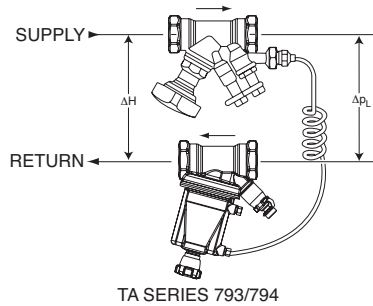


Differential Pressure Controller

TA SERIES 793/794

In HVAC systems, differential pressure across control valves varies dramatically. This can lead to modulating control valves working in on-off mode and result in fluctuating room temperatures. Differential pressure controllers stabilize differential pressure and ensure stable and accurate modulating control. They also minimize noise from control valves and simplify balancing.

Used in conjunction with a circuit balancing valve; the TA Series 793/794 Differential Pressure Controller ensures the correct pressure is delivered to the coil and circuit balancing valve. By eliminating pressure changes, the TA Series 793/794 enables the circuit balancing valve to maintain the proper flow rate at the coil and keep the system in balance. The differential pressure controller is capable of stabilizing differential pressure ranges of 1.5-8.7 psi/10-60 kPa, 2.9-11.6 psi/20-80 kPa and 5.8-23.3 psi/40-160 kPa depending on the controller series, size and spring option.



MATERIAL SPECIFICATIONS

BODY:

TA Series 793: Ametal

TA Series 794: Ductile iron EN-GJS-400-15 (-ASTM A536 Grade 60-40-18, ISO Grade 400-15)

BODY COATING:

TA Series 794: Epoxy painted

CONE & SPINDLES:

TA Series 793, 794: Ametal

BONNET:

TA Series 793, 794: Ametal

SEAT SEAL:

TA Series 793, 794: Plug with EPDM o-ring

SEALS:

TA Series 793, 794: EPDM o-ring

SPRING:

TA Series 793, 794: Stainless steel

HANDWHEEL:

TA Series 793, 794: Red Polyamide plastic

MEMBRANE:

TA Series 793: HNBR rubber

TA Series 794: Reinforced EPDM rubber

JOB/OWNER

System No. _____

Location _____

CONTRACTOR

Submitted By _____

Date _____

ENGINEER

Spec Sect _____ Para _____

Approved _____

Date _____

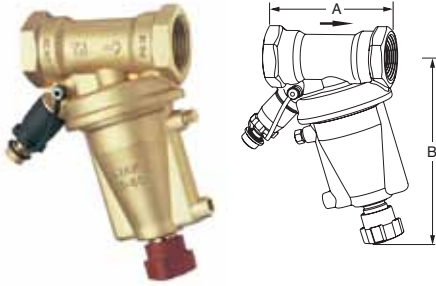
Differential Pressure Controller

TA SERIES 793/794

Differential Pressure Controller

TA Differential Pressure Controllers come standard with a drain kit, measuring port, transition nipple and adjusting tool. End connection on ½"/15 mm to 2"/50 mm sizes are all female IPS thread only. Sweat is not available.

TA SERIES 793 Threaded End



| Nominal Size Inches mm | Actual Outside Dia. Inches mm | Differential Pressure Range psi/kPa | A End to End Inches mm | B Center to Top Inches mm | Approx. Weight Each Lbs. kg |
|------------------------------|-------------------------------------|--|---------------------------------|------------------------------------|-----------------------------------|
| ½ 15 | 0.840 21.3 | 1.45-8.70 10-60 | 3.31 84 | 5.39 137 | 2.4 1.1 |
| ¾ 20 | 1.050 26.7 | 1.45-8.70 10-60 | 3.58 91 | 5.47 139 | 2.6 1.2 |
| 1 25 | 1.315 33.7 | 1.45-8.70 10-60 | 3.66 93 | 5.55 141 | 2.9 1.3 |
| 1¼ 32 | 1.660 42.4 | 2.90-11.6 20-80 | 5.24 133 | 7.05 179 | 5.7 2.6 |
| 1½ 40 | 1.900 48.3 | 2.90-11.6 20-80 | 5.32 135 | 7.13 181 | 6.4 2.9 |
| 2 50 | 2.375 60.3 | 2.90-11.6 20-80 | 5.39 137 | 7.36 187 | 7.7 3.5 |

