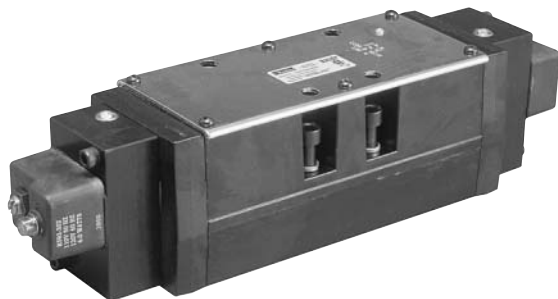
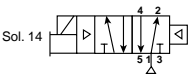
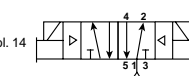
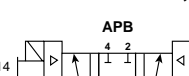




## "H4" 5599-2 Valve

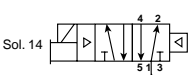
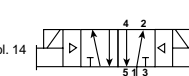
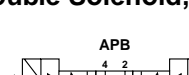


<b>Single Solenoid, 2-Position</b>		
	<b>H41VXBGA53A</b>	120VAC
	<b>H41VXBGAB9A</b>	24VDC
<b>Double Solenoid, 2-Position</b>		
	<b>H42VXBGA53A</b>	120VAC
	<b>H42VXBGAB9A</b>	24VDC
<b>Double Solenoid, 3-Position APB</b>		
	<b>H45VXBGA53A</b>	120VAC
	<b>H45VXBGAB9A</b>	24VDC

NLMOR, Lighted, Valve Less Base

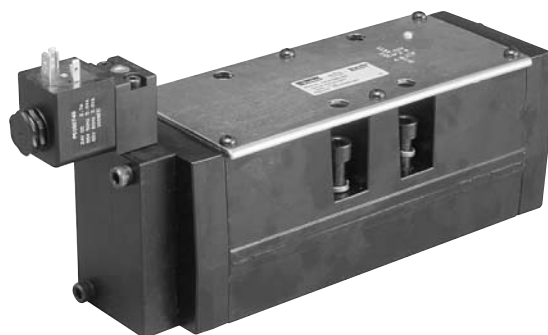
## "H4" 5599-1 AUTO Valve

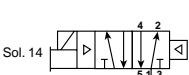
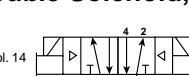



<b>Single Solenoid, 2-Position</b>		
	<b>H41WXBG383000*A</b>	120VAC
	<b>H41WXBG2B9000*A</b>	24VDC
<b>Double Solenoid, 2-Position</b>		
	<b>H42WXBG383000*A</b>	120VAC
	<b>H42WXBG2B9000*A</b>	24VDC
<b>Double Solenoid, 3-Position APB</b>		
	<b>H45WXBG383000*A</b>	120VAC
	<b>H45WXBG2B9000*A</b>	24VDC

NLMOR, Lighted, with Surge Suppression, Valve Less Base  
120VAC – 5-Pin Mini; 24VDC – 4-Pin M12 Micro  
\*Specify C, F, or G Wiring Code

## "H4" 5599-1 CNOMO Valve



<b>Single Solenoid, 2-Position</b>		
	<b>H41WXBBL53A</b>	120VAC
	<b>H41WXBBL49A</b>	24VDC
<b>Double Solenoid, 2-Position</b>		
	<b>H42WXBBL53A</b>	120VAC
	<b>H42WXBBL49A</b>	24VDC
<b>Double Solenoid, 3-Position APB</b>		
	<b>H45WXBBL53A</b>	120VAC
	<b>H45WXBBL49A</b>	24VDC

