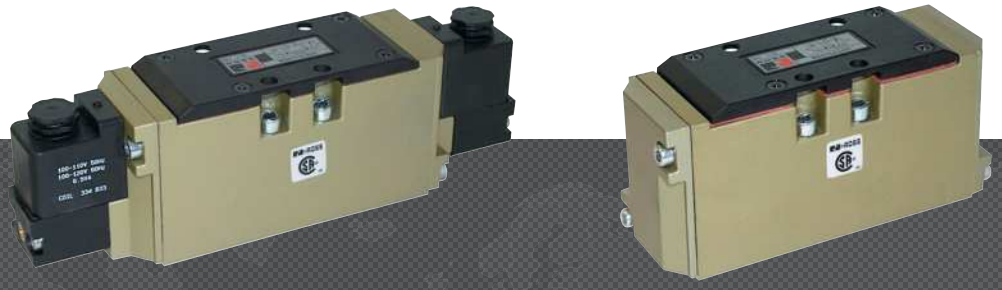
Directional Control
ISO 5599-2 Valves W65 Series

Product Catalog



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ISO 5599-2 Valves W65 Series
Product Overview

The ROSS® ISO 5599-2 valves W65 Series are base mounted spool and sleeve valves that conform to the ISO standards 5599-2 mounting interface. The W65 series has a base electrical connector which eliminates the need to disconnect wires to remove the valve. Manifold bases feature the option for modular plug-together electrical connections terminating at end plates, offering a 25-pin D-sub or 19-pin round interface. Automotive connector option mounted to individual conduit cover. The ISO Valves W65 Series are adaptable to Serial Bus System.

These ISO Size 1, 2, and 3 valves are available as, 2- and 3-position, 5-ported 4-way solenoid pilot or pressure controlled valves with either internal or external pilot supply.

Solenoid Pilot Controlled		Pressure Controlled
Single Solenoid	Double Solenoid	
		

Illustration examples.

VALVE FEATURES

Spool and Sleeve Design	Spool and Sleeve construction for high dirt tolerance; there are no seals to wear out
Mounting Options	Individual sub-base or manifold base mounting
Pilot Supply	Internal or external
Pilot Operation	Provides high shifting force with low power consumption

Actuation	ISO Size	Available Inlet Port Sizes					Functions					Maximum Flow C_v	Page
							5/2		5/3				
		1/8	1/4	3/8	1/2	3/4	Single	Double	Power Center	Closed Center	Open Center		
Solenoid Control	1	●	●	●			●	●	●	●	●	0.8	2 – 3 4 – 9
	2			●	●		●	●	●	●	●	1.9	
	3				●	●	●	●	●	●	●	3.8	
Pressure Control	1	●	●	●			●	●	●	●	●	0.8	2 – 3 10 – 15
	2			●	●		●	●	●	●	●	1.9	
	3				●	●	●	●	●	●	●	3.8	
Sub-Bases													16
Manifold Stations, End Stations													17
Manifold Accessories													18 – 24

Specifications

STANDARD SPECIFICATIONS

GENERAL	Function		5/2 and 5/3 Valve	
	Construction Design		Spool and Sleeve	
	Actuation		Electrical – Solenoid Pilot Controlled Pneumatic – Pressure Controlled	
	Mounting		Base Mounted	
	Connection		Threaded; G, NPT	
	Manual Override		Flush; metal, non-locking	
OPERATING CONDITIONS	Temperature	Solenoid Pilot Controlled	Ambient	40° to 120°F (4° to 50°C)
			Media	40° to 175°F (4° to 80°C)
		Pressure Controlled	Ambient	40° to 175°F (4° to 80°C)
			Media	
	Flow Media		Filtered air	
	Operating Pressure		ISO Size 1	30 to 150 psig (2 to 10 bar)
			ISO Size 2 & 3	15 to 150 psig (1 to 10 bar)
			Alll sizes also available up to 232 psif (16 bar)	
	Pilot Supply Pressure		Minimum 30 psig (2 bar)	
	External Pilot Supply		Must be equal to or greater than inlet pressure	
ELECTRICAL DATA FOR SOLENOID PILOT	Solenoids		Rated for continuous duty	
	Operating Voltage (each solenoid)		24 volts DC 110 volts AC, 50 Hz, 120 volts AC 50/60 Hz 230-240 volts AC, 60 Hz	
	Power Consumption		24 V DC 110-120 V AC 230-240 V AC	5.8 nominal, 6.5 watts maximum watts
	Enclosure Rating		IP65, IEC 60529	
	Electrical Connection		DIN EN 175301-803 Form A	
CONSTRUCTION MATERIAL	Valve Body		Cast Aluminum	
	Spool		Stainless Steel	
	Seals		Buna-N	

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

PRODUCT CREDENTIALS

CSA Certificate of Compliance	CE Conformity Declaration	EAC Conformity Declaration	CRN Certification
			Available for appropriately tested valves

Ordering Information

5/2 Single Solenoid Pilot Controlled Valves

SOLENOID PILOT CONTROLLED VALVES — 5-Way 2-Position Valves

Size		Valve Model Number*		
		Voltage		
ISO	Port	24 V DC	110-120 V AC	230 V AC
1	1/8 - 3/8	W6576A2401W	W6576A2401Z	W6576A2401Y
2	3/8 - 1/2	W6576A3401W	W6576A3401Z	W6576A3401Y
3	1/2 - 3/4	W6576A4401W	W6576A4401Z	W6576A4401Y

For other voltages, consult ROSS.

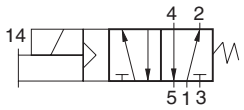
* **Sub-bases and manifold bases ordered separately. Please see Sub-Bases and Manifolds pages, for use with or without serial bus system.**

The W65 Series has a base electrical connector which eliminates the need to disconnect wires to remove the valve. This eliminates drop cords, simplifies maintenance and connection to Serial Data Communication systems.

