

MADE IN THE USA

"Apollo" valves
Manufactured by Conbraco Industries, Inc.



ACTUATORS AND CONTROLS PRICE LIST

ACPL9000 : EFFECTIVE FEBRUARY 22, 2010

Actuators and Controls

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Payment: 2% 10th prox. Net 30 days. All prices F.O.B. Matthews, NC or Pageland, SC, with freight allowed on shipment with net weight of 750 pounds and over or \$5,000 net to all shipping points within the United States, excluding Alaska and Hawaii. No freight will be allowed on Air Freight, Air Express, Parcel Post or UPS shipments. Claims for shortages must be made within 10 days of receipt of material. Our responsibility ends when a receipt is furnished us by the carrier.

No invoice rendered for less than \$50.00.

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How To Order Apollo® Actuator Ready Ball Valves

EXAMPLE: 89-AR1-64-35, Standard Port Carbon Steel with PTFE Seats

Select the valve model number **XX - ARX - 64 - XX**

FIGURE NUMBER
76 - Standard Port CF8M
89 - Standard Port Carbon WCB

CONSTANTS
AR - Actuator Ready
316 SS Ball & Stem
Multifill Stem Packing
Live Load Washers

SIZE (In.)
1 - 1/4
2 - 3/8
3 - 1/2
4 - 3/4
5 - 1
6 - 1-1/4
7 - 1-1/2
8 - 2
9 - 2-1/2
0 - 3

SEATS
21 - UHMWPE, Option
35 - PTFE, Option
64 - Multifill (Standard)
65 - Multifill & Graphite Stem Packing

OPTIONS
14 - Vented Ball
24 - Graphoil Packing
27 - Latch Lock Handle
57 - Oxygen Cleaned

Live Load Washers Standard On All Models

71AR Standard Port Bronze

| Part No. | Price |
|-----------|--------|
| 71-AR4-64 | 44.28 |
| 71-AR5-64 | 53.43 |
| 71-AR6-64 | 99.24 |
| 71-AR7-64 | 108.38 |
| 71-AR8-64 | 151.14 |
| 71-AR9-64 | 467.13 |
| 71-AR0-64 | 635.06 |

89AR Standard Port Carbon Steel

| Part No. | Price |
|-----------|--------|
| 89-AR1-64 | 43.45 |
| 89-AR2-64 | 43.45 |
| 89-AR3-64 | 43.45 |
| 89-AR4-64 | 62.94 |
| 89-AR5-64 | 79.42 |
| 89-AR6-64 | 157.32 |
| 89-AR7-64 | 200.79 |
| 89-AR8-64 | 260.71 |
| 89-AR9-64 | 584.35 |
| 89-AR0-64 | 627.80 |

77AR Full Port Bronze

| Part No. | Price |
|-----------|--------|
| 77-AR1-64 | 24.43 |
| 77-AR2-64 | 24.43 |
| 77-AR3-64 | 24.43 |
| 77-AR4-64 | 45.80 |
| 77-AR5-64 | 73.29 |
| 77-AR7-64 | 122.12 |
| 77-AR8-64 | 201.52 |

Options For Actuator Ready Ball Valves

For Latch Lock -27 suffix

| Kit No. | Size (In.) | Price |
|-----------|------------|-------|
| 78-155-01 | 1/4-1/2 | 19.49 |
| 78-156-01 | 3/4-1 | 24.39 |
| 78-157-01 | 1 1/2-3 | 32.51 |

76AR Standard Port Stainless Steel

| Part No. | Price |
|-----------|---------|
| 76-AR1-64 | 55.86 |
| 76-AR2-64 | 55.86 |
| 76-AR3-64 | 55.86 |
| 76-AR4-64 | 92.63 |
| 76-AR5-64 | 111.75 |
| 76-AR6-64 | 213.19 |
| 76-AR7-64 | 223.48 |
| 76-AR8-64 | 289.64 |
| 76-AR9-64 | 985.10 |
| 76-AR0-64 | 1071.83 |

Options For Actuator Ready Ball Valves

For PTFE Seats -35 suffix

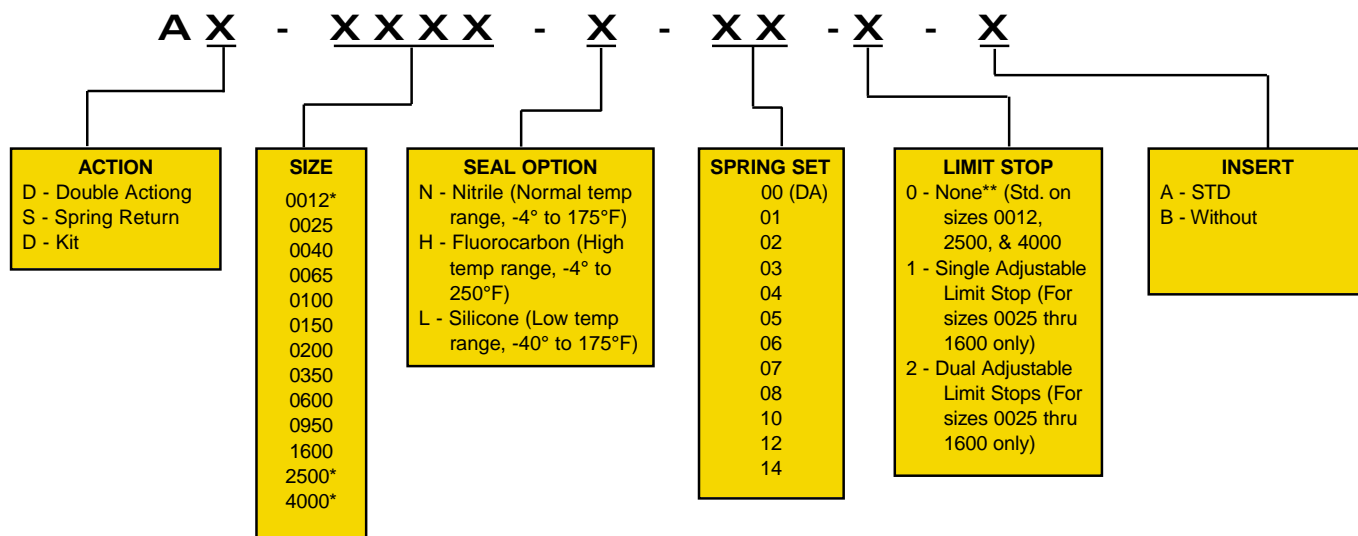
| Size (In.) | STD. Port | Price | Full Port | Price |
|------------|-----------|-------|-----------|-------|
| 1/4 | 76R0235 | 12.32 | 76R0235 | 12.32 |
| 3/8 | 76R0235 | 12.32 | 76R0235 | 12.32 |
| 1/2 | 76R0335 | 12.32 | 76R0335 | 12.32 |
| 3/4 | 76R0435 | 16.79 | 76R0535 | 21.27 |
| 1 | 76R0535 | 21.27 | 77R0535 | 38.71 |
| 1-1/4 | 76R0635 | 30.72 | | |
| 1-1/2 | 76R0735 | 40.35 | | |
| 2 | 76R0835 | 52.68 | | |
| 2-1/2 | 77R0835 | 57.74 | | |
| 3 | 76R0035 | 72.70 | | |

77D Direct Mount Ball Valves

| Part No. | Price |
|-------------|--------|
| 77D-143-01E | 32.41 |
| 77D-144-01E | 48.63 |
| 77D-145-01E | 77.56 |
| 77D-147-01E | 128.50 |
| 77D-148-01E | 201.76 |

