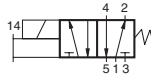
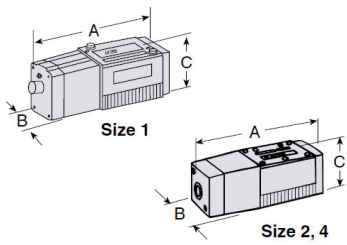


# Spool & Sleeve Valves for ANSI Sub-Bases Series W70

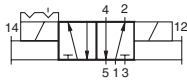
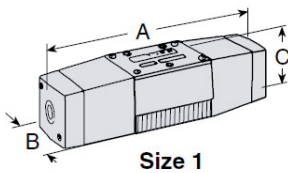
## 5/2 Valves – Single Direct Solenoid, Spring Return



| ANSI Size | Range of Port Sizes | Valve Model Number* | Avg. $k_v$ | Dimensions mm |    |    | Weight kg |
|-----------|---------------------|---------------------|------------|---------------|----|----|-----------|
|           |                     |                     |            | A             | B  | C  |           |
| 1         | G 1/4 - G 3/8       | W7016A2331          | 0.9        | 177           | 50 | 58 | 1.6       |
| 2.5       | G 3/8 - G 1/2       | W7016A3331          | 2.2        | 209           | 66 | 66 | 1.5       |
| 4         | G 3/8 - G 3/4       | W7016A4331          | 3.7        | 254           | 88 | 70 | 1.9       |

\*Sub-base not included.

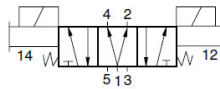
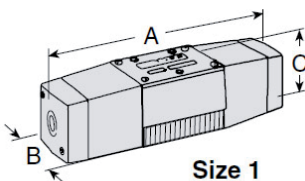
## 5/2 Valves – Double Pressure Controlled, Detented



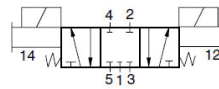
| ANSI Size | Range of Port Sizes | Valve Model Number* | Avg. $k_v$ | Dimensions mm |    |    | Weight kg |
|-----------|---------------------|---------------------|------------|---------------|----|----|-----------|
|           |                     |                     |            | A             | B  | C  |           |
| 1         | G 1/4 - G 3/8       | W7016A2332          | 0.9        | 226           | 50 | 58 | 2.0       |
| 2.5       | G 3/8 - G 1/2       | W7016A3332          | 2.2        | 273           | 66 | 66 | 2.3       |
| 4         | G 3/8 - G 3/4       | W7016A4332          | 3.7        | 335           | 88 | 70 | 2.6       |

\*Sub-base not included.

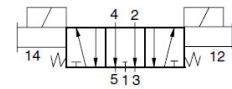
## 5/3 Valves – Double Direct Solenoid



Power Center



Closed Center



Open Center

| ANSI Size | Range of Port Sizes | Valve Model Number* |               |             | Average $k_v$ | Dimensions mm |    |    | Weight kg |
|-----------|---------------------|---------------------|---------------|-------------|---------------|---------------|----|----|-----------|
|           |                     | Power Center        | Closed Center | Open Center |               | A             | B  | C  |           |
| 1         | G 1/8 - G 3/8       | W7017B2905          | W7017B2331    | W7017B2332  | 0.9           | 226           | 50 | 58 | 2.0       |
| 2.5       | G 3/8 - G 1/2       | –                   | W7017A3331    | W7017A3332  | 2.2           | 273           | 66 | 66 | 2.3       |
| 4         | G 1/2 - G 3/4       | –                   | W7017B4331    | W7017A4332  | 3.7           | 335           | 88 | 70 | 2.6       |

\*Sub-base not included.

**STANDARD SPECIFICATIONS** (for valves on this page):

**Solenoids:** AC power; DC for size 1 models only.

**Leistungsaufnahme:** Modelle G 1/4–3/8: 140 VA beim Anzug; 30 VA im Betrieb bei Wechselstrom; 20 W nominal bei Gleichstrom. Alle anderen Modelle: 380 VA beim Anzug; 58 VA im Betrieb bei Wechselstrom.

