

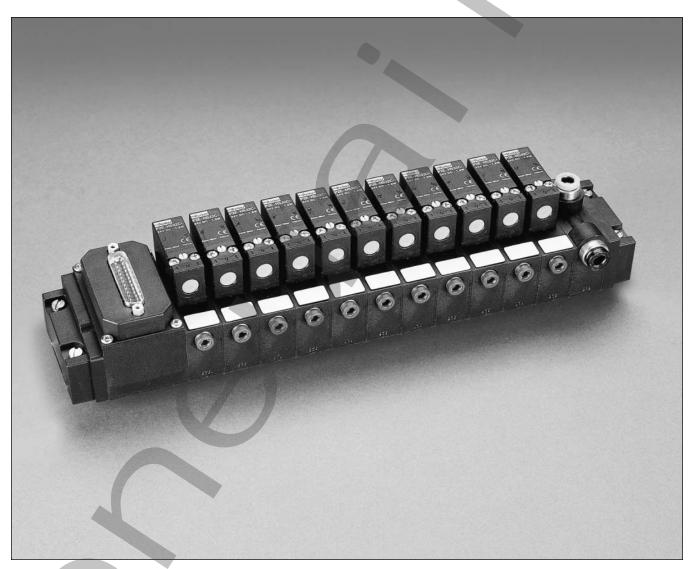
# ORDER



# **Solstar**Air Control Valves 15mm Solenoid Valves

# Section A





Features	3
Model Selection	
Solenoid Valves	4
Head & Tail Sets	5
Intermediate Air Supply Modules	5
Ordering & Technical Information	
How To Order	6
Valve Specifications	6
Replacement Solenoid Kits	

Pin Out Information	8
Parts & Accessories	
IP65 Cable Assemblies	9
35mm DIN Rail	9
Dimensions	10

### Bold text part numbers are standard.

Standard text part numbers may have longer lead times.







#### **Specifications**

- 3/2 NO or NC DIN-Rail mounted pilot valves.
- Outlet fittings (Push-In) for 5/32" tubing.
- System modification or expansion simplified by easily adding valves to stack.
- Intermediate supply modules enable different pressures to be used on the same manifold.
- Integrated LED and manual overrides for setup and troubleshooting.

#### Connectivity

- · Simplified plug-in system of electrical connections.
- Completely modular design with high protection (IP65).
- D-Sub, 25-Pin and 19-Pin Circular connectors available.
- Automatic addressing of up to 16 valves.
- Common air supply and exhaust reduce connections to one tube per valve.

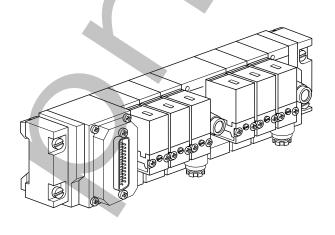
#### Solenoids

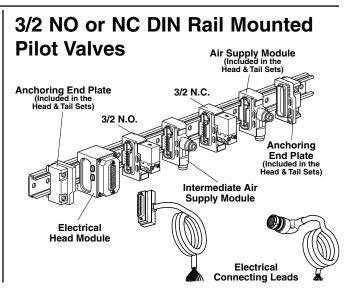
- 15mm Low Watt solenoids are UL certified and marked CE.
- · Wide range of voltages available.
- · Surge suppression standard.
- · Overvoltage protection standard.
- LED standard

#### **Applications**

- Piloting for process control valves
  - Pharmaceutical Equipment
  - Waste Water Treatment Systems
  - Food Processing
  - Chemical Batching
- Industrial Laundry Equipment
- Paint Spray & Dyeing Equipment
- Textile winding applications.
- Vacuum and conveyor applications.

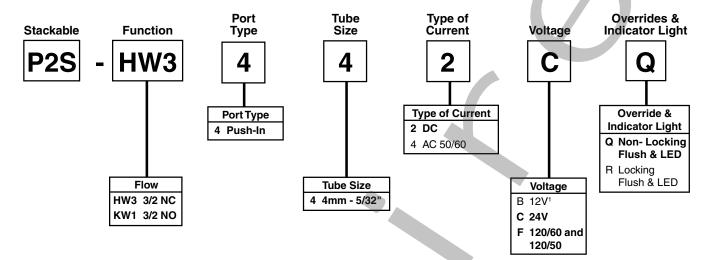
# **Solstar Manifold Assembly**







#### **Valves**



#### Notes:

- 1. Only available in DC.
- 2. Standard items in Bold.