Actuators and Controls

Apollo® Pneumatic Actuator Numbering System



* Units with no adapters option

** Optional double stroke adjustment plate is available for 2500 & 4000

NOTE: Add suffix "F" for fail open units

Apollo Pneumatic Actuators

Single Stop Rack & Pinion Actuators

Recommended for Ball Valve Applications

| Part No. | List Price | Part No. | List Price |
|-------------|------------|-------------|------------|
| AD0025N001A | 138.74 | AS0025N041A | 163.83 |
| AD0025N001B | 138.74 | AS0025N041B | 163.83 |
| AD0040N001A | 163.83 | AS0040N041A | 195.57 |
| AD0040N001B | 163.83 | AS0040N041B | 195.57 |
| AD0065N001A | 207.37 | AS0065N041A | 246.49 |
| AD0065N001B | 207.37 | AS0065N041B | 246.49 |
| AD0100N001A | 222.87 | AS0100N041A | 271.58 |
| AD0100N001B | 222.87 | AS0100N041B | 271.58 |
| AD0150N001A | 281.17 | AS0150N041A | 358.66 |
| AD0150N001B | 281.17 | AS0150N041B | 358.66 |
| AD0200N001A | 339.47 | AS0200N041A | 421.39 |
| AD0200N001B | 339.47 | AS0200N041B | 421.39 |
| AD0350N001A | 450.91 | AS0350N041A | 610.31 |
| AD0350N001B | 450.91 | AS0350N041B | 610.31 |
| AD0600N001A | 833.92 | AS0600N041A | 1068.60 |
| AD0600N001B | 833.92 | AS0600N041B | 1068.60 |
| AD0950N001A | 1177.27 | AS0950N041A | 1535.39 |
| AD0950N001B | 1177.27 | AS0950N041B | 1535.39 |
| AD1600N001A | 1832.10 | AS1600N041A | 2460.62 |
| AD1600N001B | 1832.10 | AS1600N041B | 2460.62 |

Dual Stop Rack & Pinion Actuators

For both Ball Valve & Butterfly Valve Applications

| Part No. | List Price | Part No. | List Price |
|-------------|------------|-------------|------------|
| AD0025N002A | 152.76 | AS0025N042A | 180.07 |
| AD0025N002B | 152.76 | AS0025N042B | 180.07 |
| AD0040N002A | 180.07 | AS0040N042A | 214.75 |
| AD0040N002B | 180.07 | AS0040N042B | 214.75 |
| AD0065N002A | 228.04 | AS0065N042A | 271.58 |
| AD0065N002B | 228.04 | AS0065N042B | 271.58 |
| AD0100N002A | 245.01 | AS0100N042A | 298.88 |
| AD0100N002B | 245.01 | AS0100N042B | 298.88 |
| AD0150N002A | 309.95 | AS0150N042A | 394.82 |
| AD0150N002B | 309.95 | AS0150N042B | 394.82 |
| AD0200N002A | 372.68 | AS0200N042A | 463.46 |
| AD0200N002B | 372.68 | AS0200N042B | 463.46 |
| AD0350N002A | 495.93 | AS0350N042A | 670.83 |
| AD0350N002B | 495.93 | AS0350N042B | 670.83 |
| AD0600N002A | 917.32 | AS0600N042A | 1175.61 |
| AD0600N002B | 917.32 | AS0600N042B | 1175.61 |
| AD0950N002A | 1295.31 | AS0950N042A | 1689.33 |
| AD0950N002B | 1295.31 | AS0950N042B | 1689.33 |
| AD1600N002A | 2015.55 | AS1600N042A | 2707.08 |
| AD1600N002B | 2015.55 | AS1600N042B | 2707.08 |

Apollo® Pneumatic Actuators

| Rack & Pinion Actuators | | | |
|-------------------------|------------|-------------|------------|
| No Adjustable Stops | | | |
| Part No. | List Price | Part No. | List Price |
| AD0012N000A | 122.51 | AS0012N040A | 136.53 |
| AD2500N000A | 2908.87 | AS2500N120A | 3484.75 |
| AD4000N000A | 4747.36 | AS4000N120A | 6051.45 |

| "F" Fail Open List Price Adders | | | |
|---------------------------------|------------|---------------|------------|
| Actuator Size | List Price | Actuator Size | List Price |
| AS0012 | 85.41 | AS0200 | 143.59 |
| AS0025 | 85.41 | AS0350 | 143.59 |
| AS0040 | 112.64 | AS0600 | 143.59 |
| AS0065 | 112.64 | AS0950 | 173.30 |
| AS0100 | 112.64 | AS1600 | 173.30 |
| AS0150 | 112.64 | AS2500 | 288.41 |

| Temperature Option List Price Adders | | | |
|--------------------------------------|------------|---------------|------------|
| H = High Temp L = Low Temp | | | |
| Actuator Size | "H" Option | Actuator Size | "L" Option |
| AD/AS0012 | 92.07 | AD/AS0012 | 59.72 |
| AD/AS0025 | 99.33 | AD/AS0025 | 65.72 |
| AD/AS0040 | 116.05 | AD/AS0040 | 89.70 |
| AD/AS0065 | 136.57 | AD/AS0065 | 89.53 |
| AD/AS0100 | 171.16 | AD/AS0100 | 105.20 |
| AD/AS0150 | 189.15 | AD/AS0150 | 107.57 |
| AD/AS0200 | 207.14 | AD/AS0200 | 109.93 |
| AD/AS0350 | 293.46 | AD/AS0350 | 118.29 |
| AD/AS0600 | 448.26 | AD/AS0600 | 168.80 |
| AD/AS0950 | 515.20 | AD/AS0950 | 222.64 |
| AD/AS1600 | 599.15 | AD/AS1600 | 246.63 |
| AD/AS2500 | 721.61 | AD/AS2500 | 260.99 |
| AD/AS4000 | 780.31 | AD/AS4000 | 682.00 |

| Std. Temp Repair Kit List Prices | | | |
|---|-------------|------------|-----------|
| Contains Nitrile O-rings plus Bearings & Bushings | | | |
| Repair Kit | Single Stop | Repair Kit | Dual Stop |
| AK0012NRS | 45.85 | AK0012NRD | 50.56 |
| AK0025NRS | 47.03 | AK0025NRD | 51.73 |
| AK0040NRS | 52.91 | AK0040NRD | 58.78 |
| AK0065NRS | 62.31 | AK0065NRD | 68.19 |
| AK0100NRS | 64.66 | AK0100NRD | 71.72 |
| AK0150NRS | 71.72 | AK0150NRD | 79.75 |
| AK0200NRS | 78.77 | AK0200NRD | 88.18 |
| AK0350NRS | 82.30 | AK0350NRD | 90.53 |
| AK0600NRS | 155.19 | AK0600NRD | 170.48 |
| AK0950NRS | 198.69 | AK0950NRD | 218.68 |
| AK1600NRS | 252.78 | AK1600NRD | 278.64 |
| AK2500NRS | 291.57 | AK2500NRD | n/a |
| AK4000NRS | 472.63 | AK4000NRD | n/a |

| Seal Kit List Prices | | | |
|----------------------------|---------|--------------|---------|
| Contains O-ring Seals Only | | | |
| Kit Part No. | "H" Kit | Kit Part No. | "L" Kit |
| AK0012H | 64.66 | AK0012L | 32.92 |
| AK0025H | 71.72 | AK0025L | 38.80 |
| AK0040H | 88.18 | AK0040L | 62.31 |
| AK0065H | 108.16 | AK0065L | 62.31 |
| AK0100H | 129.33 | AK0100L | 64.66 |
| AK0150H | 146.96 | AK0150L | 67.01 |
| AK0200H | 164.60 | AK0200L | 69.37 |
| AK0350H | 249.25 | AK0350L | 77.60 |
| AK0600H | 400.91 | AK0600L | 126.98 |
| AK0950H | 453.82 | AK0950L | 166.95 |
| AK1600H | 536.12 | AK1600L | 190.46 |
| AK2500H | 656.04 | AK2500L | 204.57 |
| AK4000H | 713.65 | AK4000L | 617.24 |

| Apollo Acutorque 316 Stainless Steel Actuator | | | | | |
|---|------------|-------|-----------|------------|-----|
| Model No. | List Price | Wt. | Model No. | List Price | Wt. |
| 3SD04500 | POA | 5 | 3SS04560 | POA | 5.5 |
| 3SD06000 | POA | 8 | 3SS06060 | POA | 9 |
| 3SD08500 | POA | 14.25 | 3SS08560 | POA | 17 |
| 3SD10500 | POA | 25.25 | 3SS10560 | POA | 31 |
| 3SD12500 | POA | 49 | 3SS12560 | POA | 65 |
| 3SD14000 | POA | 59 | 3SS14060 | POA | 78 |
| 3SD17000 | POA | 117 | 3SS17060 | POA | 155 |
| 3SD21000 | POA | 175 | 3SS21060 | POA | 227 |