NLMOR, Unlighted, 30mm 3-Pin DIN with CNOMO,  
Valve Less Base



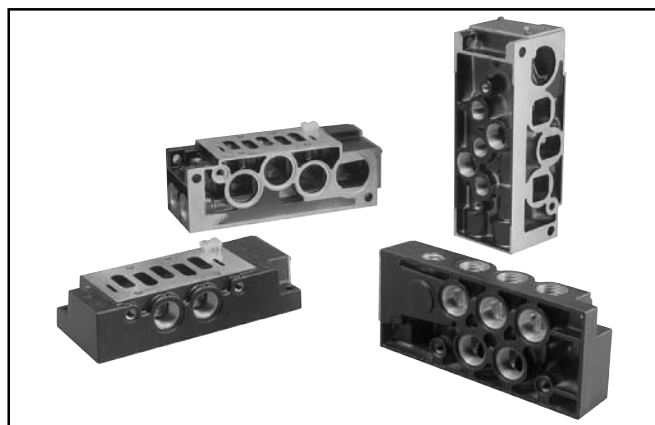
**BOLD OPTIONS ARE STANDARD**

Basic Series	Operator/ Function	Mounting/ Base Style	Port Size/ Thread Type	Pilot Source/ Pilot Exhaust	Overrides/ Lights	Enclosure/ Lead Length	Voltage & Frequency	Options	Automotive Connector Wiring Options	Engineering Level
H4	1	1	9	B	G	A	53	---	-	A
Basic Series H4 ISO Size 4		Mounting / Base Style 1 Subbase, Side Ports 2 Subbase, Bottom / Side Ports 6 Manifold, Bottom / End Ports V Valve Less Base: 5599-2 W Valve Less Base: 5599-1	Port Size / Thread Type 9 3/4" NPT 0* 3/4" BSPP "G" X Valve Less Base  * BSPP ISO 1179 Specifications.	Pilot Source / Pilot Exhaust 0 None, Remote Pilot Valve B Internal, Port #1 / Vented & Single Remote Pilot L External, Pilot #12 / Vented P* External, Pilot #14 / Vented  * Not available with Mounting/Base Style "6".	Overrides / Lights 0 None, Remote Pilot Valve or CNOMO interface Less Operator B Flush, Non-Locking C Flush, Locking G* Flush, Non-Locking / Lighted H* Flush, Locking / Lighted  * Available with Voltage "B9", "19", "49", & "53".			Options Blank None 000 None, Automotive Wiring  These characters are to be left blank unless an Automotive Connector Option is specified.	Automotive Connector Wiring Options Blank None C* Chrysler, Top Cover F* SAE / Ford, Top Cover G* General Motors, Top Cover  * Used for Enclosure "1", "2", "3" & "6".	Engineering Level A Current
Operator / Function 1 Single Solenoid, 2-Position - Air Return 2 Double Solenoid, 2-Position 3 Single Remote Pilot, 2-Position - Air Return 4 Double Remote Pilot, 2-Position 5 Double Solenoid, 3-Position - APB 6 Double Solenoid, 3-Position - CE 7 Double Solenoid, 3-Position - PC 8 Double Remote Pilot, 3-Position - APB 9 Double Remote Pilot, 3-Position - CE 0 Double Remote Pilot, 3-Position - PC		Enclosure / Lead Length 5599-2 Plug-In 0 None, Remote Pilot Valve, or Valve less Base A 6" Leads or Valve Less Base 5599-1 AUTO Connectors 1* 3-Pin Mini Straight Connector 2** 4-Pin M12 Micro Straight Connector 3 5-Pin Mini Straight Connector 5599-1 CNOMO Connectors 6†† 2-Pin M12 Micro Connector with CNOMO Operator L† 3-Pin 30mm DIN 43650A with CNOMO Operator N CNOMO Mounting – No Operator P† 3-Pin 22mm DIN Industrial with CNOMO Operator				Voltage & Frequency				
						Coil				
						AC				
						60Hz		50Hz		
						DC				
						Override/ Light				
						5599-2 / 5599-1 AUTO				
						B9*				
						49				
						53		120 110		
						XX		Remote Pilot Valve		
						5599-1 CNOMO				
						19†				
						42		24		
						45				
						49				
						53		120 110		
						57		240		
						XX		Remote Pilot Valve or CNOMO Mounting - No Operator		
		</								



## Manifold and Subbase Kit Ordering Code

Basic Series	Mounting / Base Style	Port Size / Thread Type	Enclosures / Lead Length	Factory Designator
<b>PS43</b>	<b>H4</b>	<b>1</b>	<b>9</b>	<b>A</b>
	<b>1</b> Subbase, Side Port <b>2</b> Subbase, Bottom / Side Port <b>6</b> Manifold, Bottom / End Port	<b>9</b> 3/4" NPT <b>0</b> 3/4" BSPP "G"	<b>0</b> None, No Electrical Plug <b>A</b> 6" Leads	<b>P</b>



