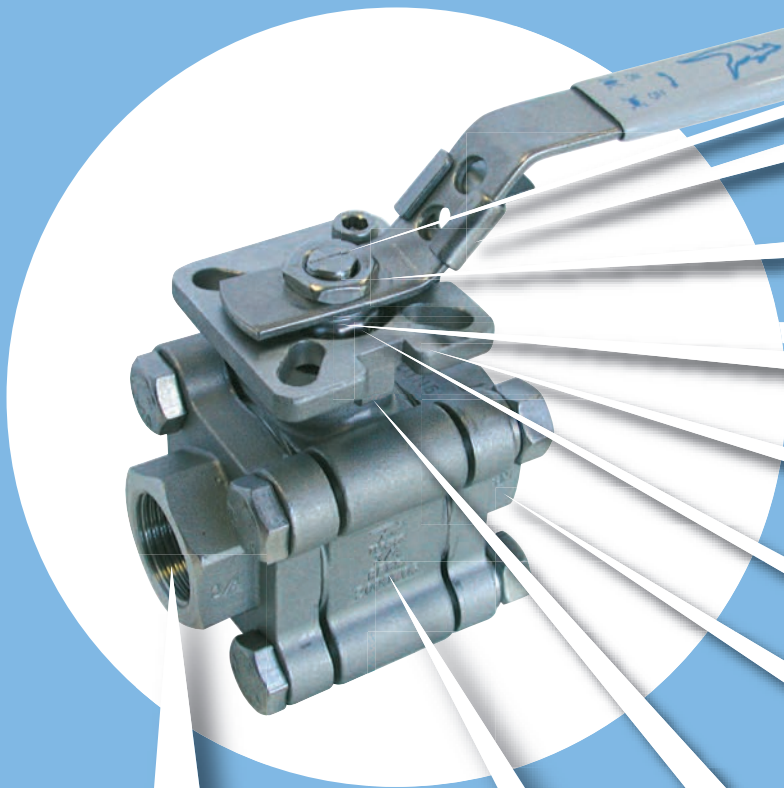


MANUAL, PNEUMATIC & ELECTRIC VALVES

Manual, pneumatic & electric valves

**JWB
USA**

TUNING® BALL VALVES FOR INDUSTRIAL PROCESSES



VISUAL INDICATION on the STEM OF THE VALVE POSITION (O or C)

STAINLESS STEEL HAND LEVER LOCKABLE IN OPEN OR CLOSED POSITION

45° SQUARE STEM ACCORDING TO DIN 3337

STEM WITH DOUBLE SEALING AND AUTO-ADJUSTABLE PACKING GLAND TIGHTNESS IN CASE OF WEAR - ANTI-STATIC STEM

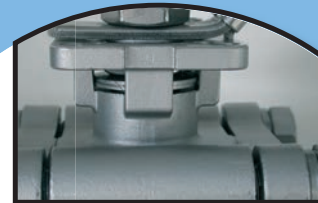
ISO 5211 DIRECT MOUNTING FLANGE WITH MULTIPLE SIZES - FLANGE IS HIGHER FOR EASIER ACTUATOR MOUNTING

EXPLOSION PROOF STEM WITH TIGHTENABLE PACKING GLAND

STAINLESS STEEL BALL WITH RELIEF HOLE TO BALANCE THE PRESSURE INSIDE THE BALL AND THE BODY

SEVERAL DIFFERENT TYPES OF END CONNECTIONS AVAILABLE :

- THREADED F/F NPT and BSP ISO7/1
- TO BE WELDED SW
- TO BE WELDED BW
- WITH FLANGES ANSI1150
- WITH FLANGES ANSI300
- WITH FLANGES PN40/16



PACKING GLAND VISUALIZATION FOR :

- EYE CONTROL OF POTENTIAL STEAM LEAKAGE
- STEM LEAKAGE RELEASE TO AVOID CONTACT WITH THE ACTUATOR



BODY & END CONNECTIONS MARKING WITH :

- NOMINAL DIAMETER (DN)
- NOMINAL PRESSURE (PN)
- TUNING LOGO
- CE
- HEAT NUMBER (100 % foundry parts tracking)

STAINLESS STEEL IDENTIFICATION PLATE SHOWING:

- CE MARKING (if applicable)
- TUNING LOGO
- ATEX AND FIRE SAFE MARKING (if applicable)
- MAXIMUM WORKING PRESSURE
- NOMINAL DIAMETER (DN)
- VALVE MATERIALS (BODY, BALL AND SHAFT)
- TEMPERATURE RANGE (MIN / MAX)
- SERIAL N° OR MANUFACTURING LOT N°



HOMOLOGATIONS

API607 5th EDITION FIRESAFE CERTIFICATION
 NACE MR-0175
 PED 97/23 CE
 TA-LUFT FUGITIVE EMISSIONS
 ATEX II 2 G/D CT4

Price list set with the following hypothesis :
Fluid = Clean water at 68°F and WP = 87 PSI.
Air pressure = 87 PSI min.

NACE
MR-0175

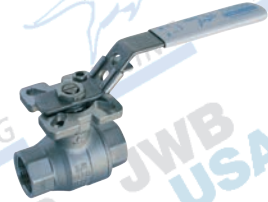
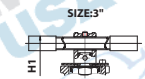
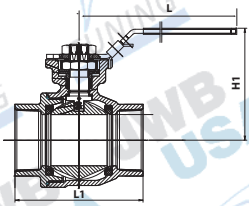


ATEX EX II 2 G/D CT6

2 way stainless steel

MANUAL

2-pcs ball valve - Stainless steel body - 1000 PSI



- 2-PCS BALL VALVE WITH DIRECT MOUNTING PAD ISO 5211
- DIN 3337 SHAFT
- BODY, BALL & SHAFT AISI 316
- TFM1600 SEATS /FKM SEALS
- FULL BORE
- STAINLESS STEEL HANDLE WITH LOCKING DEVICE
- 1000 PSI
- THREADED NPT
- ATEX EX II 2 G/D CT6
- TEMPERATURE UP TO 366 °F

201925 - NPT

Ø	DN	◇ (inches)	ISO5211	L	L1	H1	PSI	Cv	Lbs	CODE	\$
1/4"	08	0.354	F03/F04	5.71	2.64	2.78	1000	14.84	1.08	2019250000800	46
3/8"	12	0.354	F03/F04	5.71	2.64	2.78	1000	17.81	1.12	2019250001200	46
1/2"	15	0.354	F03/F04	5.71	2.64	2.78	1000	24.74	1.77	2019250001500	45
3/4"	20	0.354	F03/F04/F05	5.71	2.77	3.03	1000	44.53	1.30	2019250002000	56
1"	25	0.433	F04/F05	6.89	3.35	3.46	1000	84.11	2.29	2019250002600	82
1 1/4"	32	0.433	F04/F05/F07	6.89	3.70	3.66	1000	128.63	3.13	2019250003300	106
1 1/2"	40	0.551	F05/F07	7.48	4.13	4.06	1000	197.90	4.50	2019250004000	154
2"	50	0.551	F05/F07	7.48	4.92	4.33	1000	316.60	7.21	2019250005000	204
2 1/2"	65	0.669	F07/F10	10.53	6.10	5.89	1000	445.30	13.31	2019250006600	397
3"	80	0.669	F07/F10	11.82	6.81	6.89	1000	593.70	20.22	2019250008000	564

PNEUMATIC

- THREADED NPT
- 1000 PSI
- BODY, BALL AND SHAFT AISI 316
- TFM 1600 SEATS / FKM SEALS
- DIN 3337 SHAFT
- DIRECT MOUNTING PAD ISO 5211
- ATEX EX II 2 G/D CT6
- DOUBLE ACTING OR SPRING RETURN ACTUATOR

901925 - NPT Double Acting

951925 - NPT Spring Return



Ø	DN	PSI	1925 NPT					
			Double acting actuator			Spring return actuator		
			CODE	DA	\$	CODE	SR	\$
1/4"	08	1000	9019250000800	DA40	219	9519250000800	SR52	260
3/8"	12	1000	9019250001200	DA40	219	9519250001200	SR52	260
1/2"	15	1000	9019250001500	DA40	219	9519250001500	SR52	260
3/4"	20	1000	9019250002000	DA40	231	9519250002000	SR52	272
1"	25	1000	9019250002600	DA40	254	9519250002600	SR63	325
1 1/4"	32	1000	9019250003300	DA52	300	9519250003300	SR75	402
1 1/2"	40	1000	9019250004000	DA63	381	9519250004000	SR83	486
2"	50	1000	9019250005000	DA63	440	9519250005000	SR92	609
2 1/2"	65	1000	9019250006600	DA83	717	9519250006600	SR105	874
3"	80	1000	9019250008000	DA92	946	9519250008000	SR125	1221

ELECTRIC

- THREADED NPT
- 1000 PSI
- BODY, BALL AND SHAFT AISI 316
- TFM 1600 SEATS / FKM SEALS
- DIN 3337 SHAFT
- DIRECT MOUNTING PAD ISO 5211
- ELECTRIC ACTUATOR

971925



Ø	DN	PSI	Electric actuator	Rotation time	CODE	\$
1/4"	08	1000	80093V0201405	11/12 sec	971925ZZZ0800	548
3/8"	12	1000	80093V0201405	11/12 sec	971925ZZZ1200	548
1/2"	15	1000	80093V0201405	11/12 sec	971925ZZZ1500	548
3/4"	20	1000	80093V0201405	11/12 sec	971925ZZZ2000	559
1"	25	1000	80093V0201405	11/12 sec	971925ZZZ2600	586
1 1/4"	32	1000	80093V0201405	11/12 sec	971925ZZZ3300	614
1 1/2"	40	1000	80093V0351405	14/16 sec	971925ZZZ4000	761
2"	50	1000	80093V0551707	14/16 sec	971925ZZZ5000	819
2 1/2"	65	1000	80093V0551707	14/16 sec	971925ZZZ6600	1216
3"	80	1000	80093V0851707	30/35 sec	971925ZZZ8000	1532

ZZZ : replace by 110 for 110VAC/DC / 220 for 220 VACDC / A24 for 24VAC / C24 for 24VDC / C12 for 12VDC
V : replace by L for actuator voltage from 12VDC to 24VAC/DC or H for actuator voltage from 85VAC/DC to 240VAC/DC

Price list set with the following hypothesis :
Fluid = Clean water at 68°F and WP = 87 PSI.
Air pressure = 87 PSI min.



ATEX EX II2 G/D CT6

2 way stainless steel

MANUAL

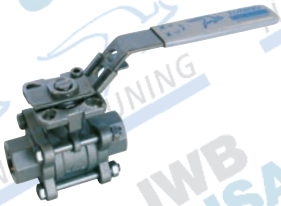
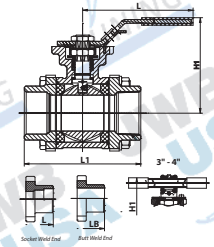
3-pcs ball valve - Stainless steel body - 1000 PSI

- 3-PCS BALL VALVE WITH DIRECT MOUNTING PAD ISO 5211
- DIN 3337 SHAFT
- BODY, BALL & SHAFT AISI 316
- TFM 1600 SEATS / FKM SEALS
- FULL BORE
- STAINLESS STEEL HANDLE WITH LOCKING DEVICE
- 1000 PSI
- THREADED NPT (201930), TO BE WELDED (200931 SW / 200932 BW*)
- TO BE WELDED END CONNECTIONS IN CF3M - AISI316L
- ATEX Ex II2 G/D CT6
- TEMPERATURE UP TO 366 °F

201930 - NPT

200931 - SW

200932 - BW*



Ø	DN	◇ (inches)	ISO5211	L	L1	H1	PSI	Cv	Lbs	CODE NPT	CODE SW	CODE BW*	\$
1/4"	08	0.354	F03/F04	5.7	3	2.7	1000	14.84	1.41	2019300000800	-	-	61
3/8"	12	0.354	F03/F04	5.7	3	2.7	1000	17.81	1.43	2019300001200	2009310001200	2009320001200	61
1/2"	15	0.354	F03/F04	5.7	3	2.7	1000	24.74	1.52	2019300001500	2009310001500	2009320001500	60
3/4"	20	0.354	F03/F04/F05	5.7	3.2	3	1000	44.53	1.96	2019300002000	2009310002000	2009320002000	72
1"	25	0.433	F04/F05	5.7	3.5	3.5	1000	84.11	3.04	2019300002600	2009310002500	2009320002500	110
1 1/4"	32	0.433	F04/F05/F07	5.7	4.3	3.7	1000	128.63	4.70	2019300003300	2009310003200	2009320003200	147
1 1/2"	40	0.551	F05/F07	7.5	4.7	4.1	1000	197.90	6.53	2019300004000	2009310004000	2009320004000	194
2"	50	0.551	F05/F07	7.5	5.5	4.3	1000	316.60	9.90	2019300005000	2009310005000	2009320005000	274
2 1/2"	65	0.669	F07/F10	10.4	7.3	5.8	1000	445.30	18.63	2019300006600	2009310006500	2009320006500	539
3"	80	0.669	F07/F10	11.8	8.1	6.8	1000	593.70	24.82	2019300008000	2009310008000	2009320008000	683
4"	100	0.866	F10	15.7	9.4	8.1	1000	1084.90	51.63	2019300010200	2009310010000	2009320010000	1433

* = Upon request only

PNEUMATIC

- THREADED NPT, SW OR BW*
- 1000 PSI
- BODY, BALL AND SHAFT AISI 316
- TFM 1600 SEATS / FKM SEALS
- DIN 3337 SHAFT
- DIRECT MOUNTING PAD ISO 5211
- ATEX Ex II2 G/D CT6
- DOUBLE ACTING OR SPRING RETURN ACTUATOR

901930 - NPT Double acting

900931 - SW Double acting

900932 - BW* Double acting

951930 - NPT Spring return

950931 - SW Spring return

950932 - BW* Spring return



Ø	DN	PSI	1930 NPT - 0931 SW - 0932 BW*					
			Double acting actuator			Spring return actuator		
			DA	CODE	\$	SR	CODE	\$
1/4"	08	1000	DA40	90XXXX0000800	243	SR52	95XXXX0000800	284
3/8"	12	1000	DA40	90XXXX0001200	243	SR52	95XXXX0001200	284
1/2"	15	1000	DA40	90XXXX0001500	236	SR52	95XXXX0001500	277
3/4"	20	1000	DA40	90XXXX0002000	250	SR52	95XXXX0002000	291
1"	25	1000	DA40	90XXXX0002600	286	SR63	95XXXX0002600	357
1 1/4"	32	1000	DA52	90XXXX0003300	348	SR75	95XXXX0003300	450
1 1/2"	40	1000	DA63	90XXXX0004000	428	SR83	95XXXX0004000	533
2"	50	1000	DA63	90XXXX0005000	521	SR92	95XXXX0005000	690
2 1/2"	65	1000	DA83	90XXXX0006600	882	SR105	95XXXX0006600	1039
3"	80	1000	DA92	90XXXX0008000	1085	SR125	95XXXX0008000	1360
4"	100	1000	DA105	90XXXX0010200	2020	SR140	95XXXX0010200	2436

XXXX : replace by 1930 for NPT / 0931 for SW / 0932 for BW*

* = Upon request only

ELECTRIC

- THREADED NPT, SW OR BW
- 1000 PSI
- BODY, BALL AND SHAFT AISI 316
- TFM 1600 SEATS / FKM SEALS
- DIN 3337 SHAFT
- DIRECT MOUNTING PAD ISO 5211
- ELECTRIC ACTUATOR

971930 - NPT

970931 - SW

970932 - BW*



Ø	DN	PSI	Electric actuator	Rotation time	Code	\$	
1/4"	08	1000	80093V0201405	11/12 sec	97XXXXZZZ0800	624	
3/8"	12	1000	80093V0201405	11/12 sec	97XXXXZZZ1200	624	
1/2"	15	1000	80093V0201405	11/12 sec	97XXXXZZZ1500	620	
3/4"	20	1000	80093V0201405	11/12 sec	97XXXXZZZ2000	628	
1"	25	1000	80093V0201405	11/12 sec	97XXXXZZZ2600	668	
1 1/4"	32	1000	80093V0201405	11/12 sec	97XXXXZZZ3300	711	
1 1/2"	40	1000	80093V0351405	14/16 sec	97XXXXZZZ4000	902	
2"	50	1000	80093V0551707	14/16 sec	97XXXXZZZ5000	990	
2 1/2"	65	1000	80093V0551707	14/16 sec	97XXXXZZZ6600	1469	
3"	80	1000	80093V0851707	30/35 sec	97XXXXZZZ8000	1837	
4"	Upon request - please contact us					97XXXXZZZ10200	2801

XXXX : replace by 1930 for NPT / 0931 for SW / 0932 for BW*

* = Upon request only

ZZZ : replace by 110 for 110VAC/DC / 220 for 220 VACDC / A24 for 24VAC / C24 for 24VDC / C12 for 12VDC

V : replace by L for actuator voltage from 12VDC to 24VAC/DC or H for actuator voltage from 85VAC/DC to 240VAC/DC

Price list set with the following hypothesis :
Fluid = Clean water at 68°F and WP = 87 PSI.
Air pressure = 87 PSI min.

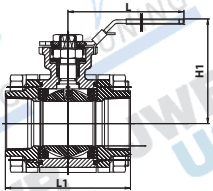


ATEX EX II 2 G/D CT6 API 607 5th ed.

2 way stainless steel

MANUAL, PNEUMATIC & ELECTRIC VALVES

MANUAL



Suitable for Steam 388°F & 217 PSI max

3-pcs ball valve - Stainless steel body - 2000/1500 PSI

- 3-PCS BALL VALVE WITH DIRECT ISO 5211 PAD
- DIN 3337 SHAFT
- BODY, BALL & SHAFT AISI 316
- TFM4215 SEATS/FKM SEALS/GRAPHITE PG & SEALS
- FULL BORE
- STAINLESS STEEL HANDLE WITH LOCKING DEVICE
- 2000/1500 PSI
- THREADED NPT (201934), TO BE WELDED (200935 SW / 200936 BW*)
- TO BE WELDED END CONNECTIONS IN CF3M
- FIRE SAFE API607 5th ed.
- ATEX EX II 2 G/D CT6

201934 - NPT

200935 - SW

200936 - BW*

Ø	DN	◇ (inches)	ISO5211	L	L1	H1	PSI	Cv	Lbs	CODE NPT	CODE SW	CODE BW*	\$
1/4"	08	0.354	F03/F04	5.3	3	3.3	2000	14.84	2.43	2019340000800	-	-	93
3/8"	12	0.354	F03/F04	5.3	3	3.3	2000	17.81	2.34	2019340001200	2009350001200	2009360001200	93
1/2"	15	0.354	F03/F04	5.3	3	3.3	2000	24.74	2.25	2019340001500	2009350001500	2009360001500	92
3/4"	20	0.354	F03/F04/F05	5.3	3.2	3.0	2000	44.53	3.31	2019340002000	2009350002000	2009360002000	120
1"	25	0.433	F04/F05	6.7	3.5	3.4	2000	84.11	4.63	2019340002600	2009350002600	2009360002600	174
1 1/4"	32	0.433	F04/F05/F07	6.7	4.3	4.1	1500	128.63	6.70	2019340003300	2009350003200	2009360003200	241
1 1/2"	40	0.551	F05/F07	7.9	4.7	4.2	1500	197.90	9.88	2019340004000	2009350004000	2009360004000	312
2"	50	0.551	F05/F07	7.9	5.5	4.6	1500	316.60	15.74	2019340005000	2009350005000	2009360005000	497

* = Upon request only

PNEUMATIC

- THREADED NPT, SW OR BW*
- 2000/1500 PSI
- BODY, BALL AND SHAFT AISI 316
- TFM4215 SEATS/FKM SEALS/GRAPHITE PG & SEALS
- DIRECT 5211 ISO PAD
- FIRESAFE API 607 5TH ED.
- DOUBLE ACTING OR SPRING RETURN ACTUATOR

901934 - NPT Double acting

900935 - SW Double acting

900936 - BW* Double acting

951934 - NPT Spring return

950935 - SW Spring return

950936 - BW* Spring return



Ø	DN	PSI	1934 NPT - 0935 SW - 0936 BW*					
			Double acting actuator			Spring return actuator		
			DA	CODE	\$	SR	CODE	\$
1/4"	08	2000	DA40	90XXXX0000800	272	SR52	95XXXX0000800	317
3/8"	12	2000	DA40	90XXXX0001200	276	SR52	95XXXX0001200	317
1/2"	15	2000	DA40	90XXXX0001500	273	SR52	95XXXX0001500	314
3/4"	20	2000	DA40	90XXXX0002000	305	SR52	95XXXX0002000	346
1"	25	2000	DA40	90XXXX0002600	354	SR63	95XXXX0002600	424
1 1/4"	32	1500	DA52	90XXXX0003300	439	SR75	95XXXX0003300	541
1 1/2"	40	1500	DA63	90XXXX0004000	557	SR83	95XXXX0004000	662
2"	50	1500	DA63	90XXXX0005000	770	SR92	95XXXX0005000	939

XXXX : replace the reference by 1934 for NPT / 0935 for SW / 0936 for BW*

* = Upon request only

ELECTRIC

- THREADED NPT, SW OR BW*
- 2000/1500 PSI
- BODY, BALL AND SHAFT AISI 316
- TFM4215 SEATS/FKM SEALS/GRAPHITE PG & SEALS
- DIN 3337 SHAFT
- DIRECT MOUNTING PAD ISO 5211
- ELECTRIC ACTUATOR

971934 - NPT

970935 - SW

970936 - BW*



Ø	DN	PSI	Electric actuator	Rotation time	CODE	\$
1/4"	08	2000	80093V0201405	11/12 sec	97XXXXZZZ0800	605
3/8"	12	2000	80093V0201405	11/12 sec	97XXXXZZZ1200	605
1/2"	15	2000	80093V0201405	11/12 sec	97XXXXZZZ1500	602
3/4"	20	2000	80093V0201405	11/12 sec	97XXXXZZZ2000	633
1"	25	2000	80093V0201405	11/12 sec	97XXXXZZZ2600	685
1 1/4"	32	1500	80093V0201405	11/12 sec	97XXXXZZZ3300	753
1 1/2"	40	1500	80093V0351405	14/16 sec	97XXXXZZZ4000	936
2"	50	1500	80093V0551707	14/16 sec	97XXXXZZZ5000	1149

XXXX : replace by 1934 for NPT / 0935 for SW / 0936 for BW*

* = Upon request only

ZZZ : replace the reference by 110 for 110VAC/DC / 220 for 220 VAC/DC / A24 for 24VAC / C24 for 24VDC / C12 for 12VDC

V : replace by L for actuator voltage from 12VDC to 24VAC/DC or H for actuator voltage from 85VAC/DC to 240VAC/DC

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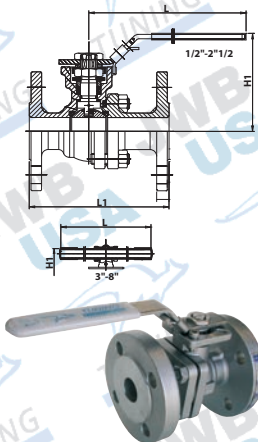


2 way stainless steel

MANUAL

Split body ball valve - Stainless steel body - ANSI 150

- SPLIT BODY BALL VALVE WITH DIRECT PAD ISO 5211
- DIN 3337 SHAFT
- BODY, BALL & SHAFT AISI 316
- TFM 1600 SEATS / FKM SEALS
- FULL BORE
- STAINLESS STEEL HANDLE WITH LOCKING DEVICE
- ACCORDING TO ANSI B16-10
- FLANGED ANSI 150
- FIRE SAFE API607 5TH ED.
- ATEX Ex II2 G/D CT6



