



## 5/2 and 5/3 Glandless Valves Solenoid and Pilot Actuated Sub-base Mounted ISO 5599/II #1, #2, #3

- ISO 5599/II global standard interface
- Made in accordance with Ce standards
- Adaptable to Serial Bus Systems
- High flow rates
- Easy maintenance
- Non-corrosive spool and sleeve construction



### Technical Data

**Medium:**

Compressed air, 5µm filtered, lubricated or non-lubricated.

**Operation:**

Spool valve, indirectly actuated.

**Mounting:**

On sub-bases.

**Sizes:**

- ISO #1
- ISO #2
- ISO #3

**Operating Pressure:**

- 2 to 10 bar ISO #1
- 1 to 10 bar ISO #2 and ISO #3
- All sizes available up to 16 bar
- Pilot pressure - 2 bar (30 psig)

**Flow Characteristics :**

Size	Cv
ISO #1	1.0
ISO #2	2.3
ISO #3	3.4

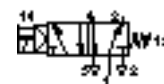
**Ambient Temperature:**

4°C\* to 50°C (40°F to 120°F)

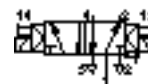
\*Consult our Technical Service for use below +2°C

**Materials:**

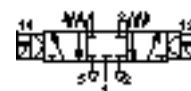
Precision finished, aluminium body. Hard anodised, hardened stainless steel spool and sleeve. Viton seals.



5/2  
Single solenoid  
actuated spring return



5/2  
Double solenoid  
actuated



5/3  
All ports blocked



5/3  
Centre open exhaust



General Information

Pilot Actuated Versions

Symbol	Model	ISO Size	Operator	Mid-position	Return	Pilot Pressure (bar)	Operating Pressure (bar)	Weight (kg)
	V42B537A-X0090	#1	Solenoid	-	Spring	2 – 16	-0,9 – 16	0,330
	V42C537A-X0090	#2				1 – 16	-0,9 – 16	0,590
	V42D537A-X0090	#3				1 – 16	-0,9 – 16	0,850
	V42B533A-X0020	#1	Solenoid	-	Solenoid	2 – 16	-0,9 – 16	0,330
	V42C533A-X0020	#2				1 – 16	-0,9 – 16	0,590
	V42D533A-X0020	#3				1 – 16	-0,9 – 16	0,850
	V42B633A-X0020	#1	Solenoid	All Ports Blocked	Solenoid	2 – 16	(-0,9 – 16)	0,330
	V42C633A-X0020	#2				1 – 16	(-0,9 – 16)	0,590
	V42D633A-X0020	#3				1 – 16	(-0,9 – 16)	0,850
	V42B733A-X0020	#1	Solenoid	Centre Open Exhaust	Solenoid	2 – 16	(-0,9 – 16)	0,330
	V42C733A-X0020	#2				1 – 16	(-0,9 – 16)	0,590
	V42D733A-X0020	#3				1 – 16	(-0,9 – 16)	0,850

Solenoid Actuated Versions

Symbol	Model	ISO Size	Operator	Mid-position	Return	Pilot Pressure (bar)	Operating Pressure (bar)	Weight (kg)
	V42B5G7A-C300A	#1	Solenoid	-	Spring	2 – 10	-0,9 – 16	0,330
	V42C5G7A-C300A	#2				1 – 10	-0,9 – 16	0,590
	V42D5G7A-C300A	#3				1 – 10	-0,9 – 16	0,850
	V42B5GGA-C300A	#1	Solenoid	-	Solenoid	2 – 10	-0,9 – 16	0,330
	V42C5GGA-C300A	#2				1 – 10	-0,9 – 16	0,590
	V42D5GGA-C300A	#3				1 – 10	-0,9 – 16	0,850
	V42B6GGA-C300A	#1	Solenoid	All Ports Blocked	Solenoid	2 – 10	-0,9 – 16	0,330
	V42C6GGA-C300A	#2				1 – 10	-0,9 – 16	0,590
	V42D6GGA-C300A	#3				1 – 10	-0,9 – 16	0,850
	V42B7GGA-C300A	#1	Solenoid	Centre Open Exhaust	Solenoid	2 – 10	-0,9 – 16	0,330
	V42C7GGA-C300A	#2				1 – 10	-0,9 – 16	0,590
	V42D7GGA-C300A	#3				1 – 10	-0,9 – 16	0,850
	V42B5G7A-D300A	#1	Solenoid	-	Spring	2 – 16	-0,9 – 16	0,330
	V42C5G7A-D300A	#2				1 – 16	-0,9 – 16	0,590
	V42D5G7A-D300A	#3				1 – 16	-0,9 – 16	0,850
	V42B5GGA-D300A	#1	Solenoid	-	Solenoid	2 – 16	-0,9 – 16	0,330
	V42C5GGA-D300A	#2				1 – 16	-0,9 – 16	0,590
	V42D5GGA-D300A	#3				1 – 16	-0,9 – 16	0,850
	V42B6GGA-D300A	#1	Solenoid	All Ports Blocked	Solenoid	2 – 16	-0,9 – 16	0,330
	V42C6GGA-D300A	#2				1 – 16	-0,9 – 16	0,590
	V42D6GGA-D300A	#3				1 – 16	-0,9 – 16	0,850
	V42B7GGA-D300A	#1	Solenoid	Centre Open Exhaust	Solenoid	2 – 16	-0,9 – 16	0,330
	V42C7GGA-D300A	#2				1 – 16	-0,9 – 16	0,590
	V42D7GGA-D300A	#3				1 – 16	-0,9 – 16	0,850

\* Insert Voltage Codes from table on page 5.4.185.03.

† Insert Manual Override Option from “Electrical details for Solenoid Operators” table on page 5.4.185.03.

Pressures shown in brackets refer to external pilot options, see notes below.



