

**NEW**

# PRODUCT DATA SHEET INFORMATION

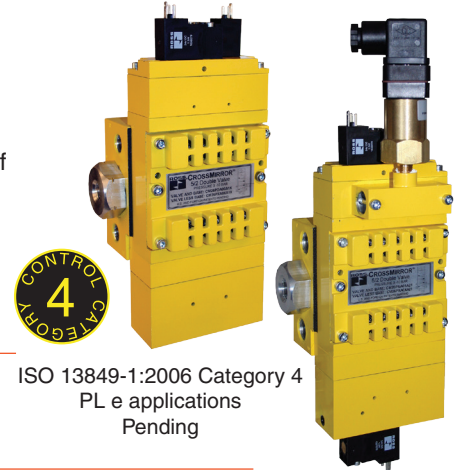


## 5/2 Pressure Return - CROSSMIRROR® Series Double Valves

### Solenoid Pilot Controlled

#### FEATURES:

- Can be used as 3/2 Normally Closed or Normally Open valve function by plugging the unused outlet port
- Self-contained dynamic monitoring system; no additional monitoring required
- Valve fault results in a lockout condition and prevents unintentional reset with removal of air or electricity
- Reset can be electrical solenoid or remote pneumatic signal
- Status indication switch (ready-to-run) to inform machine controller of valve condition
- Base mounted, stainless steel spool valve construction
- Manifoldable for multi valve applications
- Sistema library data pending



ISO 13849-1:2006 Category 4  
PL e applications  
Pending

#### APPLICATIONS: Cylinder Return to Home Position.

- Two hand control EN574 Type III C
- Shearing equipment
- Cutting applications
- Pinch point applications
- Forming applications
- Clamping applications

### Ordering Information

#### Valve and base assembly with remote reset

Model Number*	Port Sizes		C <sub>v</sub>				Pressure Switch	Dimensions inches (mm)			Weight lb (kg)	Replacements*	
	1	2, 3, 4, 5	1-2	1-4	2-3	4-5		A	B	C		Valve No.	Base No.
CM26PNA00**1X	1/4	1/4	0.8	0.6	0.5	1.1	Without	8.8 (222)	4.8 (121)	3.4 (85)	5.30	CM26PXA0XA1X	Y1950D91
CM26PNA00**11	1/4	1/4	0.8	0.6	0.5	1.1	With	10.9 (277)	4.8 (121)	4.4 (111)	5.85	CM26PXA0XA11	Y1950D91
CM26PNA01**1X	3/8	3/8	0.8	0.6	0.5	1.1	Without	8.8 (222)	4.8 (121)	3.4 (85)	5.20	CM26PXA0XA1X	Y1948D91
CM26PNA01**11	3/8	3/8	0.8	0.6	0.5	1.1	With	10.9 (277)	4.8 (121)	4.4 (111)	5.75	CM26PXA0XA11	Y1948D91

\* Model number includes base supplied with NPT threads. For BSPP threads, replace "N" with a "D" in the model number, e.g., CM26PDA00A1X.

\*\* Insert voltage code: "A" = 24 volts DC; "B" = 110 volts AC, 50/60 Hz. e.g., CM26PNA00A1X, CM26PNA00B1X.

#### Valve and base assembly with solenoid reset

Model Number*	Port Sizes		C <sub>v</sub>				Pressure Switch	Dimensions inches (mm)			Weight lb (kg)	Replacements*	
	1	2, 3, 4, 5	1-2	1-4	2-3	4-5		A	B	C		Valve No.	Base No.
CM26PNA00**2X	1/4	1/4	0.8	0.6	0.5	1.1	Without	10.2 (258)	4.8 (121)	3.4 (85)	5.30	CM26PXA0XA2X	Y1950D91
CM26PNA00**21	1/4	1/4	0.8	0.6	0.5	1.1	With	12.3 (312)	4.8 (121)	4.4 (111)	5.85	CM26PXA0XA21	Y1950D91
CM26PNA01**2X	3/8	3/8	0.8	0.6	0.5	1.1	Without	10.2 (258)	4.8 (121)	3.4 (85)	5.20	CM26PXA0XA2X	Y1948D91
CM26PNA01**21	3/8	3/8	0.8	0.6	0.5	1.1	With	12.3 (312)	4.8 (121)	4.4 (111)	5.75	CM26PXA0XA21	Y1948D91

\* Model number includes base supplied with NPT threads. For BSPP threads, replace "N" with a "D" in the model number, e.g., CM26PDA00A2X.

\*\* Insert voltage code: "A" = 24 volts DC; "B" = 110 volts AC, 50/60 Hz. e.g., CM26PNA00A2X, CM26PNA00B2X.