VALVE SELECTION GUIDE

English Measurements in Pounds per Square Inch and Gallons per Minute

| Size | D _{pL} (psi) | | | | | | | | | | | | | | | | | |
|--------|-----------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| | 1.5 | | | 2.9 | | | 4.4 | | | 5.8 | | | 7.3 | | | 8.7 | | |
| Inches | Q _{min} | Q _{nom} | Q _{max} | Q _{min} | Q _{nom} | Q _{max} | Q _{min} | Q _{nom} | Q _{max} | Q _{min} | Q _{nom} | Q _{max} | Q _{min} | Q _{nom} | Q _{max} | Q _{min} | Q _{nom} | Q _{max} |
| ½ | 0.1 | 1.4 | 2.0 | 0.1 | 2.0 | 2.7 | 0.2 | 2.4 | 3.4 | 0.2 | 2.8 | 3.9 | 0.2 | 3.1 | 4.3 | 0.2 | 3.4 | 4.7 |
| ¾ | 0.2 | 3.1 | 4.3 | 0.3 | 4.3 | 6.0 | 0.4 | 5.3 | 7.4 | 0.4 | 6.1 | 8.6 | 0.5 | 6.8 | 9.6 | 0.5 | 7.4 | 10.5 |
| 1 | 0.4 | 5.3 | 7.7 | 0.5 | 7.4 | 10.7 | 0.7 | 9.1 | 13.2 | 0.8 | 10.5 | 15.2 | 0.9 | 11.8 | 17.0 | 0.9 | 12.8 | 18.6 |

| Size | D _{pL} (psi) | | | | | | | | | | | | | | | | | | | | |
|--------|-----------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| | 2.9 | | | 4.4 | | | 5.8 | | | 7.3 | | | 8.7 | | | 10.2 | | | 11.6 | | |
| Inches | Q _{min} | Q _{nom} | Q _{max} | Q _{min} | Q _{nom} | Q _{max} | Q _{min} | Q _{nom} | Q _{max} | Q _{min} | Q _{nom} | Q _{max} | Q _{min} | Q _{nom} | Q _{max} | Q _{min} | Q _{nom} | Q _{max} | Q _{min} | Q _{nom} | Q _{max} |
| 1¼ | 0.8 | 11.7 | 16.6 | 1.0 | 14.4 | 20.4 | 1.2 | 16.6 | 23.5 | 1.3 | 18.6 | 26.3 | 1.4 | 20.3 | 28.7 | 1.5 | 22.0 | 31.1 | 1.6 | 23.4 | 33.2 |
| 1½ | 1.2 | 17.6 | 25.0 | 1.5 | 21.6 | 30.8 | 1.8 | 24.8 | 35.3 | 2.0 | 27.9 | 39.6 | 2.2 | 30.4 | 43.3 | 2.3 | 32.9 | 46.8 | 2.5 | 35.1 | 49.9 |
| 2 | 2.3 | 33.2 | 47.6 | 2.9 | 40.9 | 58.6 | 3.3 | 46.9 | 67.3 | 3.7 | 52.6 | 75.5 | 4.1 | 57.4 | 82.4 | 4.4 | 62.2 | 89.3 | 4.7 | 66.3 | 95.2 |

Metric Measurements in Kilopascals and Liters per Hour

| Size | D _{pL} (kpa) | | | | | | | | | | | | | | | | | |
|------|-----------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| | 10.0 | | | 20.0 | | | 30.0 | | | 40.0 | | | 50.0 | | | 60.0 | | |
| mm | Q _{min} | Q _{nom} | Q _{max} | Q _{min} | Q _{nom} | Q _{max} | Q _{min} | Q _{nom} | Q _{max} | Q _{min} | Q _{nom} | Q _{max} | Q _{min} | Q _{nom} | Q _{max} | Q _{min} | Q _{nom} | Q _{max} |
| 15 | 22 | 316 | 443 | 31 | 447 | 626 | 38 | 548 | 767 | 44 | 632 | 885 | 49 | 707 | 990 | 54 | 775 | 1084 |
| 20 | 51 | 696 | 980 | 72 | 984 | 1386 | 88 | 1205 | 1698 | 101 | 1391 | 1961 | 113 | 1556 | 2192 | 124 | 1704 | 2401 |
| 25 | 89 | 1202 | 1739 | 125 | 1699 | 2460 | 153 | 2081 | 3012 | 177 | 2403 | 3479 | 198 | 2687 | 3889 | 217 | 2943 | 4260 |

