

# SERIES 80 NYLON CONTROL VALVES

NOW AVAILABLE IN 2-WAY OR 3-WAY

## QUICK REACTION AND DRIP-TIGHT CLOSURE FOR PRECISE AND ACCURATE IRRIGATION



34" & 1" GLOBE 2-WAY ELECTRIC CONTROL VALVES



1 ½" & 2" GLOBE 2-WAY ELECTRIC CONTROL VALVES



1 ½" & 2" ANGLE 2-WAY ELECTRIC CONTROL VALVES



1 ½" & 2" GLOBE/ANGLE 3-WAY PRESSURE REDUCING CONTROL VALVES



1 ½" & 2" GLOBE/ANGLE 3-WAY PRESSURE SUSTAINING CONTROL VALVES

#### PRODUCT ADVANTAGES

- Flow control stem allows manual control from full closure up to maximum capacity.
- Suitable for dirty water applications with clog-free labyrinth inlet for command water.
- Quick reaction to opening and closing and a drip-tight seal for accurate irrigation.
- Available in multiple body configurations and control functions.
- Very low friction loss allows valve use with a wider range of flows.
- Durable, corrosion resistant materials for long life.

# 2-WAY SERIES 80 NYLON CONTROL VALVES

#### **FEATURES**

- Suitable for high pressure applications with quick reaction to opening and closing.
- Exceptionally low inrush and holding current allows the longest wire run from valve to controller.
- Tight sealing valve with fully supported diaphragm.
- Stable solenoid to voltage fluctuations with low sensitivity to dirt no diode solenoid.
- Integrated check valve (on 1 ½" and 2" sizes) ensures valve remains closed until the controller designates opening.
- Optimal for vertical installations.





#### **APPLICATIONS**

- Greenhouse and Nursery irrigation including hydroponic and mist systems
- For remote control, master valve, automated or manual operations
- For mild corrosive and mild acidity levels in the water

#### **SPECIFICATIONS**

- Recommended Flow Ranges:
   ¾" valve .01 to 26 GPM \*
   1" valve .01 to 44 GPM \*
   1½" valve .25 to 110 GPM
   2" valve .25 to 176 GPM
- Valve Configurations:
   34" and 1" valves Globe
   1 ½" and 2" valves Globe or Angle
- Standard 2-Way Electric Normally Closed Valve
- Minimum Operating Pressure: 7 psi
- Maximum Operating Pressure: 150 psi
- Maximum Water Temperature: 140° F
- Standard Solenoid Voltage: 24VAC ± 10% voltage
- Solenoid Inrush Current: .22A
- Solenoid Holding Current: .095A
- Optional Solenoid Voltage: 24VDC, 12VDC, 12VDC latching, 120VAC

#### **MATERIALS**

- Body, Bonnet, Diaphragm Seat: Glass Reinforced Polyamide (GRP)
- Nuts, Bolts, Washers: Stainless Steel 304
- Spring: Stainless Steel AISI 302
- \* Minimum flow tested by Center for Irrigation Technology, Fresno, California. November 2010

## SERIES 80 VALVE WITH BATTERY OPERATED CONTROLLER

Low cost automatic valve operation without additional wiring costs. Aqua Pro Single Zone Valve Controller mounts on each valve and is individually programmed. Controller's 9 VDC battery is the only power required to turn the valve on and off. Ideal for seasonal or annual crops requiring system portability.



| DIMENSIONS (2-WAY VALVES) |                                   |                         |          |         |  |
|---------------------------|-----------------------------------|-------------------------|----------|---------|--|
| SIZE                      | LENGTH                            | LENGTH   WIDTH   HEIGHT |          |         |  |
| 3/4" GLOBE                | 3 <sup>15</sup> / <sub>16</sub> " | 3"                      | 4 3/8"   | .62 LBS |  |
| 1" GLOBE                  | 4 1/8"                            | 3"                      | 4 1/2"   | .64 LBS |  |
| 1 1/2" GLOBE              | 6 <sup>9</sup> / <sub>16</sub> "  | 6 1/2"                  | 6 3/8"   | 2 LBS   |  |
| 1½" ANGLE                 | 3 1/2"                            | 6 1/2"                  | 6 13/16" | 1.8 LBS |  |
| 2" GLOBE                  | 6 <sup>9</sup> / <sub>16</sub> "  | 6 1/2"                  | 6 5/8"   | 2 LBS   |  |
| 2" ANGLE                  | 3 1/2"                            | 6 1/2"                  | 6 13/16" | 1.8 LBS |  |