Actuators and Controls

Pneumatic Actuators

Solenoid Valves

AVC NAMUR *Three & Four-way, end mounted coil Solenoids: Cv=1.8
For NAMUR Direct Mount

| Part No. | | | Price |
|-------------|---------------------|----------------|--------|
| 3T8-411-40A | 115 VAC NEMA 4 | 0025 thru 4000 | 158.22 |
| 3T8-421-40A | 12 VDC/24 VAC NEMA4 | 0025 thru 4000 | 158.22 |
| 3T8-431-40A | 24 VDC/48 VAC NEMA4 | 0025 thru 4000 | 158.22 |
| 3T8-441-40A | 220 VAC NEMA4 | 0025 thru 4000 | 158.22 |
| 3T8-711-40A | 115 VAC NEMA7 | 0025 thru 4000 | 255.61 |
| 3T8-721-40A | 12 VDC/24 VAC NEMA7 | 0025 thru 4000 | 255.61 |
| 3T8-731-40A | 24 VDC/48 VAC NEMA7 | 0025 thru 4000 | 255.61 |
| 3T8-741-40A | 220 VAC NEMA7 | 0025 thru 4000 | 255.61 |

| Part No. | | | Price |
|-------------|---------------------|--------------|--------|
| 3T8-411-20A | 115 VAC NEMA 4 | 052 thru 160 | 158.22 |
| 3T8-421-20A | 12 VDC/24 VAC NEMA4 | 052 thru 160 | 158.22 |
| 3T8-431-20A | 24 VDC/48 VAC NEMA4 | 052 thru 160 | 158.22 |
| 3T8-441-20A | 220 VAC NEMA4 | 052 thru 160 | 158.22 |
| 3T8-711-20A | 115 VAC NEMA7 | 052 thru 160 | 255.61 |
| 3T8-721-20A | 12 VDC/24 VAC NEMA7 | 052 thru 160 | 255.61 |
| 3T8-731-20A | 24 VDC/48 VAC NEMA7 | 052 thru 160 | 255.61 |
| 3T8-741-20A | 220 VAC NEMA7 | 052 thru 160 | 255.61 |

All are direct mount NAMUR - no adapter necessary

| | | | |
|-------------|---------|----------------|-------|
| 3T8-000-32B | Adapter | 032, 200 & 270 | 35.00 |
| 3T8-000-32A | Adapter | 0025-4000 | 5.00 |

Solenoid Valves (cont'd)

| Part No. | | | Price |
|-------------|---------------------|----------------|--------|
| 3T8-411-32A | 115 VAC NEMA 4 | 032, 200 & 270 | 210.04 |
| 3T8-421-32A | 12 VDC/24 VAC NEMA4 | 032, 200 & 270 | 210.04 |
| 3T8-431-32A | 24 VDC/48 VAC NEMA4 | 032, 200 & 270 | 210.04 |
| 3T8-441-32A | 220 VAC NEMA4 | 032, 200 & 270 | 210.04 |
| 3T8-711-32A | 115 VAC NEMA7 | 032, 200 & 270 | 255.19 |
| 3T8-721-32A | 12 VDC/24 VAC NEMA7 | 032, 200 & 270 | 255.19 |
| 3T8-731-32A | 24 VDC/48 VAC NEMA7 | 032, 200 & 270 | 255.19 |
| 3T8-741-32A | 220 VAC NEMA7 | 032, 200 & 270 | 255.19 |

All above include adapters to turn "NAMUR 90°"

Stroking Speed Adjustment Needle Valves

| Model No. | Part No. | Price |
|------------------------------------|-----------|-------|
| 1/8 NPT Brass | W-6616-00 | 14.05 |
| 1/4 NPT Brass | W-6169-00 | 14.05 |
| 1/4 NPT Brass With Muffler | W-7120-00 | 19.15 |
| 1/4 NPT Brass ENC Plated W/Muffler | W-8345-00 | 14.05 |

Filter Regulator And Gage 0 TO 150 PSIG

| Model No. | Part No. | Price |
|----------------------------|-----------|--------|
| Norgren 1/4 NPT Auto Drain | W-7199-00 | 328.26 |
| Norgren 3/8 NPT Auto Drain | W-7069-00 | 328.26 |

Solenoid Valves Recommended For Bettis G Series

| Part No. | AVC Part No. | Body Mat'l | Type | NEMA | CV | Pipe Size | Voltage | Momentary Manual Override | Price |
|-----------|---------------------|------------|-------|-------|-----|-----------|---------|---------------------------|--------|
| M-1163-00 | L4505AAWR-AA-GM209N | Alum. | 4 way | 4/4X | 4.5 | 1/2" | 120 VAC | YES | 304.20 |
| M-1164-00 | L4505AAAB022-775 | Alum. | 4 way | 4/4x7 | 4.5 | 1/2" | 120 VAC | YES | 385.78 |

Solenoid Valves Optional AVC NEMA 4 Coils For Manifold Mount Solenoids

| Part No. | | | Price |
|-----------|--------------|--------|---------------------------|
| M-1079-00 | 24 VOLT DC | NEMA 4 | SOLENOID LIST ADDER 49.31 |
| M-1089-00 | 12VDC/24 VAC | NEMA 4 | SOLENOID LIST ADDER 56.23 |
| M-1145-00 | 115 VOLT AC | NEMA 4 | SOLENOID LIST ADDER 48.51 |
| M-1078-00 | 220 VOLT AC | NEMA 4 | SOLENOID LIST ADDER 52.74 |

Solenoid Valves Accessories

| Part No. | | Price |
|-----------|---------------------------------------|-------|
| I-4959-00 | 1/2" Conduit To Strain Relief Adapter | 11.22 |
| M-1150-00 | 1/2" Conduit Connector | 11.22 |
| M-1157-00 | Strain Relief Connector | 8.11 |
| M-1158-00 | 1/2" Lighted Conduit Connector | 22.00 |
| I-3849-00 | 1/4" NPT Breather/Muffler | 16.84 |

Pneumatic Actuators

G-Series Bettis Scotch Yoke Pneumatic Actuators Double Acting

| Double Acting Model No. | Part No. | Price | Double Acting Model No. | Part No. | Price |
|-------------------------|-----------|---------|-------------------------|-----------|----------|
| G01008 | 3TG100800 | 5430.75 | G2014 | 3TG201400 | 9032.27 |
| G01009 | 3TG100900 | 5518.53 | G2016 | 3TG201600 | 10186.08 |
| G01010 | 3TG101000 | 6171.72 | G3010 | 3TG301000 | 8522.77 |
| G01012 | 3TG101200 | 6692.44 | G3012 | 3TG301200 | 9103.64 |
| G01014 | 3TG101400 | 7299.56 | G3014 | 3TG301400 | 9383.17 |
| G2009 | 3TG200900 | 9077.22 | G3016 | 3TG301600 | 10057.22 |
| G2010 | 3TG201000 | 6663.18 | G3020 | 3TG302000 | 12965.55 |
| G2012 | 3TG201200 | 7182.59 | | | |

Note: Consult factory for high & low temperature options, and manual overrides.