| Size | D _{pL} (kpa) | | | | | | | | | | | | | | | | | | | | |
|------|-----------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| | 20.0 | | | 30.0 | | | 40.0 | | | 50.0 | | | 60.0 | | | 70.0 | | | 80.0 | | |
| mm | Q _{min} | Q _{nom} | Q _{max} | Q _{min} | Q _{nom} | Q _{max} | Q _{min} | Q _{nom} | Q _{max} | Q _{min} | Q _{nom} | Q _{max} | Q _{min} | Q _{nom} | Q _{max} | Q _{min} | Q _{nom} | Q _{max} | Q _{min} | Q _{nom} | Q _{max} |
| 32 | 188 | 2683 | 3801 | 230 | 3286 | 4656 | 266 | 3795 | 5376 | 297 | 4243 | 6010 | 325 | 4648 | 6584 | 351 | 5020 | 7112 | 376 | 5367 | 7603 |
| 40 | 286 | 4025 | 5724 | 351 | 4930 | 7011 | 405 | 5692 | 8095 | 453 | 6364 | 9051 | 496 | 6971 | 9915 | 535 | 7530 | 10709 | 572 | 8050 | 11449 |
| 50 | 537 | 7603 | 10912 | 657 | 9311 | 13364 | 759 | 10752 | 15432 | 849 | 12021 | 17253 | 930 | 13168 | 18900 | 1004 | 14223 | 20415 | 1073 | 15205 | 21824 |

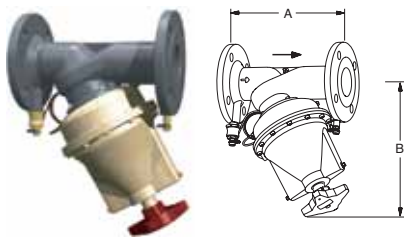
Note: See operating instructions on page 7.

Differential Pressure Controller

TA SERIES 793/794

Differential Pressure Controller

SERIES 794 Flanged End
(Class 150, ASME/ANSI B16.42)



TA Pressure Differential Controllers come standard with a drain kit, measuring port, transition nipple and adjusting tool. End connections are ANSI Class 150 flanges only, grooved ends are not available.

| Nominal Size Inches mm | Actual Outside Dia. Inches mm | Differential Pressure Range psi/kPa | A End to End Inches mm | B Center to Top Inches mm | Approx. Weight Each Lbs. kg |
|------------------------------|-------------------------------------|---|---------------------------------|------------------------------------|--------------------------------------|
| 2½ 65 | 2.875 73.0 | 2.90-11.6 20-80 | 11.42 290 | 16.3 414 | 46.3 21 |
| 3 80 | 3.500 88.9 | 2.90-11.6 20-80 | 12.21 310 | 17.17 436 | 52.9 24 |
| 4 100 | 4.500 114.3 | 2.90-11.6 20-80 | 13.78 350 | 18.11 460 | 72.8 33 |

VALVE SELECTION GUIDE

English Measurements in Pounds per Square Inch and Gallons per Minute (Spring Option 1)

| Size Inches | Dp _L (psi) | | | | | | | | | | | | | | | | | | | | |
|----------------|-----------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| | 2.9 | | | 4.4 | | | 5.8 | | | 7.3 | | | 8.7 | | | 10.2 | | | 11.6 | | |
| | Q _{min} | Q _{nom} | Q _{max} | Q _{min} | Q _{nom} | Q _{max} | Q _{min} | Q _{nom} | Q _{max} | Q _{min} | Q _{nom} | Q _{max} | Q _{min} | Q _{nom} | Q _{max} | Q _{min} | Q _{nom} | Q _{max} | Q _{min} | Q _{nom} | Q _{max} |
| 2½ | 2.7 | 48.8 | 70.2 | 3.4 | 60.1 | 86.5 | 3.9 | 69.0 | 99.3 | 4.3 | 77.4 | 111.4 | 4.7 | 84.5 | 121.6 | 5.1 | 91.5 | 131.7 | 5.5 | 97.5 | 140.5 |
| 3 | 4.3 | 74.1 | 107.3 | 5.3 | 91.3 | 132.2 | 6.1 | 104.8 | 151.7 | 6.8 | 117.6 | 170.2 | 7.4 | 128.4 | 185.9 | 8.0 | 139.0 | 201.2 | 8.6 | 148.3 | 214.6 |
| 4 | 8.6 | 150.2 | 214.6 | 10.6 | 185.0 | 264.3 | 12.1 | 212.4 | 303.5 | 13.6 | 238.3 | 340.5 | 14.9 | 260.2 | 371.7 | 16.1 | 281.7 | 402.5 | 17.2 | 300.4 | 429.2 |