Ø	DN	◇ (inches)	ISO5211	L	L1	H1	Cv	Lbs	ANSI	CODE	\$
1/2"	15	0.354	F03/F04	5.7	4.3	3.1	24.74	3.22	150	2009650001500	118
3/4"	20	0.354	F03/F04	5.7	4.6	3.3	44.53	4.98	150	2009650002000	148
1"	25	0.433	F04/F05	6.9	5	3.5	84.11	6.57	150	2009650002600	177
1 1/2"	40	0.551	F05/F07	7.5	6.5	4.2	197.90	12.85	150	2009650004000	337
2"	50	0.551	F05/F07	7.5	7	4.4	316.63	18.63	150	2009650005000	461
3"	80	0.669	F07/F10	11.8	8	6.9	593.69	39.02	150	2009650008000	980
4"	100	0.866	F10	15.7	9	8.0	1088.43	67.62	150	2009650010000	1556
6"	150	1.063	F12	31.5	15.5	10.8	2570.7	160.94	150	2009650015000	3901
8"	200	1.063	F12	31.5	18	12.9	4155.8	276.75	150	2009650020000	6878

PNEUMATIC

- FLANGED ANSI 150
- BODY, BALL AND SHAFT AISI 316
- TFM 1600 SEATS
- DIRECT PAD ISO 5211
- DIN 3337 SHAFT
- FIRESAFE API 607 5TH ED.
- ATEX EX II2 G/D CT6
- DOUBLE ACTING OR SPRING RETURN ACTUATOR

900965 Double acting

950965 Spring return



Ø	DN	ANSI	900965 - 950965					
			Double acting actuator			Spring return actuator		
			DA	CODE	\$	SR	CODE	\$
1/2"	15	150	DA40	9009650001500	309	SR52	9509650001500	351
3/4"	20	150	DA40	9009650002000	328	SR52	9509650002000	370
1"	25	150	DA40	9009650002500	353	SR63	9509650002500	424
1 1/2"	40	150	DA63	9009650004000	604	SR83	9509650004000	708
2"	50	150	DA63	9009650005000	692	SR92	9509650005000	861
3"	80	150	DA92	9009650008000	1299	SR125	9509650008000	1574
4"	100	150	DA105	9009650010000	2086	SR140	9509650010000	2502
6"	150	150	DA140	9009650015000	4730	SR190	9509650015000	6369
8"	200	150	DA160	9009650020000	8671	SR210	9509650020000	10416

ELECTRIC

- FLANGED ANSI 150
- BODY, BALL AND SHAFT AISI 316
- TFM 1600 SEATS / FKM SEALS
- DIN 3337 SHAFT
- DIRECT MOUNTING PAD ISO 5211
- ELECTRIC ACTUATOR

970965



Ø	DN	ANSI	Electric actuator	Rotation time	Code	\$	
1/2"	15	150	80093V0201405	11/12 sec	970965ZZZ1500	639	
3/4"	20	150	80093V0201405	11/12 sec	970965ZZZ2000	656	
1"	25	150	80093V0201405	11/12 sec	970965ZZZ2500	685	
1 1/2"	40	150	80093V0351405	14/16 sec	970965ZZZ4000	983	
2"	50	150	80093V0551707	14/16 sec	970965ZZZ5000	1072	
3"	80	150	80093V0551707	30/35 sec	970965ZZZ8000	1885	
4"	Upon request only - please contact us					970965ZZZ10000	2935

ZZZ : replace by 110 for 110VAC/DC / 220 for 220 VACDC / A24 for 24VAC / C24 for 24VDC / C12 for 12VDC
V : replace by L for actuator voltage from 12VDC to 24VAC/DC or H for actuator voltage from 85VAC/DC to 240VAC/DC

Price list set with the following hypothesis :
Fluid = Clean water at 68°F and WP = 87 PSI.
Air pressure = 87 PSI min.

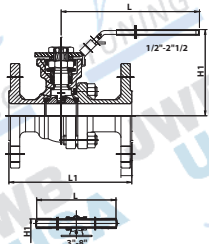


2 way stainless steel

MANUAL, PNEUMATIC & ELECTRIC VALVES

MANUAL

Split body ball valve - Stainless steel body - ANSI 300



- SPLIT BODY BALL VALVE WITH DIRECT PAD ISO 5211
- DIN 3337 SHAFT (6" & 8")
- BODY, BALL & SHAFT AISI 316
- TFM 1600 SEATS
- FULL BORE
- STAINLESS STEEL HANDLE WITH LOCKING DEVICE
- FLANGED ANSI 300
- FIRE SAFE API607 5TH ED.
- Atex Ex II2 G/D CT6

200966

Ø	DN	Stem*	ISO5211	L	L1	H1	Cv	Lbs	ANSI	CODE	\$
1/2"	15	0.25x3/8-24UNF	F04	5.32	5.51	5.51	24.74	5.27	300	2009660001500	145
3/4"	20	0.25x3/8-24UNF	F04	5.32	5.98	5.98	44.53	7.52	300	2009660002000	189
1"	25	0.35x9/16-18UNF	F05	6.69	6.50	6.50	84.11	10.80	300	2009660002600	229
1 1/2"	40	0.38x5/8-18UNF	F07	7.87	7.48	7.48	197.90	18.30	300	2009660004000	392
2"	50	0.38x5/8-18UNF	F07	7.87	8.50	8.50	316.63	22.84	300	2009660005000	495
3"	80	0.63x7/8-14UNF	F10	11.81	11.10	11.10	593.69	57.39	300	2009660008000	1142
4"	100	0.71x1-1/8-12UNF	F10	15.75	12.00	12.00	1088.43	93.43	300	2009660010000	1822
6"	150	1.06	F12	31.50	15.87	15.87	2570.7	160.94	300	2009660015000	4495
8"	200	1.06	F12	31.50	19.76	19.76	4155.8	318.13	300	2009660020000	8264

* □ from 1/2" to 4"
◇ from 6" to 8"

PNEUMATIC

- FLANGED ANSI 300
- BODY, BALL AND SHAFT AISI 316
- TFM 1600 SEATS
- DIRECT PAD ISO 5211
- FIRESAFE API 607 5TH ED.
- ATEX EX II2 G/D CT6
- DOUBLE ACTING OR SPRING RETURN ACTUATOR

900966 Double acting

950966 Spring return

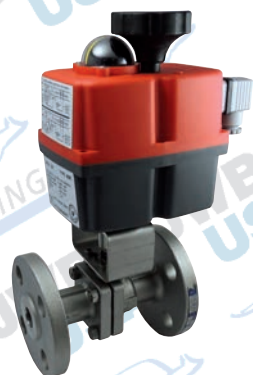


Ø	DN	ANSI	900966 - 950966					
			Double acting actuator			Spring return actuator		
			DA	CODE	\$	SR	CODE	\$
1/2"	15	300	DA40	9009660001500	334	SR52	9509660001500	376
3/4"	20	300	DA40	9009660002000	386	SR52	9509660002000	427
1"	25	300	DA40	9009660002500	425	SR63	9509660002500	495
1 1/2"	40	300	DA63	9009660004000	658	SR83	9509660004000	762
2"	50	300	DA63	9009660005000	775	SR92	9509660005000	944
3"	80	300	DA92	9009660008000	1619	SR125	9509660008000	1894
4"	100	300	DA105	9009660010000	2474	SR140	9509660010000	2890
6"	150	300	DA140	9009660015000	5833	SR190	9509660015000	7590
8"	200	300	DA160	9009660020000	10451	SR210	9509660020000	12291

ELECTRIC

- FLANGED ANSI 300
- BODY, BALL AND SHAFT AISI 316
- TFM 1600 SEATS / FKM SEALS
- DIN 3337 SHAFT (6" & 8")
- DIRECT MOUNTING PAD ISO 5211
- ELECTRIC ACTUATOR

970966



Ø	DN	ANSI	Electric actuator	Rotation time	CODE	\$	
1/2"	15	300	80093V0201405	11/12 sec	970966ZZZ1500	664	
3/4"	20	300	80093V0201405	11/12 sec	970966ZZZ2000	714	
1"	25	300	80093V0201405	11/12 sec	970966ZZZ2500	756	
1 1/2"	40	300	80093V0351405	14/16 sec	970966ZZZ4000	1037	
2"	50	300	80093V0551707	14/16 sec	970966ZZZ5000	1154	
3"	80	300	80093V0551707	30/35 sec	970966ZZZ8000	2205	
4"	Upon request only - please contact us					970966ZZZ10000	3323

ZZZ : replace by 110 for 110VAC/DC / 220 for 220 VACDC / A24 for 24VAC / C24 for 24VDC / C12 for 12VDC
V : replace by L for actuator voltage from 12VDC to 24VAC/DC or H for actuator voltage from 85VAC/DC to 240VAC/DC

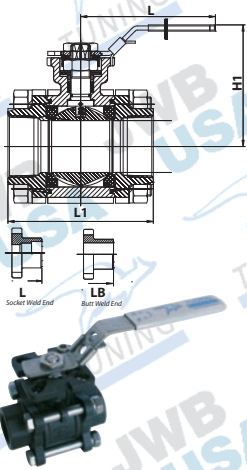
Price list set with the following hypothesis :
Fluid = Clean water at 68°F and WP = 87 PSI.
Air pressure = 87 PSI min.



ATEX EX II 2 G/D CT6 API 607 5th ed.

2 way carbon steel

MANUAL



3-pcs ball valve - A216 WCB body - 1000 PSI

- 3-PCS BALL VALVE WITH DIRECT MOUNTING PAD ISO 5211
- DIN 3337 SHAFT
- A216 WCB BODY, BALL & SHAFT AISI 316
- TFM 1600 SEATS / FKM SEALS
- FULL BORE
- STAINLESS STEEL HANDLE WITH LOCKING DEVICE
- 1000 PSI
- THREADED NPT (201940), TO BE WELDED (201941 SW / 200942 BW*)
- TO BE WELDED END CONNECTIONS IN CF3M - AISI316L
- ATEX Ex II 2 G/D CT6

201940 - NPT

201941 - SW

200942 - BW*

Ø	DN	◇ (inches)	ISO5211	L	L1	H1	PSI	Cv	Lbs	CODE NPT	CODE SW	CODE BW*	\$
1/4"	08	0.354	F03/F04	5.7	3	2.7	1000	14.84	1.41	2019400000800	-	-	55
3/8"	12	0.354	F03/F04	5.7	3	2.7	1000	17.81	1.43	2019400001200	2019410001200	2009420001200	56
1/2"	15	0.354	F03/F04	5.7	3	2.7	1000	24.74	1.52	2019400001500	2019410001500	2009420001500	57
3/4"	20	0.354	F03/F04/F05	5.7	3.2	3	1000	44.53	1.96	2019400002000	2019410002000	2009420002000	67
1"	25	0.433	F04/F05	5.7	3.5	3.5	1000	84.11	3.04	2019400002600	2019410002600	2009420002600	99
1 1/4"	32	0.433	F04/F05/F07	5.7	4.3	3.7	1000	128.63	4.70	2019400003300	2019410003300	2009420003300	130
1 1/2"	40	0.551	F05/F07	7.5	4.7	4.1	1000	197.90	6.53	2019400004000	2019410004000	2009420004000	178
2"	50	0.551	F05/F07	7.5	5.5	4.3	1000	316.60	9.90	2019400005000	2019410005000	2009420005000	239
2 1/2"	65	0.669	F07/F10	10.4	7.3	5.8	1000	445.30	18.63	2019400006600	2019410006600	2009420006600	483
3"	80	0.669	F07/F10	11.8	8.1	6.8	1000	593.70	24.82	2019400008000	2019410008000	2009420008000	559
4"	100	0.866	F10	15.7	9.4	8.1	1000	1084.90	51.63	2019400010200	2019410010000	2009420010000	1074

* = Upon request only

PNEUMATIC

- THREADED NPT, SW OR BW*
- 1000 PSI
- A216 WCB BODY, BALL AND SHAFT AISI 316
- TFM 1600 SEATS / FKM SEALS
- DIRECT MOUNTING PAD ISO 5211
- ATEX EX II 2 G/D CT6
- DOUBLE ACTING OR SPRING RETURN ACTUATOR

901940 - NPT Double acting

901941 - SW Double acting

900942 - BW* Double acting

951940 - NPT Spring return

951941 - SW Spring return

950942 - BW* Spring return



Ø	DN	PSI	0940 NPT - 0941 SW - 0942 BW*					
			Double acting actuator 1940 NPT - 1941 SW			Spring return actuator		
			DA	CODE	\$	SR	CODE	\$
1/4"	08	1000	DA40	90XXXX0000800	231	SR52	95XXXX0000800	271
3/8"	12	1000	DA40	90XXXX0001200	229	SR52	95XXXX0001200	272
1/2"	15	1000	DA40	90XXXX0001500	231	SR52	95XXXX0001500	273
3/4"	20	1000	DA40	90XXXX0002000	244	SR52	95XXXX0002000	285
1"	25	1000	DA40	90XXXX0002500	274	SR63	95XXXX0002500	341
1 1/4"	32	1000	DA52	90XXXX0003200	328	SR75	95XXXX0003200	426
1 1/2"	40	1000	DA63	90XXXX0004000	409	SR83	95XXXX0004000	511
2"	50	1000	DA63	90XXXX0005000	480	SR92	95XXXX0005000	646
2 1/2"	65	1000	DA83	90XXXX0006500	685	SR105	95XXXX0006500	932
3"	80	1000	DA92	90XXXX0008000	940	SR125	95XXXX0008000	1230
4"	100	1000	DA105	90XXXX0010000	1603	SR140	95XXXX0010000	2015

XXXX : replace the reference by 1940 for NPT / 1941 for SW / 0942 for BW*

* = Upon request only

ELECTRIC

- THREADED NPT, SW OR BW*
- 1000 PSI
- A216 WCB BODY, BALL AND SHAFT AISI 316
- TFM 1600 SEATS / FKM SEALS
- DIN 3337 SHAFT
- DIRECT MOUNTING PAD ISO 5211
- ELECTRIC ACTUATOR

971940 - NPT

971941 - SW

970942 - BW*



Ø	DN	PSI	Electric actuator	Rotation time	CODE	\$
1/4"	08	1000	80093V0201405	11/12 sec	97XXXXZZZ0800	559
3/8"	12	1000	80093V0201405	11/12 sec	97XXXXZZZ1200	622
1/2"	15	1000	80093V0201405	11/12 sec	97XXXXZZZ1500	622
3/4"	20	1000	80093V0201405	11/12 sec	97XXXXZZZ2000	628
1"	25	1000	80093V0201405	11/12 sec	97XXXXZZZ2500	661
1 1/4"	32	1000	80093V0201405	11/12 sec	97XXXXZZZ3200	696
1 1/2"	40	1000	80093V0351405	14/16 sec	97XXXXZZZ4000	883
2"	50	1000	80093V0551707	14/16 sec	97XXXXZZZ5000	949
2 1/2"	65	1000	80093V0551707	14/16 sec	97XXXXZZZ6500	1496
3"	80	1000	80093V0851707	30/35 sec	97XXXXZZZ8000	1717
4"	100	1000	80093V0851707	30/35 sec	97XXXXZZZ1000	2452

XXXX : replace the reference by 1940 for NPT / 1941 for SW / 0942 for BW*

* = Upon request only

ZZZ : replace the reference by 110 for 110VAC/DC / 220 for 220 VACDC / A24 for 24VAC / C24 for 24VDC / C12 for 12VDC

V : replace by L for actuator voltage from 12VDC to 24VAC/DC or H for actuator voltage from 85VAC/DC to 240VAC/DC

Price list set with the following hypothesis :
Fluid = Clean water at 68°F and WP = 87 PSI.
Air pressure = 87 PSI min.



ATEX EX II2 G/D CT6 API 607 5th ed.

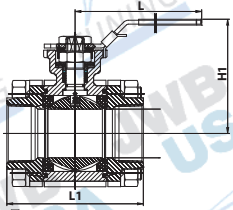
2 way carbon steel

MANUAL, PNEUMATIC & ELECTRIC VALVES

MANUAL

3-pcs ball valve - A216 WCB body - 2000/1500 PSI

- 3-PCS BALL VALVE WITH DIRECT ISO 5211 PAD
- DIN 3337 SHAFT
- A216 WCB BODY
- BALL & SHAFT AISI 316
- TFM 4215 SEATS / FKM SEALS / GRAPHITE PG & SEALS
- FULL BORE
- STAINLESS STEEL HANDLE WITH LOCKING DEVICE
- 2000/1500 PSI
- THREADED NPT (201944) OR TO BE WELDED (201945 SW / 200946 BW)
- FIRE SAFE API607 5th ed.
- ATEX EX II2 G/D CT6



Suitable for Steam
388°F & 217
PSI max

201944 - NPT

201945 - SW

200946 - BW*

Ø	DN	◇ (inches)	ISO5211	L	L1	H1	PSI	Cv	Lbs	CODE NPT	CODE SW	CODE BW*	\$
1/4"	08	0.354	F03/F04	5.7	3	2.7	2000	14.84	2.43	2019440000800	-	-	79
3/8"	12	0.354	F03/F04	5.7	3	2.7	2000	17.81	2.34	2019440001200	2019450001200	2009460001200	81
1/2"	15	0.354	F03/F04	5.7	3	2.7	2000	24.74	2.25	2019440001500	2019450001500	2009460001500	82
3/4"	20	0.354	F03/F04/F05	5.7	3.2	3	2000	44.53	3.31	2019440002000	2019450002000	2009460002000	103
1"	25	0.433	F04/F05	5.7	3.5	3.5	2000	84.11	4.63	2019440002600	2019450002600	2009460002600	145
1 1/4"	32	0.433	F04/F05/F07	5.7	4.3	3.7	1500	128.63	6.70	2019440003300	2019450003300	2009460003300	187
1 1/2"	40	0.551	F05/F07	7.5	4.7	4.1	1500	197.90	9.88	2019440004000	2019450004000	2009460004000	259
2"	50	0.551	F05/F07	7.5	5.5	4.3	1500	316.60	15.74	2019440005000	2019450005000	2009460005000	392

* = Upon request only

PNEUMATIC

- THREADED NPT, SW OR BW*
- 2000/1500 PSI
- A216 WCB BODY
- BALL & SHAFT AISI 316
- TFM 4215 SEATS / FKM SEALS / GRAPHITE PG & SEALS
- DIRECT 5211 ISO PAD
- FIRESAFE API 607 5TH ED.
- DOUBLE ACTING OR SPRING RETURN ACTUATOR

901944 - NPT Double acting

901945 - SW Double acting

900946 - BW* Double acting

951944 - NPT Spring return

951945 - SW Spring return

950946 - BW* Spring return



Ø	DN	PSI	1944 BSP - 1945 SW - 0946 BW*					
			Double acting actuator			Spring return actuator		
			DA	CODE	\$	SR	CODE	\$
1/4"	08	2000	DA40	90XXXX0000800	257	SR52	95XXXX0000800	298
3/8"	12	2000	DA40	90XXXX0001200	260	SR52	95XXXX0001200	301
1/2"	15	2000	DA40	90XXXX0001500	261	SR52	95XXXX0001500	302
3/4"	20	2000	DA40	90XXXX0002000	285	SR52	95XXXX0002000	326
1"	25	2000	DA40	90XXXX0002600	328	SR63	95XXXX0002600	398
1 1/4"	32	1500	DA52	90XXXX0003300	394	SR75	95XXXX0003300	496
1 1/2"	40	1500	DA63	90XXXX0004000	504	SR83	95XXXX0004000	608
2"	50	1500	DA63	90XXXX0005000	658	SR92	95XXXX0005000	828

XXXX : replace by 1944 for NPT / 1945 for SW / 0946 for BW*

* = Upon request only

ELECTRIC

- THREADED NPT, SW OR BW*
- 2000/1500 PSI
- A216 WCB BODY
- BALL & SHAFT AISI 316
- TFM 4215 SEATS / FKM SEALS / GRAPHITE PG & SEALS
- DIN 3337 SHAFT
- DIRECT MOUNTING PAD ISO 5211
- ELECTRIC ACTUATOR

971944 - NPT

971945 - SW

970946 - BW*

Ø	DN	PSI	Electric actuator	Rotation time	CODE	\$
1/4"	08	2000	80093V0201405	11/12 sec	97XXXXZZZ0800	586
3/8"	12	2000	80093V0201405	11/12 sec	97XXXXZZZ1200	589
1/2"	15	2000	80093V0201405	11/12 sec	97XXXXZZZ1500	590
3/4"	20	2000	80093V0201405	11/12 sec	97XXXXZZZ2000	613
1"	25	2000	80093V0201405	11/12 sec	97XXXXZZZ2600	659
1 1/4"	32	1500	80093V0201405	11/12 sec	97XXXXZZZ3300	708
1 1/2"	40	1500	80093V0351405	14/16 sec	97XXXXZZZ4000	883
2"	50	1500	80093V0551707	14/16 sec	97XXXXZZZ5000	1038

XXXX : replace by 1944 for NPT / 1945 for SW / 0946 for BW*

* = Upon request only

ZZZ : replace by 110 for 110VAC/DC / 220 for 220 VACDC / A24 for 24VAC / C24 for 24VDC / C12 for 12VDC

V : replace by L for actuator voltage from 12VDC to 24VAC/DC or H for actuator voltage from 85VAC/DC to 240VAC/DC

Price list set with the following hypothesis :
Fluid = Clean water at 68°F and WP = 87 PSI.
Air pressure = 87 PSI min.



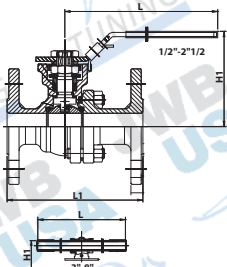
ATEX EX II2 G/D CT6 API 607 5th ed.