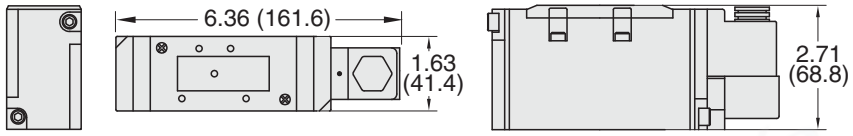
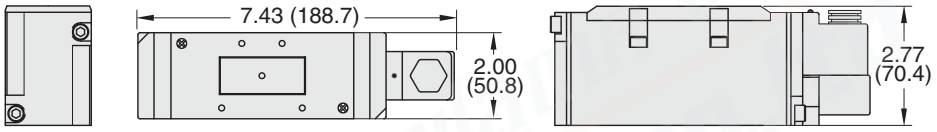
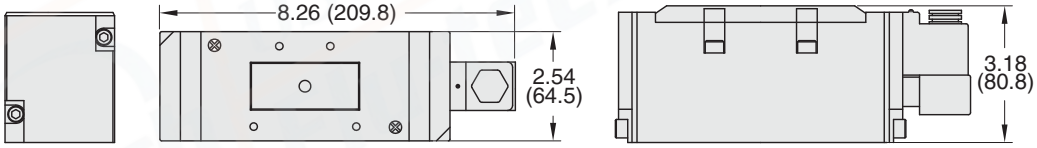
Size		Flow C_v	Average Response Constants*			Weight lb (kg)
ISO	Port	1-2	M	F		
				1-2	2-3	
1	1/8 - 3/8	1.0	29	3.5	4.9	1.5 (0.7)
2	3/8 - 1/2	2.3	41	1.5	2.4	2.0 (1.0)
3	1/2 - 3/4	3.4	51	0.8	1.1	3.5 (1.6)

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 Schematic



5/2 Single Solenoid Pilot Controlled Valves

DIMENSIONS	Inches (mm)
ISO Size 1	
ISO Size 2	
ISO Size 3	

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Ordering Information

5/2 Double Solenoid Pilot Controlled Valves

SOLENOID PILOT CONTROLLED VALVES — 5-Way 2-Position Valves

Size		Valve Model Number*		
		Voltage		
ISO	Port	24 V DC	110-120 V AC	230 V AC
1	1/8 - 3/8	W6576A2407W	W6576A2407Z	W6576A2407Y
2	3/8 - 1/2	W6576A3407W	W6576A3407Z	W6576A3407Y
3	1/2 - 3/4	W6576E4407W	W6576E4407Z	W6576E4407Y

For other voltages, consult ROSS.

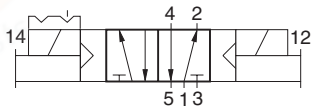
*** Sub-bases and manifold bases ordered separately. Please see Sub-Bases and Manifolds pages, for use with or without serial bus system.**

The W65 Series has a base electrical connector which eliminates the need to disconnect wires to remove the valve. This eliminates drop cords, simplifies maintenance and connection to Serial Data Communication systems.

Size		Flow C_V	Average Response Constants*			Weight lb (kg)
ISO	Port	1-2	M	F		
				1-2	2-3	
1	1/8 - 3/8	1.0	17	3.5	4.9	2.0 (1.0)
2	3/8 - 1/2	2.3	20	1.5	2.5	2.5 (1.2)
3	1/2 - 3/4	3.4	20	0.8	1.1	4.0 (1.9

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.

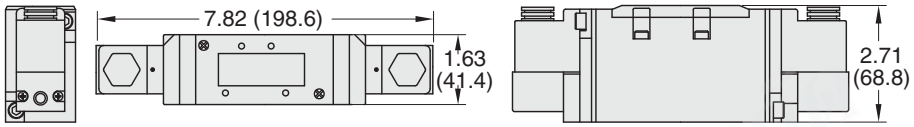
Valve Schematic



5/2 Double Solenoid Pilot Controlled Valves

DIMENSIONS	Inches (mm)

ISO Size 1



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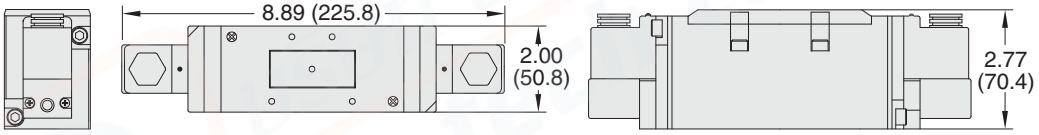
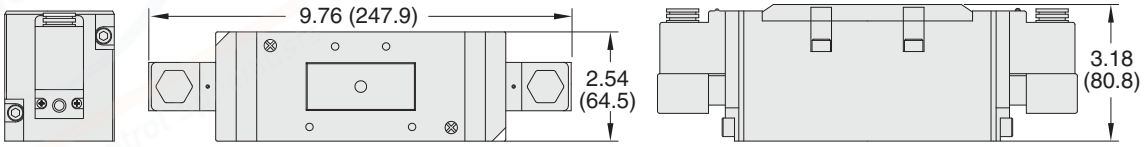


ISO Size 3



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Ordering Information

5/3 Double Solenoid Pilot Controlled Valves

SOLENOID PILOT CONTROLLED VALVES — 5-Way 2-Position Valves

Center Position	Size		Valve Model Number*		
			Voltage		
	ISO	Port	24 V DC	110-120 V AC	230 V AC
Power Center	1	1/4 – 3/8	W6577A2902W	W6577A2902Z	W6577A2902Y
	2	3/8 – 1/2	W6577A3901W	W6577A3901Z	W6577A3901Y
	3	3/8 – 3/4	W6577A4900W	W6577A4900Z	W6577A4900Y
Closed Center	1	1/4 – 3/8	W6577A2401W	W6577A2401Z	W6577A2401Y
	2	3/8 – 1/2	W6577A3401W	W6577A3401Z	W6577A3401Y
	3	3/8 – 3/4	W6577A4401W	W6577A4401Z	W6577A4401Y
Open Center	1	1/4 – 3/8	W6577A2407W	W6577A2407Z	W6577A2407Y
	2	3/8 – 1/2	W6577A3407W	W6577A3407Z	W6577A3407Y
	3	3/8 – 3/4	W6577A4407W	W6577A4407Z	W6577A4407Y

For other voltages, consult ROSS.

