

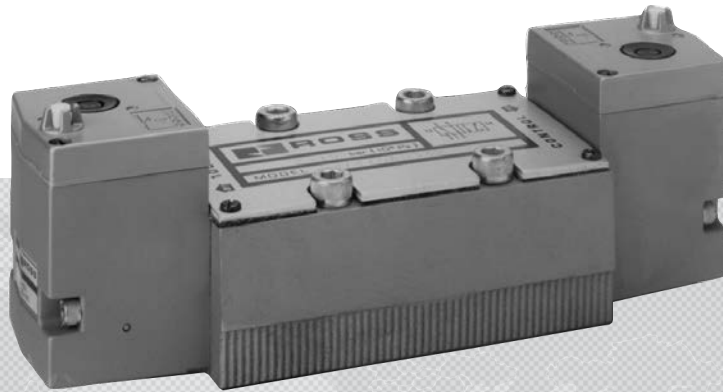


บริษัท ฟลูเทค จำกัด
Flu-tech co.,ltd

PRODUCT INFORMATION

ANSI VALVES

W74 SERIES



ROSS CONTROLS

ANSI SERIES VALVES – KEY FEATURES

- ANSI Sizes 1, 2.5, 4, 10 and 20
- 5/2- and 5/3 way direct and pilot solenoid options
- Spool & Sleeve or Poppet construction
- 24 volts DC or 110 volts AC solenoid control
- Available with 1/4 – 1½ ports
- Lube or non-lube service
- Manual overrides
- Interpose pressure regulators
- Single sub-base mounting
- Micro-thin air bearing between spool and sleeve assures quick valve response
- W70 Series - Suitable for vacuum service with or without external pilot supply
- W74 Series - Suitable for vacuum service (with external pilot supply)

C

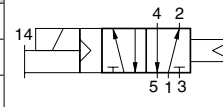
C5

VALVE TYPE	VALVE SERIES	DESCRIPTION			AVAILABLE PORT SIZES							FUNCTIONS					Page					
		ANSI Size	Spool & Sleeve	Poppet	1/8	1/4	3/8	1/2	3/4	1	1¼	1½	3/2 Single	5/2 Single	5/2 Double	5/3 Closed Center		5/3 Open Center	5/3 Pressure Center	Max Flow (Cv)	Solenoid Control	Direct Solenoid Control
ANSI	W70	1																1.0				C5.3 - C5.9
ANSI	W70	2.5																2.5				C5.3 - C5.9
ANSI	W70	4																4.2				C5.3 - C5.9
ANSI	W70	10																10.0				C5.3 - C5.9
ANSI	W70	20																22.0				C5.3 - C5.9
ANSI	W74	1																1.0				C5.11 - C5.13
ANSI	W74	2.5																2.5				C5.11 - C5.13
ANSI	W74	4																4.2				C5.11 - C5.13
ANSI	W74	10																10.0				C5.11 - C5.13
ANSI	W74	20																22.0				C5.11 - C5.13
Sub-Bases & Manifold Bases																					C5.14 - C5.18	
Accessories																					C5.19	

Single Solenoid Pilot Controlled Valves

ANSI
W74 Series

5-Way 2-Position Valves, Air Return								
ANSI Size	Port Size	Valve Model Number**		Avg. C _v	Average Response Constants**			Weight lb (kg)
		Standard Temp.	High Temp.		F			
					M	In-Out	Out-Exh.	
1	1/4 - 3/8	W7476B2331W	W7476B2336W	0.9	30	2.7	5.6	3.0 (1.4)
2.5	3/8 - 1/2	W7476A3331W	W7476A3336W	2.0	25	1.5	2.9	3.0 (1.4)
4	1/2 - 3/4	W7476C4331W	W7476C4336W	4.2	27	0.6	1.0	5.0 (2.3)
10	3/4 - 1 1/4	W7476A6331W	W7476A6336W	11	30	0.3	0.5	6.1 (2.8)
20	1 1/4 - 1 1/2	W7476A8331W	W7476A8336W	22	50	0.1	0.2	18.5 (8.3)



#Voltage: W=24 VDC; Z=100-110/50, 100-130/60 VAC/Hz, e.g., W7476B2331Z. For other voltages, consult ROSS.

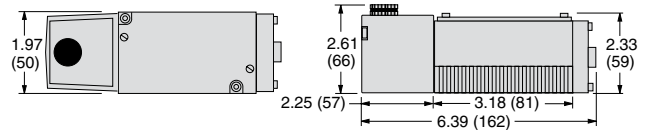
* Sub-bases and manifold bases ordered separately, refer to page C5.14-C5.18.

** Valve Response Time – Response Time (msec) = M + (F • V). This is the average time required to fill a volume V (cubic inches) to 90% of supply pressure or to exhaust it to 10% of supply pressure. M and F values are shown above.

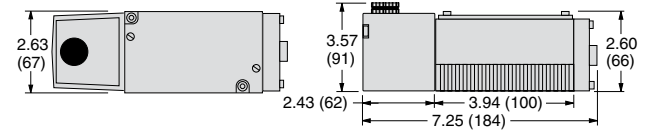
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Valve Dimensions – inches (mm)

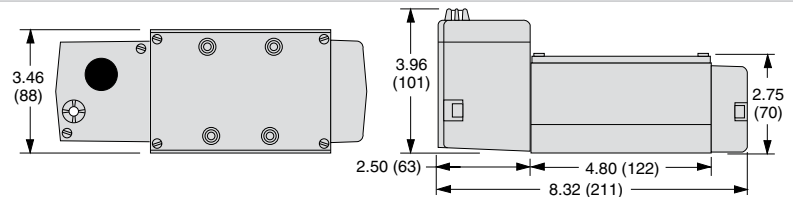
ANSI Size 1



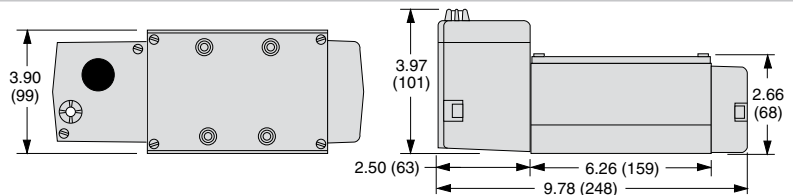
ANSI Size 2.5



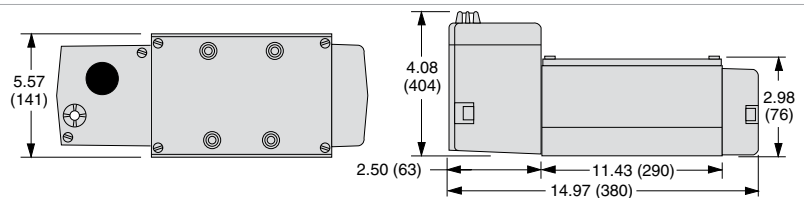
ANSI Size 4



ANSI Size 10



ANSI Size 20



Options: Indicator Light (in Base/Manifold), refer to page C5.17-C5.18. Accessories ordered separately, refer to page C5.19.