2 way carbon steel

MANUAL

Split body ball valve - A216 WCB body - ANSI 150

- SPLIT BODY BALL VALVE WITH DIRECT PAD ISO 5211
- DIN 3337 SHAFT
- A216 WCB BODY
- BALL & STEM AISI 316
- TFM 1600 SEATS
- FULL BORE
- STAINLESS STEEL HANDLE WITH LOCKING DEVICE
- FLANGED ANSI 150
- FIRE SAFE API607 5TH ED.
- ATEX EX II2 G/D CT6



201968

Ø	DN	◇ (inches)	ISO5211	L	L1	H1	Cv	Lbs	ANSI	CODE	\$
1/2"	15	0.354	F03/F04	5.7	4.3	3.1	24.74	3.22	150	2019680001500	98
3/4"	20	0.354	F03/F04	5.7	4.6	3.3	44.53	4.98	150	2019680002000	115
1"	25	0.433	F04/F05	6.9	5	3.5	84.11	6.57	150	2019680002600	145
1 1/2"	40	0.551	F05/F07	7.5	6.5	4.2	197.90	12.85	150	2019680004000	263
2"	50	0.551	F05/F07	7.5	7	4.4	316.63	18.63	150	2019680005000	351
3"	80	0.669	F07/F10	11.8	8	6.9	593.69	39.02	150	2019680008000	729
4"	100	0.866	F10	15.7	9	8.0	1088.43	67.62	150	2019680010000	1160
6"	150	1.063	F12	31.5	15.5	10.8	2570.7	160.94	150	2019680015000	2886
8"	200	1.063	F12	31.5	18	12.9	4155.8	276.75	150	2019680020000	5114

PNEUMATIC

- FLANGED ANSI 150
- A216 WCB BODY
- BALL AND STEM AISI 316
- TFM 1600 SEATS
- DIRECT PAD ISO 5211
- DIN 3337 SHAFT
- FIRESAFE API 607 5TH ED.
- ATEX EX II2 G/D CT6
- DOUBLE ACTING OR SPRING RETURN ACTUATOR

901968 Double acting

951968 Spring return



Ø	DN	ANSI	901968 - 951968					
			Double acting actuator			Spring return actuator		
			DA	CODE	\$	SR	CODE	\$
1/2"	15	150	DA40	9019680001500	280	SR52	9519680001500	321
3/4"	20	150	DA40	9019680002000	300	SR52	9519680002000	341
1"	25	150	DA40	9019680002500	353	SR63	9519680002500	398
1 1/2"	40	150	DA63	9019680004000	508	SR83	9519680004000	613
2"	50	150	DA63	9019680005000	611	SR92	9519680005000	780
3"	80	150	DA92	9019680008000	1139	SR125	9519680008000	1414
4"	100	150	DA105	9019680010000	1703	SR140	9519680010000	2119
6"	150	150	DA140	9019680015000	3962	SR190	9519680015000	5719
8"	200	150	DA160	9019680020000	6788	SR210	9519680020000	8627

ELECTRIC

- THREADED NPT, SW OR BW
- A216 WCB BODY
- BALL AND SHAFT AISI 316
- TFM 1600 SEATS / FKM SEALS
- DIN 3337 SHAFT
- DIRECT MOUNTING PAD ISO 5211
- ELECTRIC ACTUATOR

971968



Ø	DN	ANSI	Electric actuator	Rotation time	Code	\$	
1/2"	15	150	80093V0201405	11/12 sec	971968ZZZ1500	609	
3/4"	20	150	80093V0201405	11/12 sec	971968ZZZ2000	628	
1"	25	150	80093V0201405	11/12 sec	971968ZZZ2500	659	
1 1/2"	40	150	80093V0351405	14/16 sec	971968ZZZ4000	887	
2"	50	150	80093V0551707	14/16 sec	971968ZZZ5000	990	
3"	80	150	80093V0551707	30/35 sec	971968ZZZ8000	1725	
4"	Upon request only - please contact us					971968ZZZ10000	2552

ZZZ : replace by 110 for 110VAC/DC / 220 for 220 VACDC / A24 for 24VAC / C24 for 24VDC / C12 for 12VDC
V : replace by L for actuator voltage from 12VDC to 24VDC/DC or H for actuator voltage from 85VAC/DC to 240VAC/DC

Price list set with the following hypothesis :
Fluid = Clean water at 68°F and WP = 87 PSI.
Air pressure = 87 PSI min.



ATEX EX II2 G/D CT6 API 607 5th ed.

2 way carbon steel

MANUAL, PNEUMATIC & ELECTRIC VALVES

MANUAL

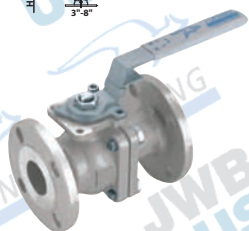
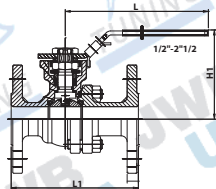
Split body ball valve - A216 WCB body - ANSI 300

- SPLIT BODY BALL VALVE WITH DIRECT PAD ISO 5211
- DIN 3337 SHAFT (6" & 8")
- A216 WCB
- BALL & STEM AISI 316
- TFM 1600 SEATS
- FULL BORE
- STAINLESS STEEL HANDLE WITH LOCKING DEVICE
- FLANGED ANSI 300
- FIRE SAFE API607 5TH ED.
- ATEX Ex II2 G/D CT6

200969

Ø	DN	Stem*	ISO5211	L	L1	H1	Cv	Lbs	ANSI	CODE	\$
1/2"	15	0.25x3/8-24UNF	F04	5.32	5.51	3.31	24.74	5.27	300	2009690001500	118
3/4"	20	0.25x3/8-24UNF	F04	5.32	5.98	3.44	44.53	7.52	300	2009690002000	157
1"	25	0.35x9/16-18UNF	F05	6.69	6.50	3.78	84.11	10.80	300	2009690002600	188
1 1/2"	40	0.38x5/8-18UNF	F07	7.87	7.48	4.25	197.90	18.30	300	2009690004000	316
2"	50	0.38x5/8-18UNF	F07	7.87	8.50	4.65	316.63	22.84	300	2009690005000	398
3"	80	0.63x7/8-14UNF	F10	11.81	11.10	6.67	593.69	57.39	300	2009690008000	929
4"	100	0.71x1-1/8-12UNF	F10	15.75	12.00	8.23	1088.43	93.43	300	2009690010000	1456
6"	150	1.06	F12	31.50	15.87	10.85	2570.7	160.94	300	2009690015000	3509
8"	200	1.06	F12	31.50	19.76	12.91	4155.8	318.13	300	2009690020000	6022

* □ from 1/2" to 4"
◇ from 6" to 8"



PNEUMATIC

- FLANGED ANSI 300
- A216 WCB BODY
- BALL AND STEM AISI 316
- TFM 1600 SEATS
- DIRECT PAD ISO 5211
- FIRESAFE API 607 5TH ED.
- ATEX EX II2 G/D CT6
- DOUBLE ACTING OR SPRING RETURN ACTUATOR

900969

950969

Ø	DN	ANSI	900969 - 950969					
			Double acting actuator			Spring return actuator		
			DA	CODE	\$	SR	CODE	\$
1/2"	15	300	DA40	9009690001500	298	SR52	9509690001500	339
3/4"	20	300	DA40	9009690002000	350	SR52	9509690002000	383
1"	25	300	DA40	9009690002500	370	SR63	9509690002500	440
1 1/2"	40	300	DA63	9009690004000	558	SR83	9509690004000	663
2"	50	300	DA63	9009690005000	646	SR92	9509690005000	815
3"	80	300	DA92	9009690008000	1329	SR125	9509690008000	1604
4"	100	300	DA105	9009690010000	1993	SR140	9509690010000	2409
6"	150	300	DA140	9009690015000	4523	SR190	9509690015000	6280
8"	200	300	DA160	9009690020000	7844	SR210	9509690020000	9683



ELECTRIC

- FLANGED ANSI 300
- A216 WCB BODY
- BALL AND SHAFT AISI 316
- TFM 1600 SEATS / FKM SEALS
- DIN 3337 SHAFT (6" & 8")
- DIRECT MOUNTING PAD ISO 5211
- ELECTRIC ACTUATOR

970969

Ø	DN	ANSI	Electric actuator	Rotation time	CODE	\$	
1/2"	15	300	80093V0201405	11/12 sec	970969ZZZ1500	627	
3/4"	20	300	80093V0201405	11/12 sec	970969ZZZ2000	670	
1"	25	300	80093V0201405	11/12 sec	970969ZZZ2500	701	
1 1/2"	40	300	80093V0351405	14/16 sec	970969ZZZ4000	938	
2"	50	300	80093V0551707	14/16 sec	970969ZZZ5000	1154	
3"	80	300	80093V0551707	30/35 sec	970969ZZZ8000	1915	
4"	Upon request only - please contact us					970969ZZZ10000	2842

ZZZ : replace by 110 for 110VAC/DC / 220 for 220 VACDC / A24 for 24VAC / C24 for 24VDC / C12 for 12VDC
V : replace by L for actuator voltage from 12VDC to 24VAC/DC or H for actuator voltage from 85VAC/DC to 240VAC/DC



Price list set with the following hypothesis :
Fluid = Clean water at 68°F and WP = 87 PSI.
Air pressure = 87 PSI min.



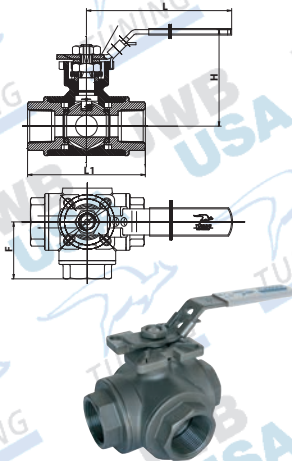
ATEX EX II2 G/D CT6

3 way stainless steel

MANUAL

3 way ball valve - Stainless steel body - 730 Lbs

- 3 WAY BALL VALVE WITH DIRECT PAD ISO 5211
- DIN 3337 SHAFT
- STAINLESS STEEL BODY, BALL & STEM AISI 316
- TFM 1600 SEATS
- L OR T PORT
- STAINLESS STEEL HANDLE WITH LOCKING DEVICE
- REDUCED BORE
- F/F/F NPT
- ATEX Ex II2 G/D CT6



200455 L 200456 T

Ø	Ød	◇ (inches)	ISO5211	L	L1	H1	F	PSI	Cv	Lbs	CODE L	CODE T	\$
1/4"	0.43	0.43	F03/F04	5.78	3.11	2.75	1.55	730	14.82	1.89	2004550000800	2004560000800	106
3/8"	0.43	0.43	F03/F04	5.78	3.11	2.75	1.55	730	14.82	1.83	2004550001200	2004560001200	106
1/2"	0.43	0.43	F03/F04	5.78	3.11	2.75	1.55	730	14.82	1.67	2004550001500	2004560001500	107
3/4"	0.59	0.59	F04/F05	5.78	3.46	3.03	1.73	730	17.81	2.31	2004550002000	2004560002000	134
1"	0.79	0.78	F04/F05	6.94	4.25	3.42	2.12	730	35.62	4.01	2004550002600	2004560002600	186
1 1/4"	0.98	0.98	F04/F05/F07	6.94	4.88	3.66	2.44	730	44.53	6.63	2004550003300	2004560003300	245
1 1/2"	1.26	1.26	F05/F07	8.46	5.31	4.05	2.65	730	71.24	9.39	2004550004000	2004560004000	344
2"	1.57	1.57	F05/F07	8.46	6.45	4.44	3.22	730	118.74	15.38	2004550005000	2004560005000	518

PNEUMATIC

- F/F/F NPT
- STAINLESS STEEL BODY, BALL AND STEM AISI 316
- TFM 1600 SEATS
- L OR T PORT
- ATEX Ex II2 G/D CT6
- DIN 3337 SHAFT
- DIRECT PAD ISO 5211
- REDUCED BORE
- DOUBLE ACTING OR SPRING RETURN ACTUATOR

900455 L Double acting

900456 T Double acting

950455 L Spring return

950456 T Spring return



Ø	Ød	PSI	0458 L - 0456 T					
			Double acting actuator			Spring return actuator		
			DA	CODE	\$	SR	CODE	\$
1/4"	0.43	730	DA40	90045X000800	272	SR52	95045X000800	313
3/8"	0.43	730	DA40	90045X001200	272	SR52	95045X001200	319
1/2"	0.43	730	DA40	90045X001500	270	SR52	95045X001500	315
3/4"	0.59	730	DA52	90045X002000	318	SR52	95045X002000	368
1"	0.79	730	DA52	90045X002600	366	SR63	95045X002600	468
1 1/4"	0.98	730	DA52	90045X003300	426	SR75	95045X003300	528
1 1/2"	1.26	730	DA63	90045X004000	564	SR83	95045X004000	668
2"	1.57	730	DA75	90045X005000	793	SR92	95045X005000	915

X : replace by 5 for L bore or 6 for T bore

ELECTRIC

- THREADED NPT
- ATEX Ex II2 G/D CT6
- BODY, BALL AND SHAFT AISI 316
- TFM 1600 SEATS / FKM SEALS
- DIN 3337 SHAFT
- DIRECT MOUNTING PAD ISO 5211
- REDUCED BORE
- ELECTRIC ACTUATOR

970455 L

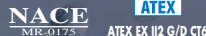
970456 T



Ø	Ød	PSI	Electric actuator	Rotation time	CODE	\$
1/4"	0.43	730	80093V0201405	11/12 sec	97045XZZZ0800	607
3/8"	0.43	730	80093V0201405	11/12 sec	97045XZZZ1200	607
1/2"	0.43	730	80093V0201405	11/12 sec	97045XZZZ1500	604
3/4"	0.59	730	80093V0201405	11/12 sec	97045XZZZ2000	633
1"	0.79	730	80093V0351405	14/16 sec	97045XZZZ2600	777
1 1/4"	0.98	730	80093V0351405	14/16 sec	97045XZZZ3300	838
1 1/2"	1.26	730	80093V0551707	14/16 sec	97045XZZZ4000	1123
2"	1.57	730	80093V0551707	14/16 sec	97045XZZZ5000	1305

ZZZ : replace by 110 for 110VAC/DC / 220 for 220 VACDC / A24 for 24VAC / C24 for 24VDC / C12 for 12VDC
V : replace by L for actuator voltage from 12VDC to 24VAC/DC or H for actuator voltage from 85VAC/DC to 240VAC/DC
X : replace by 5 for L bore or 6 for T bore

Price list set with the following hypothesis :
Fluid = Clean water at 68°F and WP = 87 PSI.
Air pressure = 87 PSI min.



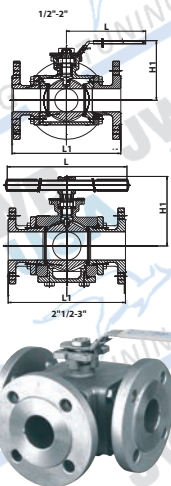
3 way stainless steel

MANUAL, PNEUMATIC & ELECTRIC VALVES

MANUAL

Flanged 3 way ball valve - Stainless steel body - ANSI 150

- 3 WAY BALL VALVE WITH DIRECT PAD ISO 5211
- DIN 3337 SHAFT
- STAINLESS STEEL BODY, BALL & STEM AISI 316
- TFM 1600 SEATS
- L OR T PORT
- FULL BORE
- STAINLESS STEEL HANDLE WITH LOCKING DEVICE
- FLANGED ANSI 150
- Atex Ex II2 G/D CT6



200951 L

201951 T

Ø	DN	◇ (inches)	ISO5211	L	L1	H1	ANSI	Cv	Lbs L	Lbs T	CODE L	CODE T	\$
1/2"	15	0.354	F03/F04	5.69	5.91	3.28	150	17.81	9.72	9.7	2009510001500	2019510001500	378
3/4"	20	0.354	F03/F05	5.69	6.50	3.43	150	35.62	12.92	12.90	2009510002000	2019510002000	444
1"	25	0.433	F04/F05	6.89	7.09	3.90	150	44.53	19	18.89	2009510002500	2019510002500	642
1 1/2"	40	0.551	F05/F07	7.87	8.35	4.69	150	110.82	31.67	31.44	2009510004000	2019510004000	1053
2"	50	0.551	F05/F07	7.87	9.06	4.96	150	221.64	42.99	45.64	2009510005000	2019510005000	1357
3"	80	0.669	F07/F10	15.75	12.20	7.36	150	405.69	95.88	93.48	2009510008000	2019510008000	3042
4"	100	0.866	F10	15.75	13.98	8.43	150	753.98	141.93	140.13	2009510010000	2019510010000	4930
6"	150	1.42	F14/F16	-	10.29	10.81	150	1080.23	224.35	223.12	2009510015000	2019510015000	11010

PNEUMATIC

- FLANGED ANSI 150
- STAINLESS STEEL BODY, BALL AND STEM AISI 316
- TFM 1600 SEATS
- L OR T PORT
- DIN 3337 SHAFT
- DIRECT PAD ISO 5211
- DOUBLE ACTING OR SPRING RETURN ACTUATOR

900951 L Double acting

901951 T Double acting

950951 L Spring return

951951 T Spring return



Ø	DN	ANSI	0951 - 1951					
			Double acting actuator			Spring return actuator		
			DA	CODE	\$	SR	CODE	\$
1/2"	15	150	DA40	90X9510001500	566	SR52	95X9510001500	611
3/4"	20	150	DA52	90X9510002000	674	SR63	95X9510002000	724
1"	25	150	DA63	90X9510002500	856	SR83	95X9510002500	958
1 1/2"	40	150	DA75	90X9510004000	1277	SR92	95X9510004000	1382
2"	50	150	DA83	90X9510005000	1658	SR105	95X9510005000	1772
3"	80	150	DA92	90X9510008000	3721	SR125	95X9510008000	4150
4"	100	150	DA105	90X9510010000	5542	SR140	95X9510010000	6088
6"	150	150	DA190	90X9510015000	14620	SR210	95X9510015000	19450

X : replace by 0 for L bore or 1 for T bore

ELECTRIC

- FLANGED ANSI 150
- BODY, BALL AND SHAFT AISI 316
- TFM 1600 SEATS / FKM SEALS
- DIN 3337 SHAFT
- DIRECT MOUNTING PAD ISO 5211
- ELECTRIC ACTUATOR

970951

971951



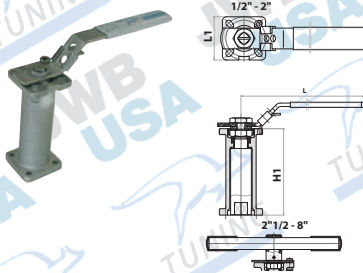
Ø	DN	ANSI	Electric actuator	Rotation time	CODE	\$
1/2"	15	150	80093V0201405		97X951ZZZ1500	899
3/4"	20	150	80093V0201405		97X951ZZZ2000	987
1"	25	150	80093V0201407		97X951ZZZ2500	1265
1 1/2"	40	150	80093V0201707		97X951ZZZ4000	1837
2"	50	150	80093V0201707		97X951ZZZ5000	2279
3"	Upon request only - please contact us				97X951ZZZ8000	4660
4"	Upon request only - please contact us				97X951ZZZ1000	6220
6"	Upon request only - please contact us				97X951ZZZ15000	-

ZZZ : replace by 110 for 110VAC/DC / 220 for 220 VACDC / A24 for 24VAC / C24 for 24VDC / C12 for 12VDC

V : replace by L for actuator voltage from 12VDC to 24VAC/DC or H for actuator voltage from 85VAC/DC to 240VAC/DC

X : replace by 0 for L bore or 1 for T bore

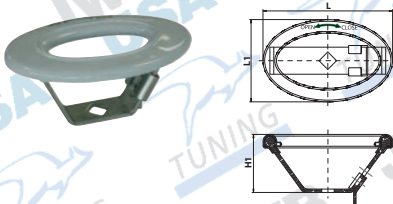
AISI 304 stainless steel stem extension with ISO 5211 pad (delivered without handle)



200905

Ø	◇ (inches)	ISO5211	Height	L	L1	H1	Lbs	CODE	\$
1/2"-3/4"	0.354	F03xF03/F04	4"	5.70	1.65	3.94	0.93	2009050002000	81
1"-1 1/4"	0.433	F05xF04/F05	4"	6.89	1.97	3.94	1.54	2009050003200	105
1 1/2"-2"	0.551	F07xF05/F07	4"	7.48	2.56	3.94	2.43	2009050005000	137
2 1/2"-3"	0.669	F10xF10	4"	11.81	3.62	3.94	4.92	2009050008000	181
4"	0.866	F10xF10	4"	15.75	3.62	3.94	4.92	2009050010000	258
5"-6"	1.063	F12xF12	4"	31.50	4.92	4.72	6.61	2009050015000	444
8"	1.063	F12xF12	4"	31.50	4.92	4.72	6.61	2009050020000	466

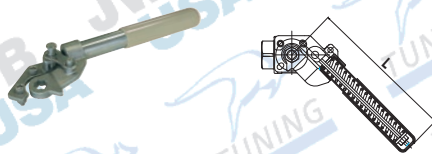
AISI 304 stainless steel oval handle with locking device & plastic sleeve



200901

Ø	◇ (inches)	L	L1	H1	Lbs	CODE	\$
1/2"-3/4"	0.354	4.01	2.48	1.77	0.31	2009010002000	12
1"-1 1/4"	0.433	4.53	2.87	2.03	0.35	2009010003300	16

AISI 304 stainless steel spring return handle - "dead man" handle - with locking device

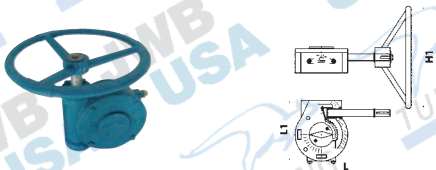


200DMH

Ø	◇ (inches)	Lg	L	Lbs	CODE	\$
1/4"-3/4"	0.354	5.71"	0.263	0.75	200DMH0002000	67
1" & 1 1/4"	0.433	6.89"	0.341	0.97	200DMH0003300	82
1 1/2" & 2"	0.551	7.48"	0.434	1.39	200DMH0005000	103

Worm gear operator with handwheel

for valves ref. 200965/966/1968/969 - Output torque = 6195 LBS.IN (handwheel Ø = 12 inches)



200RMV

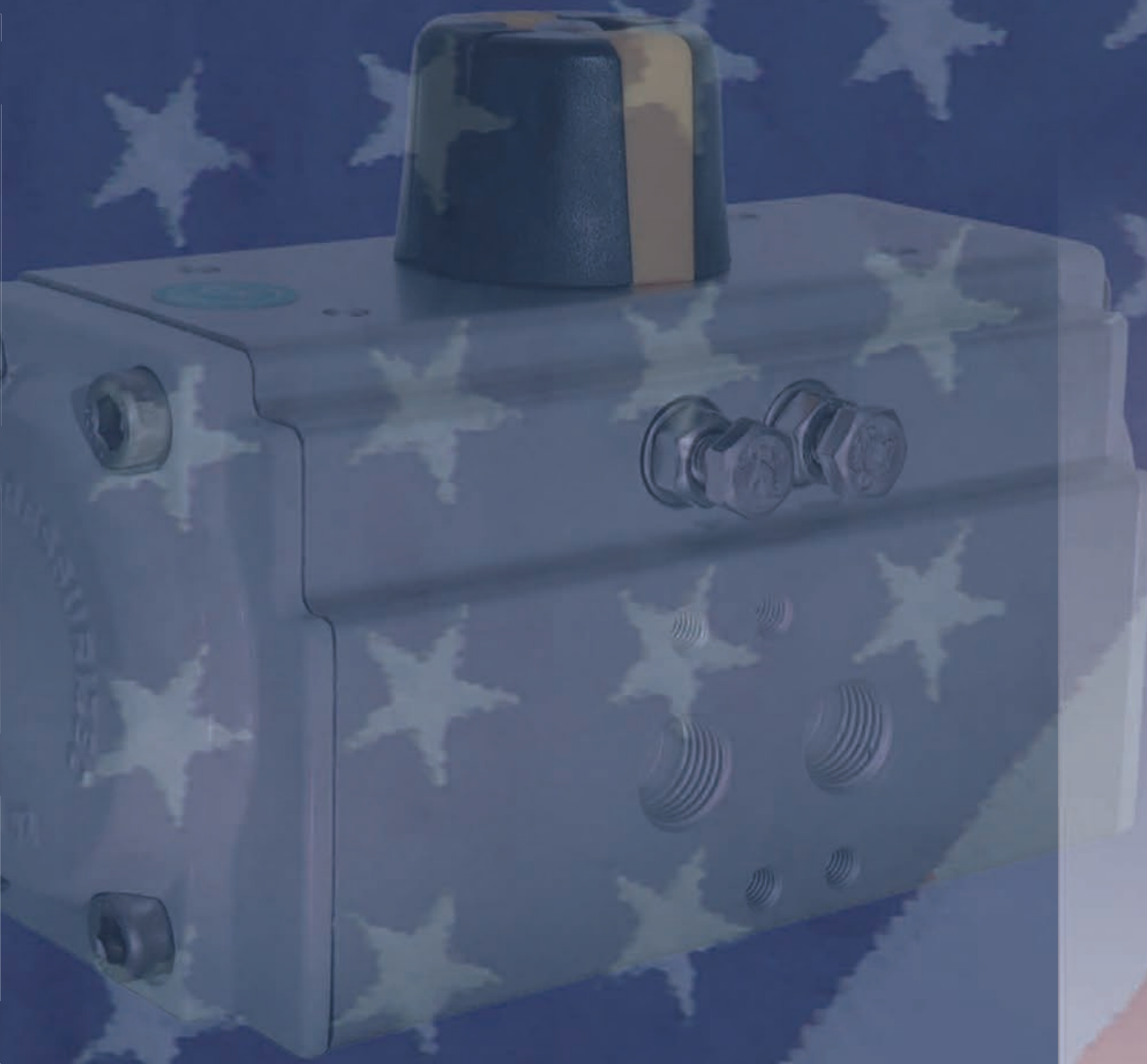
◇ (inches)	ISO5211	L	L1	H1	Lbs	CODE	\$
1.063 "	F12	10.90	6.97	12	27.34	200RMV0002000	277

SPARE PARTS

Seals repair kit (O-rings, seats, packing gland, body seals)

Ø	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	5"	6"	8"
REF. 1930, 931, 932, 1940, 1941, 942	2009800000800	2009800001200	2009800001500	2009800002000	2009800002500	2009800003200	2009800004000	2009800005000	2009800006500	2009800008000	2009800010000	-	-	-
\$ TFM 1600	18	18	18	27	40	63	84	118	192	272	507	-	-	-
REF. 1934, 935, 936, 1944, 1945, 946	2009810000800	2009810001200	2009810001500	2009810002000	2009810002500	2009810003200	2009810004000	2009810005000	-	-	-	-	-	-
\$ TFM 4215 spare seals kit for stem	22	22	22	33	46	74	123	157	-	-	-	-	-	-
REF. 965, 968, 966, 969	-	-	2009830001500	2009830002000	2009830002500	-	2009830004000	2009830005000	-	2009830008000	2009830010000	-	2009830015000	2009830020000
\$ TFM 1600	-	-	16	21	29	-	66	85	-	200	250	-	647	871
REF. 951, 1951	-	-	2009840001500	2009840002000	2009840002500	-	2009840004000	2009840005000	-	2009840008000	2009840010000	-	-	-
\$ TFM 1600	-	-	32	42	55	-	118	173	-	344	431	-	-	-
REF. 965, 968, 966, 969	-	-	2009850001500	2009850002000	2009850002500	-	2009850004000	2009850005000	-	2009850008000	2009850010000	-	2009850015000	2009850020000
\$ TFM 4215 spare seals kit for stem	-	-	14	17	30	-	64	88	-	219	320	-	637	874

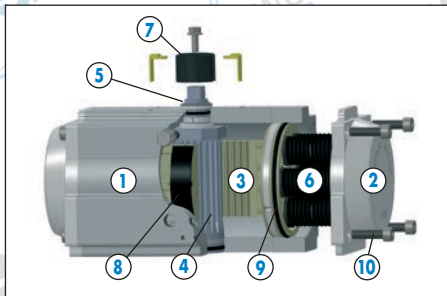
Dimensions are given in inches



**JWB
USA**

Pneumatic actuators

PNEUMATIC ACTUATORS



<p>www.tuning-france.com tuning@tuning-france.com</p> <p>NE PAS DEMONTER SOUS PRESSION DISASSEMBLY WHILE PRESSURIZED WILL CAUSE SERIOUS INJURIES</p>	<p>ACTIONNEURPNEUMATIQUE / PNEUMATIC ACTUATOR</p> <p>Modèle / Model : 8590SR1250000 Taille / Size : 125 Joints / Seals : NBR Revêtement / Finish : Standard Rotation / Rotation : CCW Ressort / Spring Set : Set 12 Temp. / Temp. : -4°F → +176°F Air Maxi. / Max. Air : 9 Bar / 130 PSI Course / Stroke : 0-90° ± 5° Lot N° : 36 BC</p>	

TUNING pneumatic actuators, available in both double acting and spring return versions, are reinventing the design of pneumatic actuators throughout the industry. Our high quality actuators are the ideal blend of durability and innovation, at an economical price. They are designed and manufactured in EUROPE according to CE and ISO 9001 procedures and certified ATEX. Each actuator is fully tested at production time and before delivery.