English Measurements in Pounds per Square Inch and Gallons per Minute (Spring Option 2)

| Size Inches | Dp _L (psi) | | | | | | | | | | | | | | | | | | | | |
|----------------|-----------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| | 5.8 | | | 7.3 | | | 8.7 | | | 10.2 | | | 11.6 | | | 13.1 | | | 14.5 | | |
| | Q _{min} | Q _{nom} | Q _{max} | Q _{min} | Q _{nom} | Q _{max} | Q _{min} | Q _{nom} | Q _{max} | Q _{min} | Q _{nom} | Q _{max} | Q _{min} | Q _{nom} | Q _{max} | Q _{min} | Q _{nom} | Q _{max} | Q _{min} | Q _{nom} | Q _{max} |
| 2½ | 3.9 | 69.0 | 99.3 | 4.3 | 77.4 | 111.4 | 4.7 | 84.5 | 121.6 | 5.1 | 91.5 | 131.7 | 5.5 | 97.5 | 140.5 | 5.8 | 103.7 | 149.3 | 6.1 | 109.1 | 157.0 |
| 3 | 6.1 | 104.8 | 151.7 | 6.8 | 117.6 | 170.2 | 7.4 | 128.4 | 185.9 | 8.0 | 139.0 | 201.2 | 8.6 | 148.3 | 214.6 | 9.1 | 157.6 | 228.1 | 9.6 | 165.8 | 239.9 |
| 4 | 12.1 | 212.4 | 303.5 | 13.6 | 238.3 | 340.5 | 14.9 | 260.2 | 371.7 | 16.1 | 281.7 | 402.5 | 17.2 | 300.4 | 429.2 | 18.2 | 319.3 | 456.1 | 19.2 | 335.9 | 479.9 |

| Size Inches | Dp _L (psi) | | | | | | | | | | | | | | | | | |
|----------------|-----------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| | 16.0 | | | 17.4 | | | 18.9 | | | 20.3 | | | 21.8 | | | 23.2 | | |
| | Q _{min} | Q _{nom} | Q _{max} | Q _{min} | Q _{nom} | Q _{max} | Q _{min} | Q _{nom} | Q _{max} | Q _{min} | Q _{nom} | Q _{max} | Q _{min} | Q _{nom} | Q _{max} | Q _{min} | Q _{nom} | Q _{max} |
| 2½ | 6.4 | 114.6 | 165.0 | 6.7 | 119.5 | 172.0 | 7.0 | 124.5 | 179.3 | 7.2 | 129.0 | 185.8 | 7.5 | 133.7 | 192.6 | 7.7 | 138.0 | 198.6 |
| 3 | 10.1 | 174.1 | 252.0 | 10.5 | 181.6 | 262.8 | 11.0 | 189.3 | 273.9 | 11.4 | 196.1 | 283.9 | 11.8 | 203.3 | 294.2 | 12.1 | 209.7 | 303.5 |
| 4 | 20.2 | 352.9 | 504.1 | 21.0 | 368.0 | 525.7 | 21.9 | 383.5 | 547.9 | 22.7 | 397.4 | 567.8 | 23.5 | 411.9 | 588.4 | 24.3 | 424.9 | 607.0 |

Metric Measurements in Kilopascals and Liters per Hour (Spring Option 1)

| Size mm | Dp _L (kPa) | | | | | | | | | | | | | | | | | | | |
|------------|-----------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------|--|
| | 20.0 | | | 30.0 | | | 40.0 | | | 50.0 | | | 60.0 | | | 70.0 | | | 80.0 | |
| | Q _{min} | Q _{nom} | Q _{max} | Q _{min} | Q _{nom} | Q _{max} | Q _{min} | Q _{nom} | Q _{max} | Q _{min} | Q _{nom} | Q _{max} | Q _{min} | Q _{nom} | Q _{max} | Q _{min} | Q _{nom} | Q _{max} | | |
| 65 | 626 | 11180 | 16100 | 767 | 13693 | 19718 | 885 | 15811 | 22768 | 990 | 17678 | 25456 | 1084 | 19365 | 27885 | 1171 | 20917 | 30120 | | |
| 80 | 984 | 16994 | 24597 | 1205 | 20813 | 30125 | 1391 | 24033 | 34785 | 1556 | 26870 | 38891 | 1704 | 29435 | 42603 | 1841 | 31793 | 46016 | | |
| 100 | 1968 | 34435 | 49193 | 2410 | 42175 | 60249 | 2783 | 48699 | 69570 | 3111 | 54447 | 77782 | 3408 | 59644 | 85206 | 3681 | 64423 | 92033 | | |