## End Plate

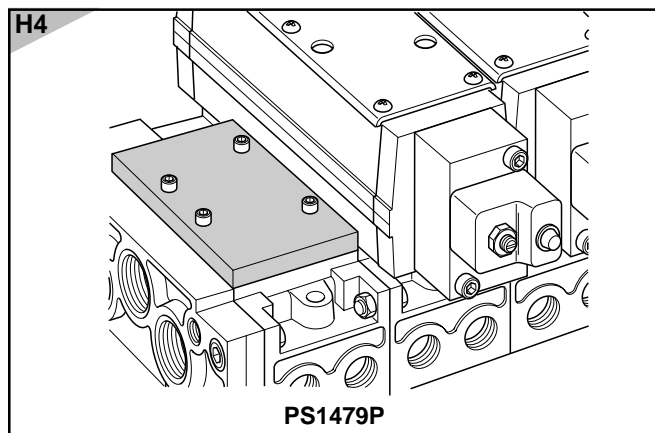
Size	Port Size	Kit Number	
		NPT	BSPP "G"
<b>H3</b>	1"	<b>PS1437P</b>	<b>PS1480P</b>



### Mounting / Base Style **H4**

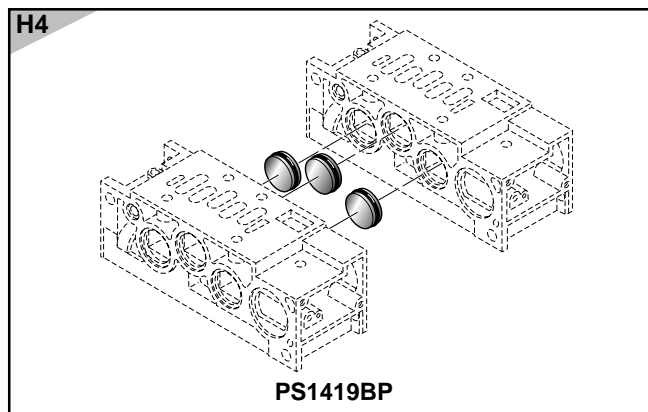
- #1, #2, #3, #4, and #5 Side Ports Tapped 3/4";  
#12 & #14 Side Pilot Ports Tapped 1/8"
- #1, #2, #3, #4, and #5 Bottom Ports Tapped 3/4";  
#1, #2, #3, #4, and #5 Side Ports Tapped 1/2";  
#12 & #14 Bottom Pilot Ports Tapped 1/8"
- #2 and #4 End Ports Tapped 3/4";  
#2 and #4 Bottom Ports Tapped 3/4";  
#1, #3 and #5 Bottom Ports Tapped 1/2";  
#12 & #14 Bottom Pilot Ports Tapped 1/8"

## Blanking Plate



## Manifold Port Isolation

- Main Galley (1, 3, 5)





## Flow Rating (C<sub>v</sub>)

Size	Port Size	Mounting Style	2-Position	3-Position
<b>H4</b>	3/4"	Subbase	7.4	5.2
	3/4"	Manifold	7.4	5.2

## CSA / NRTL-C

### 5599-2 / 5599-1 AUTO

H4 – Standard 150 PSI

### 5599-1 CNOMO

H4 – Maximum Pressure 115 PSI

Insert an 'L' at the end of the valve part number.

## Temperature Rating

-15°C to 50°C (5°F to 120°F) ambient

## Operating Pressure

275 to 1035 kPa (40 to 150 PSI)

## Valve to Base Gaskets

### H4

1. Remove valve from base.
2. Remove existing gasket and replace with appropriate gasket shown to fit application.
3. When ordering an "H4" Valve, correct gasket is included with corresponding valve callouts.

#### Internal Pilot Port #1



P00148

#### Single Remote Air Pilot



P00150

#### External Pilot



P00149

#### Double Remote Air Pilot



P00151

**Note:** For single remote pilot valve with common external pilot, use P00151.

## Field Conversion of Pilot Supplies

**CAUTION:** Turn air and electrical supplies off before servicing unit.

**H1 H2 H3** (Engineering Level 'A')

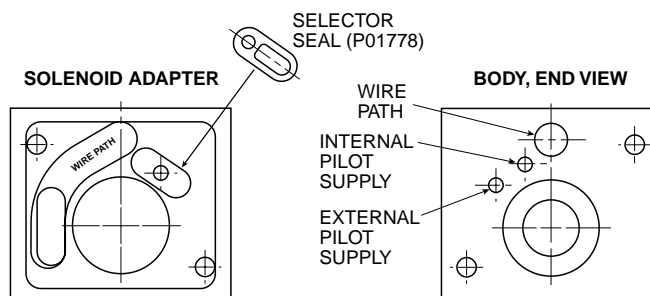
1. Remove solenoid coil so that you can access and remove the adapter block at the #14 end (and/or #12 end).
2. Remove air return end cap at the #12 end.