1 - Actuator Body

Extruded Aluminum Alloy ASTM6005 body is hard anodized to protect the internal and external components against corrosion, which reduces the friction on moving pistons and extends the life cycle of the actuators. Alternative coatings are available such as ENP (Electroless Nickel Plating) or PFA for more aggressive environments. The body is drilled on the top side according to the VDI/VDE 3845 norm and with a double ISO5211 pad on the bottom part.

2 - End Caps

Die-casted aluminum end caps are primarily Alodine Cr+6 coated which provides longer life cycles and protection against corrosion and better wearing resistance. Secondary standard coating is powder polyester coating. ENP and PFA coatings are also offered as an option for aggressive environments.

3 - Pistons

Die-casted aluminum twin rack pistons are coated with Alodine Cr+6. It ensures longer life cycles and protection against corrosion and better wearing resistance. Pistons are identical on both sides allowing for reverse rotation simply by inverting the pistons.

4 - Pinion (Drive Shaft)

Alloy steel pinion is electroless nickel plated in order to reduce the friction, provide maximum wear resistance and protection against corrosion under severe conditions. As an option, we offer AISI304 pinion. The top part of the pinion conforms to NAMUR norm. Double square (star shaped) female shaft is provided as standard DIN 3337 for the bottom part.

5 - Travel Adjustment

Bi-directional external travel stop adjustment bolts can adjust the position ± 5° between 85° to 95° in both opening and closing directions for accurate valve alignment. 0-90° full scale limit position adjustment can also be offered optionally.

6 - Preloaded Springs

Cartridge design in high grade coated steel springs provide great safety and corrosion resistance in fail safe and emergency shut down operations.

7 - Indicator

All actuators are equipped with a regular position indicator showing the current state of the actuators and valves.

8 - Bearings & Guides

Low friction piston guides and bearings provide high thrust and stability during operation of actuators.

9 - Seals

NBR rubber O-rings provide trouble free operation at standard temperature ranges between -4 °F to +175 °F temperature ranges. For high and low temperature applications, FKM (-4 °F to +302 °F) and Silicone (-31 °F to +175 °F) seals are available as an option.

10 - Fasteners

Stainless steel A2 fasteners for long life corrosion resistant application.

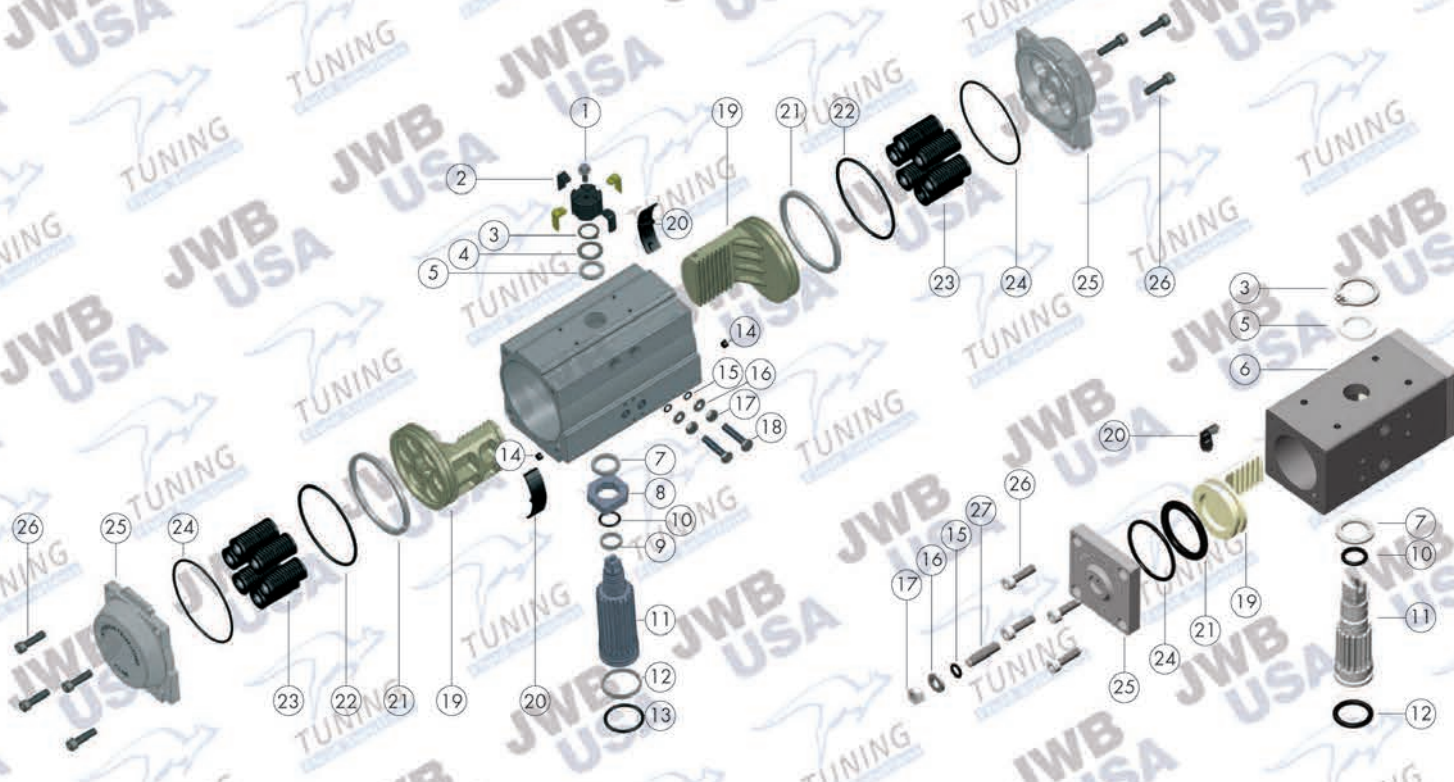
11 - Traceability

Each actuator is assigned a unique manufacturing lot number allowing full traceability.

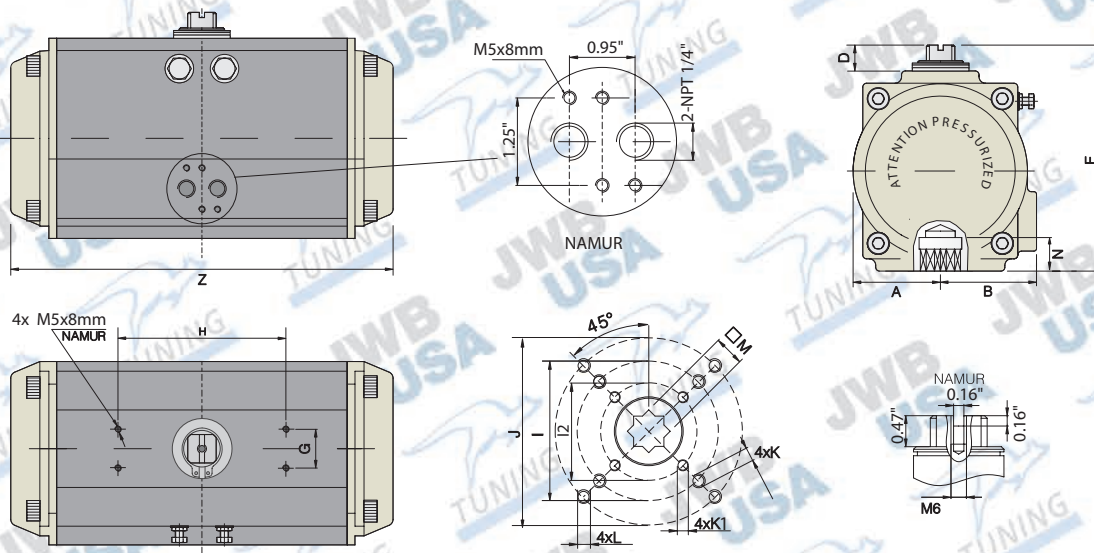
PRODUCT CODIFICATION (13 CHARACTERS LONG)

XX	XXXX	XXX	X	X	X	X
80	90SR	052	0	0	0	0
1	2	3	4	5	6	7

- 1 VERSION 80 = BSP-METRIC - 85 = NPT-UNC
- 2 ACTUATOR TYPE
 - 90DA = 0-90° DA - 90SR = 0-90° SR
 - 12DA = 0-120° DA - 12SR = 0-120° SR
 - 18DA = 0-180° DA - 18SR = 0-180° SR
 - 903P = 0-90° 3 POSITIONS
 - 90DI = 0-90° DA Stainless steel pinion
 - ...
- 3 SIZE 040 - 052 - 063 - 075 - 083 - 092 - 105 - 125 - 140 - 160 - 190 - 210 - 240 - 270
- 4 SEALS
 - 0 = NBR
 - 1 = FKM
 - 2 = FLUOR
- 5 BODY COATING
 - 0 = STANDARD
 - 1 = NICKEL
 - 2 = PTFE COATING
- 6 ROTATION
 - 0 = CCW
 - 1 = CW
- 7 SPRING SET
 - 5 = 5 SPRINGS
 - 6 = 6 SPRINGS
 - 7 = 7 SPRINGS
 - 8 = 8 SPRINGS
 - 9 = 9 SPRINGS
 - 1 = 10 SPRINGS
 - 2 = 11 SPRINGS
 - 0 = 12 SPRINGS
 - or DOUBLE ACTING



N°	Description	Qty	Material	Protection	Options
1	Indicator screw	1	Stainless steel		
2	Indicator	1	Plastic		
3	Circlip	1	Stainless steel		
4	Metal washer	1	Stainless steel		
5	Washer	1	Engineering plastics		
6	Body	1	Extruded aluminum alloy	Hard anodized	ENP, PFA coatings
7	Inner Washer	1	Engineering plastics		
8	Cam	1	Alloy steel		
9	Pinion upper bearing	1	Engineering plastics		
10	Pinion upper o-ring	1	NBR		FKM, Silicon
11	Pinion	1	Alloy steel	Nickel plated	Stainless steel
12	Pinion lower o-ring	1	NBR		FKM, Silicon
13	Pinion lower bearing	1	Engineering plastics		
14	Sealant	2	NBR		FKM, Silicon
15	Adjustment screw o-ring	2	NBR		FKM, Silicon
16	Washer (adjustment screw)	2	Stainless steel		
17	Nut (adjustment screw)	2	Stainless steel		
18	Limit adjustment screw	2	Stainless steel		
19	Pistons	2	Die-cast aluminum (32-270)	Cr+6 coating	Stainless steel
20	Slide piston	2	Engineering plastics		
21	Slide guide	2	Engineering plastics		
22	Piston o-ring	2	NBR		FKM, Silicon
23	Cartridge springs	0-12	Spring steel	Cataphoresis coating	
24	End cap o-ring	2	NBR		FKM, Silicon
25	End cap	2	Cast aluminum	Cr+6 & Polyester	ENP, PFA coatings
26	Cap screw	8	Stainless steel		
27	Travel stop	2	Stainless steel		



Dimensions (inches)

Model	A	B	D	E	G	H	I2	I	J	K1	K	L	M	N	Z	ISO 5211	Air supply
32	0.91	0.91	0.79	2.56	0.98	1.97	-	1.42	-	-	10-24 UNC	-	0.35	0.55	4.13	F03	NPT 1/8"
40	1.14	1.42	0.79	3.15	1.18	3.15	-	1.42	1.97	-	10-24 UNC	1/4-20 UNC	0.43	0.67	4.76	F03/F05	NPT 1/4"
52	1.18	1.57	0.79	3.62	1.18	3.15	-	1.42	1.97	-	10-24 UNC	1/4-20 UNC	0.43	0.67	5.83	F03/F05	NPT 1/4"
63	1.42	1.85	0.79	4.21	1.18	3.15	1.42	1.97	2.76	10-24 UNC	1/4-20 UNC	5/16-18 UNC	0.55	0.79	6.61	F03/F05/F07	NPT 1/4"
75	1.65	2.05	0.79	4.72	1.18	3.15	-	1.97	2.76	-	1/4-20 UNC	5/16-18 UNC	0.55	0.79	7.32	F05/F07	NPT 1/4"
83	1.85	2.24	0.79	5.04	1.18	3.15	-	1.97	2.76	-	1/4-20 UNC	5/16-18 UNC	0.67	0.98	8.11	F05/F07	NPT 1/4"
92	1.97	2.32	0.79	5.39	1.18	3.15	-	1.97	2.76	-	1/4-20 UNC	5/16-18 UNC	0.67	0.98	10.00	F05/F07	NPT 1/4"
105	2.28	2.48	0.79	6.02	1.18	3.15	-	2.76	4.02	-	5/16-18 UNC	3/8-16 UNC	0.87	1.02	10.55	F07/F10	NPT 1/4"
125	2.68	2.95	0.79	6.85	1.18	3.15	-	2.76	4.02	-	5/16-18 UNC	3/8-16 UNC	0.87	1.18	11.89	F07/F10	NPT 1/4"
140	2.95	3.03	0.79	7.56	1.18	3.15	-	4.02	4.92	-	3/8-16 UNC	1/2-13 UNC	1.06	1.22	15.35	F10/F12	NPT 1/4"
160	3.43	3.43	0.79	8.54	1.18	3.15	-	4.02	4.92	-	3/8-16 UNC	1/2-13 UNC	1.06	1.22	17.80	F10/F12	NPT 1/4"
190	4.06	4.06	1.18	10.24	1.18	5.12	-	-	5.51	-	-	5/8-11 UNC	1.42	1.57	20.67	F14	NPT 1/4"
210	4.45	4.45	1.18	11.22	1.18	5.12	-	-	5.51	-	-	5/8-11 UNC	1.42	1.57	20.95	F14	NPT 1/4"
240	5.12	5.12	1.18	12.52	1.18	5.12	-	-	6.50	-	-	3/4-10 UNC	1.81	1.97	24.02	F16	NPT 1/4"
270	5.79	5.79	1.18	14.02	1.18	5.12	-	-	6.50	-	-	3/4-10 UNC	1.81	1.97	28.43	F16	NPT 1/4" (1/2)"*

* = Upon request only

Actuators weight (Lbs.)

Model	32	40	52	63	75	83	92	105	125	140	160	190	210	240	270
DA	1.10	1.54	3.09	4.63	5.95	7.28	11.02	13.00	19.84	26.46	41.89	86.20	97.22	130.07	206.35
SR	-	-	3.31	4.85	6.39	7.94	12.13	14.77	22.93	31.75	51.37	101.63	117.07	161.60	255.52

Air consumption of actuators (in³/Stroke)

Model	32	40	52	63	75	83	92	105	125	140	160	190	210	240	270
DA/SR CCWR	1.83	3.66	7.32	12.82	18.31	26.24	39.06	53.70	85.43	134	195	329	414	549	854
DA CWR	2.44	4.88	9.76	14.04	20.75	28.68	44.55	57.97	97.64	152	225	360	457	671	1037

Working time (sec)

Model	32	40	52	63	75	83	92	105	125	140	160	190	210	240	270	
90° DA	CCWR	0.03	0.06	0.07	0.11	0.18	0.36	0.37	0.50	0.80	1.13	1.43	2.00	3.10	4.20	6.16
	CWR	0.03	0.04	0.05	0.10	0.15	0.25	0.33	0.44	0.70	0.94	1.25	1.85	2.44	3.95	5.47
90° SR	CCWR	-	-	0.07	0.13	0.32	0.31	0.48	0.59	1.20	1.64	2.27	2.33	3.65	6.30	8.98
	CWR	-	-	0.07	0.13	0.22	0.28	0.41	0.51	0.94	1.25	1.60	2.50	2.86	5.60	9.65

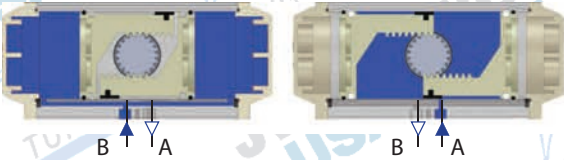
DOUBLE ACTING ACTUATORS

Double acting actuators are rotated by supplying air to the related port until it reaches desired position.

Counterclockwise Rotation (CCWR)

Air to port B forces the pistons inwards, causing the pinion to rotate clockwise while the air is exhausted from port A.

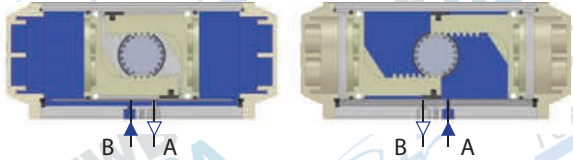
Air to port A forces the pistons outwards, causing the pinion to rotate counterclockwise while the air is exhausted from port B.



Clockwise Rotation (CWR)

Air to port B forces the pistons inwards, causing the pinion to rotate counterclockwise while the air is exhausted from port A.

Air to port A forces the pistons outwards, causing the pinion to rotate clockwise while the air is exhausted from port B.



Double acting actuators torque values (Lbs.in.)

Model	Air supply pressure (PSI)									
	30	40	45	60	65	70	80	90	100	116
90DA032	9	18	27	35	44	53	62	80	97	115
90DA040	53	71	89	115	124	142	159	177	195	230
90DA052	71	89	106	142	159	177	195	248	266	301
90DA063	133	168	195	266	292	327	354	389	460	513
90DA075	177	230	266	354	398	443	487	531	620	708
90DA083	292	354	425	558	628	699	761	832	974	1106
90DA092	398	504	602	797	903	1000	1097	1204	1398	1611
90DA105	584	735	885	1168	1319	1469	1611	1770	2053	2345
90DA125	894	1115	1336	1788	2000	2230	2443	2664	3115	3558
90DA140	1513	1894	2275	3027	3408	3788	4169	4540	5302	6054
90DA160	2354	2947	3531	4709	5310	5886	6479	7063	8249	9417
90DA190	3770	4709	5656	7541	8479	9417	10355	11302	13188	15064
90DA210	4709	5886	7063	9417	10603	11771	12949	14126	16480	18834
90DA240	6815	8514	10223	13630	15329	17029	18737	20436	23835	27243
90DA270	10347	12940	15533	20711	23295	25888	28473	31066	36244	41421

DISCLAIMER : By industry standard, a safety factor of 30 % should be considered when sizing actuators with a valve

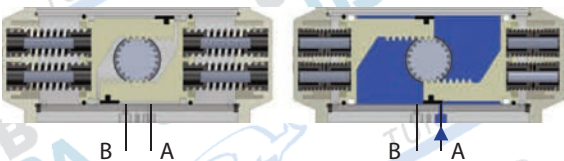
SPRING RETURN ACTUATORS

Spring return pneumatic actuators are rotated on one side by compressed air pressure while the springs are loaded. Rotation to the other side is generated by the spring torque.

Counterclockwise Rotation (CCWR)

Loss of air at port A, frees the energy stored in the springs which forces the pistons inwards and rotates the pinion clockwise.

Applying air to port A forces the pistons outwards, causing the pinion to rotate counterclockwise while the springs are compressed.



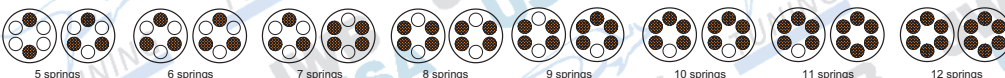
Clockwise Rotation (CWR)

Loss of air at port A, frees the energy stored in the springs which forces the pistons inwards and rotates the pinion counterclockwise.

Applying air to port A forces the pistons outwards, causing the pinion to rotate clockwise while the springs are compressed.



Positioning of springs for spring return actuator



TORQUE OUTPUT OF SPRING RETURN ACTUATORS (Lbs.in.)