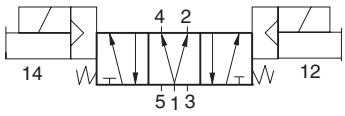
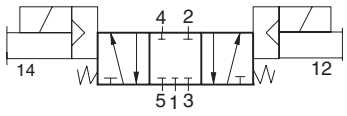
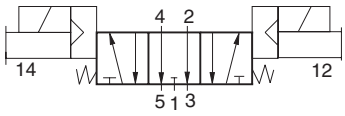
*** Sub-bases and manifold bases ordered separately. Please see Sub-Bases and Manifolds pages, for use with or without serial bus system.**

The W65 Series has a base electrical connector which eliminates the need to disconnect wires to remove the valve. This eliminates drop cords, simplifies maintenance and connection to Serial Data Communication systems.

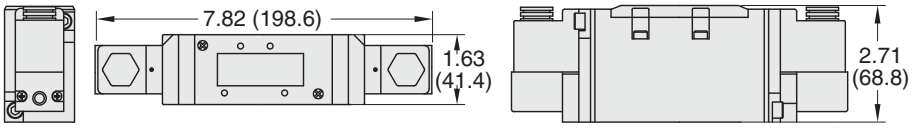
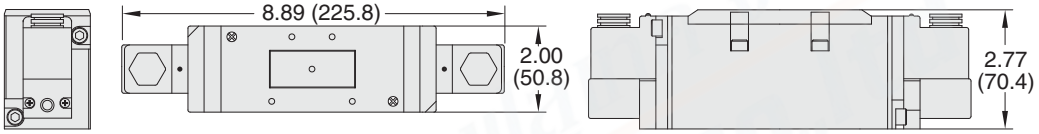
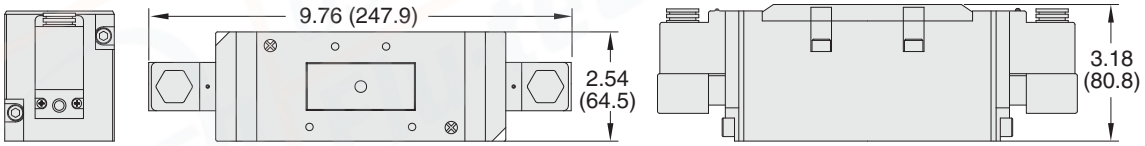
Size		Flow C_V	Average Response Constants*			Weight lb (kg)
ISO	Port	1-2	M	F		
				1-2	2-3	
1	1/8 - 3/8	1.0	30	3.5	5.0	2.0 (1.0)
2	3/8 - 1/2	2.3	40	1.5	2.5	2.5 (1.2)
3	1/2 - 3/4	3.4	50	0.8	1.1	4.0 (1.9)

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 Schematic

Power Center	Closed Center	Open Center
		

5/3 Double Solenoid Pilot Controlled Valves

DIMENSIONS	Inches (mm)
ISO Size 1	
ISO Size 2	
ISO Size 3	

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Ordering Information

5/2 Single Pressure Controlled Valves

PRESSURE CONTROLLED VALVES — **5-Way 2-Position Valves**

Size		Valve Model Number*
ISO	Port	
1	1/8 - 3/8	W6556A2411
2	3/8 - 1/2	W6556A3411
3	1/2 - 3/4	W6556A4411

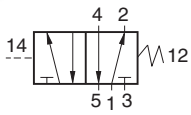
For other voltages, consult ROSS.

* **Sub-bases and manifold bases ordered separately. Please see Sub-Bases and Manifolds pages, for use with or without serial bus system.**

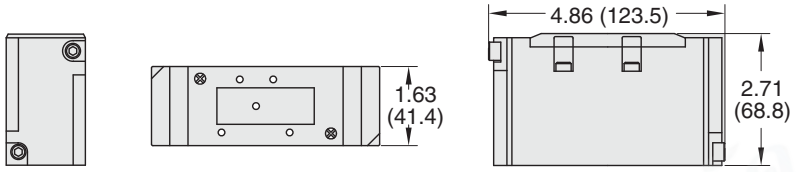
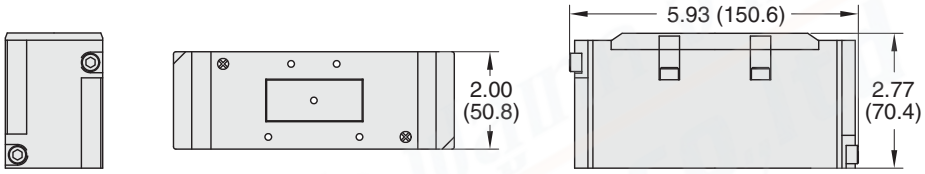
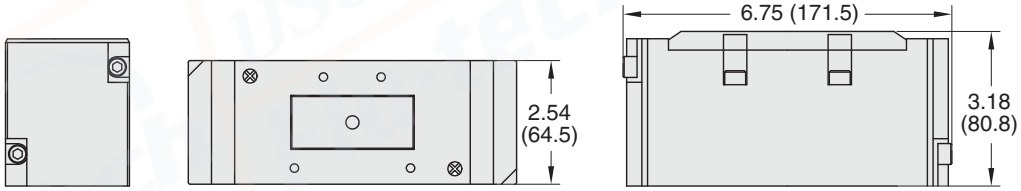
Size		Flow C_v	Average Response Constants*			Weight lb (kg)
ISO	Port	1-2	M	F		
				1-2	2-3	
1	1/8 - 3/8	1.0	29	3.5	4.9	0.8 (0.4)
2	3/8 - 1/2	2.3	41	1.5	2.4	1.5 (0.7)
3	1/2 - 3/4	3.4	51	0.8	1.1	3.0 (1.4)