### Voltage Codes

Voltage	Code	Power Inrush/Hold
24V d.c.	24V=	3.5W
100 -110 V AC	110VAC	6.5VA
100 -120 V AC	110VAC	6.5VA
200 -220 V AC	230VAC	6.5VA
200 -240 V AC	230VAC	6.5VA

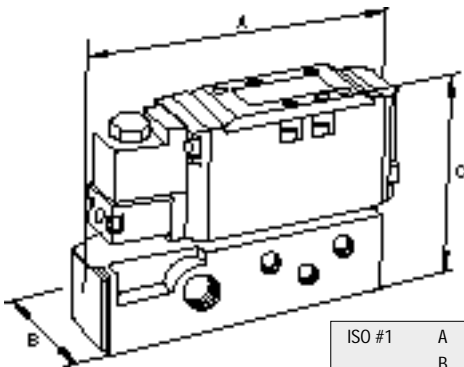
For details of connector plugs see Section 7.7.001

### Electrical Details for Solenoid Operators

<b>Voltage Tolerance:</b>	+10% / -15%
<b>Rating:</b>	100% E.D.
<b>Electrical Connector:</b>	DIN 43 650 table 'B' Industrial standard 22mm width
<b>Standard Plug (supplied):</b>	ISO 5599/II
<b>Cable Entry:</b>	Pg 9
<b>Solenoid Coil:</b>	????
<b>Manual Override:</b>	Push only or Push turn to lock
<b>Protection Class:</b>	IP 65 with sealed plug (ISO 6952)

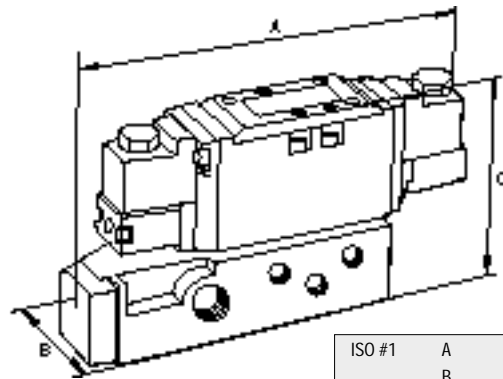
### Overall dimensions

5/2 Single solenoid pilot spring return



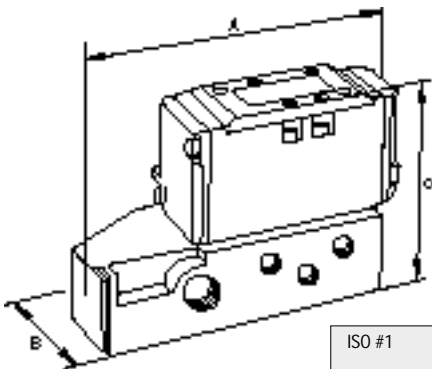
ISO #1	A	188 (7.4)
	B	52 (2.0)
	C	123 (4.8)
ISO #2	A	233 (9.2)
	B	66.5 (2.6)
	C	137 (5.4)
ISO #3	A	250 (9.9)
	B	90 (3.6)
	C	161 (6.3)

5/2 Double solenoid pilot momentary control  
5/3 Double solenoid pilot, closed centre  
5/3 Double solenoid pilot, open centre



ISO #1	A	220 (8.7)
	B	52 (2.0)
	C	123 (4.8)
ISO #2	A	265 (10.4)
	B	66.5 (2.6)
	C	137 (5.4)
ISO #3	A	292 (11.5)
	B	90 (3.6)
	C	161 (6.3)

5/2 Single remote pressure control, spring return  
5/2 Double remote pressure momentary control  
5/3 Double remote pressure control, closed centre  
5/3 Double remote pressure control, closed centre

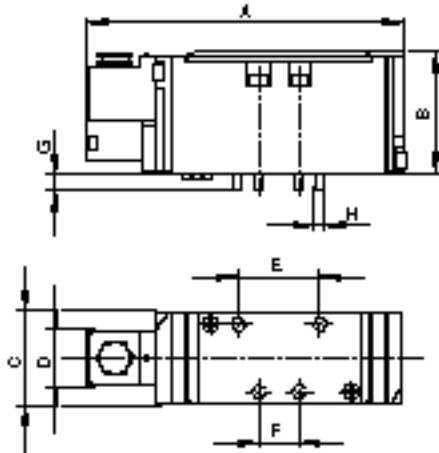


ISO #1	A	161 (6.3)
	B	41 (1.6)
	C	69 (2.7)
ISO #2	A	185 (7.3)
	B	52 (2.0)
	C	70 (2.8)
ISO #3	A	216 (8.5)
	B	66 (2.6)
	C	79 (3.1)



**5/2 Single Solenoid Pilot Spring Return**

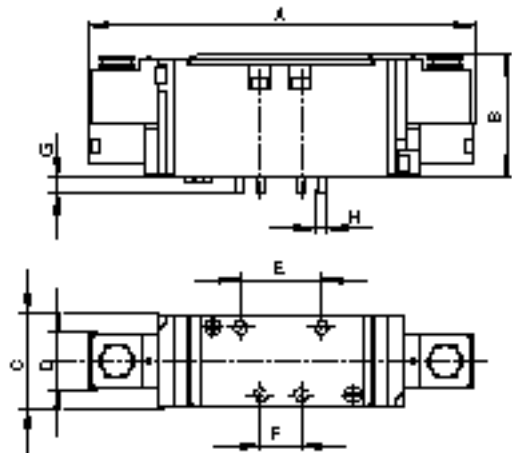
ISO #1 Part number  
 ISO #2 Part number  
 ISO #3 Part number



	A	B	C	D	E	F	G	H
ISO #1	160,5 (6.32)	40,5 (1.6)	68,5 (2.7)	30 (1.18)	36 (1.42)	18 (0.71)	7 (0.28)	M5
ISO #2	185 (7.3)	52 (2.04)	60 (2.76)	30 (1.18)	48 (1.89)	24 (0.94)	12 (0.47)	M6
ISO #3	216 (8.5)	66 (2.6)	79 (3.1)	30 (1.18)	64 (2.52)	32 (1.26)	12 (0.47)	M8

**5/2 Double Solenoid Pilot Momentary Control**

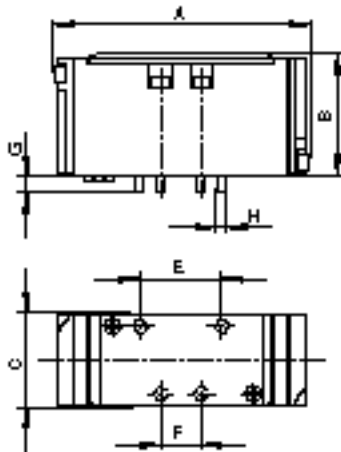
ISO #1 Part number  
 ISO #2 Part number  
 ISO #3 Part number