STANDARD SPECIFICATIONS (for valves on this page):

Construction Design	Poppet	Flow Media	Filtered air
Mounting Type	Base	Pilot Supply	Internal or External
Solenoids	Rated for continuous duty	Operating Pressure	Vacuum to 150 psig (10 bar)
Voltage	24 volts DC; 110/50, 110-120/60 volts AC/Hz		Pilot Supply - Internal or External: Minimum 30 psig (2 bar)
Power Consumption (each solenoid)	ANSI Size 1: 5 watts on DC; 10 VA inrush, 24 VA holding on 50 or 60 Hz ANSI Size 2.5, 4, 10 & 20: 14 watts on DC; 87 VA inrush, 55 VA holding on 50 or 60 Hz	Indicator Light	Included for ANSI Size 4, 10 & 20 only; one per solenoid
Temperature	Ambient: 40° to 120°F (4° to 50°C); extended to 175°F (80°C) for High Temperature models.	Construction Material	Valve Body: Cast Aluminum Poppet: Rubber Coated Aluminum & Stainless Steel Seals: Buna-N
	Media: 40° to 175°F (4° to 80°C); extended to 220°F (105°C) for High Temperature models For other temperature ranges, consult ROSS.	Manual Override	Flush; Rubber, non-locking

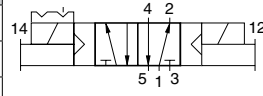
IMPORTANT NOTE: Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on the inside back cover.

Double Solenoid Pilot Controlled Valves

ANSI
W74 Series



5-Way 2-Position Valves, Double Solenoid Pilot Controlled, Detented								
ANSI Size	Port Size	Valve Model Number#*		Avg. C _v	Average Response Constants**			Weight lb (kg)
		Standard Temp.	High Temp.		M	F		
						In-Out	Out-Exh.	
1	1/4 - 3/8	W7476B2332W	W7476B2337W	0.9	30	2.7	5.6	3.0 (1.4)
2.5	3/8 - 1/2	W7476A3332W	W7476A3337W	2.0	25	1.5	2.9	3.0 (1.4)
4	1/2 - 3/4	W7476C4332W	W7476C4337W	4.2	27	0.6	1.0	5.0 (2.3)
10	3/4 - 1 1/4	W7476A6332W	W7476A6337W	11	30	0.3	0.5	6.1 (2.8)
20	1 1/4 - 1 1/2	W7476A8332W	W7476A8337W	22	50	0.1	0.2	18.5 (8.3)



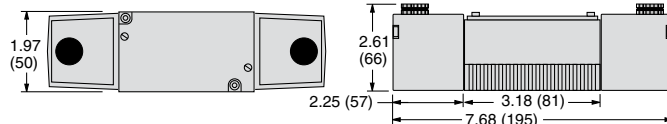
#Voltage: W=24 VDC; Z=100-110/50, 100-130/60 VAC/Hz, e.g., W7476B2332Z. For other voltages, consult ROSS.

* Sub-bases and manifold bases ordered separately, refer to page C5.14-C5.18.

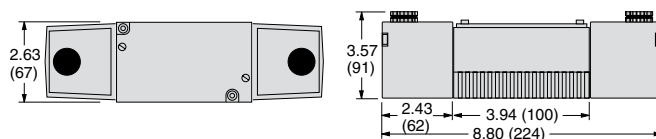
** Valve Response Time – Response Time (msec) = M + (F • V). This is the average time required to fill a volume V (cubic inches) to 90% of supply pressure or to exhaust it to 10% of supply pressure. M and F values are shown above.

Valve Dimensions – inches (mm)

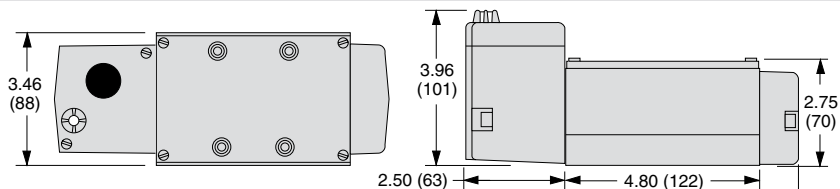
ANSI Size 1



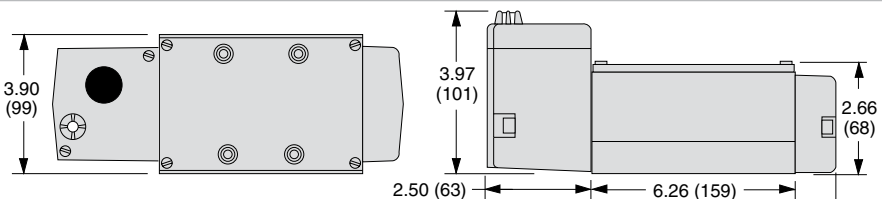
ANSI Size 2.5



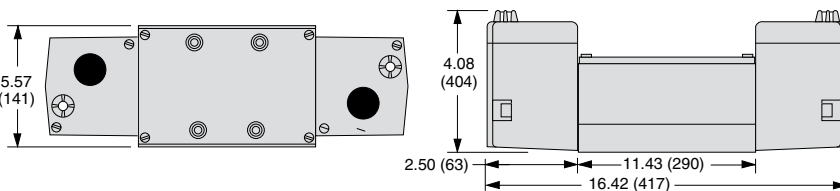
ANSI Size 4



ANSI Size 10



ANSI Size 20



Options: Indicator Light (in Base/Manifold), refer to page C5.17-C5.18. Accessories ordered separately, refer to page C5.19.

STANDARD SPECIFICATIONS (for valves on this page):

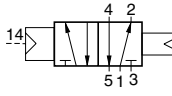
Construction Design	Poppet	Flow Media	Filtered air
Mounting Type	Base	Pilot Supply	Internal or External
Solenoids	Rated for continuous duty	Operating Pressure	Vacuum to 150 psig (10 bar)
Voltage	24 volts DC; 110/50, 110-120/60 volts AC/Hz	Indicator Light	Pilot Supply - Internal or External: Minimum 30 psig (2 bar) When external pilot supply, pressure must be equal to or greater than inlet pressure.
Power Consumption (each solenoid)	ANSI Size 1: 5 watts on DC; 10 VA inrush, 24 VA holding on 50 or 60 Hz ANSI Size 2.5, 4, 10 & 20: 14 watts on DC; 87 VA inrush, 55 VA holding on 50 or 60 Hz	Construction Material	Included for ANSI Size 4, 10 & 20 only; one per solenoid Valve Body: Cast Aluminum Poppet: Rubber Coated Aluminum & Stainless Steel Seals: Buna-N
Temperature	Ambient: 40° to 120°F (4° to 50°C); extended to 175°F (80°C) for High Temperature models. Media: 40° to 175°F (4° to 80°C); extended to 220°F (105°C) for High Temperature models For other temperature ranges, consult ROSS.	Manual Override	Flush; Rubber, non-locking

IMPORTANT NOTE: Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on the inside back cover.