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 Schematic



5/2 Single Pressure Controlled Valves

DIMENSIONS	Inches (mm)
ISO Size 1	
ISO Size 2	
ISO Size 3	

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Ordering Information

5/2 Double Pressure Controlled Valves

PRESSURE CONTROLLED VALVES — **5-Way 2-Position Valves**

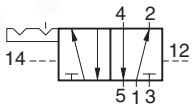
Size		Valve Model Number*
ISO	Port	
1	1/8 - 3/8	W6556A2417
2	3/8 - 1/2	W6556A3417
3	1/2 - 3/4	W6556A4417

* **Sub-bases and manifold bases ordered separately. Please see Sub-Bases and Manifolds pages, for use with or without serial bus system.**

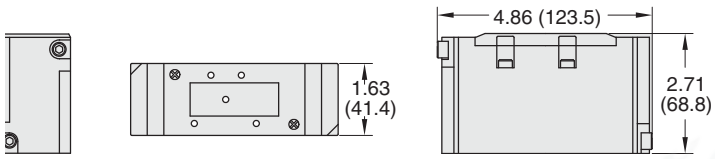
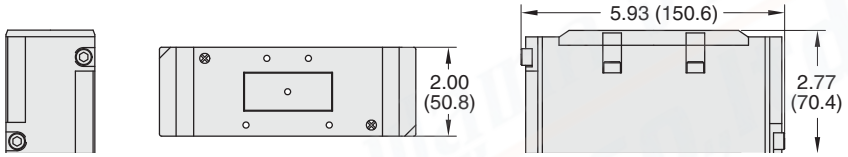
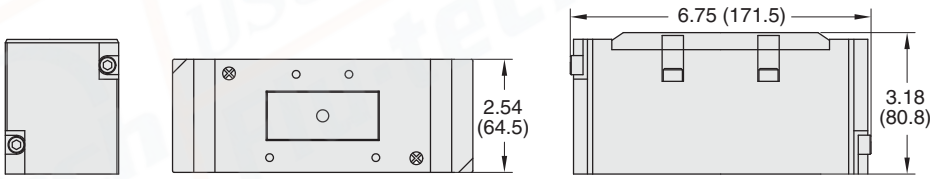
Size		Flow C_v	Average Response Constants*			Weight lb (kg)
ISO	Port	1-2	M	F		
				1-2	2-3	
1	1/8 - 3/8	1.0	17	3.5	5.0	0.8 (0.4)
2	3/8 - 1/2	2.3	20	1.5	2.5	1.5 (0.7)
3	1/2 - 3/4	3.4	20	0.8	1.1	3.0 (1.4)

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 Schematic



5/2 Double Pressure Controlled Valves

DIMENSIONS	Inches (mm)
ISO Size 1	
ISO Size 2	
ISO Size 3	

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Ordering Information

5/3 Double Pressure Controlled Valves

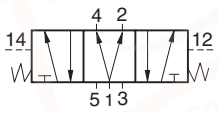
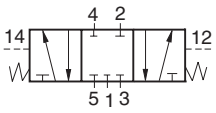
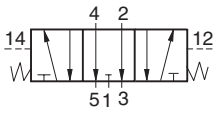
PRESSURE CONTROLLED VALVES			5-Way 3-Position Valves
Center Position	Size		Valve Model Number*
	ISO	Port	24 V DC
Power Center	2	3/8 - 1/2	W6557A3901
	3	1/2 - 3/4	W6557A4900
Closed Center	1	1/8 - 3/8	W6557A2411
	2	3/8 - 1/2	W6557A3411
	3	1/2 - 3/4	W6557A4411
Open Center	1	1/8 - 3/8	W6557A2417
	2	3/8 - 1/2	W6557A3417
	3	1/2 - 3/4	W6557A4417

* **Sub-bases and manifold bases ordered separately. Please see Sub-Bases and Manifolds pages, for use with or without serial bus system.**

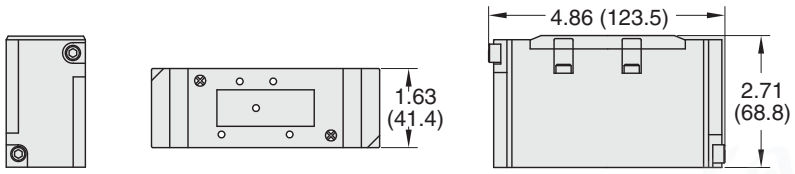
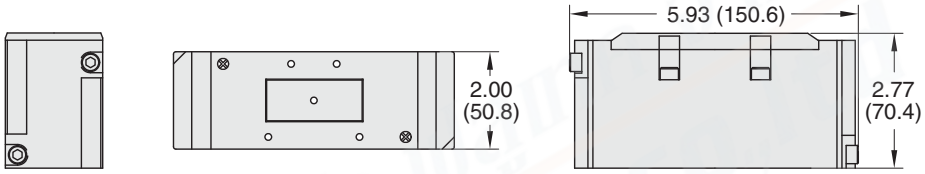
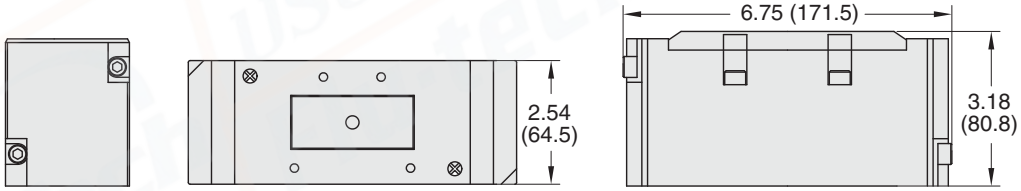
Size		Flow C_v	Average Response Constants*			Weight lb (kg)
ISO	Port	1-2	M	F		
				1-2	2-3	
1	1/8 - 3/8	1.0	30	3.5	5.0	0.8 (0.4)
2	3/8 - 1/2	2.3	40	1.5	2.5	1.5 (0.7)
3	1/2 - 3/4	3.4	50	0.8	1.1	3.0 (1.4)