**Indicator Light:** Available

**Ambient Temperature:** 4°C to 50°C.

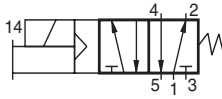
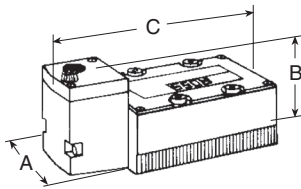
**Media Temperature:** 4°C to 80°C.

**Flow Media:** Filtered air; 5 micron recommended.

**Inlet Pressure:** Vacuum to 10 bar.

# Spool & Sleeve Valves for ANSI Sub-Bases Series W70

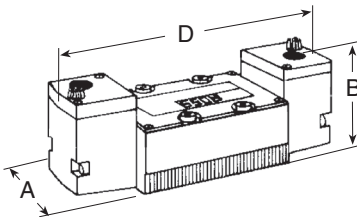
## 5/2 Valves – Single Solenoid Pilot Controlled, Spring Return



| ANSI Size | Range of Port Sizes | Valve Model Number* | Avg. $k_v$ | Dimensions mm |     |     | Weight kg |
|-----------|---------------------|---------------------|------------|---------------|-----|-----|-----------|
|           |                     |                     |            | A             | B   | C   |           |
| 1         | G 1/4 - G 3/8       | W7076A2331          | 0.9        | 163           | 50  | 59  | 1.4       |
| 2.5       | G 3/8 - G 1/2       | W7076A3331          | 2.2        | 185           | 66  | 91  | 1.4       |
| 4         | G 3/8 - G 3/4       | W7076A4331          | 3.7        | 212           | 88  | 101 | 2.4       |
| 10        | G 3/4 - G 1-1/4     | W7076A6331          | 8.7        | 249           | 99  | 101 | 3.3       |
| 20        | G 1-1/4 - G 1-1/2   | W7076A8331          | 19         | 381           | 142 | 104 | 6.5       |

\*Sub-base not included.

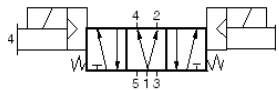
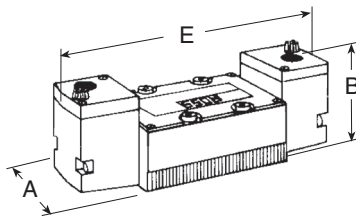
## 5/2 Valves – Double Solenoid Pilot Controlled, Detented



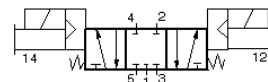
| ANSI Size | Range of Port Sizes | Valve Model Number* | Avg. $k_v$ | Dimensions mm |     |     | Weight kg |
|-----------|---------------------|---------------------|------------|---------------|-----|-----|-----------|
|           |                     |                     |            | A             | B   | C   |           |
| 1         | G 1/4 - G 3/8       | W7076A2332          | 0.9        | 194           | 50  | 59  | 1.8       |
| 2.5       | G 3/8 - G 1/2       | W7076A3332          | 2.2        | 224           | 66  | 91  | 1.8       |
| 4         | G 3/8 - G 3/4       | W7076A4332          | 3.7        | 249           | 88  | 101 | 2.9       |
| 10        | G 3/4 - G 1-1/4     | W7076A6332          | 8.7        | 286           | 99  | 101 | 4.1       |
| 20        | G 1-1/4 - G 1-1/2   | W7076A8332          | 19         | 417           | 142 | 104 | 6.8       |

\*Sub-base not included.