**Note:** Valve body has two pilot holes (internal & external). The internal pilot hole is the one located closest to the wire path hole.

3. Position the selector seal into its groove to connect the supply air (from the valve body) to either internal or external pilot supply. The figure shows the external pilot supply being selected.

**Note:** The same selection of seal positioning needs to be made at both the 12 & 14 ends.

4. Reassemble unit using the reverse order that it was taken apart.
5. External pilot supply can now be accessed from the 12 or 14 end of the base.



**Note:** "H3" selector seal recess is in the valve body.



## Spool and Body Service Kits (Engineering Level 'A')

Size	2-Position	3-Position			Kit Includes:
		APB	CE	PC	
H1	PS4001P	PS4002P	PS4003P	PS4004P	Spool with seals, piston seals, return spring and lubricant.
H2	PS4101P	PS4102P	PS4103P	PS4104P	
H3	K232024 * K343094 †	K232021	K323023	K232022	Spool Kit
	K352419 * K352420 †	K352420	K352420	K352420	Valve body o-rings, piston seals and lubricant.
H4	P00186	P00187	P00249	P00359	Spool Kit
	PS1401 * PS1402 †	PS1438	PS1438	PS1438	Valve body o-rings, piston seals and lubricant.

\* Used with Single Solenoid or Single Remote Pilot Valve. † Used with Double Solenoid or Double Remote Pilot Valve.

## Solenoid Information (Engineering Level 'A')

Voltage Range +10% / -15% of Nominal

### 5599-2 5599-1 AUTO

Voltage Code	Voltage			Coil Kit Number		Power Consumption (Watts)	AC		DC
	60Hz	50Hz	DC	With Indicator Light	Unlighted		Inrush (Amps)	Hold (Amps)	Hold (Amps)
B9*	—	—	24	K252 030*	—	3.1	—	—	0.105
42**	24	—	—	—	K252 031	6.0	.60	.41	—
43	—	24	—	—	K252 032	6.0	.57	.40	—
45**	—	—	12	—	K252 032	6.0	—	—	.47
49	—	—	24	K252 033	—	6.0	—	—	.23
51	—	—	48	—	K252 035	6.0	—	—	.14
53	120	110	—	K252 036	—	6.0	.12	.10	—
				K252 040† ‡	—				
57**	240	—	—	—	K252 038	6.0	.07	.045	—
59**	—	240	—	—	K252 039	6.0	.07	.033	—
23 / 83** ‡	120	110	—	K252 040‡	—	6.0	.12	.10	—

\* Low watt with surge suppression (Blue).

\*\* Voltages available as kits only.

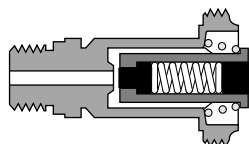
† Replacement coil when Automotive Option "C", "F", & "G" are specified in the valve model number.

‡ This coil contains an MOV as standard for surge suppression.

### 5599-2 5599-1 AUTO

#### Plunger & Guide Assembly (Engineering Level 'A')

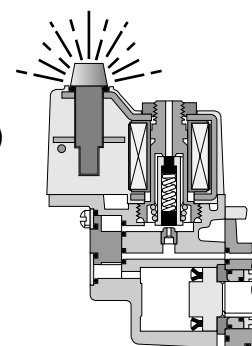
K232 025 Standard Voltages  
K232 049 B9 Low Watt Voltage Code (Blue Coil)  
Includes: Plunger, Plunger Guide and Spring