G-Series Bettis Scotch Yoke Pneumatic Actuators Spring Return

| Spring Return Model No. | Part No. | Price | Spring Return Model No. | Part No. | Price |
|-------------------------|---------------|----------|-------------------------|---------------|----------|
| G1008-1 | 3TG100801 | 8538.63 | G2012-1 | 3TG201201 | 10901.77 |
| G1008-2 | 3TG100802 | 8263.06 | G2014-4, 3 | 3TG201404, 03 | 14946.75 |
| G1008-3 | 3TG100803 | 7648.59 | G2014-2 | 3TG201402 | 13695.11 |
| G1008-4 | 3TG100804 | 7402.65 | G2014-1 | 3TG201401 | 14012.31 |
| G01009-1 | 3TG100901 | 8627.84 | G2016-4, 3 | 3TG201604, 03 | 14178.84 |
| G01009-2 | 3TG100902 | 8352.27 | G2016-2 | 3TG201602 | 14848.93 |
| G01009-3 | 3TG100903 | 7737.70 | G2016-1 | 3TG201601 | 15166.13 |
| G01009-4 | 3TG100904 | 7491.87 | G3010-4 | 3TG301004 | 15023.39 |
| G01010-1 | 3TG101001 | 9291.88 | G3010-3 | 3TG301003 | 17667.65 |
| G01010-2 | 3TG101002 | 9016.41 | G3010-2 | 3TG301002 | 18325.13 |
| G01010-3 | 3TG101003 | 8401.84 | G3010-1 | 3TG301001 | 17065.36 |
| G01010-4 | 3TG101004 | 8156.00 | G3012-4 | 3TG301204 | 15606.24 |
| G01012-1 | 3TG101201 | 9823.29 | G3012-3 | 3TG301203 | 15976.97 |
| G01012-2 | 3TG101202 | 9547.72 | G3012-2 | 3TG301202 | 16549.91 |
| G01012-3 | 3TG101203 | 8933.15 | G3012-1 | 3TG301201 | 17646.23 |
| G01012-4 | 3TG101204 | 8687.32 | G3014-4 | 3TG301404 | 15883.79 |
| G01014-1 | 3TG101401 | 10314.94 | G3014-3 | 3TG301403 | 16256.50 |
| G01014-2 | 3TG101402 | 10039.38 | G3014-2 | 3TG301402 | 16829.44 |
| G01014-3 | 3TG101403 | 9424.81 | G3014-1 | 3TG301401 | 17925.77 |
| G01014-4 | 3TG101404 | 9178.98 | G3016-4 | 3TG301604 | 16557.84 |
| G2009-4, 3 | 3TG200904, 03 | 11902.93 | G3016-3 | 3TG301603 | 16930.55 |
| G2009-2, 1 | 3TG200901, 02 | 12890.22 | G3016-2 | 3TG301602 | 17503.49 |
| G2010-4, 3 | 3TG201004, 03 | 10655.94 | G3016-1 | 3TG301601 | 18599.82 |
| G2010-2 | 3TG201002 | 11326.02 | G3020-3 | 3TG302003 | 19383.88 |
| G2010-1 | 3TG201001 | 11643.22 | G3020-2 | 3TG302002 | 20411.82 |
| G2012-4, 3 | 3TG201204, 03 | 11175.35 | G3020-1 | 3TG302001 | 21508.14 |
| G2012-2 | 3TG201202 | 11845.44 | | | |

Actuators and Controls

Pneumatic Actuators

Accessories Proximity Limit Switches For Manual Valves

| Model No. | Part No. | Description | Price |
|-----------|-----------|----------------------------------|--------|
| 12ADO | M-1059-00 | 2 Switches Without Indicator | 274.07 |
| 14ADO | M-1072-00 | 4 Switches Without Indicator | 409.50 |
| 12GDO | M-1160-00 | 4 Switches With Gold Contacts | 330.75 |
| 12ADO | M-1161-00 | 2 Switches With Indicator | 274.07 |
| 12RDO | M-1169-00 | 2 SPDT Reed Switches W/Indicator | 379.95 |
| 42DDO | M-1196-00 | 2 DPDT Switches W/Indicator | 406.17 |

Consult Factory for other configurations of the Proximity Brand Switch
NEMA 1,2,3,3R,3S,4,4X,6,7,9,12 & 13

Accessories Effector Limit Switches For Manual Valves

Mounting Kits For Manual Valves = \$65.00 List each
Factory Mounting and Testing - See page 16

| Model No. | Part No. | Description | Price |
|------------------------|-----------|------------------------------|--------|
| IND2004DAR0A/4/ | | | |
| LS500SS | M-1166-00 | 4" leads and 5 pin connector | 408.45 |
| IND2004DAR0A | M-1167-00 | 6' leads | 326.55 |
| E17105 | M-1168-00 | puck with 2 targets | 54.60 |
| IN0117 | M-1176-00 | Brad Harrison Connector | 394.80 |

NEMA 3,4,6,12 & 13. Mounting Kits for Manual Valves to effector = \$65.00 List each
Factory Mounting and Testing - See page 17

Accessories Lockout-Tagout Devices

| Model No. | Actuator Size | Price |
|----------------|---------------|---------|
| 3TL3000 | 063 | 508.47 |
| 3TL4000 | 075 | 584.75 |
| 3TL5060 | 085/100 | 704.33 |
| 3TL6570 | 115/125 | 643.33 |
| 3TL8000 | 140/160 | 1142.84 |
| 3TL9000 | 200 | 1187.13 |

How To Order AE Series Apollo® Electric Actuator

EXAMPLE: AE 20010-1-ADF, 115 VAC, With One Extra Stitch & Cam, Heater & Thermostat and Motor Brake (For Butterfly Valve)

Select the actuator model number

AE - XXX - X - XXX

| OUTPUT TORQUE (lb. in.) |
|-------------------------|
| 200 |
| 400 |
| 600 |
| 800 |
| 1000 |

| VOLTAGE |
|-------------|
| 1 - 115 VAC |
| 2 - 24 VAC |
| 3 - 220 VAC |
| 4 - 12 VDC |
| 5 - 24 VDC |

| OPTIONS |
|---|
| 0 - None |
| A - One extra switch & cam |
| B - Two extra switch & cam |
| C - Three extra switch & cam |
| D - Heater & thermostat |
| F - Motor brake (for butterfly valve) No DC Voltage Or 220 VAC |
| P - Positioner 4-20mA |
| T - Position Transmitter 4-20 mA |

AE Series Apollo AE Electric Actuators General Information

| | |
|------------------------------------|--|
| Lubrication | Permanently lubricated gear train and bearings. |
| Duty Cycle | The AE-Series Actuators Are Designed To Operate At 25% Duty Cycle At Temperatures Below 100°F. See Electrical Operation. |
| Temperature Operating Range | 32°F to 150°F Standard -40°F to 150°F With Optional Heater & Thermostat |
| Thermal Protection | Self-Resetting (AC Motors Only) |
| Conduit Connections | (2) 1/2" - NPT female |
| Direction Of Travel | Clockwise to Close, Counterclockwise To Open (Position Indicator Shaft Only, Manual Override Shaft Operates Opposite) |

AE Series Apollo AE Electric Actuators

| Part No. | Breakaway Torque | Voltage | Cycle Time | Price |
|----------|------------------|---------|--------------|----------|
| AE20010 | 200 lb. in. | 115 VAC | 5.0 seconds | \$345.79 |
| AE40010 | 400 lb. in. | 115 VAC | 10.0 seconds | \$411.36 |
| AE60010 | 600 lb. in. | 115 VAC | 15.0 seconds | \$470.98 |
| AE80010 | 800 lb. in. | 115 VAC | 20.0 seconds | \$572.33 |
| AE100010 | 1000 lb. in. | 115 VAC | 25.0 seconds | \$792.91 |