Single Pressure Controlled Valves

ANSI W74 Series

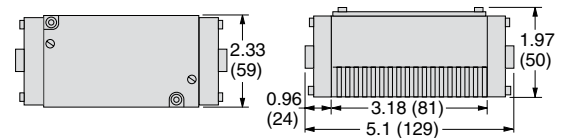
5-Way 2-Position Valves, Air Return								
ANSI Size	Port Size	Valve Model Number*		Avg. C _v	Average Response Constants**			Weight lb (kg)
		Standard Temp.	High Temp.		M	F		
						In-Out	Out-Exh.	
1	1/4 - 3/8	W7456B2331	W7456B2336	0.9	30	2.7	5.6	2.5 (1.1)
2.5	3/8 - 1/2	W7456A3331	W7456A3336	2.0	25	1.4	2.9	2.0 (0.9)
4	1/2 - 3/4	W7456C4331	W7456C4336	4.2	16	0.5	1.1	3.3 (1.5)
10	3/4 - 1¼	W7456A6331	W7456A6336	11	14	0.3	0.5	7.3 (3.3)
20	1¼ - 1½	W7456A8331	W7456A8336	22	32	0.1	0.2	17.5 (7.9)



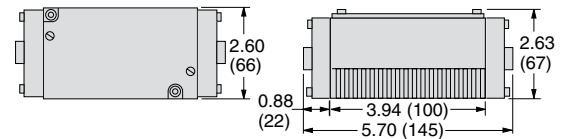
* Sub-bases and manifold bases ordered separately, refer to page C5.14-C5.18.
 ** Valve Response Time – Response Time (msec) = M + (F • V). This is the average time required to fill a volume V (cubic inches) to 90% of supply pressure or to exhaust it to 10% of supply pressure. M and F values are shown above.

Valve Dimensions – inches (mm)

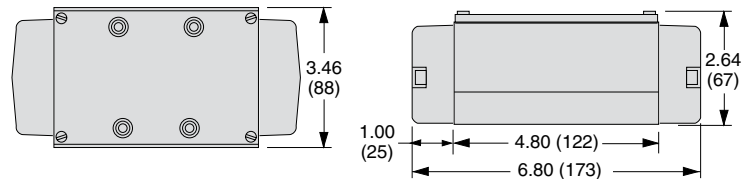
ANSI Size 1



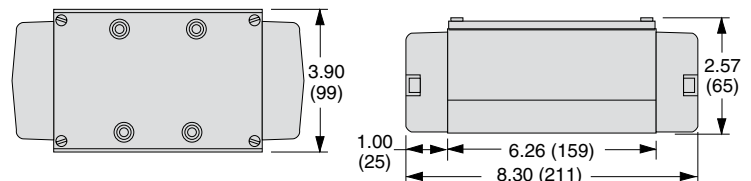
ANSI Size 2.5



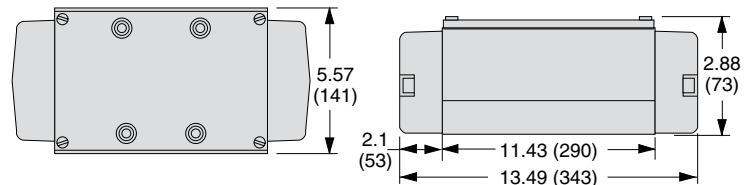
ANSI Size 4



ANSI Size 10



ANSI Size 20



Accessories ordered separately, refer to page C5.19.

STANDARD SPECIFICATIONS (for valves on this page):

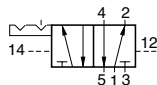
Construction Design	Poppet	Pilot Supply	External
Mounting Type	Base	Operating Pressure	30 to 150 psig (2 to 10 bar)
Temperature	Ambient: 40° to 175°F (4° to 80°C) Media: 40° to 175°F (4° to 80°C); extended to 220°F (105°C) for High Temperature models	Construction Material	Pilot Supply: Minimum 30 psig (2 bar) Valve Body: Cast Aluminum Poppet: Rubber Coated Aluminum & Stainless Steel Seals: Buna-N
Flow Media	Filtered air		Pilot supply pressure must be equal to or greater than inlet pressure.

IMPORTANT NOTE: Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on the inside back cover.

Double Pressure Controlled Valves

**ANSI
W74 Series**

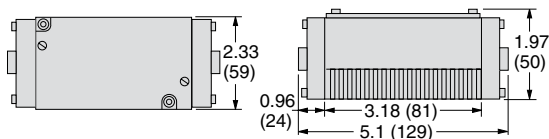
5-Way 2-Position Valves, Detented								
ANSI Size	Port Size	Valve Model Number*		Avg. C _v	Average Response Constants**			Weight lb (kg)
		Standard Temp.	High Temp.		M	F		
						In-Out	Out-Exh.	
1	1/4 - 3/8	W7456B2332	W7456B2337	0.9	30	2.7	5.6	2.5 (1.1)
2.5	3/8 - 1/2	W7456A3332	W7456A3337	2.0	25	1.4	2.9	2.0 (0.9)
4	1/2 - 3/4	W7456C4332	W7456C4337	4.2	16	0.5	1.1	3.3 (1.5)
10	3/4 - 1 1/4	W7456A6332	W7456A6337	11	14	0.3	0.5	7.3 (3.3)
20	1 1/4 - 1 1/2	W7456A8332	W7456A8337	22	32	0.1	0.2	17.5 (7.9)



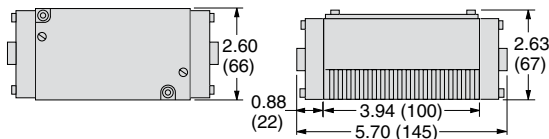
* Sub-bases and manifold bases ordered separately, refer to page C5.14-C5.18.
 ** Valve Response Time – Response Time (msec) = M + (F • V). This is the average time required to fill a volume V (cubic inches) to 90% of supply pressure or to exhaust it to 10% of supply pressure. M and F values are shown above.

Valve Dimensions – inches (mm)

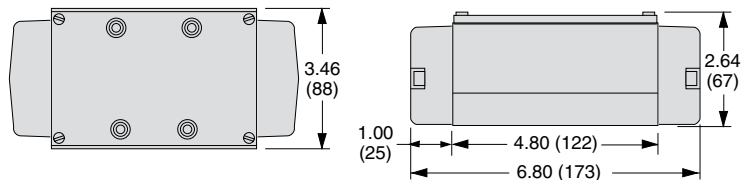
ANSI Size 1



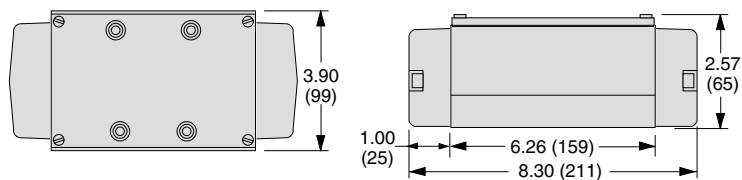
ANSI Size 2.5



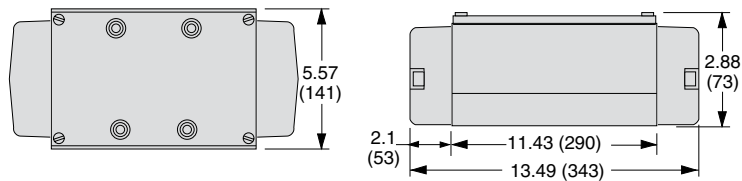
ANSI Size 4



ANSI Size 10



ANSI Size 20



Accessories ordered separately, refer to page C5.19.