| ORDERING INFORMATION<br>STANDARD 24VAC VALVES |              |               |  |  |
|---|--------------|---------------|--|--|
| <b>VALVE SIZE</b>                             | ITEM NUMBER  | MODEL NUMBER  |  |  |
| ¾" GLOBE                                      | 71640-007355 | 61ET.75GH2    |  |  |
| 1" GLOBE                                      | 71640-007406 | 61ET1GH2      |  |  |
| 1½" GLOBE                                     | 71640-007425 | 61ET1.5GH2    |  |  |
| 1½" ANGLE                                     | 71640-007426 | 61ET1.5GH2-AN |  |  |
| 2" GLOBE                                      | 71640-007660 | 61ET2GH2      |  |  |
| 2" ANGLE                                      | 71640-007665 | 61ET2GH2-AN   |  |  |

| OPTIONAL VOLTAGES |         |  |  |
|-------------------|---------|--|--|
| VALVE SIZE        | VOLTAGE |  |  |
|                   | 12VDC   |  |  |
| ALL SIZES         | 12VDCL  |  |  |
| ALL SIZES         | 241/DC  |  |  |

120VAC

#### **OPTIONAL VOLTAGES:**

Call Netafim USA for Item and Model Numbers for Series 80 Nylon Control Valves with optional voltages.

## 3-WAY SERIES 80 NYLON CONTROL VALVES



| DIMENSIONS (3-WAY VALVES) |                                  |        |                                 |         |  |
|---------------------------|----------------------------------|--------|---------------------------------|---------|--|
| SIZE                      | HEIGHT                           | WEIGHT |                                 |         |  |
| 1½" GLOBE                 | 6 <sup>9</sup> / <sub>16</sub> " | 6 1/2" | 6 <sup>3</sup> / <sub>8</sub> " | 2 LBS   |  |
| 1½" ANGLE                 | 3 1/2"                           | 6 1/2" | 6 13/16"                        | 1.8 LBS |  |
| 2" GLOBE                  | 6 9/16"                          | 6 1/2" | 6 5/8"                          | 2 LBS   |  |
| 2" ANGLE                  | 3 1/2"                           | 6 1/2" | 6 13/16"                        | 1.8 LBS |  |

Dimensions for Basic 3-Way Series 80 Control Valve

| OPTIONAL VOLTAGES |         |  |  |
|-------------------|---------|--|--|
| <b>VALVE SIZE</b> | VOLTAGE |  |  |
|                   | 12VDC   |  |  |
| ALL SIZES         | 12VDCL  |  |  |
| ALL SIZES         | 24VDC   |  |  |
|                   | 120VAC  |  |  |

#### **OPTIONAL VOLTAGES:**

Call Netafim USA for Item and Model Numbers for Series 80 Nylon Control Valves with optional voltages.

| OPTIONAL FUNCTIONS |                 |                              |  |  |
|--------------------|-----------------|------------------------------|--|--|
| <b>VALVE SIZE</b>  | CODE   FUNCTION |                              |  |  |
| ALL<br>SIZES       | ELTH            | ELECTRIC                     |  |  |
|                    | PRTH            | PRESSURE REDUCING            |  |  |
|                    | PRELTH          | PRESSURE REDUCING ELECTRIC   |  |  |
|                    | PSTH            | PRESSURE SUSTAINING          |  |  |
|                    | PSELTH          | PRESSURE SUSTAINING ELECTRIC |  |  |

#### **FEATURES**

- All control systems (pilot and solenoid) are assembled on the bonnet. No tubes are connected to the valve body.
- Tight sealing valve with fully supported diaphragm.
- Straight or angle with globe configuration activated by a fully supported diaphragm.
- Integrated check valve ensures valve remains closed until the controller designates opening.
- Vertical or horizontal installations.

#### **APPLICATIONS**

- Pressure regulation of irrigation systems small blocks
- For remote control, master valve, automated or manual operations accurate irrigation control
- Greenhouse and Nursery irrigation including hydroponic and mist systems

#### **SPECIFICATIONS**

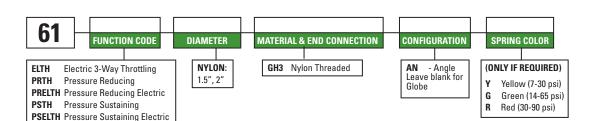
- Recommended Flow Ranges:
   1½" valve .25 to 110 GPM
   2" valve .25 to 176 GPM
- Valve Configurations:
  - 1 1/2" and 2" valves Globe or Angle
- Minimum Operating Pressure: 7 psi
- Maximum Operating Pressure: 150 psi
- Maximum Water Temperature: 140° F
- Optional Solenoid Voltage: 24VDC, 12VDC, latching, 120VAC

#### **MATERIALS**

- Body, Bonnet, Diaphragm Seat: Glass Reinforced Polyamide (GRP)
- Nuts, Bolts, Washers: Stainless Steel 304
- Spring: Stainless Steel AISI 302

## ORDERING INFORMATION

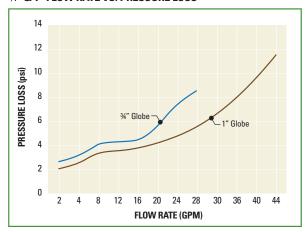
Use this chart to select the valve options and create the valve Model Number.