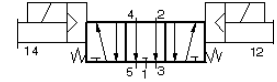
## 5/3 Valves – Double Solenoid Pilot Controlled



Power Center



Closed Center



Open Center

| ANSI Size | Range of Port Sizes | Valve Model Number* |               |             | Average $k_v$ | Dimensions mm |     |     | Weight kg |
|-----------|---------------------|---------------------|---------------|-------------|---------------|---------------|-----|-----|-----------|
|           |                     | Power Center        | Closed Center | Open Center |               | A             | B   | C   |           |
| 1         | G 1/4 - G 3/8       | W7077B2906          | W7077B2331    | W7077B2332  | 0.9           | 194           | 50  | 59  | 1.8       |
| 2.5       | G 3/8 - G 1/2       | W7077B3904          | W7077A3331    | W7077A3332  | 2.2           | 224           | 67  | 91  | 1.8       |
| 4         | G 3/8 - G 3/4       | W7077B4939          | W7077B4331    | W7077A4332  | 3.7           | 249           | 88  | 101 | 2.9       |
| 10        | G 3/4 - G 1-1/4     | W7077B6920          | W7077A6331    | W7077A6332  | 8.7           | 307           | 99  | 101 | 3.8       |
| 20        | G 1-1/4 - G 1-1/2   | W7077B8901          | W7077A8331    | W7077A8332  | 19            | 417           | 142 | 104 | 6.9       |

\*Sub-base not included.

### STANDARD SPECIFICATIONS (for valves on this page):

**Solenoid:** AC or DC power.

**Power Consumption:**

Size 1 models: 10 VA inrush; 9 VA holding on 50 or 60 Hz; 5 watts on DC.

All other sizes: 87 VA inrush; 30 VA holding on 50 or 60 Hz; 14 watts on DC.

**Indicator Light:** Size 4, 10 & 20 models only.

**Ambient Temperature:** 4°C to 50°C.

**Media Temperature:** 4°C to 80°C.

**Flow Media:** Filtered air; 5 micron recommended.

**Inlet Pressure:** Vacuum to 10 bar.

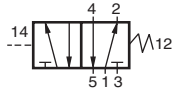
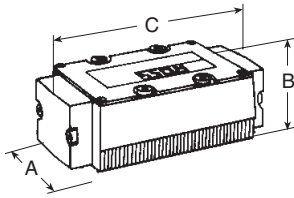
**Pilot Pressure:**

Size 1 & 20 models: At least 2 bar.

Size 2.5, 4 & 10 models: At least 1 bar.

# Spool & Sleeve Valves for ANSI Sub-Bases Series W70

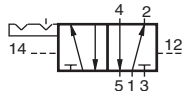
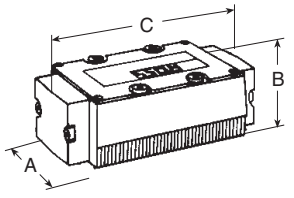
## 5/2 Valves – Single Pressure Controlled, Spring Return



| ANSI Size | Range of Port Sizes | Valve Model Number* | Avg. $k_v$ | Dimensions mm |     |    | Weight kg |
|-----------|---------------------|---------------------|------------|---------------|-----|----|-----------|
|           |                     |                     |            | A             | B   | C  |           |
| 1         | G 1/4 - G 3/8       | W7056A2331          | 0.9        | 128           | 50  | 58 | 1.1       |
| 2.5       | G 3/8 - G 1/2       | W7056A3331          | 2.2        | 145           | 66  | 66 | 0.9       |
| 4         | G 3/8 - G 3/4       | W7056A4331          | 3.7        | 174           | 88  | 70 | 1.9       |
| 10        | G 3/4 - G 1-1/4     | W7056A6331          | 8.7        | 211           | 99  | 68 | 2.8       |
| 20        | G 1-1/4 - G 1-1/2   | W7056A8331          | 19         | 342           | 142 | 76 | 5.9       |

\*Sub-base not included. See pages 28-30 for sub-bases, manifolds and accessories.