STANDARD SPECIFICATIONS (for valves on this page):

Construction	Poppet	Pilot Supply	External
Mounting Type	Base	Operating Pressure	30 to 150 psig (2 to 10 bar)
Temperature	Ambient: 40° to 175°F (4° to 80°C) Media: 40° to 175°F (4° to 80°C); extended to 220°F (105°C) for High Temperature models	Operating Pressure	Pilot Supply: Minimum 30 psig (2 bar) Pilot supply pressure must be equal to or greater than inlet pressure.
Flow Media	Filtered air	Construction Material	Valve Body: Cast Aluminum Poppet: Rubber Coated Aluminum & Stainless Steel Seals: Buna-N

IMPORTANT NOTE: Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on the inside back cover.

Sub-Bases – Side Ported for Solenoid Pilot Controlled Valves

for ANSI Valves W70 & W74 Series



Sub-base for ANSI Size 4 valve illustrated

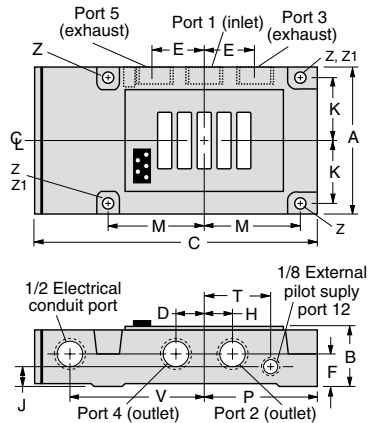
ANSI Size	Outlet Port	Indicator Lights in Base						Avg. C _v
		None		One		Two		
		Model Number		Model Number#		Model Number#		
		NPT Threads	G Threads	NPT Threads	G Threads	NPT Threads	G Threads	
1	1/4	500B91	D500B91	525K91-W	D525K91-W	526K91-W	D526K91-W	0.9 to 1.0
	3/8	501B91	D501B91	527K91-W	D527K91-W	528K91-W	D528K91-W	0.9 to 1.0
2.5	3/8	474K91	D474K91	482K91-W	D482K91-W	484K91-W	D484K91-W	2.0 to 2.5
	1/2	475K91	D475K91	483K91-W	D483K91-W	485K91-W	D485K91-W	2.0 to 2.5
4	3/8	361B91	D361B91	—	—	—	—	4.2
	1/2	362B91	D362B91	—	—	—	—	4.2
	3/4	363B91	D363B91	—	—	—	—	4.2
10	3/4	364B91	D364B91	—	—	—	—	10 to 11
	1	365B91	D365B91	—	—	—	—	10 to 11
	1¼	366B91	D366B91	—	—	—	—	10 to 11
20	1¼	367B91	D367B91	—	—	—	—	22
	1½	368B91	D368B91	—	—	—	—	22

#Voltage: W=24 VDC; Z=110-120 VAC, 50/60 Hz, e.g., 525K91-Z. For other voltages, consult ROSS.

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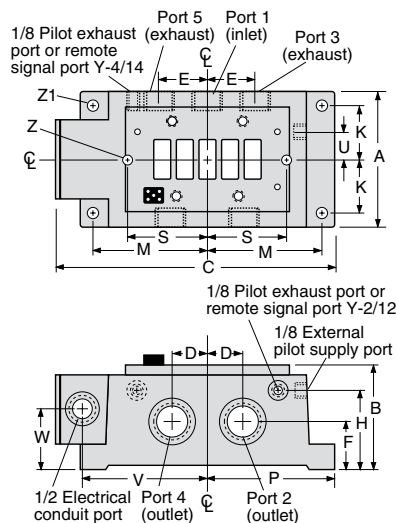
C5

ANSI Size 1 & 2.5



Sub-Base Dimensions inches (mm)					
	ANSI 1	ANSI 2.5	ANSI 4	ANSI 10	ANSI 20
A	2.80 (71)	3.56 (90)	3.36 (85)	5.08 (129)	6.64 (169)
B	1.44 (37)	1.61 (41)	2.64 (67)	3.78 (96)	3.70 (94)
C	6.15 (156)	7.09 (180)	7.21 (183)	10.45 (266)	12.34 (313)
D	0.51 (13)	0.63 (16)	0.75 (19)	1.38 (35)	1.38 (35)
E	0.88 (22)	1.25 (32)	1.50 (38)	2.76 (70)	2.76 (70)
F	0.78 (20)	0.93 (23)	1.23 (31)	1.75 (44)	1.59 (40)
H	0.58 (15)	0.63 (16)	2.21 (56)	3.01 (76)	2.85 (72)
J	0.38 (10)	0.50 (13)	—	—	—
K	1.13 (29)	1.50 (38)	—	2.05 (52)	2.38 (60)
M	1.88 (48)	2.31 (59)	—	4.33 (110)	5.35 (136)
P	2.43 (62)	2.97 (75)	2.86 (73)	4.76 (121)	5.86 (149)
S	—	—	2.36 (60)	—	—
T	1.35 (34)	1.78 (45)	—	—	—
U	—	—	0.83 (21)	1.97 (50)	1.54 (39)
V	2.75 (70)	3.29 (83)	3.07 (78)	4.65 (118)	5.60 (142)
W	—	—	1.23 (31)	2.50 (64)	2.15 (55)
Z	0.27 (7)	—	0.30 (7)	—	—
Z1	—	0.28 (7)	—	0.34 (9)	0.37 (9)

ANSI Size 4, 10 & 20



IMPORTANT NOTE: Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on the inside back cover.

Sub-Bases – Side Ported for Pressure Controlled Valves

for ANSI Valves W70 & W74 Series

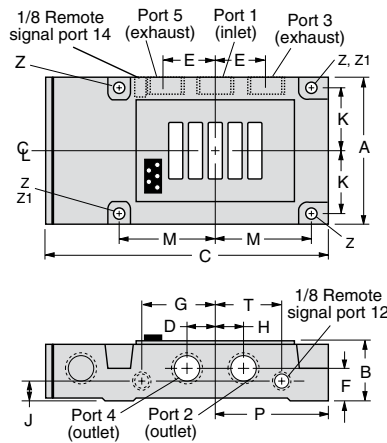


Sub-base for ANSI Size 4 valve illustrated

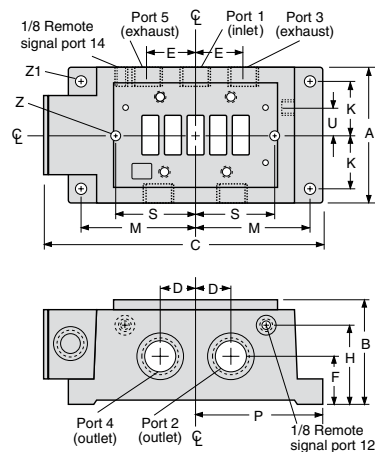
ANSI Size	Outlet Port	Model Number		Avg. C _v
		NPT Threads	G Threads	
1	1/4	500B91	D500B91	0.9 to 1.0
	3/8	501B91	D501B91	0.9 to 1.0
2.5	3/8	474K91	D474K91	2.0 to 2.5
	1/2	475K91	D475K91	2.0 to 2.5
4	3/8	361B91	D361B91	4.2
	1/2	362B91	D362B91	4.2
	3/4	363B91	D363B91	4.2
10	3/4	364B91	D364B91	10 to 11
	1	365B91	D365B91	10 to 11
	1 1/4	366B91	D366B91	10 to 11
20	1 1/4	367B91	D367B91	22
	1 1/2	368B91	D368B91	22