### 5599-2 5599-1 AUTO

#### Replacement Indicator Light (Engineering Level 'A')

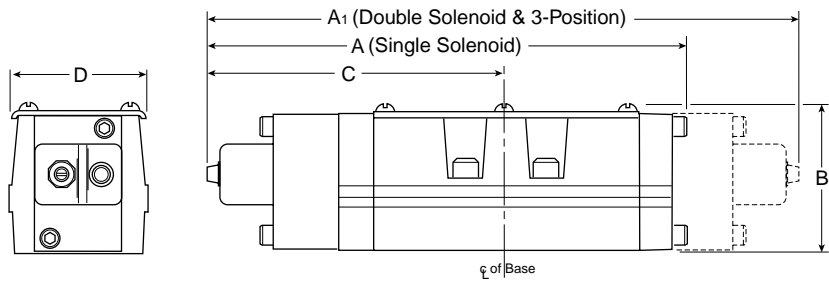
K252 008 24VDC  
K252 009 120VAC  
Includes: Light and O-ring





# H4

## 5599-2

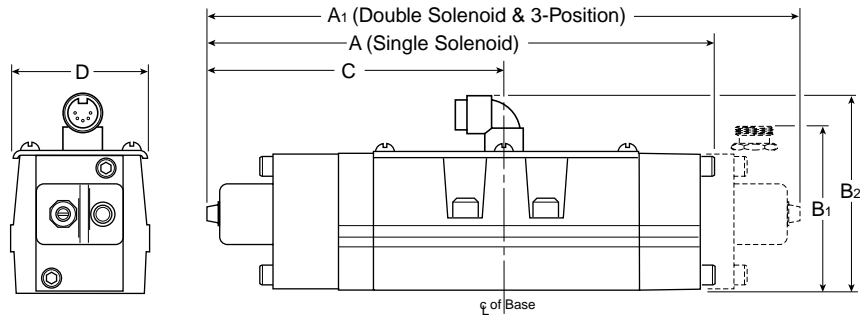


## Dimensions

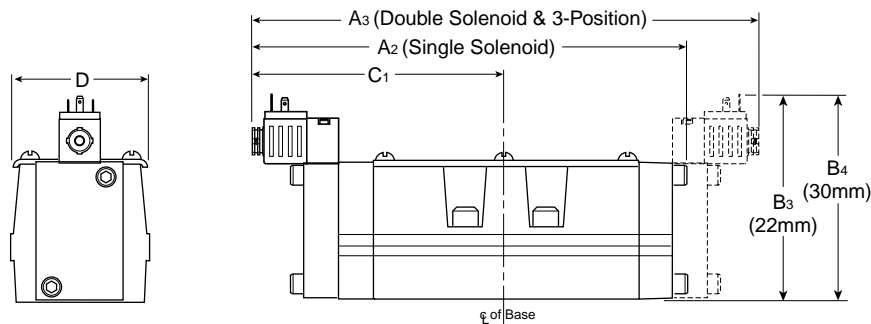
A	A <sub>1</sub>	A <sub>2</sub>	A <sub>3</sub>	A <sub>4</sub>
11.37 (289)	13.83 (351)	11.00 (279)	13.08 (332)	8.92 (267)
A <sub>5</sub>	B	B <sub>1</sub>	B <sub>2</sub>	B <sub>3</sub>
9.30 (236)	3.49 (89)	4.00 (102)	4.81 (122)	4.82 (122)
B <sub>4</sub>	C	C <sub>1</sub>	C <sub>2</sub>	D
5.13 (130)	6.92 (176)	6.54 (166)	4.46 (113)	3.21 (82)

Inches (mm)