	A	B	C	D	E	F	G	H
ISO #1	200 (7.87)	68 (2.67)	40,5 (1.59)	30 (1.18)	36 (1.42)	18 (0.71)	7 (0.28)	M5
ISO #2	227 (8.93)	70 (2.75)	50,5 (1.98)	30 (1.18)	48 (1.89)	24 (0.94)	12 (0.47)	M6
ISO #3	252 (9.92)	78 (3.07)	64,5 (2.54)	30 (1.18)	64 (2.52)	32 (1.26)	12 (0.47)	M8

**5/2 Single Remote Pressure Control, Spring Return**

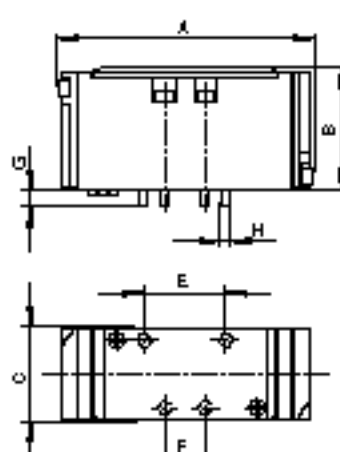
ISO #1 Part number  
 ISO #2 Part number  
 ISO #3 Part number



	A	B	C	D	E	F	G	H
ISO #1	120,6 (4.75)	40,5 (1.6)	68,5 (2.7)	-	36 (1.42)	18 (0.71)	7 (0.28)	M5
ISO #2	147 (5.8)	52 (2.04)	60 (2.76)	-	48 (1.89)	24 (0.94)	12 (0.47)	M6
ISO #3	178 (7.0)	66 (2.6)	79 (3.1)	-	64 (2.52)	32 (1.26)	12 (0.47)	M8

**5/2 Double Remote Pressure Momentary Control**

ISO #1 Part number  
 ISO #2 Part number  
 ISO #3 Part number

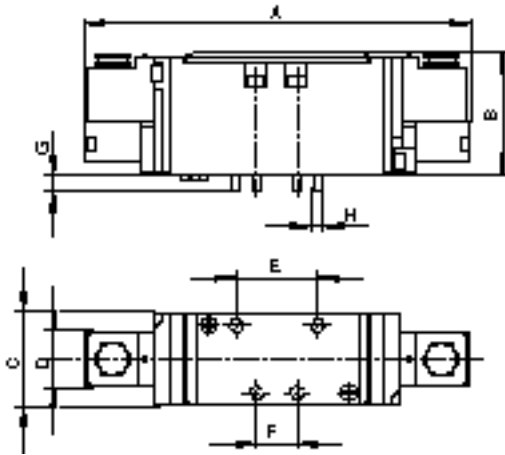


	A	B	C	D	E	F	G	H
ISO #1	120,6 (4.75)	40,5 (1.6)	68,5 (2.7)	-	36 (1.42)	18 (0.71)	7 (0.28)	M5
ISO #2	147 (5.8)	52 (2.04)	60 (2.76)	-	48 (1.89)	24 (0.94)	12 (0.47)	M6
ISO #3	178 (7.0)	66 (2.6)	79 (3.1)	-	64 (2.52)	32 (1.26)	12 (0.47)	M8



**5/3 Double Solenoid Pilot, Closed Centre**

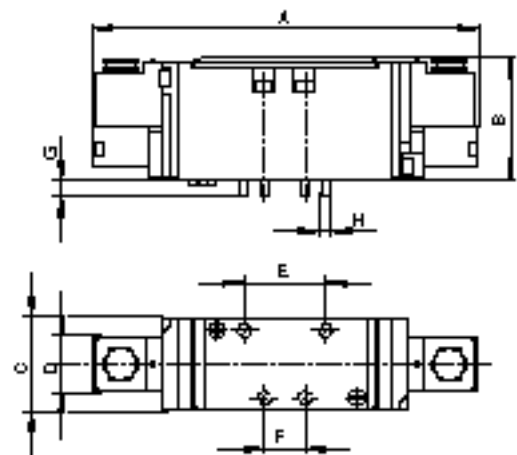
ISO #1 Part number  
 ISO #2 Part number  
 ISO #3 Part number



	A	B	C	D	E	F	G	H
ISO #1	200 (7.87)	68 (2.67)	40,5 (1.59)	30 (1.18)	36 (1.42)	18 (0.71)	7 (0.28)	M5
ISO #2	227 (8.93)	70 (2.75)	50,5 (1.98)	30 (1.18)	48 (1.89)	24 (0.94)	12 (0.47)	M6
ISO #3	252 (9.92)	78 (3.07)	64,5 (2.54)	30 (1.18)	64 (2.52)	32 (1.26)	12 (0.47)	M8

**5/3 Double Solenoid Pilot, Open Centre**

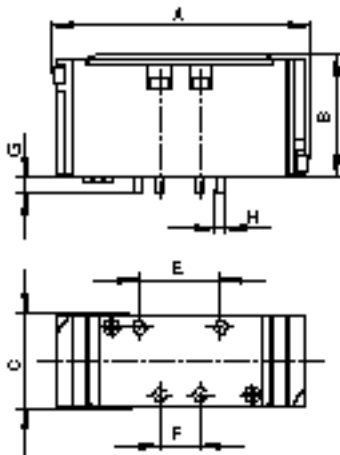
ISO #1 Part number  
 ISO #2 Part number  
 ISO #3 Part number



	A	B	C	D	E	F	G	H
ISO #1	200 (7.87)	68 (2.67)	40,5 (1.59)	30 (1.18)	36 (1.42)	18 (0.71)	7 (0.28)	M5
ISO #2	227 (8.93)	70 (2.75)	50,5 (1.98)	30 (1.18)	48 (1.89)	24 (0.94)	12 (0.47)	M6
ISO #3	252 (9.92)	78 (3.07)	64,5 (2.54)	30 (1.18)	64 (2.52)	32 (1.26)	12 (0.47)	M8