C

ANSI Size 1 & 2.5



ANSI Size 4, 10 & 20



C5

Sub-Base Dimensions inches (mm)					
	ANSI 1	ANSI 2.5	ANSI 4	ANSI 10	ANSI 20
A	2.80 (71)	3.56 (90)	3.36 (85)	5.08 (129)	6.64 (169)
B	1.44 (37)	1.61 (41)	2.64 (67)	3.78 (96)	3.70 (94)
C	6.15 (156)	7.09 (180)	7.21 (183)	10.45 (266)	12.34 (313)
D	0.51 (13)	0.63 (16)	0.75 (19)	1.38 (35)	1.38 (35)
E	0.88 (22)	1.25 (32)	1.50 (38)	2.76 (70)	2.76 (70)
F	0.78 (20)	0.93 (23)	1.23 (31)	1.75 (44)	1.59 (40)
H	0.58 (15)	0.63 (16)	2.21 (56)	3.01 (76)	2.85 (72)
J	0.38 (10)	0.50 (13)	-	-	-
K	1.13 (29)	1.50 (38)	-	2.05 (52)	2.38 (60)
M	1.88 (48)	2.31 (59)	-	4.33 (110)	5.35 (136)
P	2.43 (62)	2.97 (75)	2.86 (73)	4.76 (121)	5.86 (149)
S	-	-	2.36 (60)	-	-
T	1.35 (34)	1.78 (45)	-	-	-
U	-	-	0.83 (21)	1.97 (50)	1.54 (39)
V	-	-	-	-	-
Z	0.27 (7)	-	0.30 (7)	-	-
Z1	-	0.28 (7)	-	0.34 (9)	0.37 (9)

IMPORTANT NOTE: Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on the inside back cover.

Sub-Bases – Side & Bottom Ported for Solenoid Pilot or Pressure Controlled Valves

for ANSI Valves W70 & W74 Series

Side & Bottom Ported Sub-Bases

ANSI Size	Outlet Port	Indicator Lights in Base						Avg. C _v
		None		One		Two		
		Model Number		Model Number#		Model Number#		
		NPT Threads	G Threads	NPT Threads	G Threads	NPT Threads	G Threads	
1	1/4	499B91	D499B91	529K91-W	D529K91-W	530K91-W	D530K91-W	0.9 to 1.0
2.5	3/8	476K91	D476K91	477K91-W	D477K91-W	486K91-W	D486K91-W	2.0 to 2.5
4	3/8	369B91	D369B91	—	—	—	—	4.2
	1/2	370B91	D370B91	—	—	—	—	4.2
	3/4	371B91	D371B91	—	—	—	—	4.2

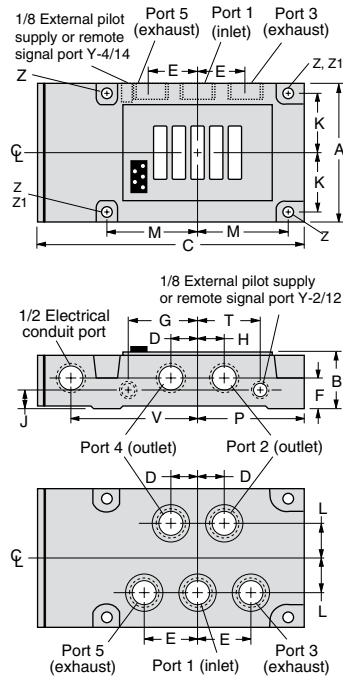
Voltage: W=24 VDC; Z=110-120 VAC, 50/60 Hz, e.g., 529K91-Z. For other voltages, consult ROSS.

C

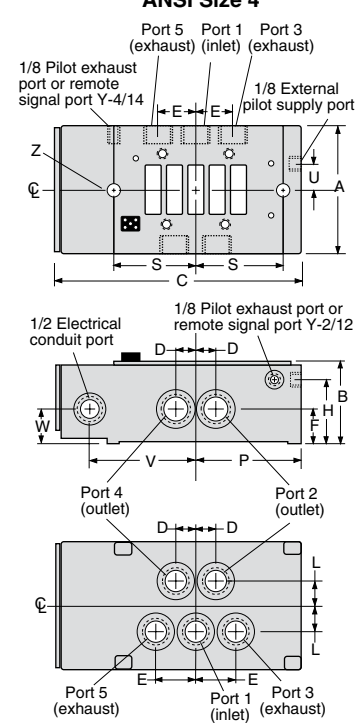
Dimensions inches (mm)			
	ANSI 1	ANSI 2.5	ANSI 4
A	2.80 (71)	3.56 (90)	3.36 (85)
B	1.44 (37)	1.61 (41)	2.64 (67)
C	6.15 (156)	7.09 (180)	7.21 (183)
D	0.51 (13)	0.63 (16)	0.75 (19)
E	0.88 (22)	1.25 (32)	1.50 (38)
F	0.78 (20)	0.93 (23)	1.23 (31)
G	1.46 (37)	2.41 (61)	—
H	0.58 (15)	0.63 (16)	2.21 (56)
J	0.38 (10)	0.50 (13)	—
K	1.13 (29)	1.50 (38)	—
L	0.63 (16)	0.81 (21)	—
M	1.88 (48)	2.31 (59)	—
P	2.43 (62)	2.97 (75)	2.86 (73)
S	—	—	2.36 (60)
T	1.35 (34)	1.78 (45)	—
U	—	—	0.83 (21)
V	2.75 (70)	3.29 (83)	—
Z	0.27 (7)	—	0.30 (7)
Z1	—	0.28 (7)	—