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 Schematic

Power Center	Closed Center	Open Center
		

5/3 Double Pressure Controlled Valves

DIMENSIONS	Inches (mm)
ISO Size 1	
ISO Size 2	
ISO Size 3	

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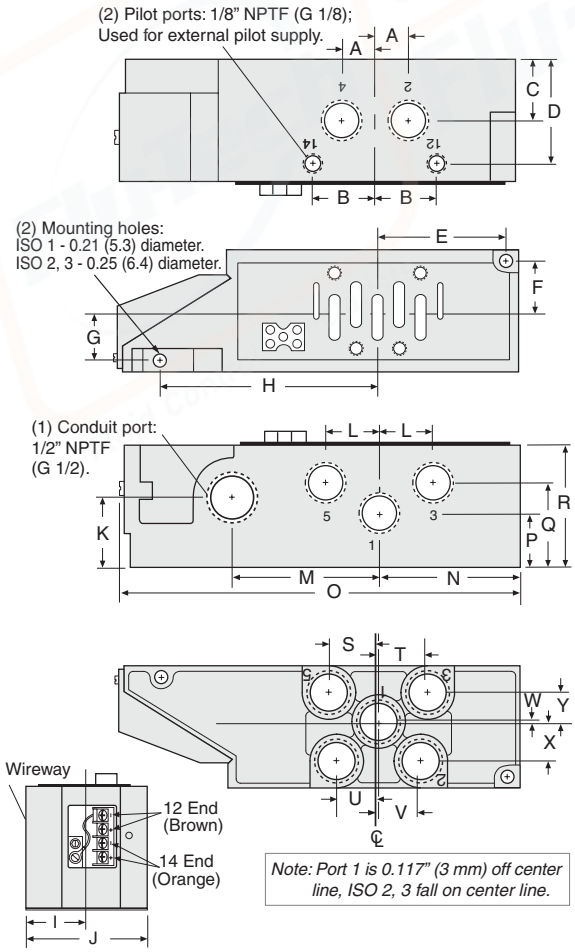
Sub-Bases – Side and Bottom-Ported

SIDE AND BOTTOM-PORTED SUB-BASES

Size		Port Location	Model Number	
ISO	Port		G Thread	NPT Thread
1	3/8	Side/Bottom	D950N91	972N91
2	1/2	Side	D953N91	953N91
		Side/Bottom	—	954N91
3	3/4	Side/Bottom	D958N91	—

DIMENSIONS

Inches (mm)



	ISO Size		
	1	2	3
A	0.5 (13)	0.6 (16)	0.8 (21)
B	1.0 (26)	1.3 (33)	1.8 (45)
C	0.8 (21)	1.2 (31)	1.3 (34)
D	1.5 (38)	1.9 (49)	2.7 (70)
E	1.6 (39)	2.3 (57)	2.5 (63)
F	0.9 (23)	1.1 (29)	1.5 (39)
G	0.9 (23)	1.1 (29)	1.4 (36)
H	3.6 (92)	4.3 (108)	5.4 (137)
I	1.1 (29)	1.4 (35)	1.8 (45)
J	2.3 (58)	2.8 (70)	3.5 (90)
K	0.9 (24)	1.5 (37)	1.8 (47)
L	0.9 (22)	1.1 (27)	1.5 (38)
M	2.4 (60)	3.0 (75)	4.1 (104)
N	1.8 (46)	2.5 (64)	2.7 (69)
O	6.5 (164)	7.8 (197)	9.3 (235)
P	0.8 (21)	1.1 (28)	1.3 (34)
Q	1.3 (34)	1.7 (44)	2.0 (51)
R	1.9 (47)	2.4 (60)	3.3 (85)
S	0.8 (21)	1.1 (27)	1.6 (42)
T	1.1 (27)	1.1 (27)	1.6 (42)
U	0.5 (13)	0.9 (22)	1.1 (27)
V	0.6 (15)	0.9 (22)	1.1 (27)
W	0.3 (8)	0.1 (3)	0.8 (20)
X	0.7 (17)	0.8 (20)	0.8 (20)
Y	0.6 (16)	0.9 (20)	0.8 (20)

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Manifold Stations, End Stations

MANIFOLD STATION ASSEMBLY

Size		Port Location	Model Number*	
ISO	Port		G Thread	NPT Thread
1	3/8	End/Bottom	D960N91	960N91
2	1/2	End/Bottom	D962N91	962N91
3	3/4	End/Bottom	D964N91	964N91

* Includes a manifold assembly, socket head screws, nuts and seals.

Assembled manifolds also available, consult ROSS.

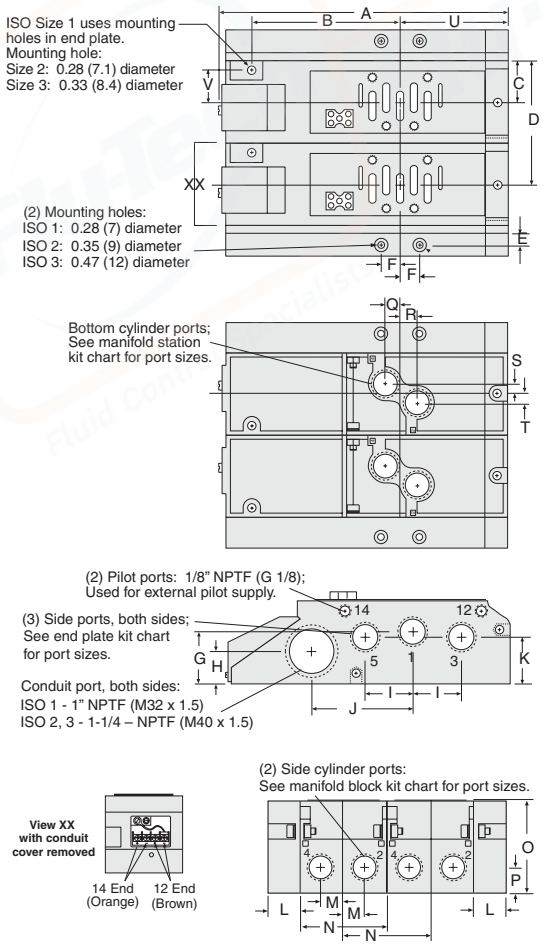
END STATIONS

Size		Model Number*	
ISO	Port	G Thread	NPT Thread
1	3/8	D493N86	493N86
2	1/2	D494N86	494N86
3	3/4	D495N86	495N86

* Includes left and right end plates, socket head screws, nuts and seals.