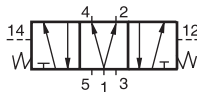
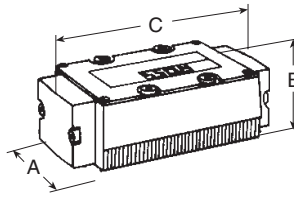
## 5/2 Valves – Double Pressure Controlled, Detented



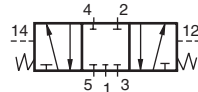
| ANSI Size | Range of Port Sizes | Valve Model Number* | Avg. $k_v$ | Dimensions mm |     |    | Weight kg |
|-----------|---------------------|---------------------|------------|---------------|-----|----|-----------|
|           |                     |                     |            | A             | B   | C  |           |
| 1         | G 1/4 - G 3/8       | W7056A2332          | 0.9        | 128           | 50  | 58 | 1.1       |
| 2.5       | G 3/8 - G 1/2       | W7056A3332          | 2.2        | 145           | 66  | 66 | 0.9       |
| 4         | G 3/8 - G 3/4       | W7056A4332          | 3.7        | 174           | 88  | 70 | 1.9       |
| 10        | G 3/4 - G 1-1/4     | W7056A6332          | 8.7        | 211           | 99  | 68 | 2.8       |
| 20        | G 1-1/4 - G 1-1/2   | W7056A8332          | 19         | 342           | 142 | 76 | 6.2       |

\*Sub-base not included.

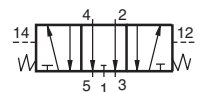
## 5/3 Valves – Double Pressure Controlled



Power Center



Closed Center



Open Center

| ANSI Size | Range of Port Sizes | Power Center | Valve Model Number* |             | Average $k_v$ | Dimensions mm |     |    | Weight kg |
|-----------|---------------------|--------------|---------------------|-------------|---------------|---------------|-----|----|-----------|
|           |                     |              | Closed Center       | Open Center |               | A             | B   | C  |           |
| 1         | G 1/8 - G 3/8       | –            | W7057B2331          | W7057B2332  | 0.9           | 128           | 50  | 58 | 1.1       |
| 2.5       | G 3/8 - G 1/2       | –            | W7057A3331          | W7057A3332  | 2.2           | 145           | 66  | 66 | 0.9       |
| 4         | G 1/2 - G 3/4       | –            | W7057B4331          | W7057A4332  | 3.7           | 174           | 88  | 70 | 2.0       |
| 10        | G 3/4 - G 1-1/4     | W7057A6902   | W7057A6331          | W7057A6332  | 8.7           | 211           | 99  | 68 | 2.8       |
| 20        | G 1-1/4 - G 1-1/2   | –            | W7057A8331          | W7057A8332  | 19            | 342           | 142 | 76 | 6.2       |

\*Sub-base not included.

### STANDARD SPECIFICATIONS (for valves on this page):

**Ambient Temperature:** 4°C to 80°C.

**Flow Media:** Filtered air; 5 micron recommended.

**Inlet Pressure:** Vacuum to 10 bar.

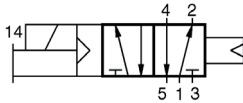
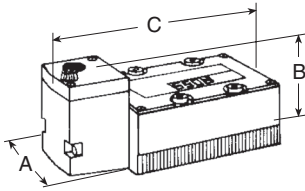
### Pilot Pressure:

*Size 1 & 20 models:* At least 2 bar.

*Size 2.5, 4 & 10:* At least 1 bar.