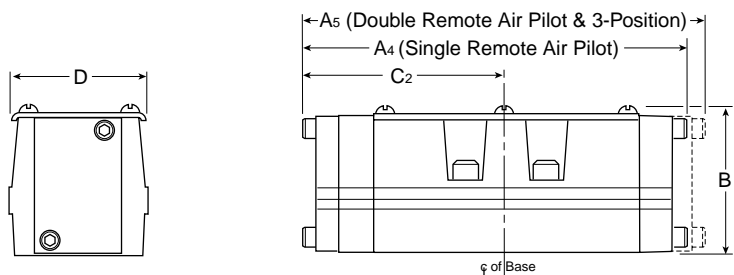
## 5599-1 Auto



## 5599-1 DIN



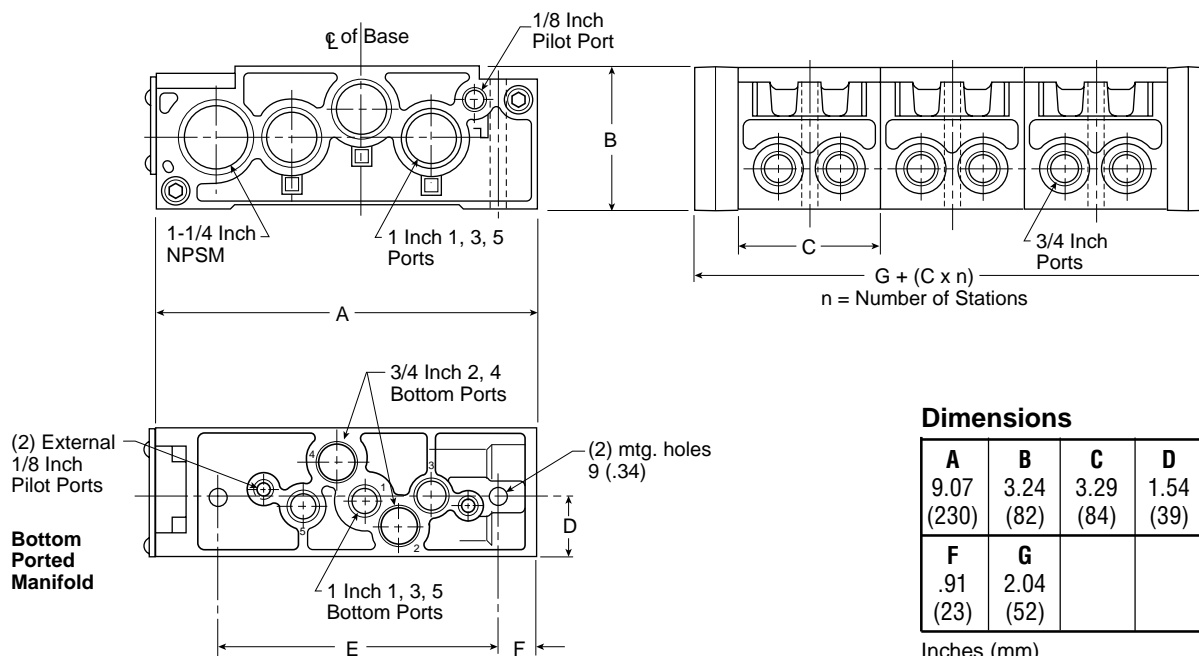
## 5599-2 / 5599-1 Remote Pilot





# H4

## H4 5599-2 / 5599-1 Manifold

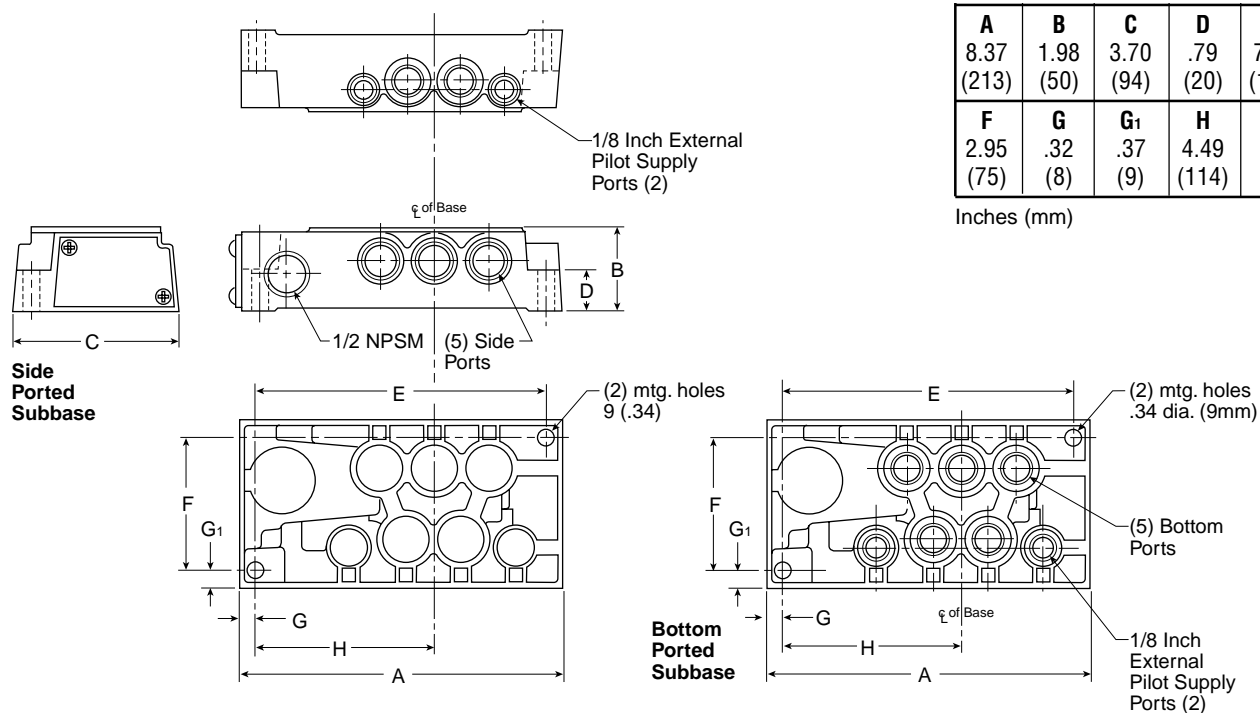


### Dimensions

A	B	C	D	E
9.07 (230)	3.24 (82)	3.29 (84)	1.54 (39)	6.89 (175)
F	G			
.91 (23)	2.04 (52)			

Inches (mm)

## H4 5599-2 / 5599-1 Subbase



### Dimensions

A	B	C	D	E
8.37 (213)	1.98 (50)	3.70 (94)	.79 (20)	7.69 (195)
F	G	G <sub>1</sub>	H	
2.95 (75)	.32 (8)	.37 (9)	4.49 (114)	

Inches (mm)



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**10. Indemnity For Infringement of Intellectual Property Rights:** Seller shall have no liability for infringement of any patents, trademarks, copyrights, trade dress, trade secrets or similar rights except as provided in this Part 10. Seller will defend and indemnify Buyer against allegations of infringement of U.S. patents, U.S. trademarks, copyrights, trade dress and trade secrets (hereinafter "Intellectual Property Rights"). Seller will defend at its expense and will pay the cost of any settlement or damages awarded in an action brought against Buyer based on an allegation that an item sold pursuant to this contract infringes the Intellectual Property Rights of a third party. Seller's obligation to defend and indemnify Buyer is contingent on Buyer notifying Seller within ten (10) days after Buyer becomes aware of such allegations of infringement, and Seller having sole control over the defense of any allegations or actions including all negotiations for settlement or compromise. If an item sold hereunder is subject to a claim that it infringes the Intellectual Property Rights of a third party, Seller may, at its sole expense and option, procure for Buyer the right to continue using said item, replace or modify said item so as to make it noninfringing, or offer to accept return of said item and return the purchase price less a reasonable allowance for depreciation. Notwithstanding the foregoing, Seller