AE Series Options

| Option | Part No. | Description | Price |
|--------|------------|--|----------|
| A | 78-359-01 | One Extra Switch & Cam | \$31.00 |
| B | 78-360-01 | Two Extra Switch & Cam | \$62.01 |
| C | 78-361-01 | Three Extra Switch & Cam | \$93.01 |
| D | 78-1798-01 | 24 VAC Heater & Thermostat | \$143.09 |
| D | 78-1712-01 | 115 VAC Heater & Thermostat | \$143.09 |
| D | 78-1799-01 | 230 VAC Heater & Thermostat | \$143.09 |
| D | 78-1800-01 | 12 VDC Heater & Thermostat | \$143.09 |
| D | 78-1801-01 | 24 VDC Heater & Thermostat | \$143.09 |
| F | 78-1748-01 | 115 VAC Motor Brake | \$143.09 |
| F | 78-1747-01 | 24 VAC Motor Brake | \$143.09 |
| P | | 4-20 mA Positioner | \$620.03 |
| T | | 4-20 mA Position Transmitter | \$95.39 |
| S | | Selectable on/off timer (115/24 VAC & 12 VDC) | POA |
| | | (230 VAC) | POA |

AE Series Voltage

| VOLTAGES | Price |
|----------|-----------|
| 115 VAC | No Charge |
| 220 VAC | 59.63 |
| 24 VAC | 119.23 |
| 12 VDC | 59.63 |
| 24 VDC | 59.63 |

Kits Installed In The Field Will Void CSA Listings

NOTE: No Brake Kits Available For DC Voltages or 220 VAC

Positioners for 12 VDC are not available

Not available with either one extra switch & cam or two extra switch & cam

Actuators and Controls

How To Order CS And CL Electric Actuator (Extended Duty Cycle)

EXAMPLE:

Select the actuator model number

| ACTUATOR MODEL | TORQUE | ENCLOSURE | OPTIONS | DUTY CYCLE | VOLTAGE |
|----------------|--------|-------------|-------------------|--------------|---------|
| CS XXX | 600 | W - NEMA IV | K (Motor Brake) | E - Standard | 115 VAC |
| CL XXX | 2500 | W - NEMA IV | S2 (Two Switches) | E - Standard | 230 VAC |

CS/CL Series Extended Duty Cycle (75%)

| Part No. | Basic Actuator | | | List Price |
|------------|----------------|---------|---------------------|------------|
| 3R-879-30A | CS150 WE | 115 VAC | Extended Duty (75%) | 824.17 |
| 3R-879-31A | CS300 WE | 115 VAC | Extended Duty (75%) | 881.49 |
| 3R-879-32A | CS600 WE | 115 VAC | Extended Duty (75%) | 925.66 |
| 3R-880-87B | CL1000 WE | 115 VAC | Extended Duty (75%) | 1396.27 |
| 3R-879-81B | CL1500 WE | 115 VAC | Extended Duty (75%) | 1682.82 |
| 3R-880-48B | CL2000 WE | 115 VAC | Extended Duty (75%) | 2150.22 |
| 3R-880-96B | CL2500 WE | 115 VAC | Extended Duty (75%) | 2342.61 |
| 3R-880-18B | CL3000 WE | 115 VAC | Extended Duty (55%) | 2451.83 |

CS/CL Series Actuator Options

| Options | Description | CS Price | CL Price |
|----------------|-------------------------------------|----------|----------|
| 230 VAC | 230 VAC Motor 50/60 Hz | 163.83 | 163.83 |
| X | NEMA 4, 4X, 7, 9, CSA Listed | 67.66 | 299.15 |
| W | NEMA IV (Weather Proof), CSA Listed | N/C | N/C |
| E | APOLLO STD | N/C | N/C |
| H | Tropical Heater 90° - 150° F | 262.61 | 262.61 |
| S2 | Two Auxiliary Switches SPDT | 111.47 | 111.47 |
| T | Heater And Thermostat | 174.22 | 174.22 |
| K | Motor Break | 140.44 | 140.44 |
| Z | Dec clutchable Handwheel Override | 343.28 | 343.28 |

Control Options

| | | | |
|----------|---------------------------|--------|--------|
| J | Speed Control/Timer Board | 852.89 | 852.89 |
|----------|---------------------------|--------|--------|

Contact Actuator Customer Service For Applications Not Covered By Indicated Options
Option Availability And Prices Are Subject To Change Without Notice

All models contain an aluminum enclosure

CSA certification for "J" option available after Q3 2008

Duty cycle for 3000 in-lb model is 55%

How To Order CS And CL Electric Actuator (Continuous Duty Cycle)

EXAMPLE:

Select the actuator model number

| ACTUATOR MODEL | TORQUE | ENCLOSURE | OPTIONS | DUTY CYCLE | VOLTAGE |
|----------------|--------|-------------|----------------|--------------|---------|
| CS XXX | 600 | W - NEMA IV | C (Positioner) | E - Standard | 115 VAC |
| CL XXX | 2500 | W - NEMA IV | R2 (Relay) | E - Standard | 230 VAC |

CS/CL Series Continuous Duty Cycle

| Basic Actuator | | | List Price |
|----------------|---------|------------------------|------------|
| CS150 WE | 115 VAC | Continuous Duty (100%) | 860.61 |
| CS300 WE | 115 VAC | Continuous Duty (100%) | 1055.66 |
| CS600 WE | 115 VAC | Continuous Duty (100%) | 1222.07 |
| CL1000 WE | 115 VAC | Continuous Duty (100%) | 1502.85 |
| CL1500 WE | 115 VAC | Continuous Duty (100%) | 2030.61 |
| CL2000 WE | 115 VAC | Continuous Duty (100%) | 2464.84 |
| CL2500 WE | 115 VAC | Continuous Duty (100%) | 2701.49 |
| CL3000 WE | 115 VAC | Continuous Duty (100%) | 2823.61 |

CS/CL Series Actuator Options

| Options | Description | CS Price | CL Price |
|------------------|----------------------------------|----------|----------|
| 230 VAC | 230 VAC Motor 50/60 Hz | N/C | N/C |
| 24 VAC | 24 VAC Motor | 163.83 | 163.83 |
| 12/24 VDC | 12 OR 24 VDC Motor | 163.83 | 163.83 |
| X | NEMA 4, 4X, 7, 9, Not CSA | 67.66 | 299.15 |
| W | NEMA IV (Weather Proof), Not CSA | N/C | N/C |
| E | (APOLLO STD) | N/C | N/C |
| H | Tropical Heater 90° - 150° F | 262.61 | 262.61 |
| S2 | Two Auxiliary Switches SPDT | 111.47 | 111.47 |
| T | Heater And Thermostat | 174.22 | 174.22 |
| Z | Decutchable Handwheel Override | 343.28 | 343.28 |

Control Options

| | | | |
|--------------|--|---------|---------|
| R2 | Single Relay 2 Wire Control | 459.32 | 459.32 |
| C* | Positioner 4 TO 20 mA (360° Potentiometer) | 889.20 | 889.20 |
| CL2** | Positioner With Fail Safe Backup (1) | 1471.66 | |
| CL3** | Positioner With Fail Safe Backup (1) | | 1471.66 |
| L2** | Fail Safe Battery Backup (1) | 824.28 | |
| L3** | Fail Safe Battery Backup (1) | | 824.28 |

NOTE (1) No Manual Override Available

Contact Actuator Customer Service For Applications Not Covered By Indicated Options

Option Availability And Prices Are Subject To Change Without Notice

* Option "C" includes Position Transmitter

** Option "CL2", "CL3", "L2", and "L3" include Position Transmitter

All models contain an aluminum enclosure

Handwheel ("Z" option) is not recommended with back up power options

A board option must be selected; only one board option can be installed in the actuator

All board options include a holding brake to prevent back driving and also include 4-20 mA or 0-10 VDC position feedback