P2S-HW3442CQ 3/2 NC, 5/32", 24VDC, Non-Locking Flush Manual Override & LED Indicator

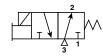
# 3/2 Normally Non-passing (NNP) / Normally Closed (NC) Valves

All model numbers shown include non-locking manual override.



Voltage	5/32" (4mm) Tube Push-In Connection Ports	
12VDC	P2S-HW3442BQ	
24VDC	P2S-HW3442CQ	
24VAC	P2S-HW3444CQ	
120VAC	P2S-HW3444FQ	

# 3/2 Normally Passing (NP) / Normally Open (NO) Valves

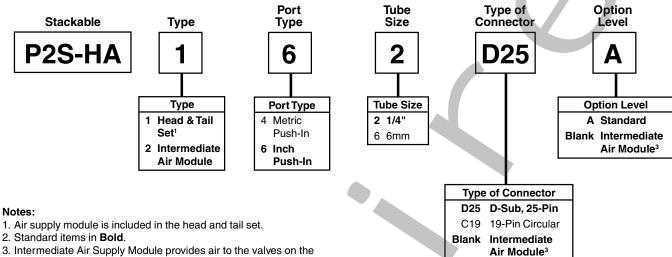


Voltage	5/32" (4mm) Tube Push-In Connection Ports	
12VDC	P2S-KW1442BQ	
24VDC	P2S-KW1442CQ	
24VAC	P2S-KW1444CQ	
120VAC	P2S-KW1444FQ	



# A

# **Head & Tail Sets and Intermediate Air Supply Modules**



2. Standard items in **Bold**.

3. Intermediate Air Supply Module provides air to the valves on the left hand side only. It isolates the valves on the right hand side. For NC valves, the pressure has to be applied at the inlet port and for NO valves, the pressure has to be applied at the exact port. The colored rings at these ports may be changed for future references. The inlet port was a graph ring for 1/4" things and a second of the colored rings at these ports may be changed.

references. The inlet port uses a green ring for 1/4" tubing, and a black ring for 6mm tubing. The exhaust port uses a yellow ring for both types.



# **Head and Tail Sets**

Used to mount valves to DIN Rail and provide supply and exhaust ports. All hardware is included.

1/4" Push-in Connection Ports		
P2S-HA162D25A With D-Sub, 25-Pin Connector		
P2S-HA162C19A	With 19-Pin Circular Connector	

# **Intermediate Air Supply Module**

P2S-HA262	1/4" Push-In Connection Ports
P2S-HA246	6mm Push-In Connection Ports



**Example 1:** Application requires eight, 3/2 NC, Solstar valves with 1/4" supply & exhaust ports. 24VDC with D-Sub 25-Pin Connector.

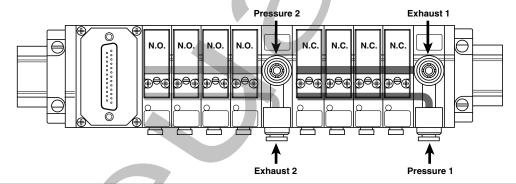
Qty. Part Number		Description	
8	P2S-HW3442CQ	3/2 NC, 24VDC Valves, Station 1 through 8	
1 P2S-HA162D25A Head & Tail Set with D-Sub, 25-Pin Connector, 1/4" Tul			

**Example 2:** Application requires four 3/2 NC and four 3/2 NO Solstar valves with Intermediate Air Module with 1/4" supply & exhaust ports. 12VDC with D-Sub 25-Pin connector.

Qty.	Part Number	Description
4	P2S-KW1442BQ	3/2 NO, 12VDC Valves, Station 1 through 4
1	P2S-HA262	Intermediate Air Module
4	P2S-HW3442BQ	3/2 NC, 12VDC Valves, Station 5 through 8
1	P2S-HA162D25A	Head & Tail Set with D-Sub, 25-Pin Connector, 1/4" Tube

Notes: NO and NC valves can be used on the same manifold.

All NC and NO valves have to be separated by the Intermediate Air Module P2S-HA\*\*\*. The Intermediate Air Supply Module provides air to the valves on the left hand side only. It isolates the valves on the right hand side. For Example 2 above, look at the illustration below.