DIMENSIONS

Inches (mm)



	ISO Size		
	1	2	3
A	7.2 (183)	9.0 (229)	10.6 (270)
B	4.9 (125)	6.0 (152)	7.1 (180)
C	1.0 (26)	1.3 (33)	1.7 (43)
D	3.1 (79)	3.9 (100)	5.1 (128)
E	0.6 (14)	0.6 (16)	0.6 (15)
F	0.6 (14)	0.7 (17)	1.0 (26)
G	1.3 (34)	1.7 (42)	1.8 (46)
H	1.0 (25)	1.2 (30)	1.2 (31)
I	1.1 (28)	1.4 (35)	2.1 (52)
J	2.5 (64)	3.1 (79)	4.1 (104)
K	1.2 (31)	1.6 (40)	1.7 (42)
L	0.9 (22)	1.0 (25)	1.2 (30)
M	0.5 (13)	0.6 (16)	0.8 (21)
N	2.1 (53)	2.6 (67)	3.4 (86)
O	2.2 (55)	2.6 (66)	3.1 (78)
P	0.6 (16)	0.9 (22)	0.8 (20)
Q	0.5 (13)	0.6 (15)	0.7 (18)
R	0.5 (13)	0.6 (15)	0.8 (21)
S	0.3 (7)	0.3 (8)	0.5 (13)
T	0.3 (7)	0.3 (8)	0.5 (12)
U	2.0 (51)	2.8 (67)	3.1 (79)
V	----------	1.0 (26)	1.3 (31)

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MANIFOLD BASES FOR ISO SIZE 1 & 2

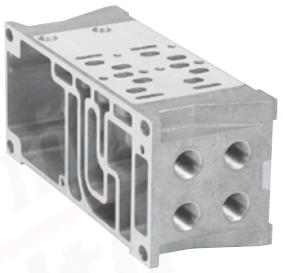
MANIFOLD MODEL NUMBER CONFIGURATOR

RPSHU11	5	5	J	1	P
ISO 15407-1					

ISO 15407-1 Size	Port Size	
ISO Size 1	3/8 NPT	5
	3/8 BSPP	6
ISO Size 2	1/2 NPT	7
	1/2 BSPP	8

Circuit Board Address Configuration	
Interconnect, Single Address	J
Interconnect, Double Address	M

Gasket Options	
1, 3, 5 Ports Open and Pilots Open	1
1, 3, 5 Ports Closed and Pilots Open	2
1 Port Closed, 3, 5 Ports Open and Pilots Closed	3
1 Port Open, 3, 5 Ports Closed and Pilots Open	4
1, 3, 5 Ports Open and Pilots Closed	5
1, 3, 5 Ports Closed and Pilots Closed	6
1 Port Closed, 3, 5 Ports Open and Pilots Closed	7
1 Port Open, 3, 5 Ports Closed and Pilots Open	8



END STATIONS FOR ISO SIZE 1 & 2

END STATION MODEL NUMBER CONFIGURATOR

RPSHU20	L2	1	0	P

Valve Type	
Non Plug-in (Internal Pilot)	RPSHU20
Non Plug-in (External Pilot)	RPSHU2X

Thread Type	
NPT	0
G	1*

* G thread model conforms to ISO 1179-1 w 228-1 thread.

Left Hand End Station Type	
25-Pin-D-Sub (top)#	**L2**
Industrial Communication	
ROSS Serial Bus	L6^
Turck BL67 with Valve Driver Module - For 16 Outputs	T1*
Turck BL67 with Valve Driver Module - For 32 Outputs	T2*

RPSHU11 gaskets included in each end station kit.
^ Valve Driver Module and 24 Output Cable installed. Must order communication modules separately. Must Order Bases with Circuit Boards.
* Turck Network and P2M Ethernet node communication module ordered separately.

Right Hand End Station Ports	
1/2 Exhaust and Inlet Ports	1
3/4 Exhaust and Inlet Ports	2

Left Hand End Station
25-pin D-Sub (top)

Hi-Flow Right Hand
End Station

End Plate Type	Type/Port Size	Avg. C_v
Right Hand	1/2	6.07
	3/4	8.35

Manifold Accessories

BLANK STATIONS

Blank Stations

ISO Size	Model Number*
1	RPS4034CP
2	RPS4134CP
3	RPS4234CP

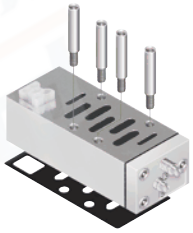
* **Includes:** Blank Station Plate, Gasket, and Mounting Bolts.

INTERPOSED FLOW CONTROL

Interposed Flow Control

ISO Size	Port Size	Model Number*	
		G Thread	NPT Thread
1	1/8"	RPS401501CP	RPS401500CP
2	1/8"	RPS411501CP	RPS411500CP
3	1/8"	RPS421501CP	RPS421500CP

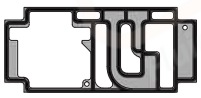
* **Includes:** Pilot Port Access Plate, Gasket and Mounting Studs.