Actuators and Controls

Electric Actuators

LB Series Intermittent Service

Quarter turn reversible with 30% duty cycle, 1Ph/60Hz/115 VAC motors CSA approved. NEMA 4

| Part No. | Model No. | Torque LB/IN | Speed SEC/90° | Price | Description |
|-------------|-----------|--------------|---------------|--------|---|
| 3R ABO 5AF2 | OA3 | 310 | 5 | P.O.A. | OA Models are complete with self-locking worm gear output drive, adjustable mechanical position stops, two SPDT travel limit switches, internal terminal strip, mechanical dial position indicator and declutchable manual override handwheel. |
| 3R ADO 5AF | OA8 | 885 | 5 | P.O.A. | |
| 3R AD2 5AF | | | 25 | P.O.A. | |
| 3R AE1 5AF | OA15 | 1350 | 15 | P.O.A. | |
| 3R AE2 5AF | | | 25 | P.O.A. | |
| 3R AG1 5AF | AT25 | 2250 | 15 | P.O.A. | AT and BT Models are complete with all features described for OA Models plus two auxiliary SPDT switches, two SPDT mechanical torque limit switches, control compartment space heater, and declutchable manual override hand-wheel with motor lockout switch. |
| 3R AG2 5AF | | | 25 | P.O.A. | |
| 3R AG5 0AF | | | 50 | P.O.A. | |
| 3R AH2 5AF | AT50 | 4500 | 25 | P.O.A. | |
| 3R AK5 0AF | BT100 | 10,600 | 50 | P.O.A. | |

Other sizes available with torques up to 500,000 in. lbs. Contact customer service for specifics and part numbers.

Address: For 220 VAC 60Hz/440 VAC 3 Phase

| Model No. | Price | Model No. | Price |
|-----------|-------|-----------|-------|
| OA8 | POA | BT100 | POA |
| OA15 | POA | | |
| AT25 | POA | | |
| AT50 | POA | | |

LB Series Class III Modulating Service

Quarter turn reversible with 50% duty cycle 1ph/60Hz/115VAC motor, single 1000 OHM - 1/2% linearity - 4 watt potentiometer and GAM electronic positioner to accept a 4-20 MADC input signal for continuous modulating service. CSA approved. NEMA 4.

| Part No. | Model No. | Torque LB/IN | | Speed SEC/90° | Price | Description |
|------------|-----------|--------------|-----|---------------|-------|---|
| | | Break | Run | | | |
| 3R ADM 25F | OA8M | 885 | 520 | 25 | POA | OA Models are complete with self-locking worm gear output drive, adjustable mechanical position stops, two SPDT travel limit switches, internal terminal strip, mechanical dial position indicator and manual override handwheel. |
| 3R ADM 50F | | 885 | 520 | 50 | POA | |
| 3R AEM 25F | OA15M | 1350 | 780 | 25 | POA | |

Quarter turn reversible with 50% duty cycle 1ph/60Hz/115VAC motor, single 1000 OHM - 1/2% linearity - 4 watt potentiometer and GAM electronic positioner to accept a 4-20 MADC input signal for continuous modulating service. CSA approved. NEMA 4. 1200 Starts Per Hour

| Part No. | Model No. | Torque LB/IN | | Speed SEC/90° | Price | Description |
|------------|-----------|--------------|------|---------------|-------|---|
| | | Break | Run | | | |
| 3R AGM 25F | AT25M | 2250 | 1300 | 25 | POA | AT and BT Models are complete with all features described for OA Models plus two auxiliary SPDT switches, two SPDT mechanical torque limit switches, control compartment space heater, and declutchable manual override hand-wheel with motor lockout switch. |
| 3R AGM 50F | | 2250 | 1300 | 50 | POA | |
| 3R AHM 25F | AT50M | 4500 | 2200 | 25 | POA | |
| 3R AKM 50F | BT100M | 10,600 | 5200 | 50 | POA | |

Other sizes available with torques up to 500,000 in. lbs. Contact customer service for specifics and part numbers.

Electric Actuators

LB Series Accessories

The following is a list of available accessory options for use with the Bernard LB-Series electric actuators. Listed accessory prices are to be added to actuator list prices.

| Control Compartment Options | OA | AT | BT |
|---|-----|-----|-----|
| Space Heater | POA | POA | POA |
| Two Aux. SPDT Position Switches | POA | POA | POA |
| For Six Total SPDT Position Switches | POA | POA | POA |
| Standard Feedback Potentiometer Single - 1000 ohm | POA | POA | POA |

CONTROL COMPONENT OPTIONS

| TAM Position Transmitter w/1000 ohm Potentiometer | POA | POA | POA |
|---|-----|-----|-----|
|---|-----|-----|-----|

Please be aware that not all the listed accessories can be made available in a single actuator due to physical limitations or electrical requirements. If you have any questions about the availability on combinations of accessories, please contact the factory prior to placement of an order.

Accessories

Stonel Limit Switches For Apollo® Actuators

| Part No. | Stonel Model No. | Description | Price |
|-----------|------------------|--------------------------------|---------|
| 3R-LS2-01 | QX2VB02SDA | STONEL LSA, 2 SPDT MECH. SW | 520.92 |
| 3R-LS2-03 | QX2SB02SDA | STONEL LSA, 2 SPDT MAXX LED SW | 897.26 |
| 3R-LS2-17 | QX2HB02SDA | STONEL LSA, 2 SPDT MAXX SW | 793.12 |
| 3R-LS2-20 | QG2VP02SDA | STONEL LSA, 2 SPDT MECH. SW | 391.91 |
| 3R-LS2-21 | QN2PP02SDA | STONEL LSA, 2 SPST MAXX SW | 652.02 |
| 3R-LS2-23 | QX33B02SDA | STONEL LSA, 2 SST SEN DUAL MOD | 832.77 |
| 3R-LS2-25 | QN2SP02SDA | STONEL LSA, 2 SPDT MAXX LED SW | 832.77 |
| 3R-LS2-32 | QX2VB02SDA-E | STONEL LSA, 2 SPDT MECH SW | 546.10 |
| 3R-LS2-34 | QX8YB03SDA | STONEL LSA, 3 SPDT MAXX LED SW | 1287.43 |
| 3R-LS2-37 | QG4VP02SDA | STONEL LSA, 4 SPDT MECH SW | 546.10 |
| 3R-LS2-38 | QX2HB02SDA | STONEL LSA, 2 SPDT MAXX SW | 793.12 |
| 3R-LS2-39 | QX2VB02SDA-E | STONEL LSA, 2 SPDT MECH SW | 546.10 |
| 3R-LS2-40 | QX4VB02SDA-E | STONEL LSA, 4 SPDT MECH SW | 702.61 |
| 3R-LS2-41 | QG2VP02SNA | LIMIT SW., STONEL SR2VB2LNS | 391.91 |
| 3R-LS2-42 | QG2VP02SDA | STONEL LSA, 2 SPDT MECH SW | 391.91 |
| 3R-LS2-43 | QG2VP02SDA | STONEL LSA, 2 SPDT MECH SW | 391.91 |
| 3R-LS2-44 | QN2SP02SDA | STONEL LSA, 2 SPDT MAXX LED SW | 832.77 |
| 3R-LS2-45 | QX4VB02SDA-E | STONEL LSA, 4 SPDT MECH. SW | 702.61 |
| 3R-LS2-47 | QX5VB02SAA | STONEL LSA, POS TRANS W/2 SPDT | 1561.55 |
| 3R-LS2-48 | QN44B02SDA | STONEL LSA, INTRINSICALLY SAFE | 806.90 |

All other models available. Contact factory for Stonel pricing not shown.