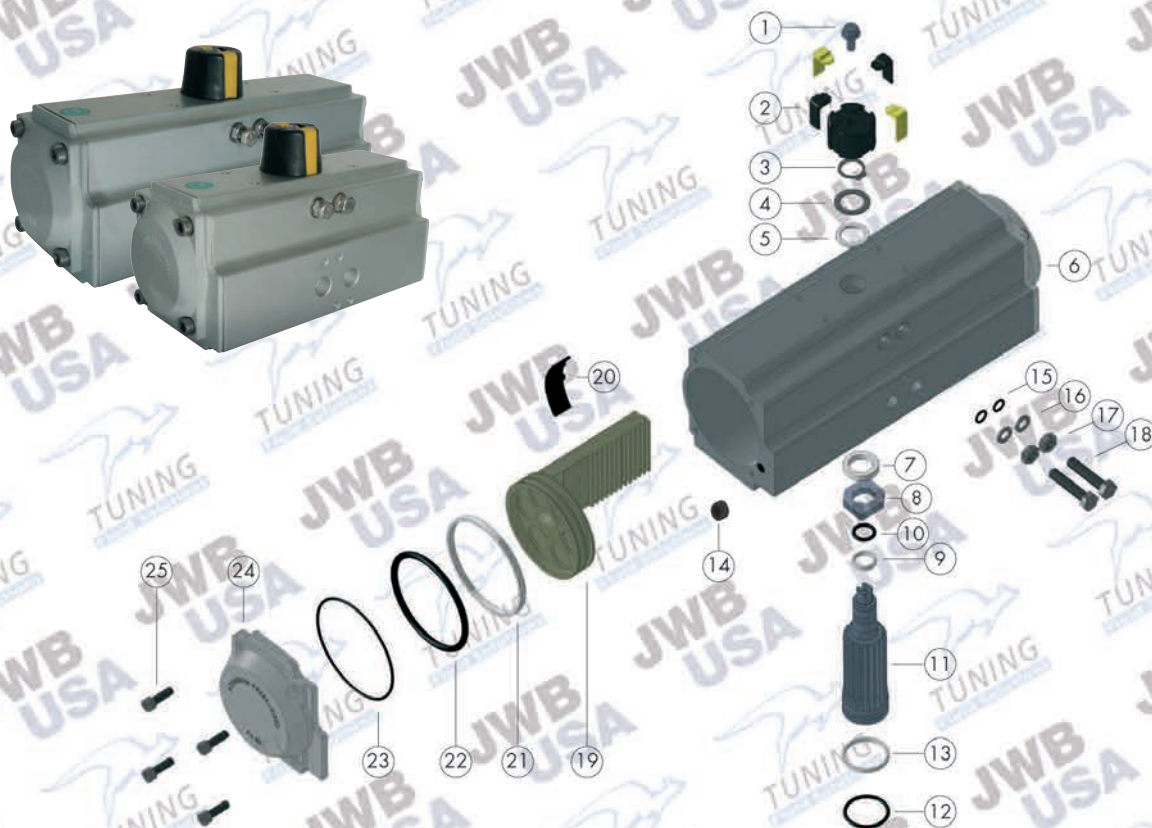
Air to springs torque output values (Lbs.in.)

Air supply Model	Nr of springs	40 PSI		45 PSI		60 PSI		70		90 PSI		100 PSI		116 PSI		Spring torque (Lbs.in.)	
		0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	90°	0°
		Start	Stop	Start	Stop	Start	Stop	Start	Stop	Start	Stop	Start	Stop	Start	Stop	Start	Stop
90SR052	5	53	35	71	53											53	35
	6	44	27	62	44	97	80									62	44
	7	35	9	53	27	89	62	124	89							80	53
	8			44	18	80	53	115	80	150	124					89	62
	9			35	9	71	44	106	71	142	115	177	150			97	71
	10					62	35	106	62	142	106	177	142			106	80
	11					62	18	97	44	133	89	168	124	204	159	124	80
	12							89	35	124	80	159	106	195	150	133	89
90SR063	5	97	71	133	97	195	133									89	62
	6	89	53	124	80	186	150	248	212							115	71
	7	80	35	115	62	177	133	239	195							133	89
	8			97	44	159	106	230	177	292	239	354	301			150	97
	9					150	89	212	159	274	221	345	283			168	106
	10					124	71	204	142	266	204	327	266	398	327	186	124
	11							195	124	257	186	319	248	381	310	204	133
	12							177	97	239	168	310	230	372	292	221	142
90SR075	5	133	97	168	142	266	230									133	97
	6	106	71	150	115	239	204	336	292							150	115
	7	89	44	133	89	221	177	310	266							177	133
	8			115	62	204	150	292	239	381	327	469	416			204	150
	9					186	124	274	212	363	301	451	389			230	168
	10					168	97	257	186	345	274	434	363	522	451	257	186
	11							239	159	327	248	416	336	504	425	283	204
	12							221	133	310	221	398	310	487	398	310	221
90SR083	5	204	142	274	212	416	354									204	142
	6	177	106	248	168	389	310	522	451							248	168
	7	150	62	221	133	363	274	496	407							283	195
	8			195	89	327	230	469	372	611	504	752	646			327	221
	9					301	186	443	327	584	469	717	602			363	257
	10					274	150	416	283	549	425	690	566	832	699	407	283
	11							389	248	522	381	664	522	805	664	451	310
	12							354	204	496	345	637	487	770	620	487	336
90SR092	5	292	195	389	292	593	496									301	204
	6	248	133	354	230	549	434	752	637							363	248
	7	212	71	310	168	513	372	708	575							425	292
	8			274	115	469	310	673	513	867	717	1071	912			487	327
	9					425	248	628	451	832	655	1027	850			549	372
	10					389	195	584	389	788	593	982	788	1186	991	611	416
	11							549	327	478	531	947	726	1142	929	673	451
	12							504	266	699	469	903	673	1106	867	735	496
90SR105	5	451	292	602	443	894	735									434	283
	6	398	212	540	354	832	646	1124	938							522	336
	7	363	124	487	266	779	558	1071	850							611	389
	8			434	177	726	478	1018	770	1310	1062	1602	1354			699	451
	9					664	389	956	682	1257	974	1549	1266			788	504
	10					611	292	903	593	1195	885	1487	1177	1779	1469	867	558
	11							850	504	1142	797	1434	1089	1726	1381	956	620
	12							788	425	1089	717	1381	1009	1673	1301	1044	673

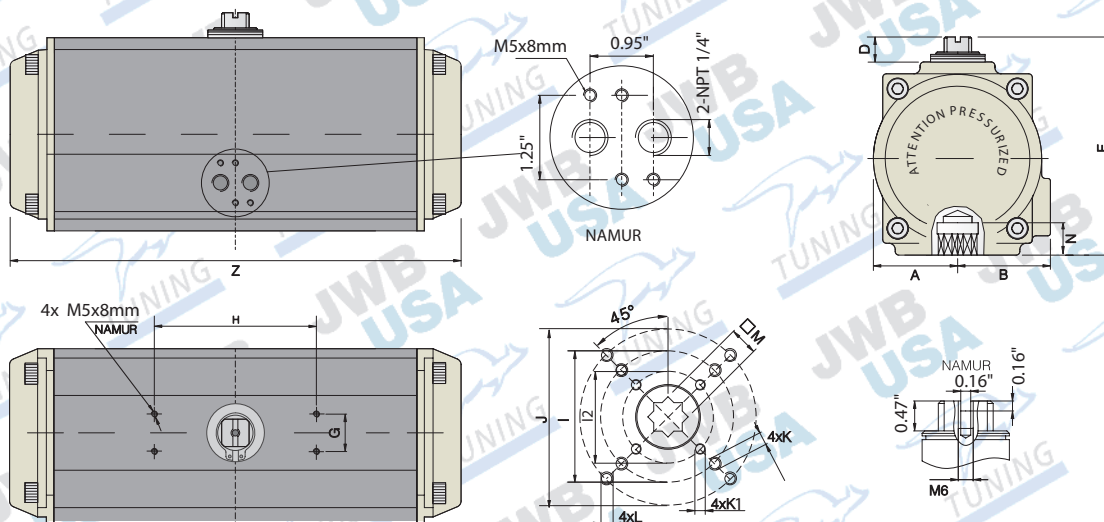
DISCLAIMER : By industry standard, a safety factor of 30 % should be considered when sizing actuators with a valve

TORQUE OUTPUT OF SPRING RETURN ACTUATORS (Lbs.in.)																		
Air to springs torque output values (Lbs.in.)																	Spring torque (Lbs.in.)	
Air supply Model	Nr of springs	40 PSI		45 PSI		60 PSI		70		90 PSI		100 PSI		116 PSI		90°	0°	
		0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°	0°	90°			
		Start	Stop	Start	Stop	Start	Stop	Start	Stop	Start	Stop	Start	Stop	Start	Stop			
90SR125	5	646	416	867	637	1310	1080									699	460	
	6	558	274	779	496	1221	947	1664	1390							832	558	
	7	460	133	682	354	1124	797	1575	1248							974	646	
	8			593	221	1036	664	1478	1106	1921	1558	2372	2000			1106	743	
	9					947	522	1390	965	1832	1407	2275	1859			1248	832	
	10					850	389	1292	832	1735	1275	2186	1717	2629	2168	1390	929	
	11							1204	690	1646	1133	2089	1575	2531	2018	1531	1018	
	12							1106	558	1558	1000	1443	1443	2443	1885	1664	1106	
90SR140	5	1133	752	1513	1224	2266	1885									1142	761	
	6	982	522	1363	903	2115	1655	2876	2416							1372	912	
	7	832	292	1213	673	1965	1434	2726	2186							1602	1062	
	8			1062	443	1814	1204	2576	1956	3328	2717	4089	3469			1823	1213	
	9					1655	974	2416	1735	3169	2487	3930	3248			2053	1372	
	10					1505	743	2266	1496	3018	2257	3779	3009	4532	3770	2283	1522	
	11							2106	1266	2868	2027	3620	2779	4381	3540	2514	1673	
	12							1956	1044	2717	1797	3469	2558	4231	3310	2744	1823	
90SR160	5	1708	1097	2292	1690	3469	2868									1841	1239	
	6	1460	735	2053	1319	3231	2496	4408	3673							2213	1487	
	7	1213	363	1797	947	2974	2124	4151	3301							2584	1735	
	8			1558	584	2735	1761	3912	2567	5089	4116	6266	5293			2947	1974	
	9					2478	1390	3655	2098	4036	3744	6010	4921			3319	2222	
	10					2239	1018	3416	2195	4594	3372	5771	4549	6957	5726	3691	2469	
	11							3169	1832	4346	3009	5523	4186	6700	5364	4054	2717	
	12							2921	1460	4080	2638	5275	3815	6452	4992	4425	2965	
90SR190	5	2938	1965	3876	2912	5762	4797									2735	1770	
	6	2584	1425	3523	2363	5408	4248	7293	6134							3284	2124	
	7	2230	876	3169	1814	5054	3670	6939	5585							3832	2479	
	8			2815	1266	4670	3151	6585	5036	8470	6921	10347	8806			4381	2832	
	9					4346	2611	6231	4487	8116	6373	10001	8258			4930	3186	
	10					3992	2062	5877	3947	7762	5824	9647	7709	11524	9594	5470	3540	
	11							5523	3399	7408	5284	9293	7160	11178	9045	6019	3894	
	12							5169	2850	7054	4735	8939	6620	10824	8497	6567	4248	
90SR210	5	3452	2522	4629	3670	6983	6054									3363	2434	
	6	2965	1850	4142	3027	6496	5381	8851	7736							4036	2921	
	7	2478	1177	3655	2354	6009	4709	8364	7063							4709	3408	
	8			3169	1682	5523	4036	7877	6390	10231	9745	12586	11099			5381	3894	
	9					5036	3363	7390	5718	9745	8072	12099	10426			6054	4381	
	10					4549	2691	6904	5045	9258	7399	11612	9754	13966	12108	6727	4868	
	11							6417	4372	8771	6727	11125	9081	13480	11435	7399	5355	
	12							5930	3670	8284	6054	10639	8408	12993	10763	8072	5841	
90SR240	5	4886	3620	6585	5310	9992	8718									4903	3629	
	6	4160	1850	5859	4328	9267	7736	12674	11143							5886	4355	
	7	3434	1177	5133	3354	8532	6762	11940	10170							6859	5089	
	8			4408	2372	7815	5780	11214	9178	14621	12586	18029	15993			7842	5806	
	9					7081	4797	10488	8196	13887	11603	17294	15011			8833	6541	
	10					6355	3815	9732	7222	13170	10630	16569	14037	19976	17436	9807	7266	
	11							9037	6240	12444	9647	15852	13046	19259	16454	10789	7992	
	12							8311	5257	11710	8665	15117	12034	18525	15471	11771	8718	
90SR270	5	7992	5974	10577	8568	15745	13736									6966	4956	
	6	6992	4594	9585	7178	14754	12356	19932	17533							8346	5948	
	7	6009	3195	8603	5788	13772	10957	18949	16135							9745	6930	
	8			7612	4399	12780	9568	17958	14745	20481	19932	28314	25101			11134	7921	
	9					11789	8169	16967	13356	22145	18533	27322	23702			12533	8913	
	10					10798	6789	15976	11966	21153	17144	26322	22313	31509	27499	13913	9904	
	11							14984	10568	20162	15745	25331	20923	30517	26101	15312	10895	
	12							14002	9178	19180	14365	24348	19534	29526	24711	16701	11878	

DISCLAIMER : By industry standard, a safety factor of 30 % should be considered when sizing actuators with a valve



N°	Description	Qty	Material	Protection	Options
1	Indicator Screw	1	Stainless steel		
2	Indicator	1	Plastic		
3	Circlip	1	Stainless steel		
4	Metal Washer	1	Stainless steel		
5	Washer	1	Engineering plastics		
6	Body	1	Extruded aluminum alloy	Hard anodized	ENP, PFA coatings
7	Inner Washer	1	Engineering plastics		
8	Cam	1	Alloy steel		
9	Pinion upper bearing	1	Engineering plastics		
10	Pinion upper o-ring	1	NBR		FKM, Silicon
11	Pinion	1	Alloy steel	Nickel plated	Stainless steel
12	Pinion lower o-ring	1	NBR		FKM, Silicon
13	Pinion lower bearing	1	Engineering plastics		
14	Sealant	2	NBR		FKM, Silicon
15	Adjustment screw o-ring	2	NBR		FKM, Silicon
16	Washer (adjustment screw)	2	Stainless steel		
17	Nut (adjustment screw)	2	Stainless steel		
18	Limit adjustment screw	2	Stainless steel		
19	Pistons	2	Die-cast alu (52-270)	Cr+6 coating	Stainless steel
20	Slide piston	2	Engineering plastics		
21	Slide guide	2	Engineering plastics		
22	Piston o-ring	2	NBR		FKM, Silicon
23	End cap o-ring	2	NBR		FKM, Silicon
24	End cap	2	Die-cast aluminum	Cr+6 & Polyester	ENP, PFA coatings
25	Cap screw	8	Stainless steel		



Dimensions (Inches)

Model	A	B	D	E	G	H	I2	I	J	K1	K	L	M	N	Z 120°	Z 180°	ISO 5211	Air supply
52	1.18	1.57	0.79	3.62	1.18	3.15	-	1.42	1.97	-	10-24 UNC	1/4-20 UNC	0.43	0.67	6.54	8.78	F03/F05	NPT 1/4"
63	1.42	1.85	0.79	4.21	1.18	3.15	1.42	1.97	2.76	10-24 UNC	1/4-20 UNC	5/16-18 UNC	0.55	0.79	7.05	9.69	F03/F05/F07	NPT 1/4"
75	1.65	2.05	0.79	4.72	1.18	3.15	-	1.97	2.76	-	1/4-20 UNC	5/16-18 UNC	0.55	0.79	7.87	10.59	F05/F07	NPT 1/4"
83	1.85	2.24	0.79	5.04	1.18	3.15	-	1.97	2.76	-	1/4-20 UNC	5/16-18 UNC	0.67	0.98	8.74	12.08	F05/F07	NPT 1/4"
92	1.97	2.32	0.79	5.39	1.18	3.15	-	1.97	2.76	-	1/4-20 UNC	5/16-18 UNC	0.67	0.98	10.75	14.72	F05/F07	NPT 1/4"
105	2.28	2.48	0.79	6.02	1.18	3.15	-	2.76	4.02	-	5/16-18 UNC	3/8-16 UNC	0.87	1.02	11.45	15.94	F07/F10	NPT 1/4"
125	2.68	2.95	0.79	6.85	1.18	3.15	-	2.76	4.02	-	5/16-18 UNC	3/8-16 UNC	0.87	1.18	12.87	17.91	F07/F10	NPT 1/4"
140	2.95	3.03	0.79	7.56	1.18	3.15	-	4.02	4.92	-	3/8-16 UNC	1/2-13 UNC	1.06	1.22	16.77	23.50	F10/F12	NPT 1/4"
160	3.43	3.43	0.79	8.54	1.18	3.15	-	4.02	4.92	-	3/8-16 UNC	1/2-13 UNC	1.06	1.22	19.33	27.20	F10/F12	NPT 1/4"

Actuators weight (Lbs.)

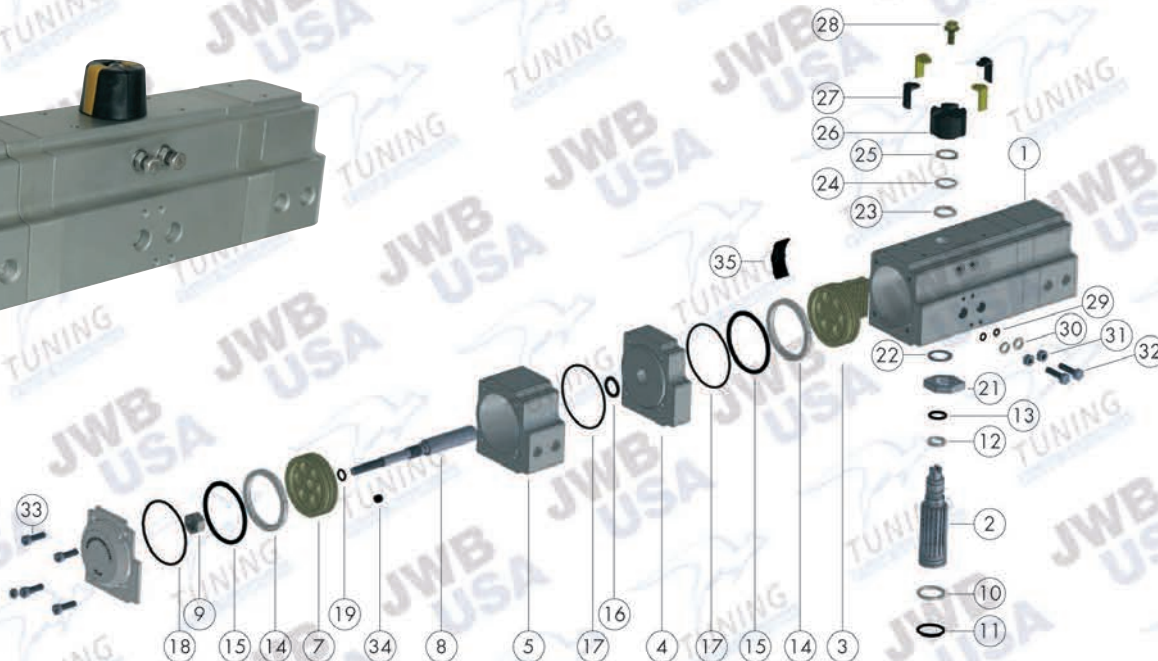
Model	52	63	75	83	92	105	125	140	160
120° DA	3.31	4.85	6.39	7.72	12.13	14.33	20.94	28.66	44.09
180° DA	3.97	5.95	7.72	9.48	14.33	16.54	25.35	34.17	56.22

Air consumption of actuators (in³/Stroke)

Model	52	63	75	83	92	105	125	140	160
120° DA CCWR	8.54	15.26	21.97	31.12	47.60	66.52	107.40	166.60	227.62
120° DA CWR	11.60	16.48	24.41	34.17	54.31	72.00	123.27	189.17	263.01
180° DA CCWR	11.60	19.53	28.68	41.50	64.69	92.15	151.95	231.89	292.30
180° DA CWR	15.87	21.36	32.34	45.16	73.23	99.47	173.92	263.01	337.46

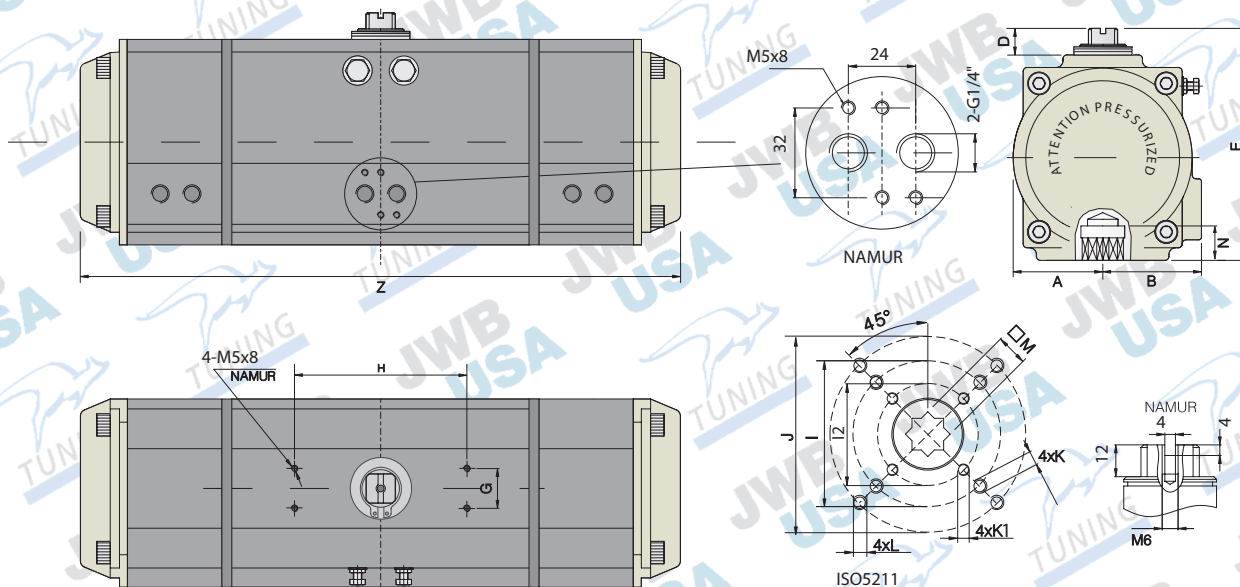
Working time (sec)

Model	52	63	75	83	92	105	125	140	160	
120° DA	CCWR	0.09	0.14	0.23	0.46	0.49	0.52	1.04	1.47	1.86
	CWR	0.07	0.13	0.18	0.32	0.44	0.47	0.91	1.22	1.62
180° DA	CCWR	0.08	0.14	0.34	0.41	0.59	0.68	1.87	2.95	3.03
	CWR	0.06	0.12	0.25	0.38	0.56	0.65	1.13	2.03	2.29



N°	Description	Qty	Material	Protection
1	Body	1	Aluminum extrusion	Anodized
2	Pinion	1	Alloy steel	ENP coating
3	Racks	2	Die cast aluminum	Cr+6 coating
4	Body mid. part	2	Aluminum	Polyester coating
5	Body ext. part	2	Aluminum extrusion	Anodized
6	Cap	2	Cr+6 coating	Cr+6 & Polyester
7	Racks	2	Die cast aluminum	Cr + 6 coating
8	Piston shaft	2	Stainless steel	
9	Nut	2	Stainless steel	
10	Lower stem bushing	1	Engineered plastics	
11	Lower stem o-ring	1	NBR	
12	Upper stem bushing	1	Engineered plastics	
13	Upper stem o-ring	1	NBR	
14	Slide guide	4	Engineered plastics	
15	Piston o-ring	4	NBR	
16	Piston shaft o-ring	2	NBR	
17	Body o-ring	4	NBR	
18	Cap o-ring	2	NBR	
19	Piston shaft o-ring	2	NBR	
20	Shaft cap o-ring	2	NBR	

N°	Description	Qty	Material	Protection
21	Cam	1	Alloy steel	Galvanized
22	Inner washer	1	Engineered plastics	
23	Washer	1	Engineered plastics	
24	Metal Washer	1	Stainless steel	
25	Circlip	1	Stainless steel	
26	Indicator body	1	Plastics	
27	Indicator part	4	Plastics	
28	Indicator screw	1	Stainless steel	
29	Adjustment screw o-ring	2	NBR	
30	Adjustment screw washer	2	Stainless steel	
31	Nut	2	Stainless steel	
32	Hexagonal bolt	2	Stainless steel	
33	Cap bolt	8	Stainless steel	
34	Sealant	1	NBR	
35	Slide piston	1	Engineered plastics	



Dimensions (Inches)

Model	A	B	D	E	G	H	I2	I	J	K1	K	L	M	N	90°	Z	120°	180°	ISO 5211	Air supply
XX3P052	1.18	1.57	0.79	3.62	1.18	3.15	-	1.42	1.97	-	10-24 UNC	1/4-20 UNC	0.43	0.67	11.14	12.24	14.52	F03/F05	NPT 1/4"	
XX3P063	1.42	1.85	0.79	4.21	1.18	3.15	1.42	1.97	2.76	10-24 UNC	1/4-20 UNC	5/16-18 UNC	0.55	0.79	12.00	13.00	15.68	F03/F05/F07	NPT 1/4"	
XX3P075	1.65	2.05	0.79	4.72	1.18	3.15	-	1.97	2.76	-	1/4-20 UNC	5/16-18 UNC	0.55	0.79	13.47	13.84	16.6	F05/F07	NPT 1/4"	
XX3P083	1.85	2.24	0.79	5.04	1.18	3.15	-	1.97	2.76	-	1/4-20 UNC	5/16-18 UNC	0.67	0.98	14.84	15.12	18.52	F05/F07	NPT 1/4"	
XX3P092	1.97	2.32	0.79	5.39	1.18	3.15	-	1.97	2.76	-	1/4-20 UNC	5/16-18 UNC	0.67	0.98	18.31	17.48	21.52	F05/F07	NPT 1/4"	
XX3P105	2.28	2.48	0.79	6.02	1.18	3.15	-	2.76	4.02	-	5/16-18 UNC	3/8-16 UNC	0.87	1.02	19.37	18.52	23.08	F07/F10	NPT 1/4"	
XX3P125	2.68	2.95	0.79	6.85	1.18	3.15	-	2.76	4.02	-	5/16-18 UNC	3/8-16 UNC	0.87	1.18	21.77	20.2	25.32	F07/F10	NPT 1/4"	
XX3P140	2.95	3.03	0.79	7.56	1.18	3.15	-	4.02	4.92	-	3/8-16 UNC	1/2-13 UNC	1.06	1.22	28.35	25.2	32.04	F10/F12	NPT 1/4"	
XX3P160	3.43	3.43	0.79	8.54	1.18	3.15	-	4.02	4.92	-	3/8-16 UNC	1/2-13 UNC	1.06	1.22	32.48	28.36	36.36	F10/F12	NPT 1/4"	

Torque output values (Lbs. in.)