### Standard Specifications

**Pilot Solenoids:** According to VDE 0580. Enclosure rating according to DIN 400 50 IP 65. Three solenoids, rated for continuous duty.

**Standard Voltages:** 24 volts DC, 110 volts AC, 50/60 Hz.

**Pilot Solenoids Power Consumption (each solenoid):**

24 volts DC: 1.2 watts on DC, 38.0 mA holding.

110 volts AC: 55.1 mA inrush current, 49.5 mA holding current, 5.4 volt amps.

**Ambient Temperature:** 15° to 122°F (-10° to 50°C).

**Media Temperature:** 40° to 175°F (4° to 80°C).

**Flow Media:** Filtered, lubricated or unlubricated (mineral oils according to DIN 51519, viscosity classes 32-46); 5-micron recommended.

**Inlet Pressure:** 40 to 150 psig (2.7 to 10 bar).

**Pressure Switch (Status Indicator) Rating:** 5 amps at 250 volts AC, or 5 amps at 30 volts DC.

**Monitoring:** Dynamically, cyclically, internally during each actuating and de-actuating movement. Monitoring function has memory and requires an overt act to reset unit after lockout.

**Solenoid Reset:** Units with solenoid reset include a 3/2 solenoid valve. Energize this solenoid momentarily to reset valve after lock-out condition occurs.

**Remote Reset:** Remote signal to be supplied by customer's 3/2 valve (connect remote signal line to remote RESET port in valve). Apply signal momentarily to reset valve after fault conditions occurs.

**NOTE:** Main solenoids must be off when performing reset procedure.

**Electrical Connectors:** Form C electrical connectors, with or without the light.

**Port Threads:** NPT, BSPP.

*Product data for Sistema Library users, pending.*

*This valve is not designed for use in power press clutch/brake applications.*



# PRODUCT DATA SHEET INFORMATION



## 5/2 Pressure Return – CROSSMIRROR® Series Double Valves

### VALVE OPERATION

#### Normal Operation:

The valve is operated by energizing both pilot solenoids simultaneously. This causes both main valve elements to be actuated so that air from inlet port 1 flows to outlet port 4, but not to port 2. Air downstream of port 2 is exhausted through port 3.

When the solenoids are de-energized, both valve elements are de-actuated, and air then flows from inlet port 1 to outlet port 2, but no longer to outlet port 4. Air downstream of port 4 is exhausted through port 5.

On first operation, or after repair, the pilot valve supply circuit and inherent monitoring elements may need to be reset.

#### Valve locked-out:

Whenever the valve elements operate in a sufficiently asynchronous manner, either on actuation or de-actuation, the valve will move to a locked-out position. In the locked-out position, one crossover and its related timing chamber will be exhausted, and the other crossover and its related timing chamber will be fully pressurized.

The valve element (side B) that is partially actuated has pilot air available to fully actuate it, but no air pressure on the return piston to fully de-actuate the valve element.

The return springs are limited in travel, and can only return the valve elements to the intermediate (locked-out) position. Sufficient air pressure acting on the return pistons is needed to return the valve elements to a fully home position.

#### Detecting a Malfunction:

If the main valve elements are not both actuated or de-actuated synchronously, the valve defaults to the locked-out position so that outlet port 2 receives full inlet pressure, and outlet port 4 is exhausted through port 5. The valve must now be “reset” to resume normal operation.