Stonel NAMUR Mounting Kits For Apollo® Actuators

| Model No. | Stainless Steel | List Price |
|-------------------|-----------------|------------|
| 3T 10 & 20, 032 | 63-001-95 | 76.73 |
| 3T 30-60, 052-100 | 63-001-96 | 76.73 |
| 3T 65-90, 115-270 | 63-001-97 | 76.73 |

Actuators and Controls

Accessories

TOPWORX Lumitech Limit Switches for Apollo® Actuators

| Part No. | Model No. | Description | Price |
|-----------|---------------|---|-------|
| 3T-LS4-01 | IVC-D2Z2BP144 | Class 1, Div. 2, NEMA 4, 4X, Prox. Type; (2) SPST3A/120VAC; 2A/24VDC; Brite Lite; 4-WAY Pilot Solenoid, 120 VAC | POA |
| 3T-LS4-02 | IVC-D2Z2BPS44 | Class 1, Div. 2, NEMA 4, 4X, Prox. Type; (2) SPST3A/120VAC; 2A/24VDC; Brite Lite; 4-way Pilot Solenoid, 24 VDC | POA |
| 3T-LS4-03 | IVM-D2Z2BP | Class 1, Div. 2, NEMA 4, 4X, Prox. Type; (2) SPST3A/120VAC; 2A/24VDC; Brite Lite; NO Solenoid Valve | POA |
| 3T-LS4-04 | PPS-NSGPTI | Class 1, Div. 2 NEMA 4, 4X, Prox. Type; (2) SPST3A/120VAC; 2A/24VDC; Brite Lite; 3 FT. Leads | POA |

All above TOPWORX (Go Switch) models do not require mounting kits. The units can be mounted directly to Apollo Actuators.

Moniteur Limit Switches

| Part No. | Model No. | Description | Price |
|-----------|-----------|--------------------------------|--------|
| 3T-LS3-02 | FMYB-5120 | NEMA 4/Indicator/2 SPDT Mech. | 242.54 |
| 3T-LS3-06 | FFNB-5120 | NEMA 4/Flat Cover/2 SPDT Mech. | 225.46 |
| 3T-LS3-01 | AMYB-5120 | NEMA 7/Indicator/2 SPDT Mech. | 314.27 |
| 3T-LS3-05 | AFNB-5120 | NEMA 7/Flat Cover/2 SPDT Mech. | 297.19 |
| 3T-LS3-03 | AMYB-5220 | NEMA 7/Indicator/2 SPDT Prox. | 529.48 |
| 3T-LS3-07 | AFNB-5220 | NEMA 7/Flat Cover/2 SPDT Prox. | 512.40 |

NOTE: Short shaft NAMUR must use kits listed below.

Moniteur Mounting Brackets

| Part No. | Model No. | Description | Price |
|-----------|-------------------|-----------------|-------|
| 63-002-12 | 3T 10 & 20, 032 | Stainless Steel | 69.13 |
| 63-002-13 | 3T 30-60, 052-100 | Stainless Steel | 69.13 |
| 63-002-14 | 3T 65-90, 115-270 | Stainless Steel | 69.13 |

Accessories

| | |
|-------------------|------------------------|
| Dynatorque | Manual Override |
|-------------------|------------------------|

| Part No. | Actuator Size | Description | Price |
|-------------------|-----------------------------|--|---------|
| | | DYNATORQUE sandwich mounting worm declutchable manual override (SD) for direct mount to the Conbraco double acting unit indicated, bottom surface of the override to match the bottom of the pneumatic actuator. Unit includes operator, driver and handwheel. All units coated with one coat yellow enamel. | |
| 3TD-H30-00 | AD063 With Adapter Plate | DT3SD, Override Per Above Specifications | 673.98 |
| 3TD-H40-00 | AD075 With Adapter Plate | DT3SD, Override Per Above Specifications | 673.98 |
| 3TD-H50-00 | AD085 & AD100 | DT3SD, Override Per Above Specifications | 616.38 |
| 3TD-H70-00 | AD115 & AD125 | DT6SD, Override Per Above specifications | 916.98 |
| 3TD-H80-00 | AD160 | DT12SD, Override Per Above Specifications | 1042.65 |
| 3TD-H90-00 | AD200 | DT21SD, Override Per Above Specifications | 1311.50 |

| Part No. | Actuator Size | Description | Price |
|-------------------|-----------------------------|---|---------|
| | | DYNATORQUE sandwich mounting worm non-declutchable manual override (SRD) for direct mount to the spring return Conbraco unit indicated, bottom surface of the override to match the bottom of the pneumatic actuator. Unit includes operator, driver and handwheel. All units coated with one coat yellow enamel. | |
| 3TS-H30-00 | AS063 With Adapter Plate | DT3SRD, Override Per Above Specifications | 645.18 |
| 3TS-H40-00 | AS075 With Adapter Plate | DT3SRD, Override Per Above Specifications | 645.18 |
| 3TS-H50-00 | AS085 & AS100 | DT3SRD, Override Per Above Specifications | 587.58 |
| 3TS-H70-00 | AS115 & AS125 | DT6SRD, Override Per Above Specifications | 766.15 |
| 3TS-H80-00 | AS160 | DT12SRD, Override Per Above Specifications | 898.65 |
| 3TS-H90-00 | AS200 | DT21SRD, Override Per Above Specifications | 1239.23 |

Note: Actuators and mounting bracket NOT included in list price

Actuators and Controls

Accessories

PMV Pneumatic Positioners

| Part No. | Model No. | Description | Price |
|-----------|-----------|--|---------|
| 3T-200-01 | P-2000 | Double Acting, Electro-Pneumatic, 1 | 1734.23 |
| 3T-202-01 | P-2020 | Double Acting, Electro-Pneumatic, 2 | 2223.72 |
| 3T-500-01 | P5 | Double Acting, Hi Capacity & Gain | 811.20 |
| 3T-250-01 | EP5 | Electro Pneumatic, Hi Capacity & Gain | 1814.75 |
| 3T-250-02 | EP5-IS | Double Acting, Hi Capacity & Gain, Explosion Proof | 2281.40 |
| CX04420 | | Flex Hose Kit to Size 032-085 | 28.00 |
| CX04421 | | Flex Hose Kit to Size 100-270 | 28.00 |

NOTE: 1. Normal Capacity. 2. High Capacity. 3. Accessories such as pressure gauges are available but are not included in this price. Limit switches, transmitters, and potentiometers are available. Please consult the factory for pricing.

PMV Mounting Kits For Apollo Actuators

PMV Mounting Kits For Apollo® Actuators

| | | | Price |
|------------|-----------|-----------------|-------|
| 3T 10 & 20 | 63-002-01 | Stainless Steel | 52.50 |
| 3T 30-60 | 63-001-89 | Stainless Steel | 52.50 |
| 3T 65-90 | 63-001-91 | Stainless Steel | 52.50 |

VRC Positioners

| Part No. | Model No. | Price |
|------------|-----------|---------|
| 3PV-073-00 | VP 700 | 520.10 |
| 3PV-173-00 | VE 700 | 1162.59 |

STANDARD FEATURES INCLUDE: Nema 4X enclosure with captive cover and mounting bolts, flat lens indicator, linear position feedback cam, standard flow spool valve. Note: Consult factory for additional part numbers.

VRC Positioner Options

| Options | Price |
|---|--------|
| 90° Dome Position Indicator | 46.56 |
| Square Root Cam | 38.82 |
| Square Cam | 38.82 |
| 0-60° Linear Cam | 38.82 |
| Equal Percent Cam | 38.82 |
| Custom | POA |
| Tangent Linear Adaption Cam | 38.82 |
| 0-45° Linear Cam | 38.82 |
| Maximum Flow Spool Valve (3TD 80, 90, / 3TS 90) | 31.04 |
| Brass Gauges | 69.85 |
| Stainless Gauges | 271.62 |
| 4-20 MA Position Transmitter | 582.04 |
| 2 S.P.D.T. Mechanical Limit Switches | 248.34 |
| 2 S.P.D.T. Proximity Limit Switches | 271.63 |

VRC Positioner Options Bracketry

Ryton, Namur adapter, factory assembly recommended

| Part No. | Model No. | Price |
|-----------|-------------------------------|--------|
| 63-002-28 | 3T 20-60, 052-100 | 75.88 |
| 63-002-29 | 3T 65-90, 115-200 | 150.53 |
| CX04422 | Flex Hose Kit to Size 032-085 | 28.00 |
| CX03347 | Flex Hose Kit to Size 100-270 | 28.00 |