**5/3 Double Remote Pressure Control, Closed Centre**

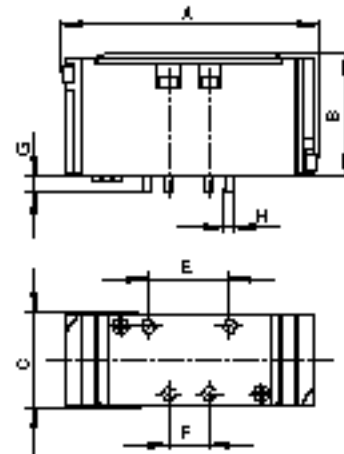
ISO #1 Part number  
 ISO #2 Part number  
 ISO #3 Part number



	A	B	C	D	E	F	G	H
ISO #1	120,6 (4.75)	40,5 (1.6)	68,5 (2.7)	-	36 (1.42)	18 (0.71)	7 (0.28)	M5
ISO #2	147 (5.8)	52 (2.04)	60 (2.76)	-	48 (1.89)	24 (0.94)	12 (0.47)	M6
ISO #3	178 (7.0)	66 (2.6)	79 (3.1)	-	64 (2.52)	32 (1.26)	12 (0.47)	M8

**5/3 Double Remote Pressure Control, Open Centre**

ISO #1 Part number  
 ISO #2 Part number  
 ISO #3 Part number

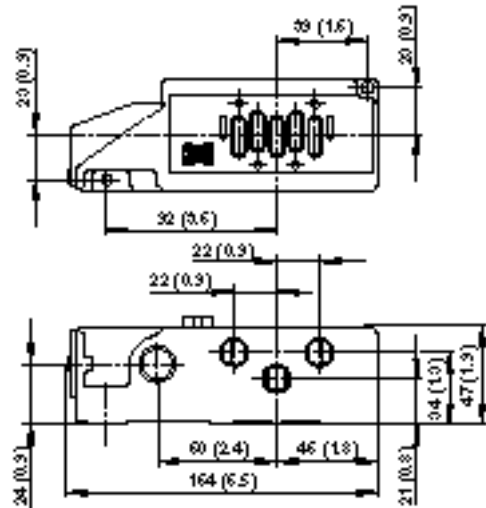
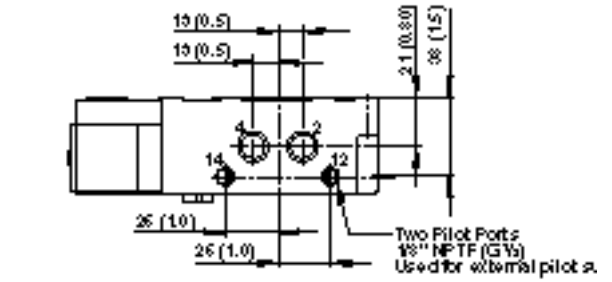
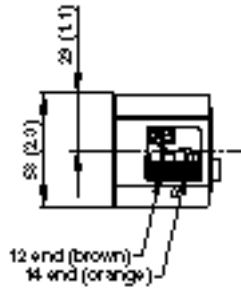
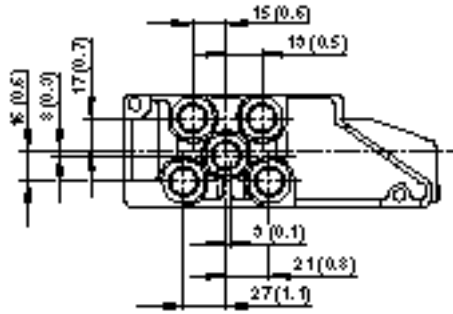


	A	B	C	D	E	F	G	H
ISO #1	120,6 (4.75)	40,5 (1.6)	68,5 (2.7)	-	36 (1.42)	18 (0.71)	7 (0.28)	M5
ISO #2	147 (5.8)	52 (2.04)	60 (2.76)	-	48 (1.89)	24 (0.94)	12 (0.47)	M6
ISO #3	178 (7.0)	66 (2.6)	79 (3.1)	-	64 (2.52)	32 (1.26)	12 (0.47)	M8



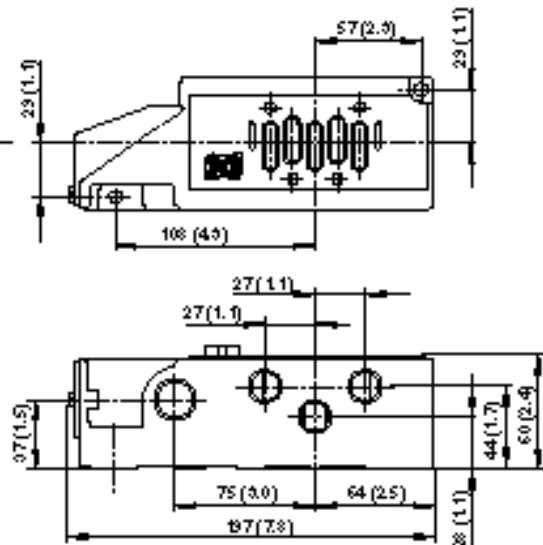
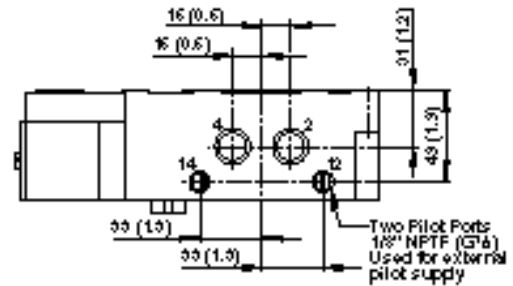
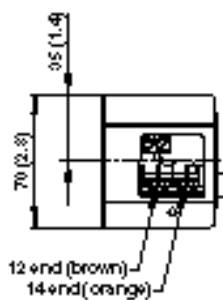
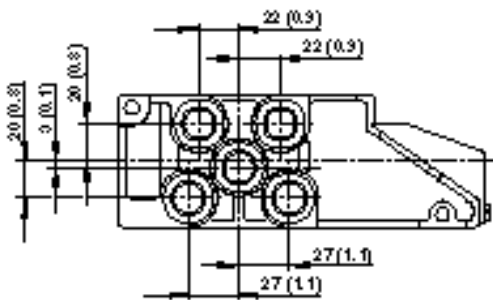
Side/Bottom Ported bases ISO #1