# **Valve Specifications**

#### Air Flow:

NO: 0.033 Cv, 33NL/min NC: 0.05 Cv, 50NL/min

#### Air Quality:

Standard shop air, lubricated or non-lubricated, 50µ filtered

#### **Body Material:**

Glass Filled Polyamide

#### **Degree of Protection:**

IP65 (Washdown)

#### Life Expectancy:

30 million cycles

#### **Maximum Operating Frequency:**

10Hz

#### Mounting:

35mm (DIN) rail

#### **Operating Medium:**

Compressed air

#### **Operating Pressure Range:**

0 to 145 PSI (0 to 10 bar)

#### Operating Temperature Range:

5°F to 140°F (-15°C to 60°C)

#### Overvoltage Protection:

DC versions are protected up to 300V

#### **Power Consumption:**

Hold: DC 1.8W AC 2.4VA NO Inrush: DC 1.8W AC 5.5VA NO Hold: DC 1.8W AC 2.4VA NC Inrush: DC 1.8W AC 5.5VA NC

#### Response Time:

10 -15 ms @ 90 PSIG

#### **Maximum Allowable Currents:**

2000 mA (2 Amp)

#### !\ Simultaneous Operation:

Some applications require simultaneous use of devices during setup or operation. Under normal single device operation, reliability can be assured by

staying within the stated "Maximum Allowable Currents". During simultaneous operation, however, only ten 12VDC solenoids can be operated simultaneously because their total accumulated current = 1000 mA.

#### **Supply and Exhaust Ports:**

1/4" and 6mm tube

#### **Surge Suppression:**

Diode for DC version Varistar for AC version

#### **Tube Connections:**

Push-In (Instant) fittings

#### **Voltage Tolerance:**

+10 to -15% of rated voltage @ 70°F (20° C)



# NO (NP) Solenoids

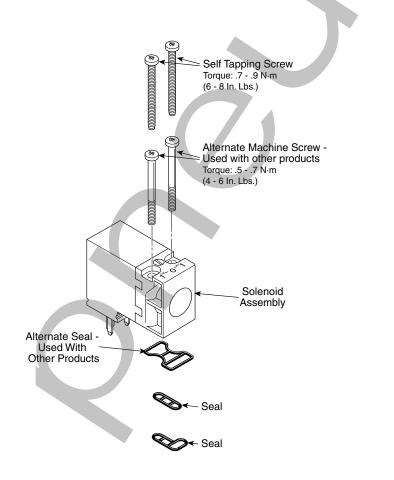
Voltages	Power Consumption	Rated Current	Kit Numbers With Non-Locking Flush Manual Override	Kit Numbers With Locking Flush Manual Override
12VDC	1.8W	150 mA	PS3201B45P	PS3201C45P
24VDC	1.8W	75 mA	PS3201B49P	PS3201C49P
24VAC	2.4VA	100 mA	PS3201B42P	PS3201C42P
115VAC, 50Hz 120VAC, 60Hz	2.4VA	20 mA	PS3201B53P	PS3201C53P

# NC (NNP) Solenoids

Voltages	Power Consumption	Rated Current	Kit Numbers With Non-Locking Flush Manual Override	Kit Numbers With Locking Flush Manual Override
12VDC	1.8W	150 mA	PS3541B45P	PS3541C45P
24VDC	1.8W	75 mA	PS3541B49P	PS3541C49P
24VAC	2.4VA	100 mA	PS3541B42P	PS3541C42P
115VAC, 50Hz 120VAC, 60Hz	2.4VA	20 mA	PS3541B53P	PS3541C53P

#### Notes:

Kit includes: Solenoid, (2) machine screws, (2) self threading screws, (1) gasket, (1) 3-cell gasket.

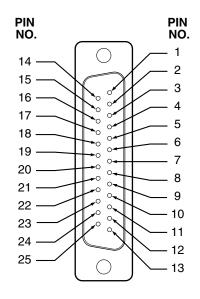








# Pin Out Detail D-Sub, 25-Pin Connector

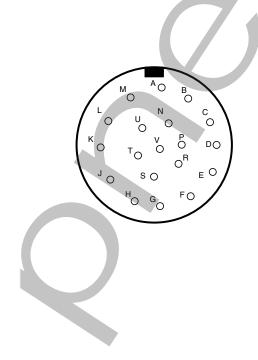


Output	D-Sub,	IP65 Cable
Solenoid No.	25-Pin No.	Colors
1	13	Green
2	25	Transparent
3	12	Dark Blue
4	24	Light Blue
5	11	Pink
6	23	Purple
7	10	Dark Green / Black
8	22	Yellow
9	9	Light Green / Black
10	21	Yellow / Black
11	8	Blue / Black
12	20	White / Black
13	7	Khaki
14	19	Orange
15	6	White
16	18	Grey
Not Used	5	Red / Black
Not Used	17	Red
Not Used	4	Brown
Valve Common	16	Black

Notes: Solenoids are polarity sensitive. The common must be at OV. Switching must be at the high potential.