Accessories

Top Entry Valve Mounting Kits

| VALVE SIZE (In.) | EXTENDED BONNETS FLANGE MOUNT & BONNET MOUNT ADD \$20 LIST TO BELOW IF LIVE LOAD PACKING IS INVOLVED | EXTENDED KIT WITH HEAT SHIELD (200 ^o -500 ^o) PNEUMATICS FLANGE MOUNT & BONNET MOUNT | EXTRA EXTENDED KIT WITH HEAT SHIELD (500 ^o +) PNEUMATICS (250 ^o -400 ^o) ELECTRICS FLANGE MOUNT & BONNET MOUNT |
|------------------|--|--|---|
| 1/2-1 | 154.35 | 211.68 | 264.60 |
| 1-1/2 | 159.86 | 238.14 | 278.93 |
| 2 | 174.20 | 253.58 | 305.39 |
| 3 | 213.89 | 325.24 | 380.36 |
| 4 | 297.68 | 380.36 | 463.05 |
| 6 | 510.46 | 626.22 | 694.58 |
| 8 | 590.94 | 747.50 | 856.64 |
| 10 | 665.91 | 783.88 | 890.82 |

Factory Mounting And Testing Charges

| | List Price |
|--------------|------------------|
| 1/4" THRU 3" | 78-999-98 38.12 |
| 4" THRU 6" | 78-999-97 50.80 |
| 8" | 78-999-96 63.51 |
| 10" THRU 12" | 78-999-94 114.33 |

NOTES: 1. SOME ACTUATOR AND VALVE COMBINATIONS MAY NOT BE AVAILABLE AT THIS TIME. REFER TO THE ACTUATOR MOUNTING KIT SELECTION CHART. IF NOT AVAILABLE CONSULT FACTORY.
 2. FOR HIGH TEMPERATURE APPLICATIONS REFER TO TEMPERATURE GUIDELINES IN CATALOG.

Butterfly Valve Factory Mounting & Testing

| | List Price |
|--------------|------------------|
| 2" thru 12" | 78-999-91 50.80 |
| 14" thru 24" | 78-999-92 114.33 |

Miscellaneous Tagging Charges

Consult with Apollo® Sales Agent for details and limitations \$25.00 minimum billing

- A. Paper Tags \$1.00 net ea.
- B. Soft Aluminum Tags \$2.00 net ea.
- C. Stainless Steel Tags \$3.50 net ea.
- D. Customer Supplied Tags \$1.00 net ea.

Actuator Price List



SALES AND SERVICE DEPARTMENT
PO Box 247 • Matthews, NC 28106
Phone: 704-841-6000 • Fax: 704-841-6020

| | | | E-Mail Address | Phone | Fax |
|-------------------------------|--|--|--------------------------------|-----------------|-----------------|
| Southeast Region | Spirit Group, Inc. | Florida (except Pan Handle) | info@spiritgroupinc.com | 407-291-6035 | 407-299-0378 |
| | Spotswood Associates | Georgia/Alabama/Florida Pan Handle | dlewis@spotswoodassociates.com | 770-447-1227 | 770-263-6899 |
| | Pro Marketing, Inc. | North Carolina/South Carolina/Tennessee-East | sales@promarketinginc.net | 864-578-4334 | 864-578-4889 |
| | Mid South Marketing, Inc. | Virginia/Maryland/Washington, D.C./WV-East | midsouth7@aol.com | 804-213-3801 | 804-213-3802 |
| Southern Region | Southern Marketing Group | MS/TN-West/AR/Bowie Cty.-TX | SMG49@bellsouth.net | 901-547-0042 | 901-547-0035 |
| | AVC Mechanical Sales, Inc. | Oklahoma/Texas-North/Wichita & W. Kansas | valvesales@avalue.com | 214-201-0100 | 214-201-0104 |
| | Armstrong/Weatherly Associates | Texas-South/Louisiana | sales@armstrong-weatherly.com | 713-692-5566 | 713-692-6021 |
| Midwestern Region | New Tech Marketing | IL/WI-East/IN-North/MI-Upper Peninsula/IA-River Counties | ntm012@mcleodusa.net | 630-378-4300 | 630-378-0343 |
| | New Tech Marketing | Eastern Missouri/Southern Illinois/Kansas City | ntm112@aol.com | 618-394-0329 | 618-394-0427 |
| | Whitfill-McCarthy, LLC | Kentucky/Indiana-South/Ohio-South | whitfill@win.net | 502-459-4545 | 502-459-9944 |
| | V.E. Sales Co., Inc. | Michigan (Except Upper Peninsula) | tomv@vesalesinc.com | 586-774-7760 | 586-774-1490 |
| | FourMation Sales | Minnesota/North & South Dakota/Wisconsin-West | deanc@fourmationsales.com | 763-420-6900 | 763-420-6993 |
| | Marshall-Rodeno Heartland | Nebraska/Iowa (Except River Counties) | trodeno@marshallrodeno.com | 303-575-6701 | 303-575-6706 |
| | Midwest Spec | Ohio-North/Pennsylvania-West/West Virginia-West | glsales@mwspec.com | 330-538-0406 | 330-538-0410 |
| Western Region | Spec Management Group | California-South (Irrigation), Hawaii (All Products) | msmarch4@cox.net | 949-481-4225 | 949-487-0990 |
| | Marshall-Rodeno Associated | CO/WY/MT/ID-SE/UT/NV-NE/NM/EI Paso-TX | trodeno@marshallrodeno.com | 303-575-6701 | 303-575-6706 |
| | Suntoya Corporation | WA, OR, AK, Northern counties ID | kim@suntoya.com | 509-534-1516 | 509-535-6546 |
| | Southwestern Industrial Sales Co. | Arizona/Nevada-SW | eduardop@sw-ind.com | 480-458-5838 | 480-458-5843 |
| Northeast Region | Urell, Inc. | Massachusetts/New England States | conbraco@urell.com | 617-923-9500 | 617-926-9414 |
| | McMahon Marketing, Inc. | New York-Upstate/New York-West | sales@mcMahonmarketing.com | 518-792-3350 | 518-792-3351 |
| | Conroy & Griese Sales, Inc. | New York-East/New Jersey-North | iezzi52@aol.com | 856-663-4440 | 856-663-6644 |
| | Layden Company | Pennsylvania-East/Delaware/New Jersey-South | joejr@laydencompany.com | 610-363-6657 | 877-529-3361 |
| | Keith Engle & Associates | OEM accounts | keith.engle@verizon.net | 610-827-9560 | 610-827-9561 |
| Canada | Conbraco Industries, Canada | 178 Pennsylvania Ave., Unit 1, Concord, Ontario L4K 4B1 | conbraco.canada@conbraco.com | 905-761-6161 | 905-761-6666 |
| Int'l. | Sadek Trading | Middle East (except Israel) | ysadek@aol.com | 704-618-6613 | 980-233-8437 |
| | Conbraco International Sales: | Mexico | jose.arias@conbraco.com | 956-631-4542 | 956-631-4681 |
| | | Caribbean | luis.guzman@conbraco.com | 787-739-5620 | |
| | | Central & South America | esteban.bejarano@conbraco.com | 506-8836-0759 | |
| | | Asia Pacific | jonathan.yap@conbraco.com | 65-9626-9241 | 65-6753-0131 |
| | | Europe | allen.bellamy@conbraco.com | 44-161-212-3745 | 44-161-212-3747 |
| Africa/Australia/Israel/India | donna.bult@conbraco.com | 954-252-9781 | 954-252-8698 | | |
| | Regional Sales Managers: | | | | |
| | | Brian Blalock (Northeast) | brian.blalock@conbraco.com | 704-614-3744 | 704-841-6020 |
| | | Gary Koon (Southeast) | gary.koon@conbraco.com | 205-706-3570 | 205-403-4619 |
| | | Kevin Cronin (Midwest) | kevin.cronin@conbraco.com | 563-590-7077 | 563-588-0677 |
| | | Sean Perry (Western) | sean.perry@conbraco.com | 704-641-9167 | 866-422-1330 |