Part Number



Side/Bottom Ported bases ISO #2

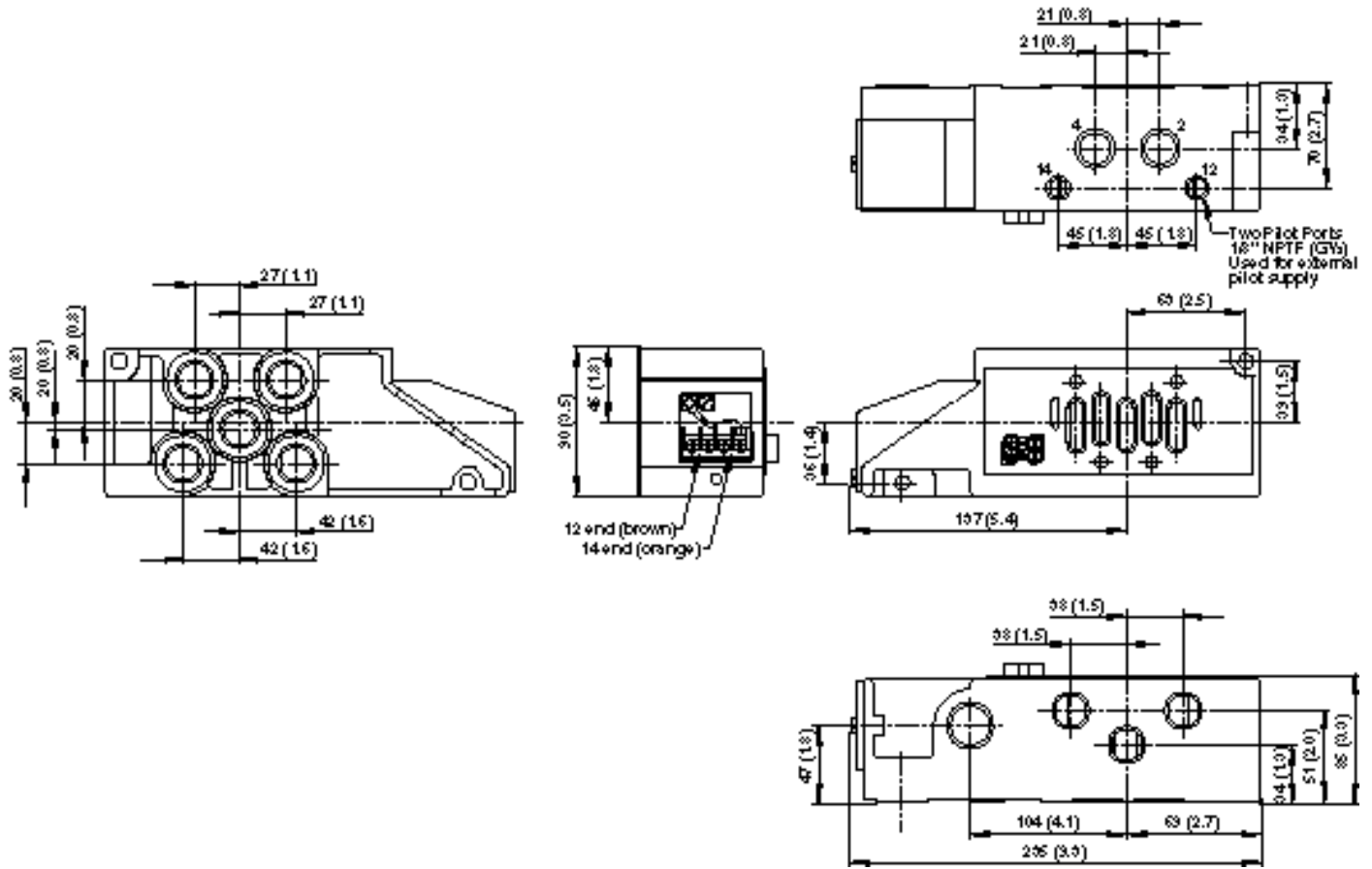
Part Number





Side/Bottom Ported bases ISO #3

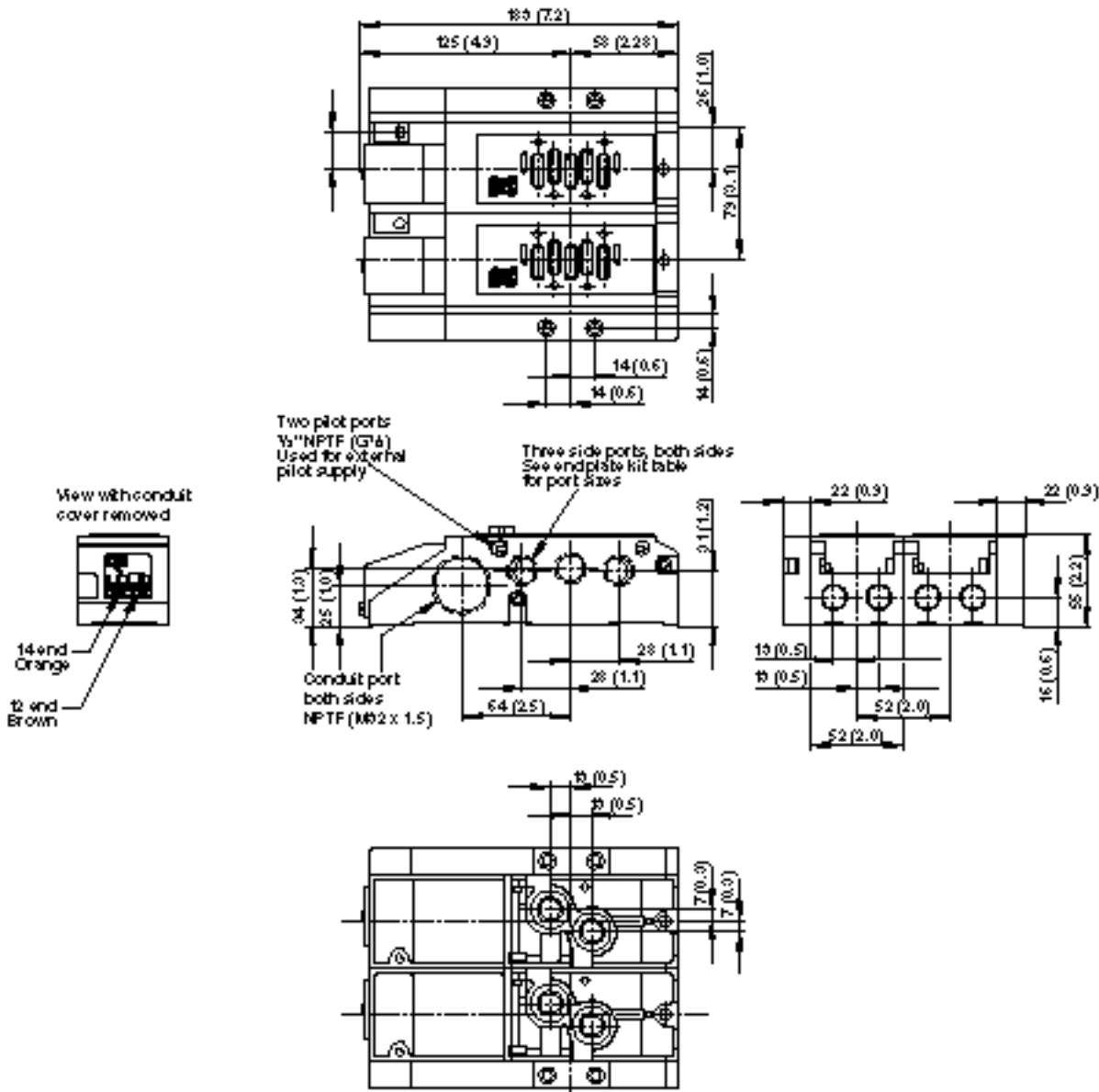
Part Number



	Port Size	Part Number
ISO #1	1/4" NPTF side	V70000-RBB
	1/4" NPTF Side/Bottom	V70000-RBA
	3/8" NPTF Side	V70000-SBB
	3/8" NPTF Side/Bottom	V70000-SBA
	G1/4 Side	V70000-BBB
	G3/8 Side	V70000-CBB
ISO #2	3/8" NPTF side	V70000-SCB
	3/8" NPTF Side/Bottom	V70000-SCA
	1/2" NPTF Side	V70000-TCB
	1/2" NPTF Side/Bottom	V70000-TCA
	G1/2 Side	V70000-DCB
	G3/8 Side	V70000-CCB
ISO #3	1/2" NPTF side	V70000-TDB