C5

ANSI Size 1 & 2.5



ANSI Size 4

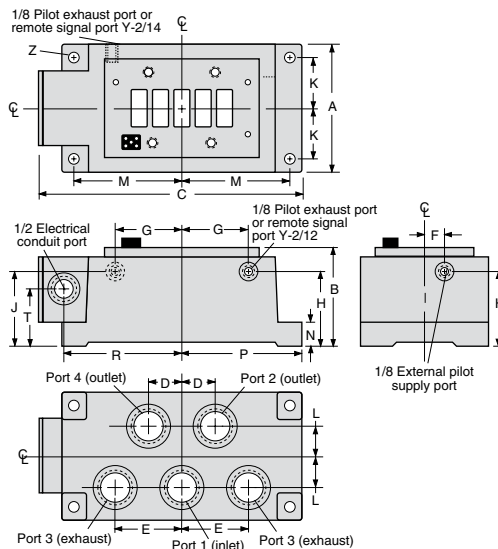


Bottom Ported Sub-Bases

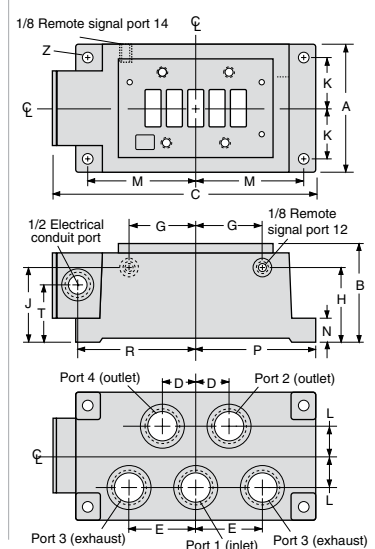
ANSI Size	Outlet Port	Model Number		Avg. C _v
		NPT Threads	G Threads	
10	3/4	372B91	D372B91	10 to 11
	1	373B91	D373B91	10 to 11
	1 1/4	374B91	D374B91	10 to 11
20	1 1/4	375B91	D375B91	22
	1 1/2	376B91	D376B91	22

Dimensions inches (mm)				
	ANSI 10	ANSI 20	ANSI 10	ANSI 20
A	5.8 (129)	6.64 (169)	K	2.05 (52)
B	3.78 (96)	3.70 (94)	L	1.22 (31)
C	10.45 (266)	12.34 (313)	M	4.33 (110)
D	1.38 (35)	1.38 (35)	N	0.88 (22)
E	2.76 (70)	2.76 (76)	P	4.76 (121)
F	1.03 (26)	1.54 (39)	R	4.65 (118)
G	2.60 (66)	3.90 (99)	T	2.50 (64)
H	3.01 (76)	2.85 (72)	Z	0.34 (8)
J	3.25 (83)	2.85 (72)		

for Solenoid Pilot Controlled Valves



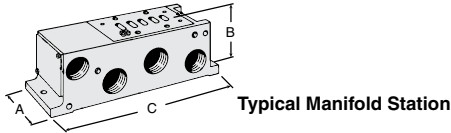
for Pressure Controlled Valves



IMPORTANT NOTE: Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on the inside back cover.

Manifold Bases for Solenoid Pilot Controlled Valves

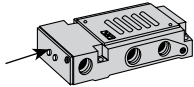
for ANSI Valves W70 & W74 Series



The numbers of the manifold stations shown in the chart on the right specify pressure ports with NPT threads and electrical openings with 1/4" NPT threads. All necessary hardware and seals for manifold assembly are included with each manifold station.

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

Lights are mounted in bases, on the valves, or on solenoids, depending on the particular type of valve.



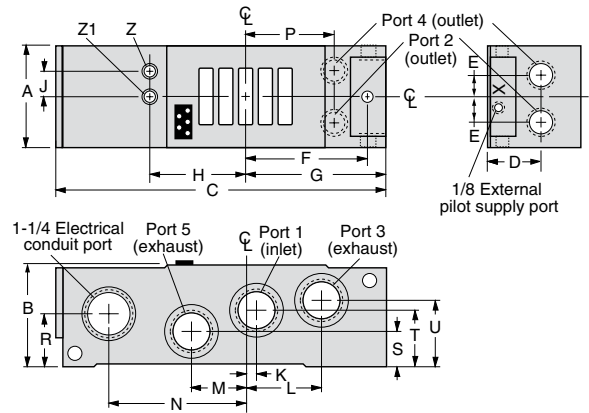
ANSI Size	Outlet Port	Indicator Lights in Manifold						Avg. C _v
		None		One		Two		
		Model Number		Model Number#		Model Number#		
		NPT Threads	G Threads	NPT Threads	G Threads	NPT Threads	G Threads	
1	1/4	502B91	D502B91	531K91-W	D531K91-W	532K91-W	D532K91-W	0.9 to 1.0
	3/8	503B91	D503B91	533K91-W	D533K91-W	534K91-W	D534K91-W	0.9 to 1.0
2.5	3/8	472K91	D472K91	478K91-W	D478K91-W	480K91-W	D480K91-W	2.0 to 2.5
	1/2	473K91	D473K91	479K91-W	D479K91-W	481K91-W	D481K91-W	2.0 to 2.5
4	3/8	377B91	D377B91	—	—	—	—	4.2
	1/2	378B91	D378B91	—	—	—	—	4.2
	3/4	379B91	D379B91	—	—	—	—	4.2
10	3/4	380B91	D380B91	—	—	—	—	10 to 11
	1	381B91	D381B91	—	—	—	—	10 to 11
	1 1/4	382B91	D382B91	—	—	—	—	10 to 11

Voltage: W=24 VDC; Z=110-120 VAC, 50/60 Hz, e.g., 531K91-Z. For other voltages, consult ROSS.

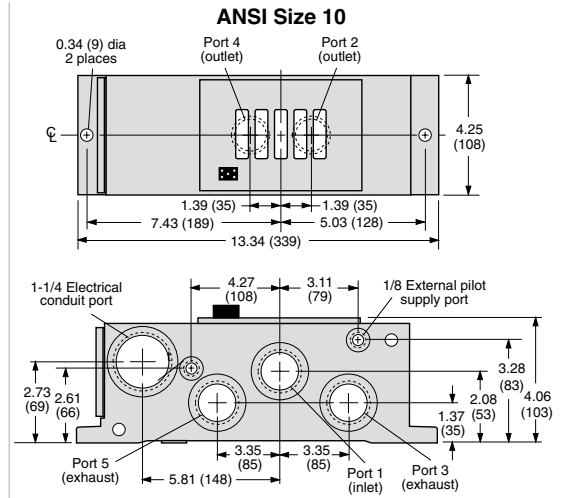
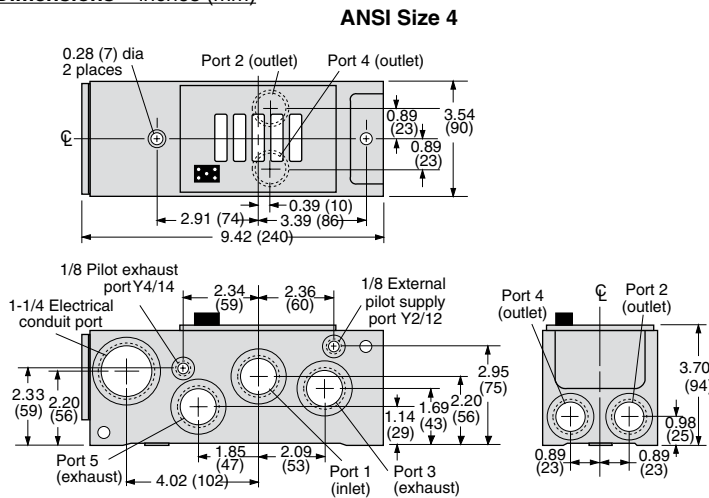
Manifold Note: The port positions of the solenoid controlled and the pressure controlled manifolds are not the same. For this reason these stations cannot be mixed in the same installation. If both types of valves *must* be used in the same installation, use only manifold stations for solenoid controlled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