# TECHNICAL INFORMATION

### 2-WAY SERIES 80 NYLON CONTROL VALVES

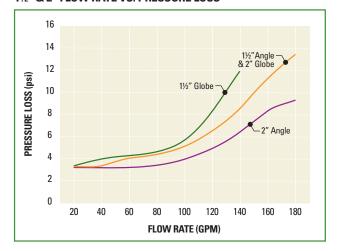
#### 34" & 1" FLOW RATE VS. PRESSURE LOSS \*



## FLOW RATE AND PRESSURE LOSS

| I LOVI HAIL AND I HECCOME LOCC |   |      |  |  |
|--------------------------------|---|------|--|--|
| FLOW (GPM)                     | PRESSURE LOSS (psi) 3/4" GLOBE   1" GLOBE |      |  |  |
| 2                              | 2.5                                       | 2.0  |  |  |
| 4                              | 3.0                                       | 2.5  |  |  |
| 8                              | 4.0                                       | 3.4  |  |  |
| 12                             | 4.1                                       | 3.5  |  |  |
| 16                             | 4.4                                       | 3.9  |  |  |
| 20                             | 5.5                                       | 4.1  |  |  |
| 24                             | 7.5                                       | 4.7  |  |  |
| 28                             | 8.5                                       | 5.4  |  |  |
| 32                             | -   | 6.5  |  |  |
| 36                             | -   | 8.0  |  |  |
| 40                             | -   | 9.5  |  |  |
| 44                             | -   | 11.5 |  |  |
|                                |   |      |  |  |

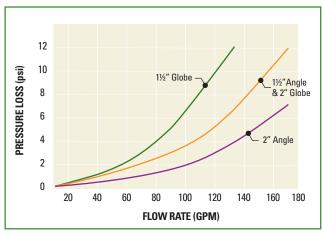
#### 11/2" & 2" FLOW RATE VS. PRESSURE LOSS \*



| FLOW RATE AND PRESSURE LOSS |                     |            |          |          |
|-----------------------------|---------------------|------------|----------|----------|
| FL0W                        | PRESSURE LOSS (psi) |            |          |          |
| (GPM)                       | 1 ½" GLOBE          | 1 ½" ANGLE | 2" GLOBE | 2" ANGLE |
| 20                          | 3.3                 | 3.3        | 3.3      | 3.3      |
| 40                          | 4.0                 | 3.3        | 3.3      | 3.3      |
| 60                          | 4.3                 | 4.0        | 4.0      | 3.3      |
| 80                          | 4.5                 | 4.3        | 4.3      | 3.6      |
| 100                         | 5.5                 | 5.0        | 5.0      | 4.1      |
| 120                         | 8.5                 | 6.5        | 6.5      | 5.0      |
| 140                         | 12                  | 8.5        | 8.5      | 6.5      |
| 160                         | -                   | -          | 11.5     | 8.5      |
| 180                         | -                   | -          | 13.5     | 9.5      |

### **3-WAY SERIES 80 NYLON CONTROL VALVES**

#### 11/2" & 2" FLOW RATE VS. PRESSURE LOSS \*



<sup>\*</sup> Tested by Center for Irrigation Technology, Fresno, California, November 2010

| FLOW RATE AND PRESSURE LOSS |                     |   |      |      |  |  |  |
|-----------------------------|---------------------|---|------|------|--|--|--|
|                             | PRESSURE LOSS (psi) |   |      |      |  |  |  |
| FLOW (GPM)                  | 1 ½" GLOBE          | 1½" GLOBE   1½" ANGLE   2" GLOBE   2" ANGLE |      |      |  |  |  |
| 20                          | 0.3                 | 0.2   | 0.2  | 0.1  |  |  |  |
| 40                          | 1.3                 | 0.7   | 0.7  | 0.4  |  |  |  |
| 90                          | 5.0                 | 3.0   | 3.0  | 1.75 |  |  |  |
| 130                         | 12.0                | 6.5   | 6.5  | 4.0  |  |  |  |
| 170                         | -                   | 12.0  | 12.0 | 7.0  |  |  |  |



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