	1/2" NPTF Side/Bottom	V70000-TDA
	3/4" NPTF Side	V70000-UDB
	3/4" NPTF Side/Bottom	V70000-UDA
	G1/2 Side	V70000-DCB
	G1/2 Side/Bottom	V70000-DDA
	G3/4 Side	V70000-EDB
	G3/4 Side/Bottom	V70000-EDA



Bottom or End Ported manifolds ISO #1



End Station Kits

Port size	Part Number
3/8" NPTF	V70001-SBC
G 3/8	V70001-CBC

Each end station kit includes left and right end plates, socket head screws, nuts and seals.

Manifold Station Assemblies

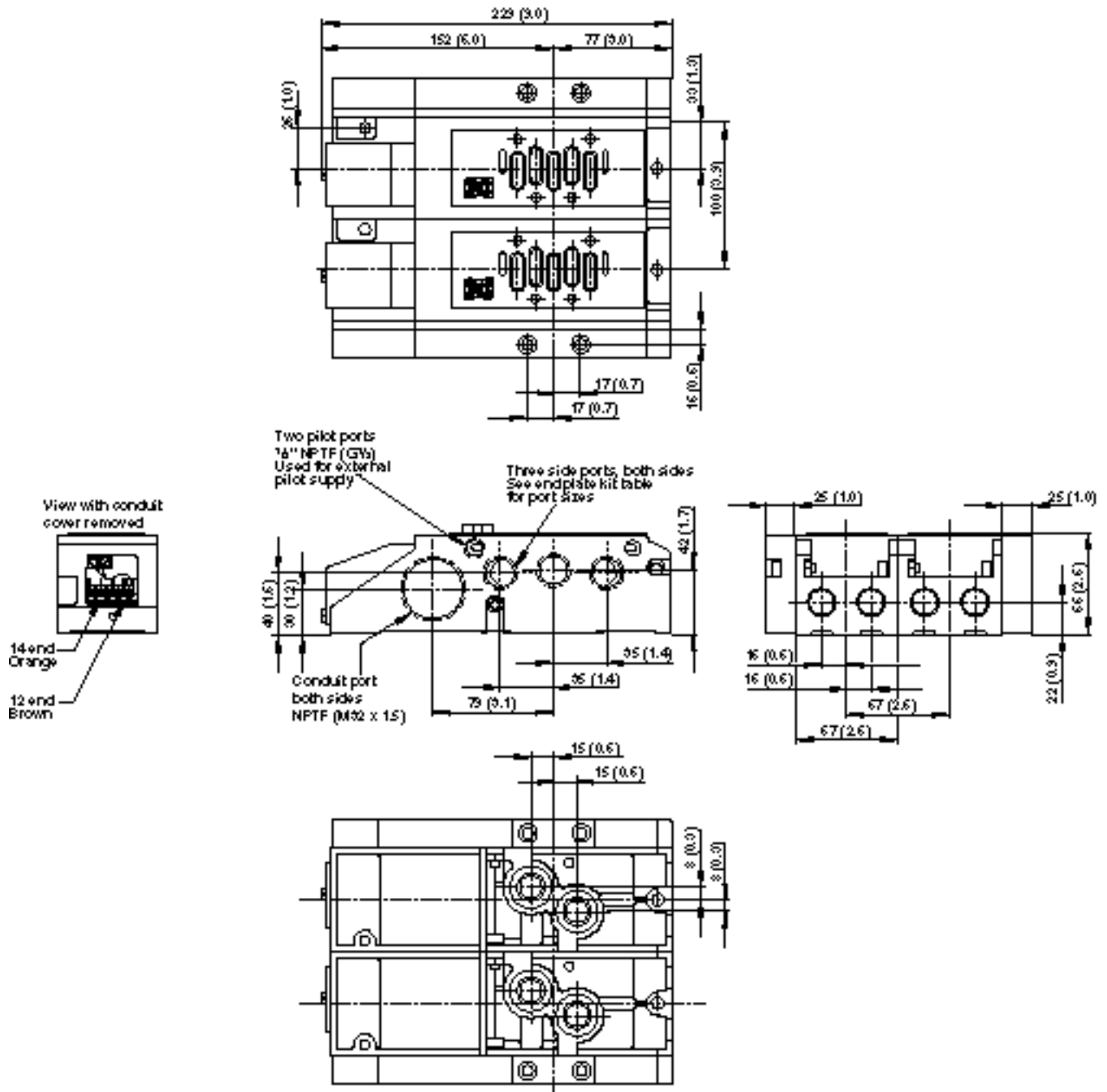
Port size	Part Number
1/4" NPTF End/Bottom	V70001-RBD
3/8" NPTF End/Bottom	V70001-SBD
G 1/4 End/Bottom	V70001-BBD
G3/8 End/Bottom	V70001-CBD