Metric Measurements in Kilopascals and Liters per Hour (Spring Option 2)

| Size mm | Dp _L (kPa) | | | | | | | | | | | | | | | | | | | |
|------------|-----------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-------|--|
| | 40.0 | | | 50.0 | | | 60.0 | | | 70.0 | | | 80.0 | | | 90.0 | | | 100.0 | |
| | Q _{min} | Q _{nom} | Q _{max} | Q _{min} | Q _{nom} | Q _{max} | Q _{min} | Q _{nom} | Q _{max} | Q _{min} | Q _{nom} | Q _{max} | Q _{min} | Q _{nom} | Q _{max} | Q _{min} | Q _{nom} | Q _{max} | | |
| 65 | 885 | 15811 | 22768 | 990 | 17678 | 25456 | 1084 | 19365 | 27885 | 1171 | 20917 | 30120 | 1252 | 22361 | 32199 | 1328 | 23717 | 34153 | | |
| 80 | 1391 | 24033 | 34785 | 1556 | 26870 | 38891 | 1704 | 29435 | 42603 | 1841 | 31793 | 46016 | 1968 | 33988 | 49193 | 2087 | 36050 | 52178 | | |
| 100 | 2783 | 48699 | 69570 | 3111 | 54447 | 77782 | 3408 | 59644 | 85206 | 3681 | 64423 | 92033 | 3935 | 68871 | 98387 | 4174 | 73049 | 104355 | | |

| Size mm | Dp _L (kPa) | | | | | | | | | | | | | | | | | |
|------------|-----------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| | 110.0 | | | 120.0 | | | 130.0 | | | 140.0 | | | 150.0 | | | 160.0 | | |
| | Q _{min} | Q _{nom} | Q _{max} | Q _{min} | Q _{nom} | Q _{max} | Q _{min} | Q _{nom} | Q _{max} | Q _{min} | Q _{nom} | Q _{max} | Q _{min} | Q _{nom} | Q _{max} | Q _{min} | Q _{nom} | Q _{max} |
| 65 | 1468 | 26220 | 37757 | 1534 | 27386 | 39436 | 1596 | 28504 | 41046 | 1657 | 29580 | 42596 | 1715 | 30619 | 44091 | 1771 | 31623 | 45537 |
| 80 | 2307 | 39855 | 57684 | 2410 | 41627 | 60249 | 2508 | 43327 | 62710 | 2603 | 44962 | 65077 | 2694 | 46540 | 67361 | 2783 | 48067 | 69570 |
| 100 | 4615 | 80758 | 115369 | 4820 | 84349 | 120499 | 5017 | 87794 | 125419 | 5206 | 91108 | 130154 | 5389 | 94305 | 134722 | 5566 | 97398 | 139140 |

Note: See operating instructions on page 7.

Differential Pressure Controller

TA SERIES 793/794

Differential Pressure Controller

Cv/Kv Values for TA Series 793/794

C_v/K_v values for flow of water at +60°F/-16°C.

Formulas for C_v Values:

$$\frac{Q^2}{C_v^2} = \Delta P$$

$$Q = C_v \times \sqrt{\Delta P}$$

Where:

Q = Flow (GPM)
 ΔP = Pressure Drop (psi)
 C_v = Flow Coefficient

Formulas for K_v Values:

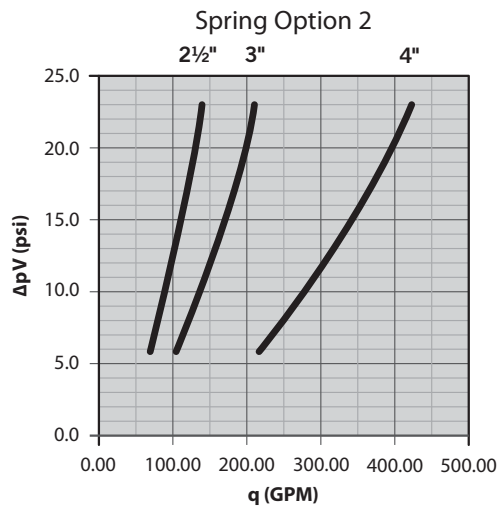
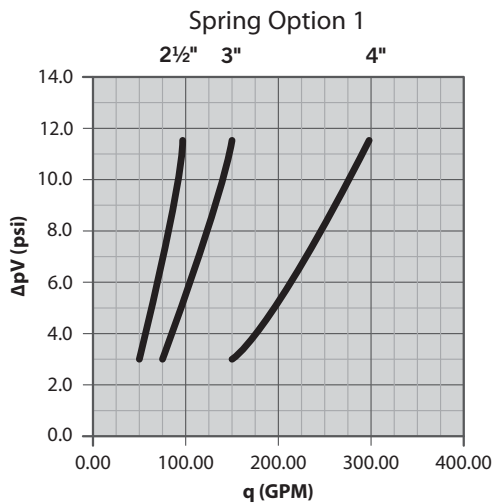
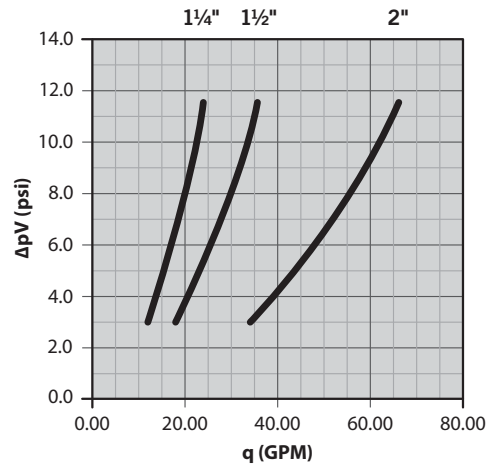
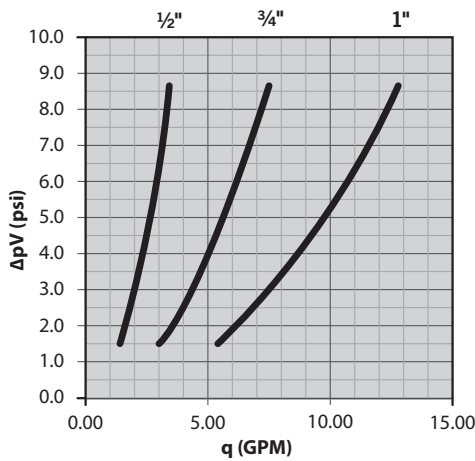
$$\Delta P = \frac{Q^2}{K_v^2}$$

$$Q = K_v \times \sqrt{\Delta P}$$

Where:

Q = Flow (l/h)
 ΔP = Pressure (kPa)
 K_v = Flow Factor

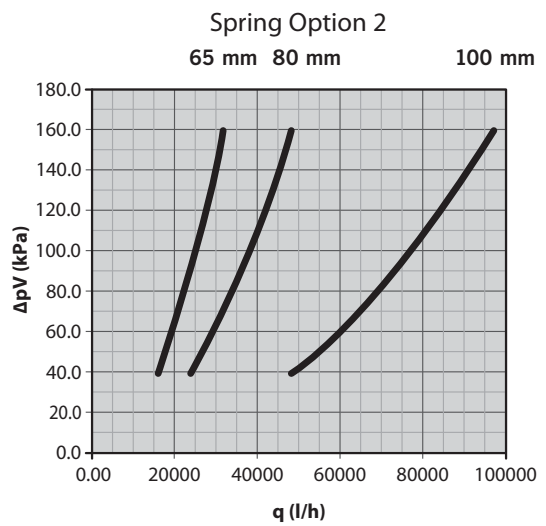
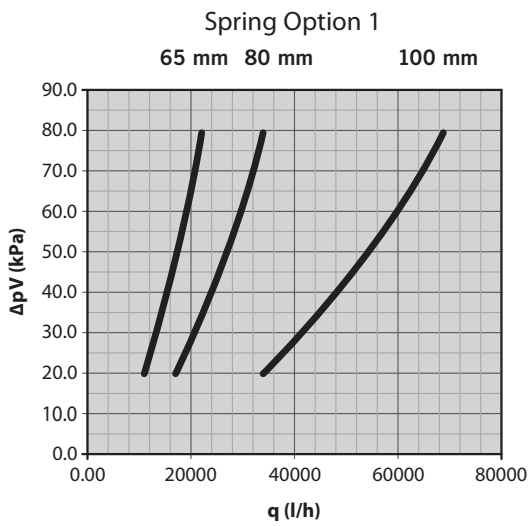
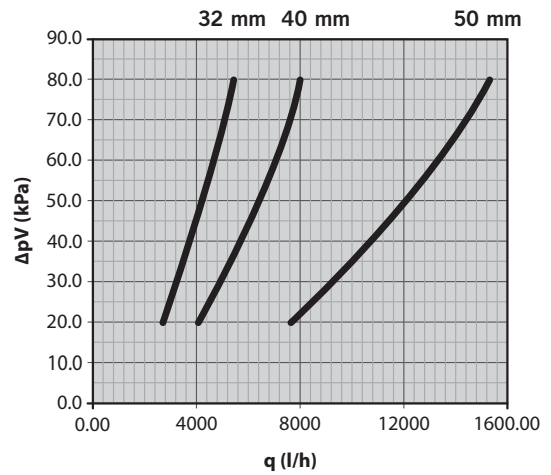
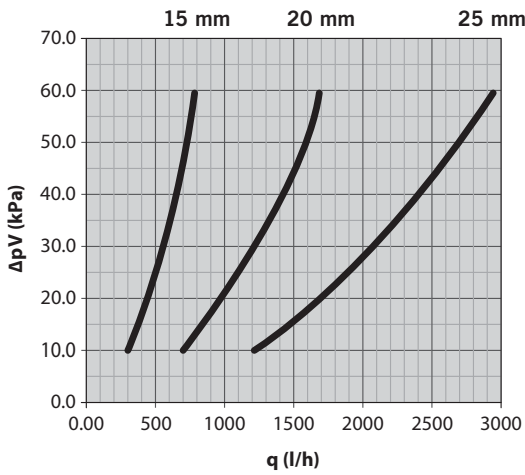
| Size | Cv/Kv Values | | | |
|--------|-------------------|---------|---------|---------|
| | Nominal Inches/mm | Minimum | Nominal | Maximum |
| 1/2" | 15 | 0.1 | 1.1 | 1.6 |
| 3/4" | 20 | 0.07 | 1.00 | 1.40 |
| 1" | 25 | 0.2 | 2.5 | 3.6 |
| 1 1/4" | 32 | 0.16 | 2.20 | 3.10 |
| 1 1/2" | 40 | 0.3 | 4.4 | 6.3 |
| 2" | 50 | 0.28 | 3.80 | 5.50 |
| 2 1/2" | 65 | 0.5 | 6.9 | 9.7 |
| 3" | 80 | 0.42 | 6.00 | 8.50 |
| 3 1/2" | 100 | 0.7 | 10.3 | 14.7 |
| 4" | 120 | 0.64 | 9.00 | 12.80 |
| 5" | 150 | 1.4 | 19.5 | 28.0 |
| 6" | 180 | 1.20 | 17.00 | 24.40 |
| 8" | 240 | 1.6 | 28.6 | 41.2 |
| 10" | 300 | 1.40 | 25.00 | 36.00 |
| 12" | 360 | 2.5 | 43.5 | 63.0 |
| 14" | 420 | 2.20 | 38.00 | 55.00 |
| 16" | 480 | 5.0 | 88.2 | 126.0 |
| 18" | 540 | 4.40 | 77.00 | 110.00 |



Differential Pressure Controller

TA SERIES 793/794

Differential Pressure Controller

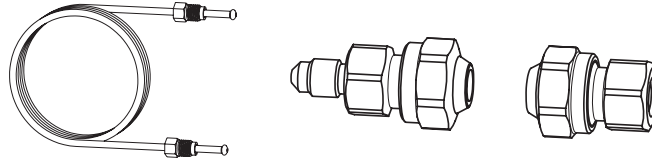


Differential Pressure Controller

TA SERIES 793/794

CAPILLARY PIPE AND EXTENSION KIT

Spare Parts For TA Series 793/794



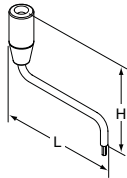
The capillary pipe, transition nipple and drain are included with the TA Series 793/794 valves when purchased.

These parts are intended as spare parts.

- Capillary Tube Part Code= P-000-793-001
- Capillary Extension Kit Part Code= K-002-793-000

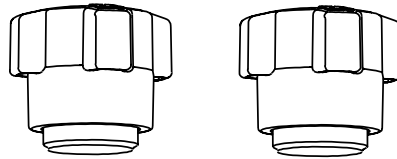
SETTING TOOL

For TA Series 793/794



| Differential Pressure Controller | Setting Tool Size mm | Dimensions Inches/mm | | Partcode |
|----------------------------------|-------------------------|----------------------|-----|---------------|
| | | L | H | |
| TA Series 793 | 3 | 4.2 | 3.3 | P-004-793-KEY |
| | | 107 | 85 | |
| TA Series 794 | 5 | 8.2 | 2.8 | P-030-794-KEY |
| | | 207 | 72 | |