# Poppet Valves for ANSI Sub-Bases Series W74

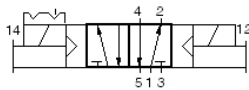
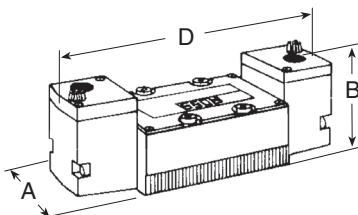
## 5/2 Valves – Single Solenoid Pilot Controlled, Air Return



| Size | Range of Port Sizes | Avg. $k_v$ | Valve Model Numbers* |            | Weight kg |
|------|---------------------|------------|----------------------|------------|-----------|
|      |                     |            | Std. Temp.           | High Temp. |           |
| 1.0  | G 1/4 – G 3/8       | 0.8        | W7476A2331           | W7476A2336 | 1.4       |
| 2.5  | G 3/8 – G 1/2       | 1.7        | W7476A3331           | W7476A3336 | 1.4       |
| 4    | G 3/8 – G 3/4       | 3.7        | W7476B4331           | W7476B4336 | 2.3       |
| 10   | G 3/4 – G 1-1/4     | 9.6        | W7476A6331           | W7476A6336 | 2.8       |
| 20   | G 1-1/4 – G 1-1/2   | 19         | W7476A8331           | W7476A8336 | 8.3       |

\*Base not included.

## 5/2 Valves – Double Solenoid Pilot Controlled, Detented



| Size | Range of Port Sizes | Avg. $k_v$ | Valve Model Numbers* |            | Weight kg |
|------|---------------------|------------|----------------------|------------|-----------|
|      |                     |            | Std. Temp.           | High Temp. |           |
| 1.0  | G 1/4 – G 3/8       | 0.8        | W7476A2332           | W7476A2337 | 1.6       |
| 2.5  | G 3/8 – G 1/2       | 1.7        | W7476A3332           | W7476A3337 | 1.8       |
| 4    | G 3/8 – G 3/4       | 3.7        | W7476B4332           | W7476B4337 | 2.5       |
| 10   | G 3/4 – G 1-1/4     | 9.6        | W7476A6332           | W7476A6337 | 4.9       |
| 20   | G 1-1/4 – G 1-1/2   | 19         | W7476A8332           | W7476A8337 | 8.9       |

\*Base not included.

### DIMENSIONS mm

| Avg. $C_v$ | A   | B   | C   | D   |
|------------|-----|-----|-----|-----|
| 0.9        | 50  | 59  | 164 | 194 |
| 2.0        | 67  | 91  | 185 | 224 |
| 4.2        | 88  | 101 | 212 | 249 |
| 11         | 99  | 101 | 249 | 286 |
| 22         | 142 | 104 | 381 | 417 |

**STANDARD SPECIFICATIONS:** (for valves on this page):

**Solenoids:** AC or DC power.

**Power Consumption:** Each solenoid.  $C_v = 0.9$  models: 10 VA inrush, 9 VA holding on 50 or 60 Hz; 5 watts on DC.

*All other sizes:* 87 VA inrush, 30 VA holding on 50 or 60 Hz; 14 watts on DC.

**Indicator Light:**  $C_v = 4.2, 11, 22$  models only.

**Ambient Temperature:** 4° to 50°C; extended to 80°C for High Temperature models.

**Media Temperature:** 4° to 80°C; extended to 105°C for High Temperature models.

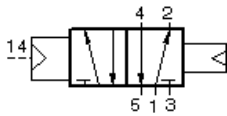
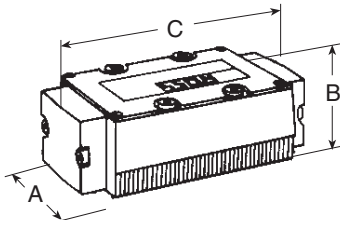
**Flow Media:** Filtered air. 5 micron recommended.