Model	Air supply pressure (PSI)									
	30	40	45	60	65	70	80	90	100	116
XX3P052	71	89	106	142	159	177	195	248	266	301
XX3P063	133	168	195	266	292	327	354	389	460	513
XX3P075	177	230	266	354	398	443	487	531	620	708
XX3P083	292	354	425	558	628	699	761	832	974	1106
XX3P092	398	504	602	797	903	1000	1097	1204	1398	1611
XX3P105	584	735	885	1168	1319	1469	1611	1770	2053	2345
XX3P125	894	1115	1336	1788	2000	2230	2443	2664	3115	3558
XX3P140	1513	1894	2275	3027	3408	3788	4169	4540	5302	6054
XX3P160	2354	2947	3531	4709	5310	5886	6479	7063	8249	9417

DISCLAIMER : By industry standard, a safety factor of 30 % should be considered when sizing actuators with a valve

Actuators weight (Lbs.)

Model	52	63	75	83	92	105	125	140	160
903P	7.10	10.58	13.67	16.53	25.13	29.76	45.42	60.41	95.68
123P	9.44	14.07	18.18	21.98	33.43	39.58	60.41	80.35	127.26
183P	14.2	21.16	27.34	33.06	50.26	59.52	90.84	120.82	191.36

XX = 90 for 90°, 12 for 120° and 18 for 180°

PRODUCT CODIFICATION (13 CHARACTERS LONG)



1	VERSION	85 = NPT-UNC - 80 = BSP-METRIC 90DA = 0-90° DA - 90SR = 0-90° SR 12DA = 0-120° DA - 12SR = 0-120° SR 18DA = 0-180° DA - 18SR = 0-180° SR 903P = 0-90° 3 POSITIONS 90DI = 0-90° DA Stainless steel pinion
2	ACTUATOR TYPE	
3	SIZE	040 - 052 - 063 - 075 - 083 - 092 - 105 - 125 - 140 - 160 - 190 - 210 - 240 - 270
4	SEALS	0 = NBR - 1 = FKM - 2 = FLUOR
5	BODY COATING	0 = STANDARD - 1 = NICKEL 2 = PTFE COATING

6	ROTATION	0 = CCW 1 = CW
7	SPRING SET	5 = 5 SPRINGS 6 = 6 SPRINGS 7 = 7 SPRINGS 8 = 8 SPRINGS 9 = 9 SPRINGS 1 = 10 SPRINGS 2 = 11 SPRINGS 0 = 12 SPRINGS or DOUBLE ACTING

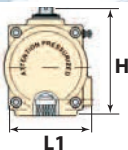
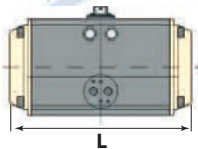
90° Actuator Temperature from -4°F to +176°F

Aluminum body and caps - NBR seals - Stainless steel 304 screws - Nickel plated steel pinion

DA

Double acting pneumatic actuator - Double adjustment

Mod.	ISO 5211	Torque (lbs.in at 90PSI)	VDI/VDE 3845	Ø (inches)	L	L1	H	Lbs	CODE	\$
32	F03	80	-	0.354	4.13	1.81	2.56	1.10	8590DA0320000	66
40	F03/F05	177	Gr.1	0.433	4.76	2.56	3.15	1.54	8590DA0400000	76
52	F03/F05	248	Gr.1	0.433	5.82	2.76	3.62	3.09	8590DA0520000	92
63	F05/F07	389	Gr.1	0.551	6.61	3.27	4.21	4.63	8590DA0630000	112
75	F05/F07	531	Gr.1	0.551	7.32	3.70	4.72	5.95	8590DA0750000	152
83	F05/F07	832	Gr.1	0.669	8.11	4.09	5.04	7.28	8590DA0830000	157
92	F07/F10	1204	Gr.1	0.669	10.00	4.29	5.39	11.02	8590DA0920000	188
105	F07/F10	1770	Gr.1	0.866	10.55	4.76	6.02	13.01	8590DA1050000	238
125	F07/F10	2664	Gr.1	0.866	11.89	5.62	6.85	19.84	8590DA1250000	309
140	F10/F12	4540	Gr.1	1.063	15.35	5.98	7.56	26.46	8590DA1400000	456
160	F10/F12	7063	Gr.1	1.063	17.79	6.85	8.54	41.89	8590DA1600000	658
190	F14	11302	Gr.3	1.417	20.67	8.11	10.24	86.20	8590DA1900000	1487
210	F14	14126	Gr.3	1.417	20.95	8.90	11.22	97.22	8590DA2100000	1719
240	F16	20436	Gr.3	1.811	24.02	10.24	12.52	130.07	8590DA2400000	2806
270	F16	31066	Gr.3	1.811	28.43	11.57	14.02	206.35	8590DA2700000	3969



SR

Spring return pneumatic actuator - Double adjustment

Mod.	ISO 5211	Torque (lbs.in at 90PSI)		VDI/VDE 3845	Ø (inches)	L	L1	H	Lbs	CODE	\$
		0°	90°								
52	F03/F05	89	133	Gr.1	0.433	4.13	1.81	2.56	3.31	8590SR0520000	112
63	F03/F05/F07	142	221	Gr.1	0.551	4.76	2.56	3.15	4.85	8590SR0630000	134
75	F05/F07	221	310	Gr.1	0.551	5.82	2.76	3.62	6.39	8590SR0750000	177
83	F05/F07	336	487	Gr.1	0.669	6.61	3.07	4.21	7.72	8590SR0830000	198
92	F07/F10	496	735	Gr.1	0.669	7.32	3.7	4.72	12.13	8590SR0920000	253
105	F07/F10	673	1044	Gr.1	0.866	8.11	4.09	5.04	14.33	8590SR1050000	284
125	F07/F10	1106	1664	Gr.1	0.866	10.00	4.29	6.89	20.94	8590SR1250000	415
140	F10/F12	1823	2744	Gr.1	1.063	15.35	5.98	7.54	28.66	8590SR1400000	587
160	F10/F12	2965	4425	Gr.1	1.063	17.79	6.85	8.54	44.09	8590SR1600000	911
190	F14	4248	6567	Gr.1	1.417	20.67	8.11	10.24	101.63	8590SR1900000	1871
210	F14	5842	8072	Gr.1	1.417	20.95	8.90	11.22	117.07	8590SR2100000	2164
240	F16	8718	11772	Gr.3	1.811	24.02	10.24	12.52	161.60	8590SR2400000	3347
270	F16	11878	16701	Gr.3	1.811	28.43	11.57	14.02	255.52	8590SR2700000	4783



DISCLAIMER : By industry standard, a safety factor of 30 % should be considered when sizing actuators with a valve

120° Actuator Temperature from -4°F to +176°F

Aluminum body and caps - NBR seals - Stainless steel 304 screws - Nickel plated steel pinion



Model			Double acting			
Mod.	ISO 5211	⌀ (inches)	Torque (lbs.in at 90PSI)	VDI/VDE 3845	Code	\$
52	F03/F05	0.354	248	Gr.1	8512DA0520000	304
63	F03/F05/F07	0.433	389	Gr.1	8512DA0630000	384
75	F05/F07	0.433	531	Gr.1	8512DA0750000	524
83	F05/F07	0.551	832	Gr.1	8512DA0830000	540
92	F07/F10	0.551	1204	Gr.1	8512DA0920000	644
105	F07/F10	0.669	1770	Gr.1	8512DA1050000	818
125	F07/F10	0.669	2664	Gr.1	8512DA1250000	1060
140	F10/F12	0.866	4540	Gr.1	8512DA1400000	1562
160	F10/F12	0.866	7063	Gr.1	8512DA1600000	2257

Upon request only

180° Actuator Temperature from -4°F to +176°F

Aluminum body and caps - NBR seals - Stainless steel 304 screws - Nickel plated steel pinion



Model			Double acting			
Mod.	ISO 5211	⌀ (inches)	Torque (lbs.in at 90PSI)	VDI/VDE 3845	Code	\$
52	F03/F05	0.354	248	Gr.1	8518DA0520000	413
63	F03/F05/F07	0.433	389	Gr.1	8518DA0630000	436
75	F05/F07	0.433	531	Gr.1	8518DA0750000	678
83	F05/F07	0.551	832	Gr.1	8518DA0830000	711
92	F07/F10	0.551	1204	Gr.1	8518DA0920000	838
105	F07/F10	0.669	1770	Gr.1	8518DA1050000	1073
125	F07/F10	0.669	2664	Gr.1	8518DA1250000	1380
140	F10/F12	0.866	4540	Gr.1	8518DA1400000	2044
160	F10/F12	0.866	7063	Gr.1	8518DA1600000	2947

Upon request only

0-90° / 0-120° / 0-180° 3-Positions Actuator

Position adjustment is done internally by removing the actuator end caps
Temperature from -4°F to +176°F

Aluminum body and caps - NBR seals - Stainless steel 304 screws - Nickel plated steel pinion



Version 0-120° and 0-180° upon request only

Model			Double acting			
Mod.	ISO 5211	⌀ (inches)	Torque* (lbs.in at 90PSI)	VDI/VDE 3845	Code	0-90° \$
52	F03/F05	0.354	248	Gr.1	85XX3P0520000	380
63	F03/F05/F07	0.433	389	Gr.1	85XX3P0630000	466
75	F05/F07	0.433	531	Gr.1	85XX3P0750000	628
83	F05/F07	0.551	832	Gr.1	85XX3P0830000	652
92	F07/F10	0.551	1204	Gr.1	85XX3P0920000	774
105	F07/F10	0.669	1770	Gr.1	85XX3P1050000	989
125	F07/F10	0.669	2664	Gr.1	85XX3P1250000	1280
140	F10/F12	0.866	4540	Gr.1	85XX3P1400000	1884
160	F10/F12	0.866	7063	Gr.1	85XX3P1600000	2722

X : replace by 90 for 90°, 12 for 120° or 18 for 180°

* Torque given for air pressure = 87 PSI min

DISCLAIMER : By industry standard, a safety factor of 30 % should be considered when sizing actuators with a valve

Extra charge to be added to the actuator base price

High temperature

Temperature from -4°F to +302°F

Mod.	Code DA	Code SR	\$
32		-	30
40	8590DA0401000	-	44
52	8590DA0521000	8590SR0521000	50
63	8590DA0631000	8590SR0631000	70
75	8590DA0751000	8590SR0751000	94
83	8590DA0831000	8590SR0831000	120
92	8590DA0921000	8590SR0921000	140
105	8590DA1051000	8590SR1051000	176
125	8590DA1251000	8590SR1251000	235
140	8590DA1401000	8590SR1401000	280
160	8590DA1601000	8590SR1601000	420
190	8590DA1901000	8590SR1901000	-
210	8590DA2101000	8590SR2101000	-
240	8590DA2401000	8590SR2401000	-
270	8590DA2701000	8590SR2701000	-

Low temperature

Temperature from -31°F to +176°F

Mod.	Code DA	Code SR	\$
32	8590DA0322000	-	60
40	8590DA0402000	-	88
52	8590DA0522000	8590SR0522000	100
63	8590DA0632000	8590SR0632000	140
75	8590DA0752000	8590SR0752000	200
83	8590DA0832000	8590SR0832000	240
92	8590DA0922000	8590SR0922000	280
105	8590DA1052000	8590SR1052000	360
125	8590DA1252000	8590SR1252000	480
140	8590DA1402000	8590SR1402000	560
160	8590DA1602000	8590SR1602000	840
190	8590DA1902000	8590SR1902000	-
210	8590DA2102000	8590SR2102000	-
240	8590DA2402000	8590SR2402000	-
270	8590DA2702000	8590SR2702000	-

90° actuator nickel plated body

Treatment is applied both internally and externally on the actuator caps and body

Mod.	Code DA	Code SR	\$
32	8590DA0320100	-	-
40	8590DA0400100	-	105
52	8590DA0520100	8590SR0520100	140
63	8590DA0630100	8590SR0630100	187
75	8590DA0750100	8590SR0750100	210
83	8590DA0830100	8590SR0830100	280
92	8590DA0920100	8590SR0920100	326
105	8590DA1050100	8590SR1050100	372
125	8590DA1250100	8590SR1250100	524
140	8590DA1400100	8590SR1400100	663
160	8590DA1600100	8590SR1600100	896
190	8590DA1900100	8590SR1900100	-
210	8590DA2100100	8590SR2100100	-
240	8590DA2400100	8590SR2400100	-
270	8590DA2700100	8590SR2700100	-

90° actuator PFA coated body

Treatment is applied both internally and externally on the actuator caps and body

Mod.	Code DA	Code SR	\$
32	8590DA0320200	-	-
40	8590DA0400200	-	338
52	8590DA0520200	8590SR0520200	442
63	8590DA0630200	8590SR0630200	594
75	8590DA0750200	8590SR0750200	675
83	8590DA0830200	8590SR0830200	895
92	8590DA0920200	8590SR0920200	1047
105	8590DA1050200	8590SR1050200	1221
125	8590DA1250200	8590SR1250200	1698
140	8590DA1400200	8590SR1400200	2175
160	8590DA1600200	8590SR1600200	2943
190	8590DA1900200	8590SR1900200	-
210	8590DA2100200	8590SR2100200	-
240	8590DA2400200	8590SR2400200	-
270	8590DA2700200	8590SR2700200	-

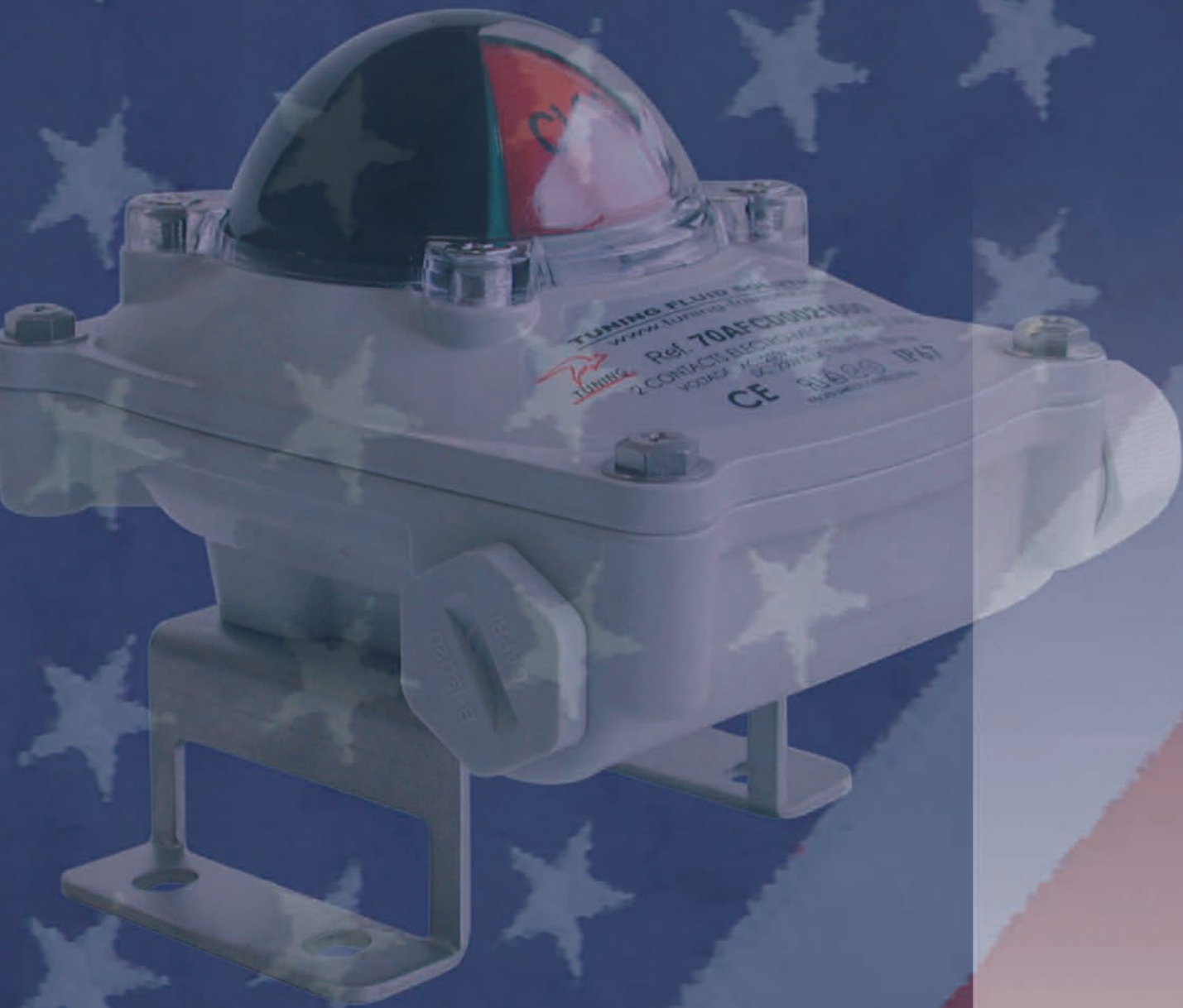
AISI 304 pinion

Mod.	Code DA	Code SR	\$
32	8590DI0320000	-	-
40	8590DI0400000	-	-
52	8590DI0520000	8590SI0520000	24
63	8590DI0630000	8590SI0630000	30
75	8590DI0750000	8590SI0750000	41
83	8590DI0830000	8590SI0830000	47
92	8590DI0920000	8590SI0920000	70
105	8590DI1050000	8590SI1050000	163
125	8590DI1250000	8590SI1250000	198
140	8590DI1400000	8590SI1400000	431
160	8590DI1600000	8590SI1600000	630
190	8590DI1900000	8590SI1900000	-
210	8590DI2100000	8590SI2100000	-
240	8590DI2400000	8590SI2400000	-
270	8590DI2700000	8590SI2700000	-

Reverse actuator rotation

DN	\$
From 52 to 105	116
From 125 to 160	124
From 190 to 270	134

Please contact us for any other options !



