H110-4E1(2), HA110-4E1(2), H113-4E2, HA113-4E2, H180-4E1(2), HA180-4E1(2), H183-4E2, HA183-4E2

H110 and H180 Series Indirect-Acting Solenoid, directional control valves achieve 0.23 and 0.57 Cv flow capacity in a 15mm and 18mm width. These valves are a popular choice for operating medium size cylinders, up to 2.5" bore. Low (1.6 Watt) power consumption solenoids are standard. Valves are available as inline, subbase mount, or as manifold mount.

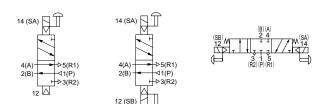
2-, 3- or 4-way models available as inline valves or manifold mount on two manifold configurations, A or F type.

#### Base Models

- 4-Way, Single Solenoid, Inline (**H110-4E1**, **H180-4E1**)
- 4-Way, Double Solenoid, Inline (**H110-4E2**, **H180-4E2**)
- 3-Position, 4-Way, Inline (H113-4E2, H183-4E2)
- 4-Way, Single Solenoid, Manifold Mount (**HA110-4E1**)
- 4-Way, Single Solenoid, Inline or Manifold Mount (HA180-4E1)
- 4-Way, Double Solenoid, Inline or Manifold Mount (HA110-4E2, HA180-4E2)
- 3-Position, 4-Way, Inline or Manifold Mount (HA113-4E2, HA183-4E2)

#### Features and Benefits

- Compact 15mm and 18mm size.
- · Low power consumption.
- High flow.
- Quiet operation. No AC hum.
- Manual override standard.
- Grommet, plug-in and DIN type electrical connector standard.



Base Model	Nominal Dimensions (inch) L H W			
H(A)110 single solenoid	3.18			
H(A)110 double solenoid	4.66	0.95	0.59	
H(A)113 3-position	5.14			
H(A)180 single solenoid	3.81			
H(A)180 double solenoid	5.31	0.95	0.71	
H(A)183 3-position	5.93			





H180-4E1

#### SPECIFICATIONS

or con loanons	
Design Principle:	Pressure Balanced – Air Return
Porting Type:	4-Way (2- and 3-Way available for manifold)
Port Size:	H110: 10-32 UNF; H180: 1/8 PIPE
Media:	Air
Pressure Range:	22-102 PSIG

Temperature Range:	41°F to 122°F
Flow @100 PSIG:	H110: 14 CFM, 396 LPM (Cv=0.2) H180: 33 CFM, 934 LPM (Cv=0.6)
Power:	1.6 W
Available Voltages:	12VDC, 24VDC, 24VAC, 120VAC, 240VAC

### H110-4E1(2), HA110-4E1(2), H113-4E2, HA113-4E2, H180-4E1(2), HA180-4E1(2), H183-4E2, HA183-4E2

# AVAILABLE VALVE TYPES - H110 AND H180 SERIES ... CONSULT WEBSITE FOR MODEL NUMBERS

### For Direct Piping, or F Type Manifold:

- Normally closed, single solenoid, 2-way
- Normally open, single solenoid, 2-way
- Normally closed, single solenoid, 3-way
- Normally open, single solenoid, 3-way
- 2-position, single solenoid, 4-way
- 2-position, double solenoid, 4-way
- · 3-position, 4-way, closed center
- 3-position, 4-way, exhaust center
- 3-position, 4-way, pressure center

## For Base Piping, or A-Type Manifolds:

- Normally closed, single solenoid, 2-way
- Normally open, single solenoid, 2-way
- Normally closed, single solenoid, 3-way
- Normally open, single solenoid, 3-way
- 2-position, single solenoid, 4-way
- 2-position, double solenoid, 4-way
- · 3-position, 4-way, closed center
- 3-position, 4-way, exhaust center
- 3-position, 4-way, pressure center



**HA110 Series on** H110M4A Manifold



H180 Series on H180M4F Manifold

Manifold Types Available	Overall Size (valves not mounted)	Nominal Dimensions (inch) L H D				
A Type (H110M_A, H180M_A): Extruded Aluminum. Delivery ports 2 and 4 located on manifold. Accepts HA110 (HA180) valve models.	Two Station (M2A)	1.89 (2.25)	1.38 (1.58)	2.09 (2.92)		
	Each Additional station	0.63 (0.75)				
	Max # of stations	20				
F Type (H110M_F, H180M_F): Extruded Aluminum.  Delivery ports 2 and 4 located on valve. Accepts H110 (H180) valve models.	Two Station (M2F)	1.89 (2.25)	0.71 (0.00)	1.81 (2.29)		
	Each Additional station	0.63 (0.75)	0.71 (0.99)			
	Max # of stations		20			
Consult website for exact dimensions and additional manifold configurations						

# How To Order Valves & Manifolds...Pages 104 & 106

## **HOW TO OBTAIN VALVE SPECIFICATIONS**

- Visit www.humphrey-products.com and select "Online Product Guide."
- From the search options provided, choose the valve you want and the details for that product.
- · Once completed, select "Spec Sheet" to create a PDF of the valve, which you may save and print at your convenience.

# **HOW TO FIND A DISTRIBUTOR**

- Visit www.humphrey-products.com, select "Find A Distributor," and input your information to locate a distributor nearest you.
- Or, call Customer Service at 1-800-477-8707 for the name and phone number of your local distributor.

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