Each manifold station assembly includes a manifold assembly, socket head screws, nuts and seals.





Bottom or End Ported manifolds ISO #2



End Station Kits

Port size	Part Number
1/2" NPTF	V70001-TCC
G 1/2	V70001-DCC

Each end station kit includes left and right end plates, socket head screws, nuts and seals.

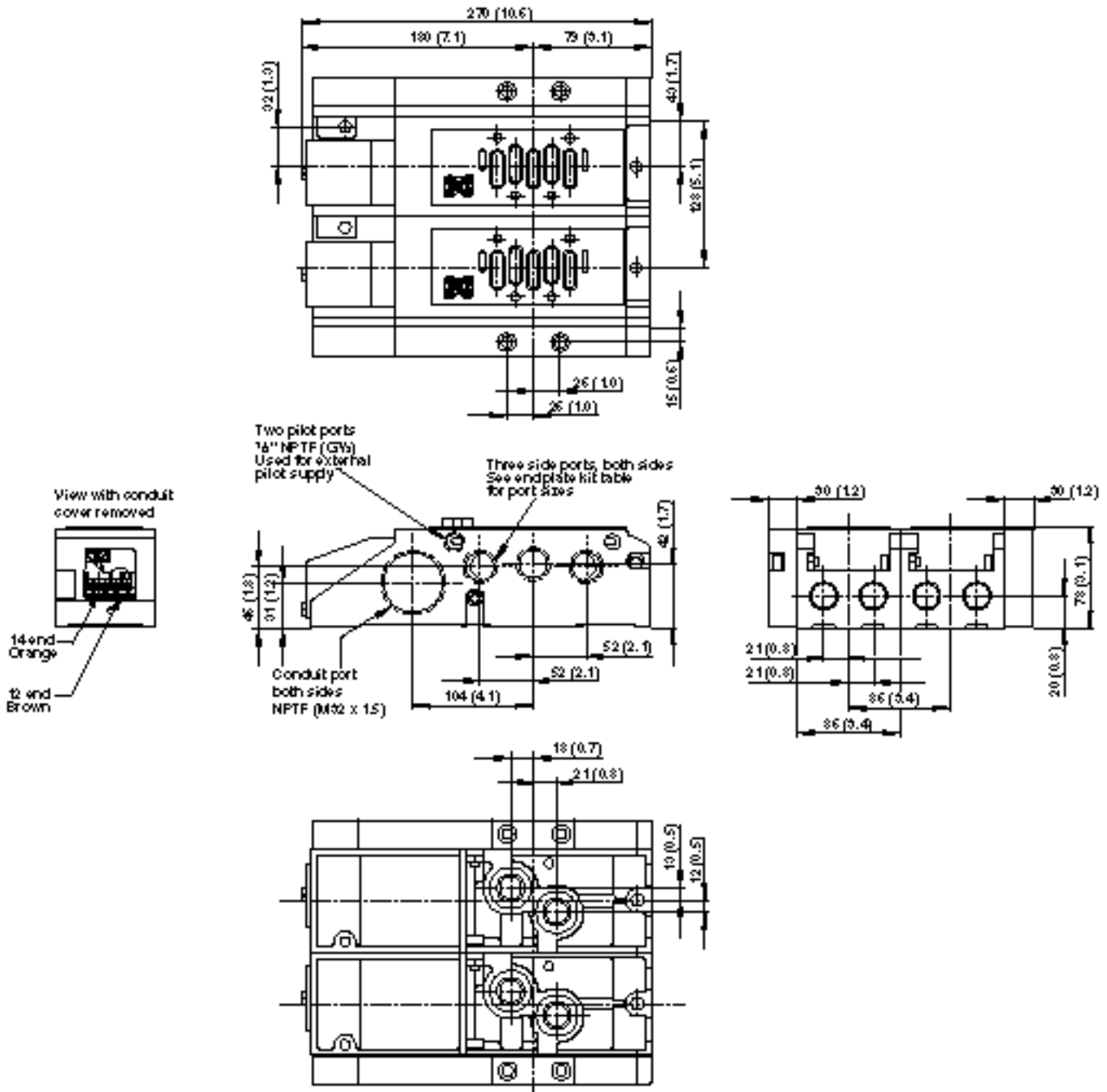
Manifold Station Assemblies

Port size	Part Number
3/8" NPTF End/Bottom	V70001-SCD
1/2" NPTF End/Bottom	V70001-TDC
G 3/8 End/Bottom	V70001-CCD
G 1/2 End/Bottom	V70001-DCD

Each manifold station assembly includes a manifold assembly, socket head screws, nuts and seals.



Bottom or End Ported manifolds ISO #3



End Station Kits

Port size	Part Number
1" NPTF	V70001-WDC
G 1	V70001-FDC

Each end station kit includes left and right end plates, socket head screws, nuts and seals.

Manifold Station Assemblies

Port size	Part Number
1/2" NPTF End/Bottom	V70001-TDD
3/4" NPTF End/Bottom	V70001-UDD
G 3/8 End/Bottom	V70001-CDD
G 1/2 End/Bottom	V70001-DDD

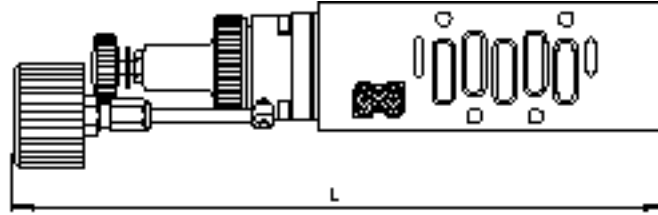
Each manifold station assembly includes a manifold assembly, socket head screws, nuts and seals.