**JWB
USA**

Accessories & spare parts

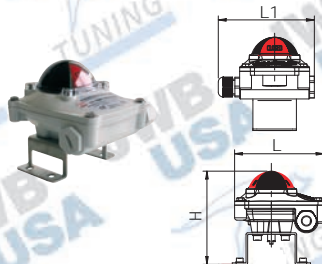
ACCESSORIES AND SPARE PARTS

90AFCD SERIES

Aluminum limit switch boxes

- NEMA 6, POLYESTER POWDER COATED ALUMINUM ENCLOSURE
- ADJUSTABLE CAMS AND WIRING (WITH 8 CONNECTORS)
- STAINLESS STEEL STEM AND SCREWS
- 360° ADJUSTABLE 3D VISUAL POSITION INDICATOR
- TEMPERATURE RANGE OF -4°F TO 176°F
- STAINLESS STEEL BRACKET ACCORDING TO VDI/VDE (SIZE FROM GR. 1 TO GR. 4 TO BE DETERMINED)

FOR NON-HAZARDOUS ENVIRONMENTS



90AFCD0021

- FITTED WITH 2 SPDT ELECTRO-MECHANICAL SWITCHES
- 250 VOLTS MAXIMUM
- M20 CABLE GLAND / M20 PLUG

L	L1	H	Lbs	CODE	\$
4.41	4.64	If X = 1 or 2 than H = 4.17 inches If X = 3 or 4 then H = 5.16 inches	1.2	90AFCD002100X	90

X : Size from Gr1 to Gr4 to be determined

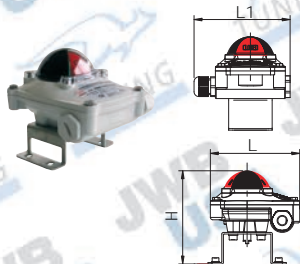
90AFCD0023

- FITTED WITH 2 INDUCTIVE PROXIMITY SWITCHES (NBB3-V3-Z4)
- 60 VOLTS DC MAXIMUM
- M20 CABLE GLAND / M20 PLUG

L	L1	H	Lbs	CODE	\$
4.41	4.64	If X = 1 or 2 than H = 4.17 inches If X = 3 or 4 then H = 5.16 inches	1.2	90AFCD002300X	288

X : Size from Gr1 to Gr4 to be determined

FOR HAZARDOUS ENVIRONMENTS

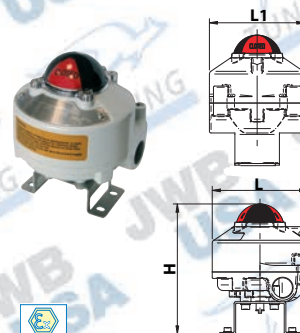


90AFCD0022

- ATEX II 2GD EEXIA IICt6 - CLASS 1 DIVISIONS 1 AND 2 **UL913**
- FOR INTRINSIC SAFETY
- FITTED WITH 2 INDUCTIVE PROXIMITY SWITCHES (NJ2-V3-N)
- 8 VOLTS DC MAXIMUM
- M20 CABLE GLAND / M20 PLUG

L	L1	H	Lbs	CODE	\$
4.41	4.64	If X = 1 or 2 than H = 4.17 inches If X = 3 or 4 then H = 5.16 inches	1.2	90AFCD002200X	304

X : Size from Gr1 to Gr4 to be determined



90AFCD0051

- ATEX II 2GD EEXD IICt6 - CLASS 1 DIVISIONS 1 AND 2 **UL1203**
- FOR FLAMEPROOF ENCLOSURE
- FITTED WITH 2 SPDT ELECTRO-MECHANICAL SWITCHES
- 250 VOLTS MAXIMUM
- 2 X 3/4" NPT HOLES

L	L1	H	Lbs	CODE	\$
4.41	4.41	If X = 1 or 2 than H = 5.96 inches If X = 3 or 4 then H = 6.35 inches	3.75	90AFCD005100X	302

X : Size from Gr1 to Gr4 to be determined

- X : 1 support dimension Gr1
- X : 2 support dimension Gr2
- X : 3 support dimension Gr3
- X : 4 support dimension Gr4

LIMIT SWITCH

90AFCD SERIES

Spare parts & accessories for limit switch boxes



SPARE INDICATOR FOR 90AFCD LIMIT SWITCH BOX

CODE	Characteristics	\$
700KIT00D2V00	For 2 way valves	22
700KIT00D3L00	For 3 way valves with L bore	22
700KIT00D3T00	For 3 way valves with T bore	22



SUPPORT BRACKET FOR 90AFCD LIMIT SWITCH BOX

Code	Characteristics	\$
600ARCBFC0x00	<ul style="list-style-type: none"> For AFCD Series limit switch box AISI 304 stainless steel Supplied with the necessary stainless steel A2 screws 	13

X : Size from Gr1 to Gr4 to be determined



PLUG FOR 90AFCD LIMIT SWITCH BOX

Code	Characteristics	\$
700BC19020600	<ul style="list-style-type: none"> Grey polyamide IP68 M20 	1
700BC19020700	<ul style="list-style-type: none"> Black polyamide ATEX II2 G/D Eexi M20 	2
700BC19049400	<ul style="list-style-type: none"> Nickel plated brass ATEX II2 G/D Eexd 3/4" NPT 	12



CABLE GLAND FOR 90AFCD LIMIT SWITCH BOX

CODE	Characteristics	\$
700PE43200200	<ul style="list-style-type: none"> Grey polyamide IP68 M20 For cable 0.24 to 0.47 in 	2
700PE44200700	<ul style="list-style-type: none"> Black polyamide ATEX II2 G/D Eexi M20 For cable 0.24 to 0.51 in 	4
700PE81879400	<ul style="list-style-type: none"> Nickel plated brass ATEX II2 G/D Eexd 3/4" NPT For unarmored cable 0.33 to 0.63 in 	28
700PE86800130	<ul style="list-style-type: none"> In stainless steel ATEX II2 G/D Eexd 3/4" NPT For unarmored cable 0.13 to 0.34 in 	52



STAR/SQUARE ADAPTORS - STEEL

CODE	DIMENSIONS (INCHES)	\$
7004500110901	0.453 x 0.354	2
7004500140901	0.551 x 0.354	4
7004500141101	0.551 x 0.433	3
7004500171101	0.669 x 0.433	5
7004500171401	0.669 x 0.551	5
7004500221401	0.866 x 0.551	9
7004500221701	0.866 x 0.669	9
7004500271701	1.063 x 0.669	17
7004500272201	1.063 x 0.866	11
7004500362201	1.417 x 0.866	33
7004500362701	1.417 x 1.063	28
7004500463601	1.810 x 1.417	39



POSITION INDICATOR
2 WAY AND 3 WAY BORE

ACTUATOR MODEL	FOR VALVE	CODE	\$
32 to 160	2 way &	700KIT0456000	2
190 to 270	3 way L bore	700KIT0456100	3
32 to 160	3 way T bore	700KIT0456500	2
190 to 270		700KIT0456600	3

X : 1 support dimension Gr1 X : 3 support dimension Gr3
X : 2 support dimension Gr2 X : 4 support dimension Gr4



700NDT-01

3/2-5/2 NAMUR MONOSTABLE SOLENOID VALVE

- NAMUR TYPE MONOSTABLE SOLENOID VALVE WITH MANUAL SWITCH
- IP65 NEMA-4
- SUPPLIED WITH THE NECESSARY DIN CONNECTOR
- CAN BE INSTALLED IN A 3/2 OR 5/2 CONFIGURATION SIMPLY BY USING THE SUPPLIED MOUNTING PLATE
- 1/4" NPT

CODE	VOLTAGE	Type	\$
700NDT00C1201	12 VDC	Monostable	50
700NDT00C2401	24 VDC	Monostable	50
700NDT00A2401	24 VAC	Monostable	50
700NDT0011001	110 VAC	Monostable	50
700NDT0022001	230 VAC	Monostable	50



700NDT-02

3/2-5/2 NAMUR BISTABLE SOLENOID VALVE

- NAMUR TYPE BISTABLE SOLENOID VALVE WITH MANUAL SWITCH
- IP65 NEMA-4
- SUPPLIED WITH THE NECESSARY DIN CONNECTOR
- CAN BE INSTALLED IN A 3/2 OR 5/2 CONFIGURATION SIMPLY BY USING THE SUPPLIED MOUNTING PLATE -
- 1/4" NPT

CODE	VOLTAGE	Type	\$
700NDT00C1202	12 VDC	Bistable	81
700NDT00C2402	24 VDC	Bistable	81
700NDT00A2402	24 VAC	Bistable	81
700NDT0011002	110 VAC	Bistable	81
700NDT0022002	230 VAC	Bistable	81



70COIL

COILS FOR SOLENOID VALVE

- COILS FOR SOLENOID VALVE
- CLASS F AND DUTY RATING 100%
- CERTIFICATION CE, ROHS

CODE	VOLTAGE	\$
70COIL00A2400	24 VAC	7
70COIL00C1200	12 VDC	7
70COIL00C2400	24 VDC	7
70COIL0011000	110VAC	7
70COIL0022000	230VAC	7

Spare parts for actuators

NBR O-RING SET FOR ACTUATORS



Size	CODE	\$
32	700KIT0320200	12
40	700KIT0400200	18
52	700KIT0520200	21
63	700KIT0630200	30
75	700KIT0750200	35
83	700KIT0830200	41
92	700KIT0920200	44
105	700KIT1050200	50
125	700KIT1250200	56
140	700KIT1400200	70
160	700KIT1600200	85
190	700KIT1900200	105
210	700KIT2100200	128
240	700KIT2400200	157
270	700KIT2700200	175

FKM O-RING SET FOR ACTUATORS



Size	CODE	\$
32	700KIT0320300	15
40	700KIT0400300	21
52	700KIT0520300	24
63	700KIT0630300	35
75	700KIT0750300	47
83	700KIT0830300	59
92	700KIT0920300	70
105	700KIT1050300	88
125	700KIT1250300	117
140	700KIT1400300	140
160	700KIT1600300	210
190	700KIT1900300	-
210	700KIT2100300	-
240	700KIT2400300	-
270	700KIT2700300	-

SET OF 12 SPRING CARTRIDGES



Size	CODE	\$
52	700RES0005212	53
63	700RES0006312	56
75	700RES0007512	63
83	700RES0008312	70
92	700RES0009212	84
105	700RES0010512	105
125	700RES0012512	175
140	700RES0014012	315
160	700RES0016012	489
190	700RES0019012	574
210	700RES0021012	838
240	700RES0024012	977
270	700RES0027012	1256

PISTON (1 PIECE) WITH O-RING AND GUIDES FOR ACTUATORS



Size	CODE	\$
32	700PIS0003200	18
40	700PIS0004000	21
52	700PIS0005200	23
63	700PIS0006300	27
75	700PIS0007500	35
83	700PIS0008300	41
92	700PIS0009200	44
105	700PIS0010500	53
125	700PIS0012500	82
140	700PIS0014000	117
160	700PIS0016000	326
190	700PIS0019000	355
210	700PIS0021000	414
240	700PIS0024000	680
270	700PIS0027000	960

END CAP WITH O-RING FOR ACTUATORS (RIGHT OR LEFT)



Size	CODE right	CODE left	\$
32	700CAP0003200	700CAP0003200	6
40	700REC0004000	700LEC0004000	8
52	700REC0005200	700LEC0005200	9
63	700REC0006300	700LEC0006300	11
75	700REC0007500	700LEC0007500	12
83	700REC0008300	700LEC0008300	14
92	700REC0009200	700LEC0009200	15
105	700REC0010500	700LEC0010500	18
125	700REC0012500	700LEC0012500	28
140	700REC0014000	700LEC0014000	40
160	700REC0016000	700LEC0016000	53
190	700REC0019000	700LEC0019000	123
210	700REC0021000	700LEC0021000	137
240	700REC0024000	700LEC0024000	227
270	700REC0027000	700LEC0027000	321

NICKEL PLATED STEEL PINION WITH O-RING AND GUIDES



Size	CODE	\$
32	700AXE0003200	24
40	700AXE0004000	27
52	700AXE0005200	30
63	700AXE0006300	36
75	700AXE0007500	47
83	700AXE0008300	53
92	700AXE0009200	59
105	700AXE0010500	70
125	700AXE0012500	111
140	700AXE0014000	155
160	700AXE0016000	213
190	700AXE0019000	477
210	700AXE0021000	554
240	700AXE0024000	902
270	700AXE0027000	1280

STANDARD FEATURES

Single phase reversible rotary electric actuator with corrosion resistant housing and ISO 5211 / DIN 3337 mounting.

AVS AUTO VOLTAGE SENSING

Accepts a range of AC or DC voltages:

- Series "L" accepts 12 to 24V AC or DC.
- Series "H" accepts 85 to 240V AC or DC.

ETL ELECTRONIC TORQUE LIMITER

Continuously monitors and controls the motor, producing smooth operation and accurate control over the maximum allowed torque. Should the torque requirement exceed this, the ETL system will automatically cut the power to the motor, preventing possible internal damage.

ETL also provides automatic relaxing on the actuator's gear box to facilitate simple operation of manual override. An internal visible LED provides indication on ETL's status :

- a continuously lit LED means normal actuator operation.
- a flashing LED indicates ETL has activated and cut the power of the motor.

ATC AUTOMATIC TEMPERATURE CONTROL

A 4W anti-condensation heater is thermostatically controlled to maintain the actuator's internal temperature between 86°F and 104°F.

PES PROTECTED ELECTRICAL SUPPLY

Accepts the same wiring connection for AC or DC. Incorrect electrical connection will not damage the actuator internals. All external plugs eliminate the need to remove the actuator cover to connect. A label with wiring diagrams is affixed on the outside of the actuator.

MO MANUAL OVERRIDE

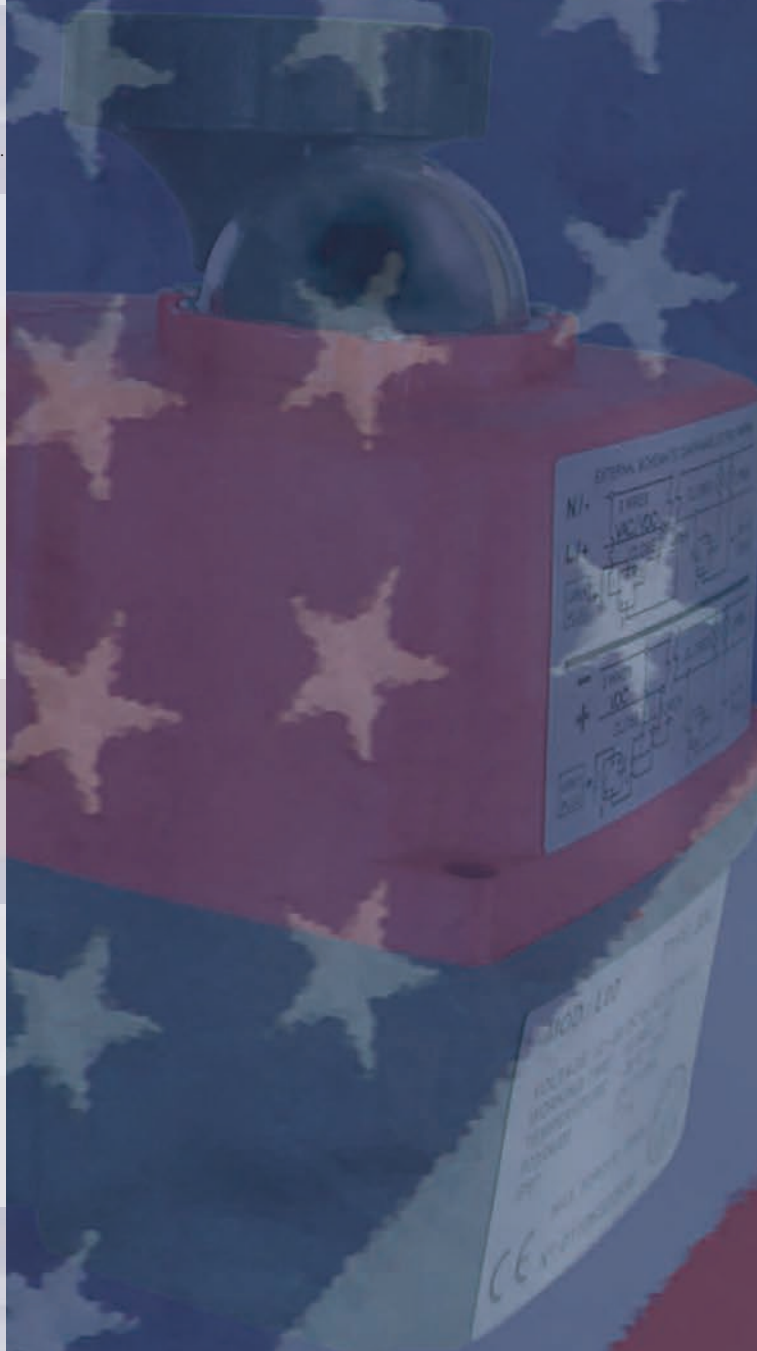
For emergency use, with automatic motor power tripping when selected.

VFC VOLT FREE CONTACTS

One set of open and closed volt free contacts are provided. (i.e. : For remote position indication,...)

HOW IT WORKS :

On receipt of a continuous power signal, the motor runs and via a flat gearbox system, rotates the output shaft. The motor is stopped by internal cams fitted to the output striking micro switches, which cut the power to the motor. When a subsequent continuous signal is received, the motor will turn in the opposite direction, reversing the rotation of the output drive.



TUNING'S RANGE OF ELECTRIC ACTUATORS, AVAILABLE IN BOTH "L" AND "H" SERIES, IS A REVOLUTION IN ELECTRIC ACTUATION. DESIGNED AND MANUFACTURED IN EUROPE, IT IS A NEW BREED OF REVERSIBLE ELECTRIC ACTUATORS THAT ARE PIONEERING NEW INNOVATIONS IN THE INDUSTRY. THESE ACTUATORS ARE ALL SINGLE PHASE REVERSIBLE ROTARY ELECTRIC ACTUATORS WITH CORROSION RESISTANT HOUSING AND ISO 5211 /DIN3337 MOUNTING.



Electric actuators

**JWB
USA**

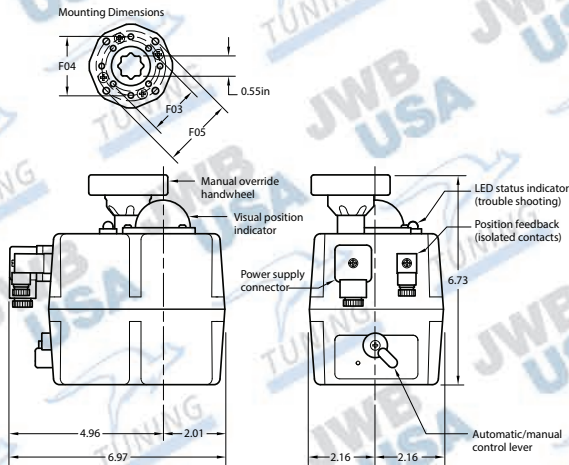
ELECTRIC ACTUATORS

AE25-L20 / AE25-H20

MULTI-VOLTAGE ELECTRIC ACTUATOR SERIES J3-C

DESCRIPTION	MATERIAL
Enclosure	Anticorrosive Polyamide
Internal cams	Polyamide
Main external shaft	Stainless steel
Gears	Steel and Polyamide
Position indicator	Glass filled Polyamide
Fastening	Stainless steel

SPECIFICATIONS	MOD. J3-L20	MOD. J3-H20
Voltage (V)	12 to 24 VAC / VDC - 0/+5% 50 / 60 Hz	85 to 240 VAC / VDC 50 / 60 Hz
Operation time (s/90°) +/- 10%	12 sec.	11 sec.
Maximum operational torque (Nm-lb/in)	177 lbs. in	177 lbs. in
Maximum torque break (Nm-lb/in)	221 lbs. in	221 lbs. in
Duty rating (%)	75	75
IP rating IEC 60529	IP 67 - NEMA 6	IP 67 - NEMA 6
Working angle (°)	90° - 180° - 270°	90° - 180° - 270°
Temperature (°F)	from - 4° to + 158 °F	from - 4° to + 158 °F
Limit switch	4 SPDT micro	4 SPDT micro
Heater	4 Watt	4 Watt
Consumption at maximum torque +/- 5%	24 VAC 1100mA - 26.4 W 24 VDC 913.5mA - 21.9 W	110 VAC 168mA - 18.5 W 220 VAC 190mA - 43.7 W
Plugs	ISO 4400 & C192	ISO 4400 & C192
Weight	3.31 lbs	3.31 lbs



OPTIONS

DPS 2005 POSITIONER 4 ÷ 20 mA or 0 ÷ 10 V

INTERFACE

ISO 5211

Multiflange : F03, F04 and F05

DIN 3337

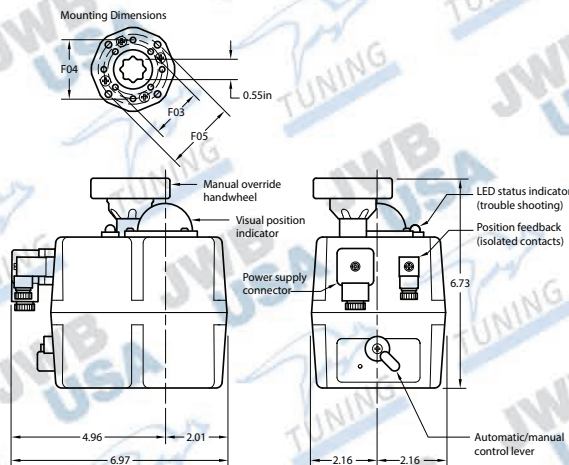
Double sq. hole : 0.55in

AE35-L35 / AE35-H35

MULTI-VOLTAGE ELECTRIC ACTUATOR SERIES J3-C

DESCRIPTION	MATERIAL
Enclosure	Anticorrosive Polyamide
Internal cams	Polyamide
Main external shaft	Stainless steel
Gears	Steel and Polyamide
Position indicator	Glass filled Polyamide
Fastening	Stainless steel

SPECIFICATIONS	MOD. J3-L35	MOD. J3-H35
Voltage (V)	12 to 24 VAC / VDC - 0/+5% 50 / 60 Hz	85 to 240 VAC / VDC 50 / 60 Hz
Operation time (s/90°) +/- 10%	12 sec.	11 sec.
Maximum operational torque (Nm-lb/in)	309 lb. in	309 lb. in
Maximum torque break (Nm-lb/in)	359.3 lb. in	359.3 lb. in
Duty rating (%)	75	75
IP rating IEC 60529	IP 67 - NEMA 6	IP 67 - NEMA 6
Working angle (°)	90° - 180° - 270°	90° - 180° - 270°
Temperature (°F)	from - 4° to + 158 °F	from - 4° to + 158 °F
Limit switch	4 SPDT micro	4 SPDT micro
Heater	4 Watt	4 Watt
Consumption at maximum torque +/- 5%	24 VAC 1100mA - 26.4 W 24 VDC 1491mA - 35.8 W	110 VAC 231mA - 25.4 W 220 VAC 190mA - 36.8 W
Plugs	ISO 4400 & C192	ISO 4400 & C192
Weight	3.97 lbs	3.97 lbs



OPTIONS

DPS 2005 POSITIONER 4 ÷ 20 mA or 0 ÷ 10 V

INTERFACE

ISO 5211

Multiflange : F03, F04 and F05

DIN 3337

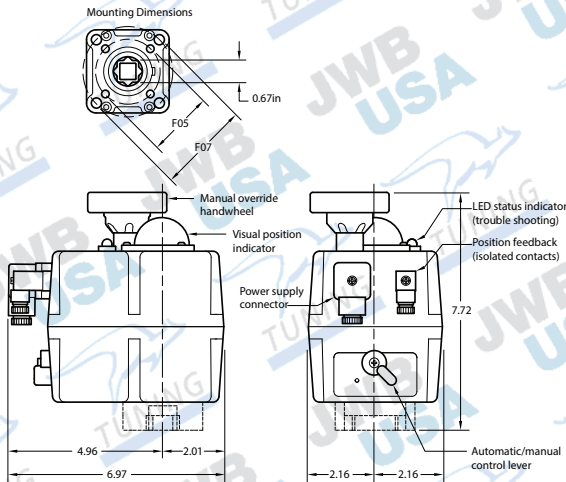
Double sq. hole : 0.55in

AE60-L55 / AE60-H55

MULTI-VOLTAGE ELECTRIC ACTUATOR SERIES J3-C

DESCRIPTION	MATERIAL
Enclosure	Anticorrosive Polyamide
Internal cams	Polyamide
Main external shaft	Stainless steel
Gears	Steel and Polyamide
Position indicator	Glass filled Polyamide
Fastening	Stainless steel

SPECIFICATIONS	MOD. J3-L55	MOD. J3-H55
Voltage (V)	12 to 24 VAC / VDC - 0/+5% 50 / 60 Hz	85 to 240 VAC / VDC 50 / 60 Hz
Operation time (s/90°) +/- 10%	16 sec.	14 sec.
Maximum operational torque (Nm-lb/in)	486 lb. in	486 lb. in
Maximum torque break (Nm-lb/in)	560 lb. in	530 lb. in
Duty rating (%)	75	75
IP rating IEC 60529	IP 67 - NEMA 6	IP 67 - NEMA 6
Working angle (°)	90° - 180° - 270°	90° - 180° - 270°
Temperature (°F)	from - 4° to + 158 °F	from - 4° to + 158 °F
Limit switch	4 SPDT micro	4 SPDT micro
Heater	4 Watt	4 Watt
Consumption at maximum torque +/- 5%	24 VAC 1300mA - 31.27 W 24 VDC 1430mA - 34.3 W	110 VAC 252mA - 27.7 W 220 VAC 160mA - 36.8 W
Plugs	ISO 4400 & C192	ISO 4400 & C192
Weight	4.41lbs	4.41lbs



OPTIONS

DPS 2005 POSITIONER 4 ÷ 20 mA or 0 ÷ 10 V

INTERFACE

ISO 5211

Multiflange : F05 and F07

DIN 3337

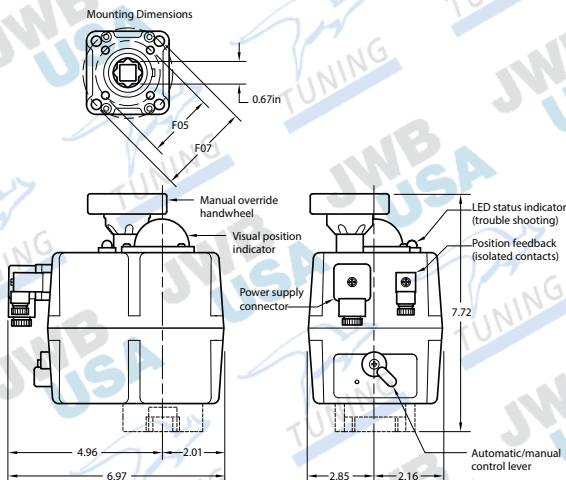
Double sq. hole : 0.67in

AE85-L85 / AE85-H85

MULTI-VOLTAGE ELECTRIC ACTUATOR SERIES J3-C

DESCRIPTION	MATERIAL
Enclosure	Anticorrosive Polyamide
Internal cams	Polyamide
Main external shaft	Stainless steel
Gears	Steel and Polyamide
Position indicator	Glass filled Polyamide
Fastening	Stainless steel