shall have no liability for claims of infringement based on information provided by Buyer, or directed to items delivered hereunder for which the designs are specified in whole or part by Buyer, or infringements resulting from the modification, combination or use in a system of any item sold hereunder. The foregoing provisions of this Part 10 shall constitute Seller's sole and exclusive liability and Buyer's sole and exclusive remedy for infringement of Intellectual Property Rights.

If a claim is based on information provided by Buyer or if the design for an item delivered hereunder is specified in whole or in part by Buyer, Buyer shall defend and indemnify Seller for all costs, expenses or judgements resulting from any claim that such item infringes any patent, trademark, copyright, trade dress, trade secret or any similar right.

**11. Force Majeure:** Seller does not assume the risk of and shall not be liable for delay or failure to perform any of Seller's obligations by reason of circumstances beyond the reasonable control of Seller (hereinafter "Events of Force Majeure"). Events of Force Majeure shall include without limitation, accidents, acts of God, strikes or labor disputes, acts, laws, rules or regulations of any government or government agency, fires, floods, delays or failures in delivery of carriers or suppliers, shortages of materials and any other cause beyond Seller's control.

**12. Entire Agreement/Governing Law:** The terms and conditions set forth herein, together with any amendments, modifications and any different terms or conditions expressly accepted by Seller in writing, shall constitute the entire Agreement concerning the items sold, and there are no oral or other representations or agreements which pertain thereto. This Agreement shall be governed in all respects by the law of the State of Ohio. No actions arising out of sale of the items sold hereunder or this Agreement may be brought by either party more than two (2) years after the cause of action accrues.