ANSI Size 1 & 2.5

Dimensions inches (mm)				
	ANSI 1	ANSI 2.5	ANSI 1	ANSI 2.5
A	2.26 (57)	2.80 (71)	L	1.62 (41)
B	2.26 (57)	2.66 (68)	M	1.00 (25)
C	7.89 (201)	8.50 (216)	N	2.88 (73)
D	1.38 (35)	1.48 (38)	P	2.16 (55)
E	0.56 (14)	0.70 (18)	R	1.17 (30)
F	2.76 (70)	2.99 (76)	S	0.64 (16)
G	3.14 (80)	3.43 (87)	T	1.07 (27)
H	1.80 (46)	2.24 (87)	U	1.57 (40)
J	0.50 (13)	—	Z	0.28 (7)
K	0.31 (8)	0.18 (6)	Z1	—



Manifold Dimensions – inches (mm)



ASSEMBLED MANIFOLDS

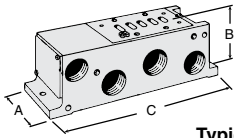
Valves and manifold stations can be assembled by ROSS to precise specifications. The assembly is then ready for integration into your system.

For detailed information about such assemblies, consult your ROSS Distributor or call ROSS in the U.S.A. at 1-888-TEK-ROSS (835-7677) or 1-248-764-1800.

IMPORTANT NOTE: Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on the inside back cover.

Manifold Bases for Pressure Controlled Valves

for ANSI Valves W70 & W74 Series



Typical Manifold Station

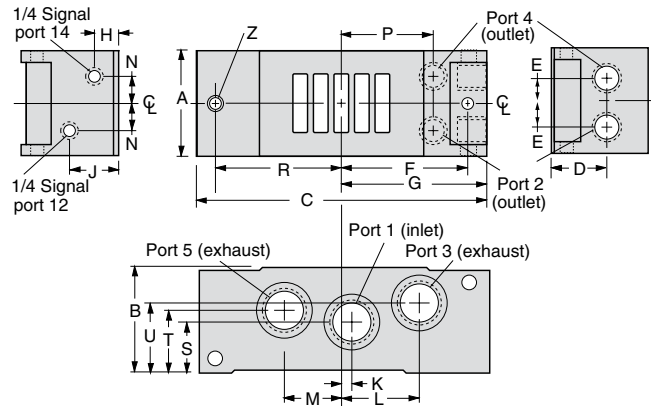
The numbers of the manifold stations shown in the chart on the right specify pressure ports with NPT threads. All necessary hardware and seals for manifold assembly are included with each manifold station.

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.

ANSI Size	Outlet Port	Model Number		Avg. C _v
		NPT Threads	G Threads	
1	1/4	359B91	D359B91	0.9 to 1.0
	3/8	360B91	D360B91	0.9 to 1.0
2.5	3/8	468B91	D468B91	2.0 to 2.5
	1/2	469B91	D469B91	2.0 to 2.5
4	3/8	383B91	D383B91	4.2
	1/2	384B91	D384B91	4.2
	3/4	385B91	D385B91	4.2
10	3/4	386B91	D386B91	10 to 11
	1	387B91	D387B91	10 to 11
	1 1/4	388B91	D388B91	10 to 11

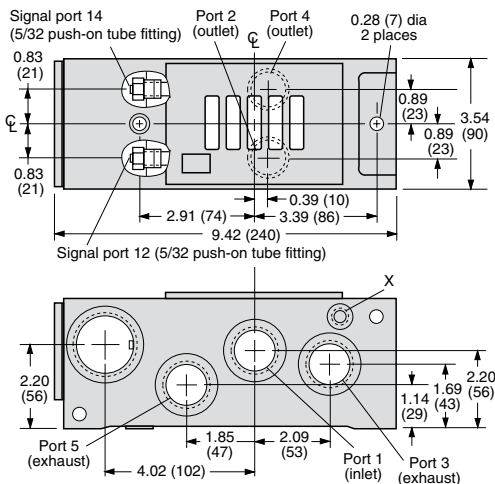
Manifold Dimensions – inches (mm)

Dimensions inches (mm)				
	ANSI 1	ANSI 2.5	ANSI 1	ANSI 2.5
A	2.26 (57)	2.80 (71)	L	1.47 (37)
B	2.26 (57)	2.66 (68)	M	1.36 (35)
C	6.25 (159)	6.86 (174)	N	0.56 (14)
D	1.32 (34)	1.48 (38)	P	2.37 (60)
E	0.56 (14)	0.70 (18)	R	2.50 (64)
F	2.88 (73)	2.99 (76)	S	1.14 (29)
G	3.31 (84)	3.40 (86)	T	1.14 (29)
H	0.56 (14)	0.74 (19)	U	1.26 (32)
J	0.88 (22)	1.26 (32)	Z	0.28 (7)
K	0.00 (00)	0.18 (6)		

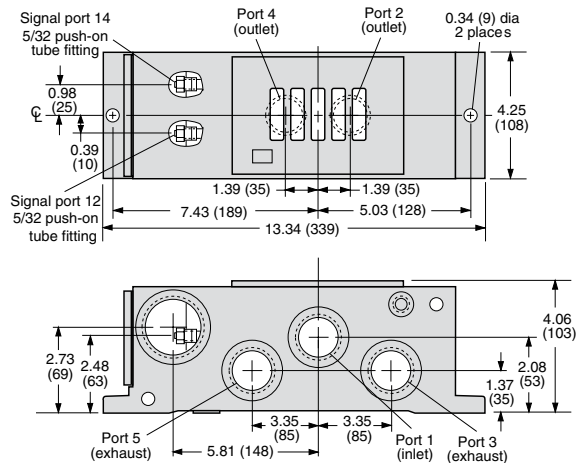


ANSI Size 1 & 2.5

ANSI Size 4



ANSI Size 10



ASSEMBLED MANIFOLDS

Valves and manifold stations can be assembled by ROSS to precise specifications. The assembly is then ready for integration into your system.

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IMPORTANT NOTE: Please read carefully and thoroughly all of the **CAUTIONS**, **WARNINGS** on the inside back cover.

Accessories

Interposed Pressure Regulators

Both single and double interposed regulators are available for valves with C_v ratings up to 4.2. A regulator is bolted to the valve's sub-base or manifold station, and the valve is then bolted to the regulator. This mounting method allows the valve to be removed and replaced without disturbing the regulator.

Single pressure regulators provide the same regulated pressure at both outlet ports. Double pressure regulators allow the pressure at each outlet port to be set independently.

A locking type knob is used to set the regulated pressure at any point in the range of:

- 5 to 100 psig (0.3 to 7 bar) for size 1 and 2 models;
- 5 to 125 psig (0.3 to 8.5 bar) for size = 4.2 models.

Maximum inlet pressure is 150 psig (10 bar).

Pressure gauge(s) included.

ANSI Size	Interposed Regulator – Model Number		
	Single	Double*	
		Solenoid	Remote Air
1	840C91	841C91	713C91
2.5	626C91	627C91	714C91
4	632C91	633C91	715C91

* Double regulator only for W70 spool valves.