**Inlet Pressure:** 2 to 10 bar.

**Pilot Pressure:** Must be equal to or greater than inlet pressure.

# Poppet Valves for ANSI Sub-Bases Series W74

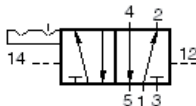
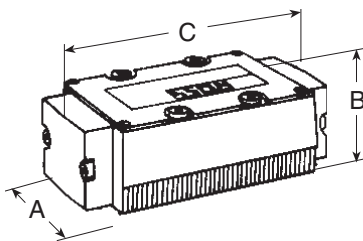
## 5/2 Valves – Single Pressure Controlled, Air Return



| Size | Range of Port Sizes | Avg. $k_v$ | Valve Model Numbers* |            | Weight kg |
|------|---------------------|------------|----------------------|------------|-----------|
|      |                     |            | Std. Temp.           | High Temp. |           |
| 1.0  | G 1/4 – G 3/8       | 0.8        | W7456A2331           | W7456A2336 | 1.1       |
| 2.5  | G 3/8 – G 1/2       | 1.9        | W7456A3331           | W7456A3336 | 0.9       |
| 4    | G 3/8 – G 3/4       | 3.7        | W7456B4331           | W7456B4336 | 1.5       |
| 10   | G 3/4 – G 1-1/4     | 9.6        | W7456A6331           | W7456A6336 | 3.3       |
| 20   | G 1-1/4 – G 1-1/2   | 19         | W7456A8331           | W7456A8336 | 7.9       |

\*Base not included.

## 5/2 Valves – Double Pressure Controlled, Detented



| Size | Range of Port Sizes | Avg. $k_v$ | Valve Model Numbers* |            | Weight kg |
|------|---------------------|------------|----------------------|------------|-----------|
|      |                     |            | Std. Temp.           | High Temp. |           |
| 1.0  | G 1/4 – G 3/8       | 0.8        | W7456A2332           | W7456A2337 | 1.1       |
| 2.5  | G 3/8 – G 1/2       | 1.9        | W7456A3332           | W7456A3337 | 0.9       |
| 4    | G 3/8 – G 3/4       | 3.7        | W7456B4332           | W7456B4337 | 1.5       |
| 10   | G 3/4 – G 1-1/4     | 9.6        | W7456A6332           | W7456A6337 | 3.3       |
| 20   | G 1-1/4 – G 1-1/2   | 19         | W7456A8332           | W7456A8337 | 7.9       |

\*Base not included.

### DIMENSIONS mm

| Avg. $C_v$ | A   | B  | C   |
|------------|-----|----|-----|
| 0.9        | 50  | 58 | 128 |
| 2.0        | 66  | 66 | 145 |
| 4.2        | 88  | 70 | 174 |
| 11         | 99  | 68 | 211 |
| 22         | 142 | 76 | 342 |

### STANDARD SPECIFICATIONS: (for valves on this page):

**Ambient/Media Temperature:** 4° to 80°C;  
media temperature extended to 105°C for High Temperature models.

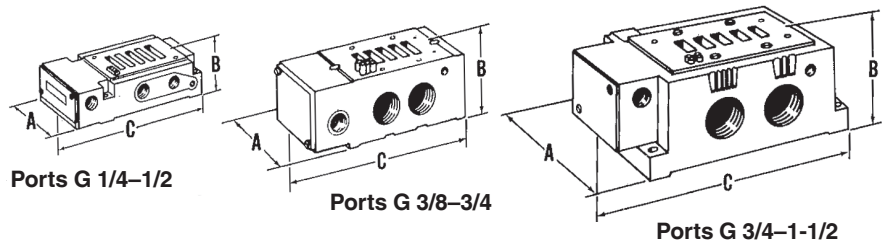
**Flow Media:** Filtered air. 5 micron recommended.

**Inlet Pressure:** 2 to 10 bar.

**Pilot Pressure:** Must be equal to or greater than inlet pressure.

# ANSI-type Sub-Bases

The sub-base numbers shown in the chart below specify pressure ports with threads, conforming to ISO 228/1. Electrical openings have G 1/2 threads. For other types, consult ROSS.