Maximum 16 solenoid outputs with one valve (negative) common line on Pin 16.

## 19-Pin Circular Connector



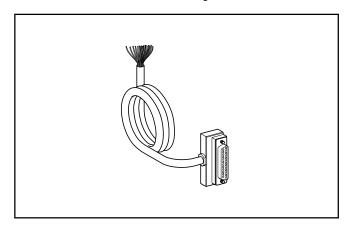
Output	19-Pin	IP65 Cable
Solenoid No.	Connector	Colors
1	Α	Pink / Brown
2	В	White / Green
3	С	White / Yellow
4	D	White / Grey
5	E	White / Pink
6	F	Brown / Green
7	G	Red / Blue
8	Н	Grey / Pink
9	J	Brown / Yellow
10	K	Violet
11	L	Blue
12	М	Pink
13	N	Grey
14	Р	Yellow
15	R	White
16	S	Green
Valve Common	Т	Black
Not Used	U	Brown
Not Used	V	Red

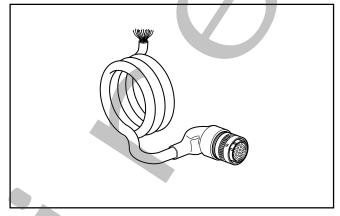
Notes: Solenoids are polarity sensitive. The common must be at OV. Switching must be at the high potential.

Maximum 16 solenoid outputs with one valve (negative) common line on Pin T.



# **IP65 Cable Assembly**





# Cable with Female D-Sub, 25-Pin Connector

P8L-MD25A5B	5 Meters /
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Connection to the control system is through 20 colored wires AWG 24, rated at 2.5 amp. For use with Solstar, Interface 2000, PVLB10 and PVLC10 valves only.

16.40 Ft

# Cable with Female 19-Pin Connector

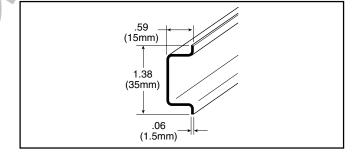
P8L-MC19A5	5 Meters / 16.40 Ft
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Connection to the control system is through 19 colored wires AWG 20, rated at 5 amp.

### 35mm DIN Rail

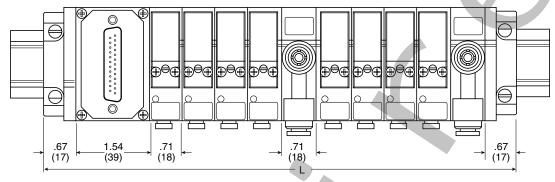
AM1DE200	1.83 Meters / 6.0 Ft

DIN rail can be mounted to grids or other surfaces to allow snap in mounting of pneumatic and electrical components.





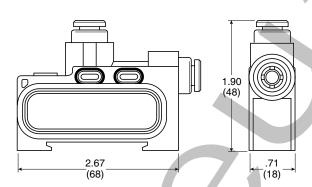
# Solstar Manifold with D-Sub, 25-Pin Connector Module and Intermediate Air Supply Module



 $L = 2.87 (73) + [n \times .71 (18)]$ n = Number of Valves

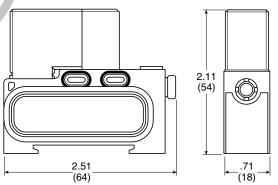
### **P2S-HA262**

**Intermediary Air Supply Module** 



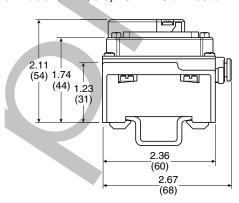
### **P2S-HW\*\*\***

**Basic Module with Solenoid Valve** 



### P2S-HA162D25A

Head Module: D-Sub, 25-Pin Connector



### P2S-HA162C19A

**Head Module: 19-Pin Circular Connector** 