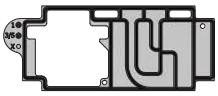


GASKET KITS

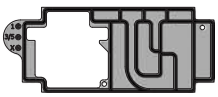
Gasket Kits Manifold to Manifold

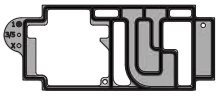
Pilots Status	Diagram Reference	Description	Kit Number
Pilots Opened	1	Supply & Exhaust & Pilots Open	RPSHU11P
	2	Supply Closed, Exhaust & Pilots Open	RPSHU12P
	3	Supply & Exhaust Closed, Pilots Open	RPSHU13P
	4	Supply & Pilots Open, Exhaust Closed	RPSHU14P
Pilots Blocked	5	Supply & Exhaust Open, Pilots Closed	RPSHU15P
	6	Supply & Pilots Closed, Exhaust Open	RPSHU16P
	7	Supply & Exhaust & Pilots Closed	RPSHU17P
	8	Supply Open, Exhaust & Pilots Closed	RPSHU18P


1 – Supply & Exhaust & Pilots Open

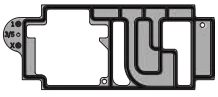

3 – Supply & Exhaust Closed, Pilots Open

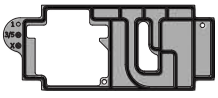

5 – Supply & Exhaust Open, Pilots Closed


7 – Supply & Exhaust & Pilots Closed


2 – Supply Closed, Exhaust & Pilots Open


4 – Supply & Pilots Open, Exhaust Closed


6 – Supply & Pilots Closed, Exhaust Open


8 – Supply Open, Exhaust & Pilots Closed

Manifold Accessories

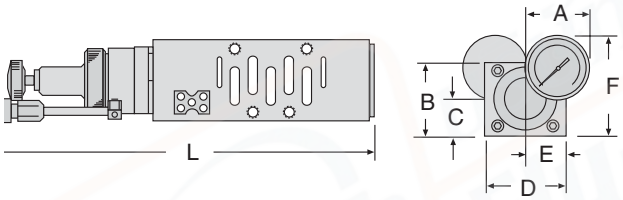
NOTE: ***Accessories from this page are to be used only with sub-bases and manifolds on page 16 & 17.***

INTERPOSED PRESSURE REGULATORS

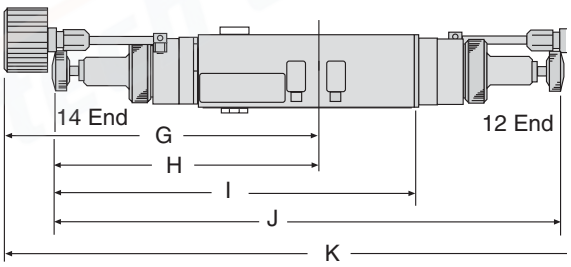
ISO Size	Model Number	Dimensions inches (mm)											
		A	B	C	D	E	F	G	H	I	J	K	L
1 – Single	965N91	1.6 (39)	1.8 (45)	0.9 (23)	1.7 (43)	0.9 (22)	2.5 (63)	6.2 (157)	7.2 (182)	8.0 (204)	11.6 (295)	13.6 (345)	9.0 (229)
1 – Double	966N91	1.6 (39)	1.8 (45)	0.9 (23)	1.7 (43)	0.9 (22)	2.5 (63)	6.2 (157)	7.2 (182)	8.0 (204)	11.6 (295)	13.6 (345)	9.0 (229)
2 – Single	967N91	1.6 (39)	1.8 (45)	0.9 (23)	2.0 (51)	1.0 (26)	2.5 (63)	6.5 (166)	7.5 (191)	9.0 (229)	12.6 (320)	14.6 (370)	10.0 (254)
2 – Double	968N91	1.6 (39)	1.8 (45)	0.9 (23)	2.0 (51)	1.0 (26)	2.5 (63)	6.5 (166)	7.5 (191)	9.0 (229)	12.6 (320)	14.6 (370)	10.0 (254)
3 – Single	969N91	2.1 (52)	2.7 (67)	1.3 (34)	2.6 (66)	1.3 (33)	3.4 (85)	9.5 (242)	8.0 (203)	10.6 (270)	18.2 (463)	15.2 (386)	13.0 (330)
3 – Double	970N91	2.1 (52)	2.7 (67)	1.3 (34)	2.6 (66)	1.3 (33)	3.4 (85)	9.5 (242)	8.0 (203)	10.6 (270)	18.2 (463)	15.2 (386)	13.0 (330)

The interposed regulator controls the pressure through the base-mounted valve. These interposed devices are "sandwich" style, mounting between a valve and base or manifold. When using a dual interposed regulator for a W65 Series solenoid valve, the valve must be externally piloted (port 14).

Single Interposed Regulator (top view)



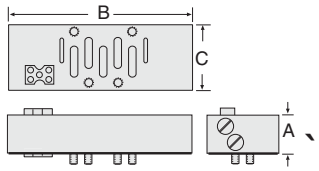
Double Interposed Regulator (top view)



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.

INTERPOSED FLOW CONTROL

ISO Size	Model Number	Dimensions inches (mm)		
		A	B	C
1	1371N77	0.9 (24)	3.8 (97)	1.7 (43)
2	1372N77	1.3 (33)	5.1 (130)	2.0 (51)
3	1373N77	1.6 (41)	5.6 (142)	2.6 (66)



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.

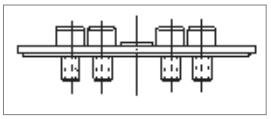
Manifold Accessories

NOTE: ***Accessories from this page are to be used only with sub-bases and manifolds on page 16 & 17.***

BLANK STATION PLATES

Blank Station Plate

ISO Size	Model Number*
1	1381N77
2	1382N77
3	1383N77
A blank station plate is used to cover the top of a manifold station not in use.	



PORT BLOCKING DISKS

Port Blocking Disks

ISO Size	Model Number*
1	1376N77
2	1378N77
3	1380N77
A blocking disk closes the ports between manifold stations.	

PILOT PORT BLOCKING PLUGS

Pilot Port Blocking Plugs

ISO Size	Model Number*
1	1375N77
2	1377N77
3	1379N77
The pilot blocking plug blocks the pilot ports between manifold stations.	

MANIFOLD TRANSITION PLATES

Manifold Transition Plates

Left Manifold ISO Size	Right Manifold ISO Size	Model Number*
1	2	1387N77
2	1	1388N77
2	3	1389N77
3	2	1390N77
To bank different manifold sizes together.		