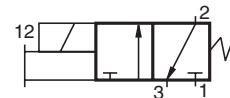
ANSI-Type SUB-BASES

| Type                   | Pipe Size | Average $k_v$ | Indicator Lights |         |         | Dimensions mm |     |     |
|------------------------|-----------|---------------|------------------|---------|---------|---------------|-----|-----|
|                        |           |               | None             | One     | Two     | A             | B   | C   |
| Side-Ported            | G 1/4     | 0.8–0.9       | W500B91          | W525K91 | W526K91 | 72            | 37  | 157 |
|                        | G 3/8     |               | W501B91          | W527K91 | W528K91 |               |     |     |
|                        | G 3/8     | 1.7–2.2       | W474K91          | W482K91 | W484K91 | 91            | 41  | 180 |
|                        | G 1/2     |               | W475K91          | W483K91 | W485K91 |               |     |     |
|                        | G 3/8     |               | W361B91          | –       | –       |               |     |     |
|                        | G 1/2     | 3.7           | W362B91          | –       | –       | 86            | 67  | 183 |
|                        | G 3/4     |               | W363B91          | –       | –       |               |     |     |
| G 3/4                  | W364B91   |               | –                | –       |         |               |     |     |
| G 1                    | 8.7–9.6   | W365B91       | –                | –       | 130     | 96            | 266 |     |
|                        |           | G 1-1/4       | W366B91          | –       |         |               |     | –   |
|                        |           | G 1-1/4       | W367B91          | –       |         |               |     | –   |
| G 1-1/2                | 19        | W368B91       | –                | –       | 169     | 94            | 314 |     |
|                        |           | W368B91       | –                | –       |         |               |     |     |
| Side-and-Bottom-Ported | G 1/4     | 0.8–0.9       | W499B91          | W529K91 | W530K91 | 72            | 37  | 157 |
|                        | G 3/8     |               | W476K91          | W477K91 | W486K91 |               |     |     |
|                        | G 3/8     | 3.7           | W369B91          | –       | –       | 86            | 67  | 183 |
|                        | G 1/2     |               | W370B91          | –       | –       |               |     |     |
|                        | G 3/4     |               | W371B91          | –       | –       |               |     |     |
| Bottom-Ported          | G 3/4     | 8.7–9.6       | W372B91          | –       | –       | 130           | 96  | 266 |
|                        | G 1       |               | W373B91          | –       | –       |               |     |     |
|                        | G 1-1/4   |               | W374B91          | –       | –       |               |     |     |
|                        | G 1-1/4   | 19            | W375B91          | –       | –       | 169           | 94  | 314 |
|                        |           |               | G 1-1/2          | W376B91 | –       |               |     |     |

## 3/2 Miniature Valves for Base Mounting

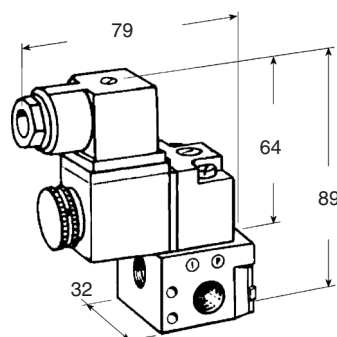
### VALVE MODEL NUMBERS

With locking manual override..... W1413A1408  
 With non-locking manual override ..... W1413A1409



**BASES:** G 1/8 ports.

Sub-Base..... 516B91  
 Manifold..... 535K91



### STANDARD SPECIFICATIONS

**$k_v$  Rating:** 0.9  
**Solenoids:** AC or DC power.  
**Power Consumption:** 8 VA inrush, 6 VA holding on 50 or 60 Hz; 6 watts on DC.  
**Ambient Temperature:** -15° to 50°C.  
**Media Temperature:** -15° to 80°C.  
*For temperatures below 4°C air must be free of water vapor to prevent formation of ice.*  
**Flow Media:** Filtered air. 5 micron recommended.  
**Inlet Pressure:** Vacuum to 10 bar.