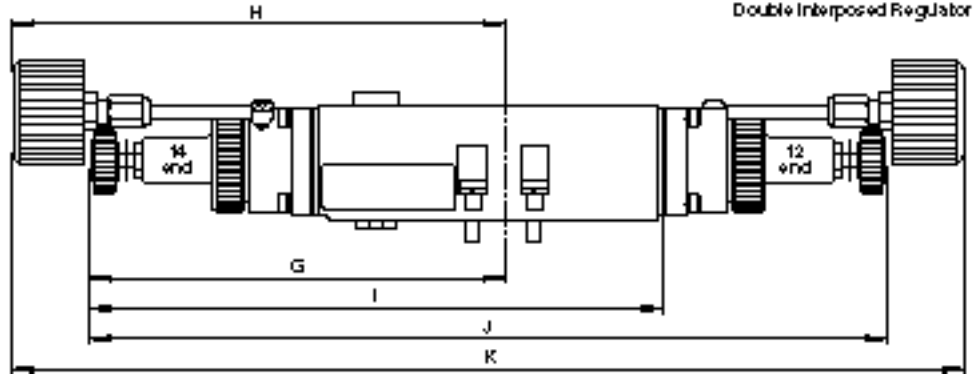
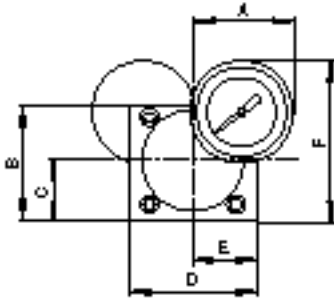
## Accessories

### Interposed Regulators

The interposed regulator controls the pressure through the based-mounted valve. these interposed devices are 'sandwich' style, mounting between a valve and base or manifold. When using an interposed regulator for a Series 65 double solenoid valve, the valve must be **externally piloted**.



Single Interposed Regulator



Double Interposed Regulator

Port size	A	B	C	D	E	F	G	H	I	J	K	L
ISO #1	39,4 (1.55)	44 (1.73)	23,4 (0.92)	42 (1.65)	21 (0.82)	62,5 (2.46)	146 (5.74)	182,1 (7.17)	193 (7.59)	274 (10.7)	344,9 (13.58)	228.6 (9.00)
ISO #2	39,4 (1.55)	45 (1.77)	23,4 (0.92)	51,3 (2.02)	25,7 (1.01)	62,5 (2.46)	166,1 (6.54)	191,3 (7.53)	229,1 (9.02)	320 (12.6)	370,3 (14.58)	254 (10.00)
ISO #3	52,1 (2.05)	67,3 (2.65)	33,5 (1.32)	65,5 (2.580)	32,8 (1.29)	85,3 (3.36)	241,6 (9.51)	202,7 (7.98)	270 (10.630)	462,8 (18.22)	385,6 (15.18)	

	Part Number
ISO #1 Port 1 regulated	V70002KB1
ISO #1 Port 2 and 4 regulated	V70002KB4
ISO #2 Port 1 regulated	V70004KC1
ISO #2 Port 2 and 4 regulated	V70004KC4
ISO #3 Port 1 regulated	V70004KD1
ISO #3 Port 2 and 4 regulated	V70004KD4

### Pilot Port Plug

The pilot port plug plugs the 14 port when external pilot supply or remote signal is not in use.



	Part Number
ISO #1	V70005KB
ISO #2	V70005KC
ISO #3	V70005KD

### Blank Station Kits

A blank station plate is used to cover the top of a manifold station not in use.



	Part Number
ISO #1	V70004KB
ISO #2	V70004KC
ISO #3	V70004KD

### Blocking Disk Kits

A blocking disk closes the ports between manifold stations.

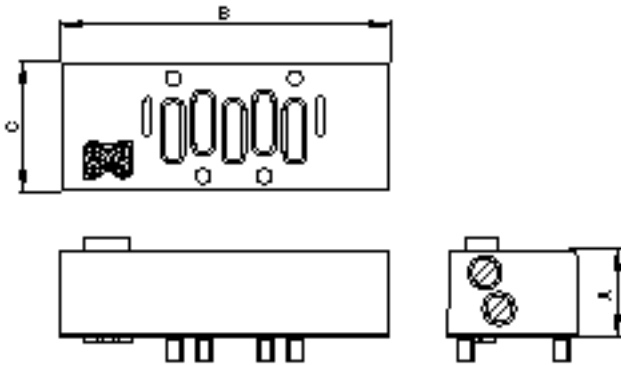


	Part Number
ISO #1	V70006KB
ISO #2	V70006KC
ISO #3	V70006KD



### Flow Control Kits

The interposed flow control independently adjusts the speed of a cylinder's extend and retract motions. This action is achieved by throttling the flow of exhaust air through ports 3 and 5 by means of a separate needle valve across each of these ports. These interposed devices are 'sandwich' style, mounting between a valve and a base or manifold.



	Part Number	A	B	C
ISO #1	V70003-KBO	23,6 (0.93)	96,5 (3.80)	43,2 (1.70)
ISO #2	V70003-KCO	33 (1.30)	129,5 (5.10)	50,8 (2.00)
ISO #3	V70003-KDO	41,4 (1.63)	63,5 (2.50)	65,5 (2.58)

---

### Warning

These products are intended for use in industrial compressed air systems only. Do not use these products where *pressures* and *temperatures* can exceed those listed under '**Technical Data**'.

Before using these products with fluids other than those specified, for non-industrial applications, life-support systems, or other applications not within published specifications, consult NORGREN.

Through misuse, age, or malfunction, components used in fluid power systems can fail in various modes. The system designer is warned to consider the failure modes of all component parts used in fluid power systems and to provide adequate safeguards to prevent personal injury or damage to equipment in the event of such failure.

**System designers must provide a warning to end users in the system instructional manual if protection against a failure mode cannot be adequately provided.**

System designers and end users are cautioned to review specific warnings found in instruction sheets packed and shipped with these products.