HANDWHEELS

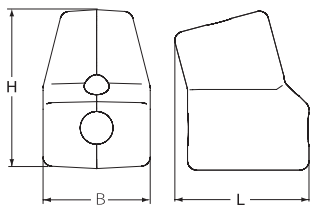


TA SERIES 793
PLASTIC
½ - 1"

TA SERIES 793
PLASTIC
1¼ - 2"

| Part Code | Part Code |
|---------------|---------------|
| P-004-793-HDW | P-012-793-HDW |

PREFAB INSULATION TA SERIES 793



| Valve Size In./mm | Dimensions Inches/mm | | | |
|----------------------|----------------------|------------|------------|------------|
| | Part Code | H | B | L |
| ½ 15 | P-006-793-INS | 6.8 172 | 4.6 116 | 5.7 145 |
| ¾ 20 | | | | |
| 1 25 | | | | |
| 1¼ 32 | | | | |
| 1½ 40 | P-012-793-INS | 9.2 234 | 6.1 154 | 7.5 191 |
| 2 | | | | |
| 50 | | | | |

Differential Pressure Controller

TA SERIES 793/794

TYPICAL SPECIFICATIONS

Differential Pressure Control Valves ½" through 2": Maximum differential pressure is 51 psi / 350 kPa, maximum temperature is 248°F / 120°C for use in heating and cooling systems only. NPT threaded valve body and bonnet shall be manufactured of Ametal® copper alloy, O-rings, seat seal, and membrane manufactured of HBNR. Shall have adjustable differential control, single pressure temperature port, dead end service shut off capabilities, stainless steel spring, polyimide handle, and drain if required by project engineer.

Shall be capable of stabilizing ΔpV ranges of 1.5- 8.7 psi/10-60 kPa in sizes ¾-1"/15-25 mm or 2.9-11.6 psi/23-80 kPa in sizes 1¼- 2"/32-50 mm, as determined by project engineer or certified TA representative. Supply side valve shall be Tour and Andersson style STAD, STAS, STAG, or STAF dependent on system size and connection requirements.

Capillary tube, hose kit, and all connection fittings shall be manufactured by Tour and Andersson to ensure proper operation of installed STAP valves. Mechanical contractor and balancing contractor shall be trained on installation, connection, and balancing procedures by certified TA representative.

Differential Pressure Control Valves 2½" through 4": Maximum differential pressure 51 psi/350 kPa, maximum temperature is 176°F / 80°C for use in heating and cooling systems only. ANSI Class 150 flange body to be cast of ductile iron and bonnet shall be manufactured of Ametal® copper alloy, O-rings, seat seal, and membrane manufactured of EPDM. Shall have adjustable differential control, single pressure temperature port, dead end service shut off capabilities, stainless steel spring, polyimide handle, and drain if required by project engineer.

Shall be capable of stabilizing ΔpV ranges of 2.9-11.6 psi/20-80 kPa for spring option 1 and 5.8-23.3 psi/40-160 kPa for spring option 2, as determined by project engineer or certified TA representative. Supply side valve shall be Tour and Andersson style STAD, STAS, STAG, or STAF dependant on system size and connection requirements.

Capillary tube, hose kit, and all connection fittings shall be manufactured by Tour and Andersson to ensure proper operation of installed STAP valves. Mechanical contractor and balancing contractor shall be trained on installation, connection, and balancing procedures by certified TA representative.

OPERATING INSTRUCTIONS

Note! The STAP must be placed in the return pipe and with correct flow direction.

For installation examples, see catalog leaflet Applications STAP or Handbook No 4 - Hydronic balancing with differential pressure controllers.

STAF see catalog leaflet STAF-SG with ANSI flanges.

Sizing

1. Select the desired ΔpL in the tables or diagrams.
2. Select the same size of the valve as the pipe.
3. Check that the desired flow is smaller than the specified q_{max} . If not, select the next larger size, alternatively a larger ΔpL .

Differential Pressure Controller

TA SERIES 793/794

WARRANTY

Refer to the Warranty section of the current Price List or contact Victaulic for details.

NOTE

This product shall be manufactured by Victaulic or to Victaulic specifications. All products to be installed in accordance with current Victaulic installation/assembly instructions as recommended by Tour and Andersson. Victaulic reserves the right to change product specifications, designs and standard equipment without notice and without incurring obligations.

For complete contact information, visit www.victaulic.com

08.29 5650 REV A UPDATED 6/2009

VICTAULIC IS A REGISTERED TRADEMARK OF VICTAULIC COMPANY. © 2009 VICTAULIC COMPANY. ALL RIGHTS RESERVED.

08.29