WARNING:

Double interposed regulators will reverse output ports - the 12 solenoid will pressurize the 4 port, the 14 solenoid will pressurize the 2 port - which may cause unexpected, potentially dangerous cylinder movement at valve pressurization.


C


C5


Manual Override Kits

Flush flexible manual overrides are standard on solenoid pilot controlled valves with C_v ratings of 2.0 or larger. Both locking and non-locking metal override buttons are also available for these models.

Each of the override buttons in the kits at the right is made of metal and is spring-returned. The locking type button, however, can be kept in the actuated position by turning the slot in the top of the button with a screwdriver.

Flush Button		
Locking Type	Kit Number	
Non-Locking	790K87	
Locking	792K87	

Extended Button		
Locking Type	Kit Number	
Non-Locking	791K87	

Extended Button with Palm		
Locking Type	Kit Number	
Non-Locking	984H87	

Silencers

Port Size	Thread Type	Model Number		Avg. C_v	Dimensions inches (mm)		Weight lb (kg)
		NPT Threads	G Threads		Width	Length	
1/4	Male	5500A2003	D5500A2003	2.1	0.9 (21)	2.2 (55)	0.1 (0.1)
		5500A3013	D5500A3013				
3/8	Male	5500A3003	D5500A3003	4.3	1.3 (32)	3.5 (88)	0.2 (0.1)
		5500A4003	D5500A4003	4.7	1.3 (32)	3.6 (91)	0.2 (0.1)
1/2	Male	5500A5013	D5500A5013	5.1	1.3 (32)	3.6 (92)	0.2 (0.1)
		5500A5003	D5500A5003	11.5	2.0 (51)	5.3 (135)	0.6 (0.3)
3/4	Male	5500A6003	D5500A6003	14.6	2.0 (51)	5.4 (138)	0.6 (0.3)
1	Male	5500A7013	D5500A7013	16.4	2.0 (51)	5.5 (140)	0.6 (0.3)



Pressure Range: 0 to 290 psig (0 to 20 bar) maximum. **Flow Media:** Filtered air.

IMPORTANT NOTE: Please read carefully and thoroughly all of the **CAUTIONS, WARNINGS** on the inside back cover.



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CAUTIONS, WARNINGS And STANDARD WARRANTY

ROSS OPERATING VALVE, ROSS CONTROLS®, ROSS DECCO®, and AUTOMATIC VALVE INDUSTRIAL, collectively the “ROSS Group”.

PRE-INSTALLATION or SERVICE

1. Before servicing a valve or other pneumatic component, be sure all sources of energy are turned off, the entire pneumatic system is shut down and exhausted, and all power sources are locked out (ref: OSHA 1910.147, EN 1037).
2. All ROSS Group Products, including service kits and parts, should be installed and/or serviced only by persons having training and experience with pneumatic equipment. Because any product can be tampered with and/or need servicing after installation, persons responsible for the safety of others or the care of equipment must check ROSS Group Products on a regular basis and perform all necessary maintenance to ensure safe operating conditions.
3. All applicable instructions should be read and complied with before using any fluid power system to prevent harm to persons or equipment. In addition, overhauled or serviced valves must be functionally tested prior to installation and use. If you have any questions, call your nearest ROSS Group location.
4. Each ROSS Group Product should be used within its specification limits. In addition, use only ROSS Group components to repair ROSS Group Products.

WARNINGS: *Failure to follow these instructions can result in personal injury and/or property damage.*

FILTRATION and LUBRICATION

1. Dirt, scale, moisture, etc., are present in virtually every air system. Although some valves are more tolerant of these contaminants than others, best performance will be realized if a filter is installed to clean the air supply, thus preventing contaminants from interfering with the proper performance of the equipment. The ROSS Group recommends a filter with a 5-micron rating for normal applications.
2. All standard ROSS Group filters and lubricators with polycarbonate plastic bowls are designed for compressed air applications only. Use the metal bowl guard, where provided, to minimize danger from high pressure fragmentation in the event of bowl failure. Do not expose these products to certain fluids, such as alcohol or liquefied petroleum gas, as they can cause bowls to rupture, creating a combustible condition and hazardous leakage. Immediately replace crazed, cracked, or deteriorated bowls.
3. Only use lubricants which are compatible with materials used in the valves and other components in the system. Normally, compatible lubricants are petroleum base oils with oxidation inhibitors, an aniline

point between 180°F (82°C) and 220°F (104°C), and an ISO 32, or lighter, viscosity. Avoid oils with phosphate type additives which can harm polyurethane components, potentially leading to valve failure which risks personal injury, and/or damage to property.

WARNINGS: *Failure to follow these instructions can result in personal injury and/or property damage.*

AVOID INTAKE/EXHAUST RESTRICTION

1. Do not restrict air flow in the supply line. To do so could reduce the pressure of the supply air below minimum requirements for the valve and thereby causing erratic action.
2. Do not restrict a valve's exhaust port as this can adversely affect its operation. Exhaust silencers must be resistant to clogging and must have flow capacities at least as great as the exhaust capacities of the valves. Contamination of the silencer can result in reduced flow and increased back pressure.

WARNINGS: *Failure to follow these instructions can result in personal injury and/or property damage.*

SAFETY APPLICATIONS

1. Mechanical Power Presses and other potentially hazardous machinery using a pneumatically controlled clutch and brake mechanism must use a press control double valve with a monitoring device. A double valve without a self-contained monitoring device should be used only in conjunction with a control system which assures monitoring of the valve. All double valve installations involving hazardous applications should incorporate a monitoring system which inhibits further operation of the valve and machine in the event of a failure within the valve mechanism.
2. Safety exhaust (dump) valves without a self-contained monitoring device should be used only in conjunction with a control system which assures monitoring of the valve. All safety exhaust valve installations should incorporate a monitoring system which inhibits further operation of the valve and machine in the event of a failure within the valve mechanism.
3. Per specifications and regulations, the ROSS L-O-X® and L-O-X® with EEZ-ON®, N06 and N16 Series operation products are defined as energy isolation devices, NOT AS EMERGENCY STOP DEVICES.

WARNINGS: *Failure to follow these instructions can result in personal injury and/or property damage.*

STANDARD WARRANTY

All products sold by the ROSS Group are warranted for a one-year period [with the exception of Filters, Regulators and Lubricators (“FRLs”) which are warranted for a period of seven (7) years] from the date of purchase. All products are, during their respective warranty periods, warranted to be free of defects in material and workmanship. The ROSS Group’s obligation under this warranty is limited to repair, replacement or refund of the purchase price paid for products which the ROSS Group has determined, in its sole discretion, are defective. All warranties become void if a product has been subject to misuse, misapplication, improper maintenance, modification or tampering. Products for which warranty protection is sought must be returned to the ROSS Group freight prepaid.

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Other literature is available for engineering, maintenance, and service requirements.

If you need products or specifications not shown in this catalog, please visit ROSS' website, contact ROSS or your ROSS distributor. The ROSS Support Team will be happy to assist you in selecting the best product for your application.

For a current list of countries and local distributors, visit ROSS' at rosscontrols.com.