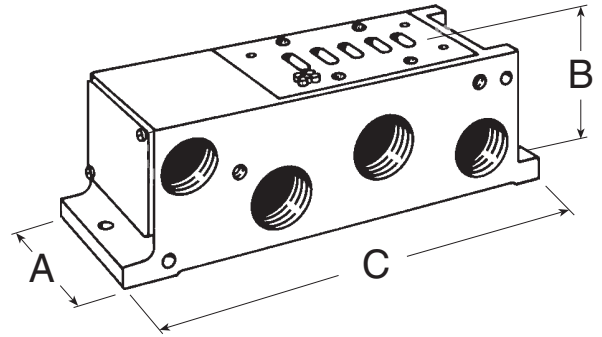
# ANSI-type MANIFOLDS

The numbers of the manifold stations shown in the chart below specify pressure ports with ISO 228/1 threads, and electrical openings with G 1-1/4 threads. For other thread types, consult ROSS.

All necessary hardware and seals for manifold assembly are included with each manifold station.

**Indicator Lights:** As shown in the chart below, the smaller sizes of manifolds are available with indicator lights. These lights are located in the end plate covering the electrical cavity.

**Manifold Note:** The port positions of the solenoid controlled and the pressure controlled manifolds are not the same. For this reason these stations cannot be mixed in the same installation. If both types of valves *must* be used in the same installation, *use only manifold stations for solenoid controlled valves.*



Typical Manifold Station

## ANSI-Type MANIFOLDS

| Type                           | Port Size | Average $k_v$ | Indicator Lights |         |         | Dimensions mm |     |     |
|--------------------------------|-----------|---------------|------------------|---------|---------|---------------|-----|-----|
|                                |           |               | None             | One     | Two     | A             | B   | C   |
| For solenoid controlled valves | G 1/4     | 0.8 - 0.9     | W502B91          | W531K91 | W532K91 | 57.4          | 58  | 201 |
|                                | G 3/8     |               | W503B91          | W533K91 | W534K91 |               |     |     |
|                                | G 3/8     | 1.7 - 2.2     | W472K91          | W478K91 | W480K91 | 71.1          | 68  | 216 |
|                                | G 1/2     |               | W473K91          | W479K91 | W481K91 |               |     |     |
|                                | G 3/8     |               | W377B91          | —       | —       |               |     |     |
|                                | G 1/2     | 3.7           | W378B91          | —       | —       | 90            | 94  | 240 |
|                                | G 3/4     |               | W379B91          | —       | —       |               |     |     |
|                                | G 3/4     |               | W380B91          | —       | —       |               |     |     |
|                                | G 1       | 8.7 - 9.6     | W381B91          | —       | —       | 108           | 103 | 339 |
| G 1-1/4                        | W382B91   |               | —                | —       |         |               |     |     |
|                                |           |               |                  |         |         |               |     |     |
| For pressure controlled valves | G 1/4     | 0.8 - 0.9     | W359B91          | —       | —       | 57.4          | 58  | 159 |
|                                | G 3/8     |               | W360B91          | —       | —       |               |     |     |
|                                | G 3/8     | 1.7 - 2.2     | W468B91          | —       | —       | 71.1          | 68  | 178 |
|                                | G 1/2     |               | W469B91          | —       | —       |               |     |     |
|                                | G 3/8     |               | W383B91          | —       | —       |               |     |     |
|                                | G 1/2     | 3.7           | W384B91          | —       | —       | 90            | 94  | 240 |
|                                | G 3/4     |               | W385B91          | —       | —       |               |     |     |
|                                | G 3/4     |               | W386B91          | —       | —       |               |     |     |
|                                | G 1       | 8.7 - 9.6     | W387B91          | —       | —       | 108           | 103 | 339 |
| G 1-1/4                        | W388B91   |               | —                | —       |         |               |     |     |
|                                |           |               |                  |         |         |               |     |     |

## ASSEMBLED MANIFOLDS

Valves and manifold stations can be assembled by ROSS to your precise specifications. The assembly is then ready for integration into your system. For detailed information about such assemblies, consult ROSS or your ROSS Distributor.