SILENCERS

Silencers

Port Size	Thread Type	Model Number		Flow Avg. C_V	Pressure Range psig (bar)
		R/Rp Thread	NPT Thread		
1/4	Male	5500A2003	5500A2003	1.2	0-290 (0-20) maximum
3/8	Male	5500A3013	5500A3013	2.7	
1/2	Male	5500A4003	5500A4003	4.7	
1	Male	5500A6003	5500A6003	14.6	

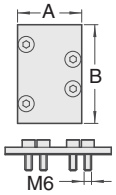
Manifold Accessories

BLANKING PLATES

Blanking Plates

ISO SIZE	Model Number*
1	2602H77
2	2603H77
3	2604H77

* A blanking plate is used to cover the top of a manifold station that is not in use. Includes: a metal plate, a gasket, and mounting bolts.



Dimensions inches (mm)			
	ISO 1	ISO 2	ISO 3
A	1.57 (40)	2.04 (52)	3.03 (77)
B	2.60 (66)	3.15 (80)	4.17 (106)
Plate Thickness	0.16 (4)	0.24 (6.2)	0.41 (12)

BLOCKING DISKS

Blocking Disks ISO Size 1 & 2

ISO SIZE	Model Number*
1	319A40
2	320A40
3	321A40

Ports between manifold stations can be closed by means of blocking disks.

INDEPENDENT PRESSURE MODULES

Independent Pressure Modules

ISO Size	Inlet Port	Part Number*
1	1/4	703K77
2	3/8	692K77
3	1/2	715K77

* When a valve in a manifold installation must work at a different pressure than that supplied to the manifold, an independent supply can be provided via an independent pressure module. The pressure module mounts between valve and base and isolates the valve from the manifold inlet pressure. The independent supply is connected to an inlet port in the end of the pressure module.

ASSEMBLY KITS

Assembly Kits ISO Size 1 & 2

ISO SIZE	Kit Number
1	732K86
2	733K86

INTERPOSED PRESSURE REGULATORS

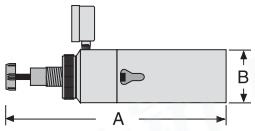
Interposed Regulators

ISO Size	Pressure psig (bar)	Model Number		
		Single		Double
		Left Hand (14)	Right Hand (12)	
1	10 (0.68) to 130 (9)	1300K91	1301K91	1302K91
2	10 (0.68) to 130 (9)	1303K91	1304K91	1305K91
	5 (0.34) to 60 (4.13)	2044K91	–	–
3	10 (0.68) to 130 (9)	1306K91	1307K91	1308K91

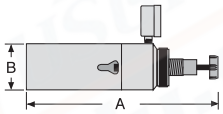
Interposed pressure regulator controls pressure through the base-mounted valve. Single pressure regulator available with left hand (14) and right hand (12) orientation. Single pressure regulators provide the same regulated pressure at both outlet ports.

Double pressure regulators allow the pressure at each outlet port to be set independently. Requires no new piping.

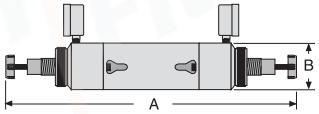
Single Left Hand (14)



Single Right Hand (12)



Double



ISO Size	Regulator Dimensions – inches (mm)		
	A (Single)	A (Double)	B (Single/Double)
1	7.3 (186)	13.2 (336)	1.5 (39)
2	8.3 (211)	14.8 (376)	2.0 (51)
3	10.5 (267)	18.3 (465)	2.5 (64)

INTERPOSED FLOW CONTROL

Interposed Flow Control for W60 Series Valves

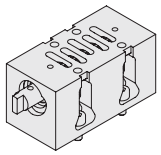
ISO SIZE	Model Number
1	701B77
2	702B77
3	722K77

An interposed flow control unit regulates the exhaust flow of air from a pneumatic cylinder, thereby controlling the extension and retraction speeds. Separate controls regulate the air flow from each end of the cylinder. Being located between the valve and base, the unit requires no additional piping.

Interposed Shut-Off

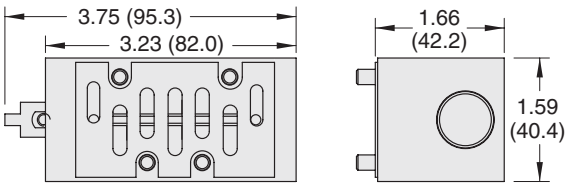
ISO SIZE	Model Number
1	1871B91
2 & 3	Please contact ROSS.

Manually actuated with a 1/4 turn, the interposed shut-off isolates all ports, including the pilot.



ISO Size 1

Dimensions - inches (mm)



Manifold Accessories

ELECTRICAL CONNECTORS

Pre-wired Connectors

Connection Type	Connector Type	Cable		Length meters (feet)	Quantity	Cable Diameter	Model Number			
		End 1	End 2				Without Light	Lighted Connector *		
								24 V DC	120 V AC	230 V AC
Solenoid	DIN EN 175301-803 Form A	Connector	Flying leads	2 (6.5)	1	6-mm	721K77	720K77-W	720K77-Z	720K77-Y
					1	10-mm	371K77	383K77-W	383K77-Z	383K77-Y

Connectors (no cable)

Connection Type	Connector Type	Fitting Connection	Quantity	Model Number			
				Without Light	Lighted Connector*		
					24 V DC	120 V AC	230 V AC
Solenoid	DIN EN 175301-803 Form A	Cable grip	1	937K87	936K87-W	936K87-Z	936K87-Y
		1/2" NPT conduit	1	723K77	724K77-W	724K77-Z	724K77-Y

*Lights in connectors with a translucent housing can be used as indicator lights to show when solenoids are energized.

Connectors Pinout

DIN EN 175301-803 Form A

1 - Common
2 - Normally Closed
3 - Normally Open
G - Ground

SILENCERS

Silencers

Port Size	Thread Type	Model Number		Flow Avg. C_v	Pressure Range psig (bar)
		R/Rp Thread	NPT Thread		
1/4	Male	D5500A2003	5500A2003	2.1	0-290 (0-20) maximum
3/8	Male	D5500A3013	5500A3013	2.7	
1/2	Male	D5500A4003	5500A4003	4.7	
3/4	Male	D5500A5013	5500A5013	5.1	

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