SPECIFICATIONS	MOD. J3-L85	MOD. J3-H85
Voltage (V)	12 to 24 VAC / VDC - 0/+5% 50 / 60 Hz	85 to 240 VAC / VDC 50 / 60 Hz
Operation time (s/90°) +/- 10%	35 sec.	30 sec.
Maximum operational torque (Nm-lb/in)	752 lb. in	752 lb. in
Maximum torque break (Nm-lb/in)	796 lb. in	796 lb. in
Duty rating (%)	75	75
IP rating IEC 60529	IP 67 - NEMA 6	IP 67 - NEMA 6
Working angle (°)	90° - 180° - 270°	90° - 180° - 270°
Temperature (°F)	from - 4° to + 158 °F	from - 4° to + 158 °F
Limit switch	4 SPDT micro	4 SPDT micro
Heater	4 Watt	4 Watt
Consumption at maximum torque +/- 5%	24 VAC 1400mA - 33.6 W 24 VDC 1180mA - 28.3 W	110 VAC 168mA - 18.5 W 220 VAC 150mA - 34.5 W
Plugs	ISO 4400 & C192	ISO 4400 & C192
Weight	4.41 lbs	4.41 lbs



OPTIONS

DPS 2005 POSITIONER 4 ÷ 20 mA or 0 ÷ 10 V

INTERFACE

ISO 5211

Multiflange : F05 and F07

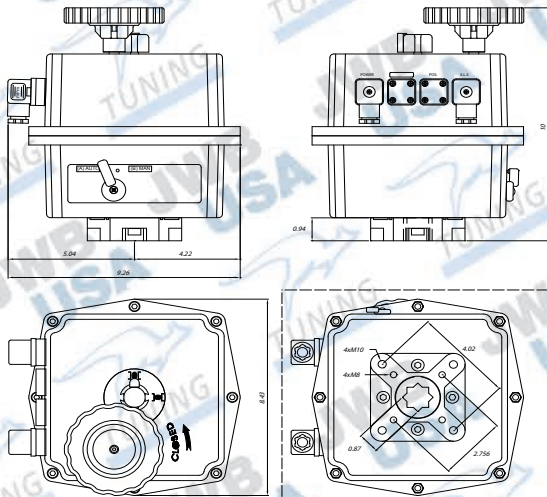
DIN 3337

Double sq. hole : 0.67in

AE170-L140 / AE170-H140 MULTI-VOLTAGE ELECTRIC ACTUATOR SERIES J2-C

DESCRIPTION	MATERIAL
Enclosure	Anticorrosive Polyamide
Internal cams	Polyamide
Main external shaft	Stainless steel
Gears	Steel and Polyamide
Position indicator	Glass filled Polyamide
Fastening	Stainless steel

SPECIFICATIONS	MOD. J2-L140	MOD. J2-H140
Voltage (V)	15 to 48 VAC / VDC 50 / 60 Hz	85 to 240 VAC / VDC 50 / 60 Hz
Operation time (s/90°) +/- 10%	31sec.	31sec.
Maximum operational torque (Nm-lb/in)	1239 lbs.in	1239 lbs.in
Maximum torque break (Nm-lb/in)	1504 lbs.in	1504 lbs.in
Duty rating (%)	75	75
IP rating IEC 60529	IP65 - NEMA 4	IP65 - NEMA 4
Working angle (°)	90° - 180° - 270°	90° - 180° - 270°
Temperature (°F)	from - 4° to + 158 °F	from - 4° to + 158 °F
Limit switch	4 SPDT micro	4 SPDT micro
Heater	4 Watt	4 Watt
Consumption at maximum torque +/- 5%	24 VDC 1430mA - 34.3 W	220 VAC 155 mA - 35.65 W
Plugs	ISO 4400 & C192	ISO 4400 & C192
Weight	11.46 Lbs	11.46 Lbs



OPTIONS

DPS 2005 POSITIONER 4 ÷ 20 mA or 0 ÷ 10 V

INTERFACE

ISO 5211

Multiflange : F07 and F10

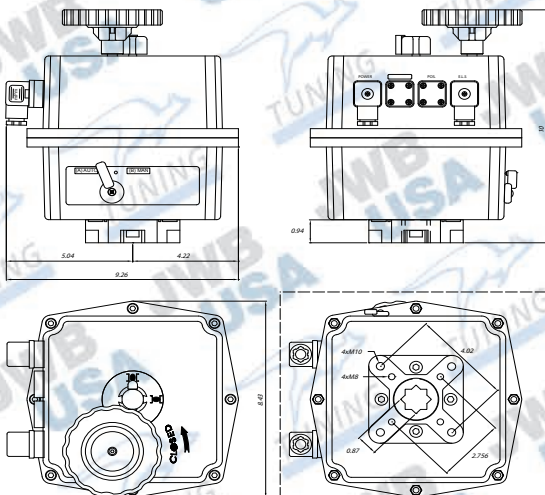
DIN 3337

Double sq. hole : 0.87in

AE350-L300 / AE350-H300 MULTI-VOLTAGE ELECTRIC ACTUATOR SERIES J2-C

DESCRIPTION	MATERIAL
Enclosure	Anticorrosive Polyamide
Internal cams	Polyamide
Main external shaft	Stainless steel
Gears	Steel and Polyamide
Position indicator	Glass filled Polyamide
Fastening	Stainless steel

SPECIFICATIONS	MOD. J2-L300	MOD. J2-H300
Voltage (V)	15 to 48 VAC / VDC 50 / 60 Hz	85 to 240 VAC / VDC 50 / 60 Hz
Operation time (s/90°) +/- 10%	60 sec.	66 sec.
Maximum operational torque (Nm-lb/in)	2655 lbs.in	2655 lbs.in
Maximum torque break (Nm-lb/in)	3097 lbs.in	3097 lbs.in
Duty rating (%)	75	75
IP rating IEC 60529	IP65 - NEMA 4	IP65 - NEMA 4
Working angle (°)	90° - 180° - 270°	90° - 180° - 270°
Temperature (°F)	from - 4° to + 158 °F	from - 4° to + 158 °F
Limit switch	4 SPDT micro	4 SPDT micro
Heater	4 Watt	4 Watt
Consumption at maximum torque +/- 5%	24 VDC 1600 mA - 38.4 W	220 VAC 240 mA - 55.2 W
Plugs	ISO 4400 & C192	ISO 4400 & C192
Weight	11.46 Lbs	11.46 Lbs



OPTIONS

DPS 2005 POSITIONER 4 ÷ 20 mA or 0 ÷ 10 V

INTERFACE

ISO 5211

Multiflange : F07 and F10

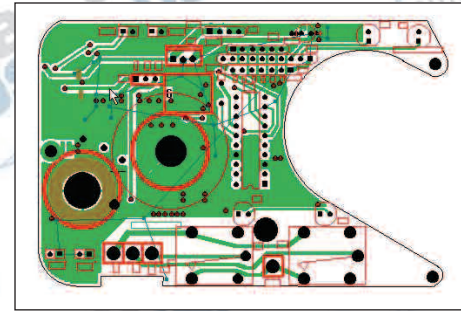
DIN 3337

Double sq. hole : 0.87in

DPS 2005

DIGITAL POSITIONING SYSTEM

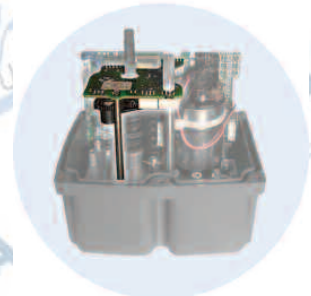
GENERAL FEATURES	
Voltage range	24 VAC - 110 VAC - 220 VAC - 24 VDC - 12VDC
Input signal	4: 20 mA - 0:10Volt
Output signal	4: 20 mA - 0:10Volt
Precision	1%
Settings	Max, Min., «deadband»
Linearity	1%
Hysteresis	1%
Minimum resolution	1%



DPS 2005 is an accessory for the electric actuator to convert the on/off actuator into a valve positioner

DPS 2005 is a microprocessor module with analogical input and output. It does all the calibrations and working performance through a microcomputer digital algorithm system.

Signal position input is converted to a digital numerical value and is continuously compared with the position of a potentiometer which is mechanically fitted to the valve shaft. The software program in the microchip makes all the necessary calculations to determine which way the motor should turn so that the potentiometer position and the valve correspond to the required signal. Once the valve corresponds to the position, it keeps the actuator from moving until it receives a new input signal.



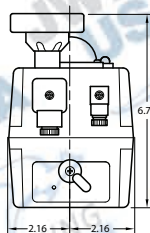
BSR

J3 SAFETY BLOCK

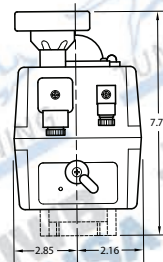
SPECIFICATIONS

The safety block is an accessory allowing our reversible actuators to maintain a "safety" position (NC or NO) in case the electrical current is cut. It is not a "spring return" device, but a battery based system that guarantees a fixed number of rotations.

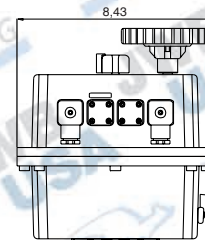
The safety block can be supplied along with an actuator. All settings are realized in our factory. It is however possible to add a safety block device to an actuator already in use.



AE 35/AE 25



AE 60 / AE 85



AE 170 / AE 350

inches



BSR fits inside the actuators enclosure

VOLTAGE	VDC	12	24	110			
	VAC				24	110	220/240
ELECTRIC CHARGE	mA	1200					
IP RATING	-	IP 67 - NEMA 6					
ACTUATOR		AE 25 / AE 35		AE 60 / AE 85		AE 170 / AE 350	
MAXIMUM NUMBER OF ROTATION/HOUR		8		4		2	
CHARGING TIME PER ROTATION	mn	8		15		30	
WEIGHT	Lbs	7.72		8.82		17.64	
INSTALLATION		Inside					
TEMPERATURE	°F	From 14 to +158					

MULTI-VOLTAGE REVERSIBLE ELECTRIC ACTUATOR (12 to 24 VAC/VDC and 85 to 240 VAC/VDC)

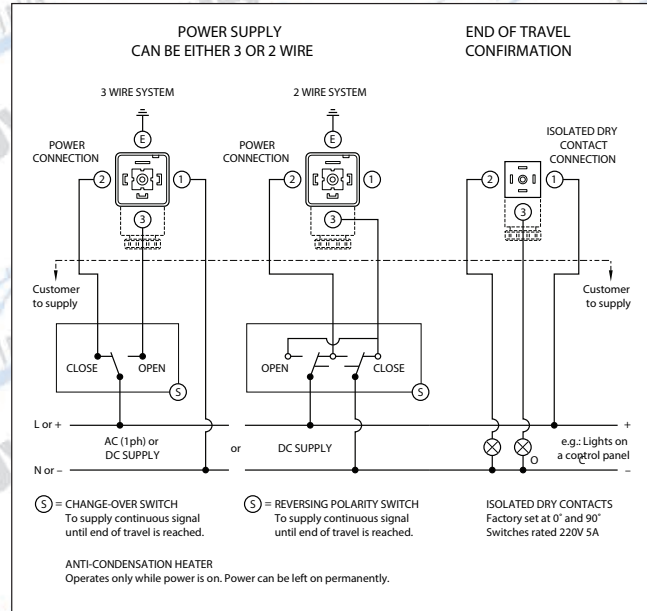
FUNCTION: ON/OFF VERSION

- Power open, power close.
- Stays in position upon power failure.

FUNCTION : FAILSAFE VERSION

- Power open, power close. Trickle charges battery in either open or closed position.
- Actuator driven by battery power to preset failsafe position upon power failure.
- Actuator returns to pre-failure position on power resumption.
- Failsafe can be either NC (normally closed) or NO (normally open).

WIRING DIAGRAM (ON/OFF OR FAILSAFE ACTUATORS)



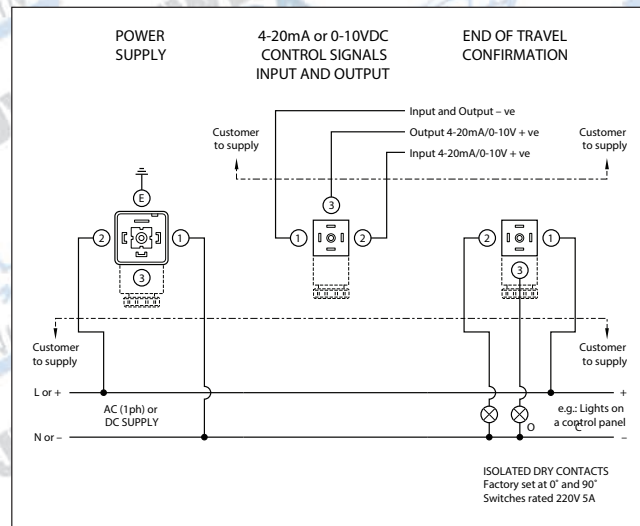
FUNCTION: MODULATING VERSION

- Power open, power close. Actuator movement controlled by input signal (4-20mA or 0-10VDC).
- Standard operation: 4mA or 0V = actuator closed, 20mA or 10V = actuator open (can be reversed)
- Standard operation: actuator closes on loss of control signal, stays put if loss of main power.
- Output signal provided as standard (in same format as supply signal).

ADDITIONAL NOTES (ALL VERSIONS)

- Actuator power supply must be on a dedicated circuit and must be grounded.
- Isolated dry contact switches are set approximately 5° ahead of the final motor stop position. Do not use the signal from the isolated dry contact switches to cut the power to the motor, otherwise the actuator will not reach the full open or full closed position. The actuator is designed to have continuously energized power.

WIRING DIAGRAM (MODULATING ACTUATORS)



MULTI-VOLTAGE REVERSIBLE ELECTRIC ACTUATOR (12 to 24 VAC/VDC and 85 to 240 VAC/VDC)

S4 LED STATUS INDICATOR

CONSTANTLY LIT LED:

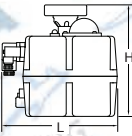
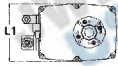
If the actuator is operating correctly with no faults, the LED shows a constantly lit light.

LED FLASHES WITH TWO BLINKS:

If the actuator has been left in "manual" mode, the actuator's motor runs but doesn't drive the output shaft. After a preset time, the actuator knows that because the torque limiter has not been activated and that the motor is running, it must be in manual.

LED FLASHES ON/OFF:

When the actuator senses an impending valve jam, the electronic torque limiter is activated, and upon activation, repeatedly flashes the LED on and off.



ELECTRIC ACTUATOR AE25 (177 Lbs.in / 20 Nm)

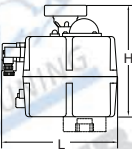
CODE	VOLTAGE	L	L1	H	Lbs	\$
80093L0201405	12 to 24 VAC/DC	6.97	4.34	5.87	3.307	422
80093H0201405	80 - 240 VAC/DC					422

ISO5211 F03 / F04 / F05 - double sq. hole 0.551 inches

ELECTRIC ACTUATOR AE35 (309.78 Lbs.in / 35 Nm)

CODE	VOLTAGE	L	L1	H	Lbs	\$
80093L0351405	12 to 24 VAC/DC	6.97	4.34	6.73	3.969	531
80093H0351405	80 - 240 VAC/DC					531

ISO5211 F03 / F04 / F05 - double sq. hole 0.551 inches



ELECTRIC ACTUATOR AE60 (486.79 Lbs.in / 55 Nm)

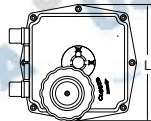
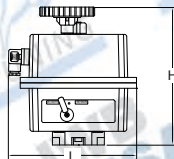
CODE	VOLTAGE	L	L1	H	Lbs	\$
80093L0551707	12 to 24 VAC/DC	6.97	4.34	7.72	4.41	708
80093H0551707	80 - 240 VAC/DC					708

ISO5211 F05 / F07 - double sq. hole 0.669 inches

ELECTRIC ACTUATOR AE85 (752.31 Lbs.in / 85 Nm)

CODE	VOLTAGE	L	L1	H	Lbs	\$
80093L0851707	12 to 24 VAC/DC	6.97	4.34	7.72	4.41	835
80093H0851707	80 - 240 VAC/DC					835

ISO5211 F05 / F07 - double sq. hole 0.669 inches



upon request only

ELECTRIC ACTUATOR AE140* (1239 Lbs.in / 140 Nm)

CODE	VOLTAGE	L	L1	H	Lbs	\$
80090L1402210	12 to 24 VAC/DC	8.42	9.25	9.92	11.46	1173
80090H1402210	80 - 240 VAC/DC					1173

ISO5211 F07 / F10 - double sq. hole 0.866 inches

ELECTRIC ACTUATOR AE300* (2655 Lbs.in / 300 Nm)

CODE	VOLTAGE	L	L1	H	Lbs	\$
80090L3002210	12 to 24 VAC/DC	8.42	9.25	9.92	11.46	1275
80090H3002210	80 - 240 VAC/DC					1275

ISO5211 F07 / F10 - double sq. hole 0.866 inches

OPTIONS



upon request only

BATTERY BACKUP SYSTEM ALLOWS SENDING THE ACTUATOR IN CHOSEN POSITION IN CASE OF POWER FAILURE

KIT BSR*

CODE		\$
800900BSR0100	AE25 TO AE85	520
800900BSR0200	AE140 & AE300	602

DIGITAL POSITIONING SYSTEM ALLOWING TO CONTROL THE ACTUATOR POSITION WITH A 4-20mA (or 0-10V) SIGNAL

KIT DPS*

CODE		\$
800900POSXX01	AE25 TO AE85	444
800900POSXX02	AE140 & AE300	783

XX = 10 for 0-10 V and 20 for 4-20 mA

* upon request only

Ref.	Page		Page		Page
200DMH	16	901951T	15	90° actuator DA	28
200RMV	16	901968	12	90° actuator SR	28
200455L	14	950455L	14	120° actuator DA	29
200456T	14	950456T	14	120° actuator SR	29
200901	16	950931 SW	6	180° actuator DA	29
200905	16	950932 BW	6	180° actuator SR	29
200931 SW	6	950935 SW	7	3-positions actuator	29
200932 BW	6	950936 BW	7		
200935 SW	7	950942 BW	10		
200936 BW	7	950946 BW	11		
200942 BW	10	950951L	15	90AFCD0021	32
200946 BW	11	950965	8	90AFCD0023	32
200951L	15	950966	9	90AFCD0022	32
200965	8	950969	13	90AFCD0051	32
200966	9	951925	5	Spare indicator	33
200969	13	951930 NPT	6	Support bracket	33
201925	5	951934 NPT	7	Plug	33
201930 NPT	6	951940 NPT	10	Cable gland	33
201934 NPT	7	951941 SW	10	Star/square adaptors	33
201940 NPT	10	951944 NPT	11	Position indicator	33
201941 SW	10	951945 SW	11	700NDT01	34
201944 NPT	11	951951T	15	700NDT02	34
201945 SW	11	951968	12	700NDT01L	34
201951T	15	970455L	14	Spare parts for actuators	33
201968	12	970456T	14		
900455L	14	970931 SW	6	AE25-L20/AE25-H20	35
900456T	14	970932 BW	6	AE35-L35/AE35-H35	35
900931 SW	6	970935 SW	7	AE60-L55/AE60-H55	36
900932 BW	6	970936 BW	7	AE85-L85/AE85-H85	36
900935 SW	7	970942 BW	10	AE170-L140/AE170-H140	37
900936 BW	7	970946 BW	11	AE350-L300/AE350-H300	37
900942 BW	10	970951L	15	DPS2005	38
900946 BW	11	970965	8	BSR	38
900951L	15	970966	9		
900965	8	970969	13		
900966	9	971925	5		
900969	13	971930 NPT	6		
901925	5	971934 NPT	7		
901930 NPT	6	971940 NPT	10		
901934 NPT	7	971941 SW	10		
901940 NPT	10	971944 NPT	11		
901941 SW	10	971945 SW	11		
901944 NPT	11	971951T	15		
901945 SW	11	971968	12		
		Spare parts	16		

1. GENERAL :

- A. Written quotations are valid for a period of thirty days after date of quotation, unless cancelled by JWB USA, in writing, prior to acceptance by the purchaser. Verbal quotations are subject to acceptance within 24 hours, unless within that period, they are confirmed in writing by JWB USA. Stenographic and clerical errors are subject to correction.
- B. Contracts or orders having penalty clauses for failure to meet shipment are not acceptable unless specifically approved in writing by an authorized individual at our office in Cumming, GA.
- C. Delivery promises are based on conditions at the time of quoting and are subject to change for causes beyond JWB USA's control. Under no circumstance will the seller be liable for consequential damages due to failure to fulfill a delivery promise.
- D. JWB USA reserves the right to alter dimensions without notice.
- E. Technical advice, technical indications or proposals given by our Sales Department do not imply any sort of warranty. We cannot be held responsible for the customer technical documents validation. It is the customer's responsibility to verify the proper adequation between the suggested products and the working conditions of the industrial site.

2. PRICES :

List prices and discount schedules of all JWB USA products are subject to change without notice. All orders released for immediate shipment will be invoiced at the prices in effect at the time the order is received at JWB USA's Distribution Center in Cumming, Georgia. Any order whose delivery is delayed per the customers' request in excess of ninety days (90) days will be invoiced at the published prices and discounts effective at shipment time or at the price agreed upon at time of order acceptance by JWB USA. First time orders are to be paid at time of order. For subsequent orders standard terms are NET 30 on all invoices (subject to review by our financial department).

3. CHANGE ORDERS OR CANCELLATION:

Orders received and accepted by JWB USA may not be changed or cancelled except on terms satisfactory to JWB USA and which prevent JWB USA from incurring any loss. Changes or cancellations of products considered non-standard or special will not be accepted without full reimbursement of all related expenses incurred to date. All cancellations and change orders must be made in writing to and approved by JWB USA, subject to appropriate charges to Purchaser.

4. SHIPPING TERMS:

All shipments are EXW Cumming, GA
Title passes to buyer upon pick up of the goods at JWB USA distribution center location. Supplier bears all risk of loss or damage to the goods as soon as the goods have been picked up.
All goods are to be packed for shipment in standard cardboard boxes. Special packaging is available upon request and additional charges.

5. MINIMUM BILLING :

MINIMUM BILLING FOR ANY ORDER WILL BE \$30

6. RETURNS:

All request for return must be made in writing within 8 days after receipt of goods. No materials may be returned to the factory without written permission being given by and authorized individual at JWB USA's office in Cumming, GA. A copy of JWB USA's RMA (Return Merchandize Authorization) must be attached to the returned material. Material Safety Data Sheets must accompany returns on products that were in service.

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7 – LIMITED WARRANTY :

Our goods are covered by a 12 month limited warranty (starting from the date of expedition from JWB USA Distribution Center) against material or construction defect. This warranty is applicable only if the goods have been used following the usage rules for which they have been designed. Our limited warranty does not apply to repairs or replacements that would result from a normal usage wear, or from a lack of maintenance or supervision, or from an installation, assembly or abnormal use. In case of coverage by our limited warranty, the repaired or replaced items will be shipped freight at our charge. We will not be liable for further prejudice or compensation resulting from the use of our goods.

8 - GOVERNING LAW / JURISDICTION :

The order and the relations between the parties shall be governed by the procedural and substantive laws of the state of Georgia.

JWB USA



TO CONTACT US !

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