#### Resetting the valve:

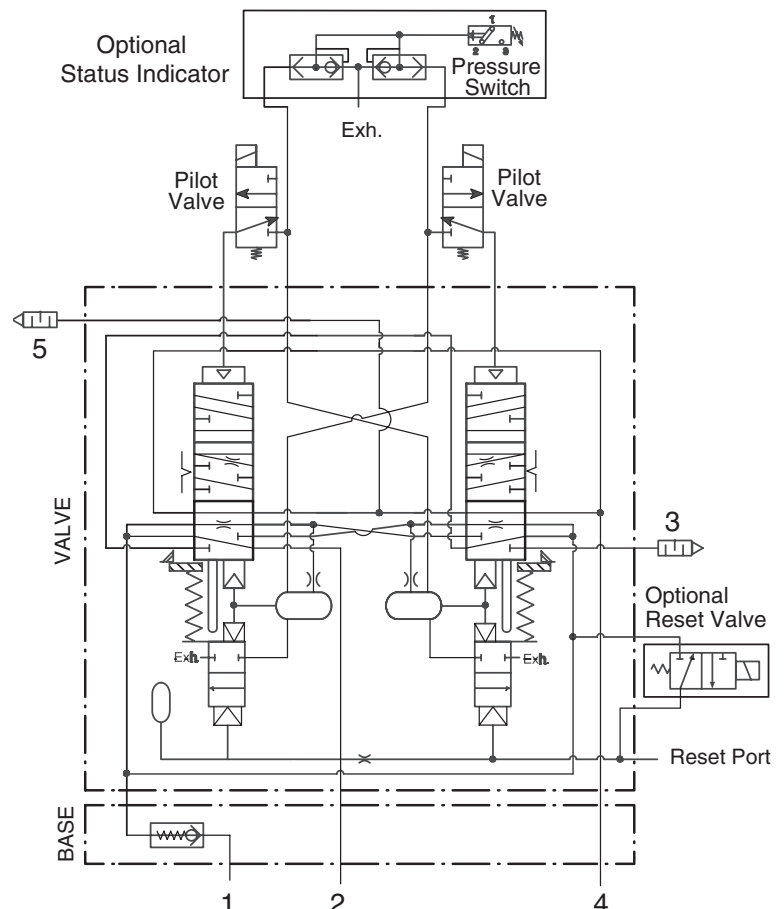
The valve will remain in the locked-out position, even if the inlet air supply is removed and re-applied.

A remote reset signal must be applied to reset the valve. Reset is accomplished by momentarily pressurizing the reset port. Actuation of the reset piston physically pushes the main valve elements to their home position. Actuation of the reset piston also opens the reset poppet, thereby, immediately exhausting pilot supply air, thus, preventing valve operation during reset. De-actuation of reset pistons causes the reset poppets to close and pilot supply timing chambers to fully pressurize. Reset pressure can be applied by a remote 3/2 normally closed valve, or from an optional 3/2 normally closed solenoid (which includes an integral manual reset button) mounted on the reset adapter.

#### Status indicator:

The optional status indicator pressure switch will actuate when the main valve is operating normally, and will de-actuate when the main valve is in the locked-out position or inlet pressure is removed. This device is not part of the valve lockout function, but, rather, only reports the status of the main valve.

### Valve Schematic



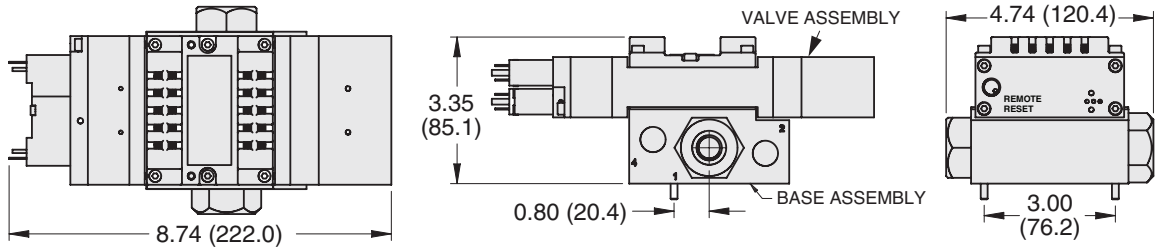


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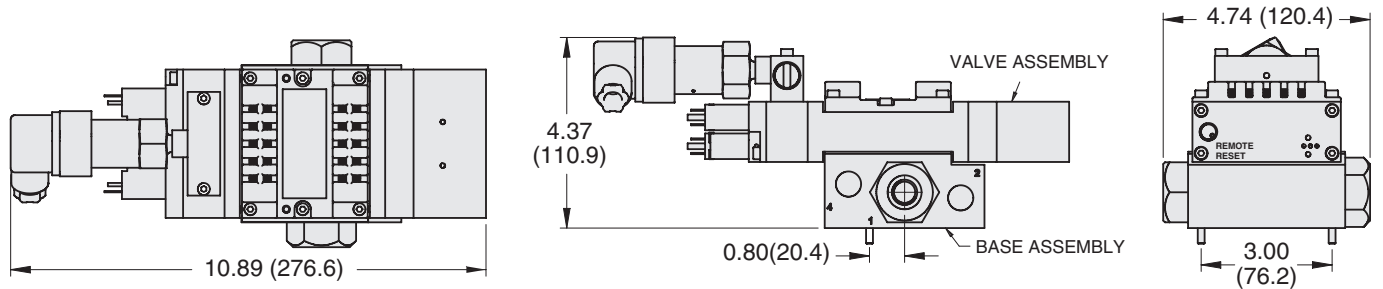
## 5/2 Pressure Return – CROSSMIRROR® Series Double Valves

### Product Dimensions – inches (mm)

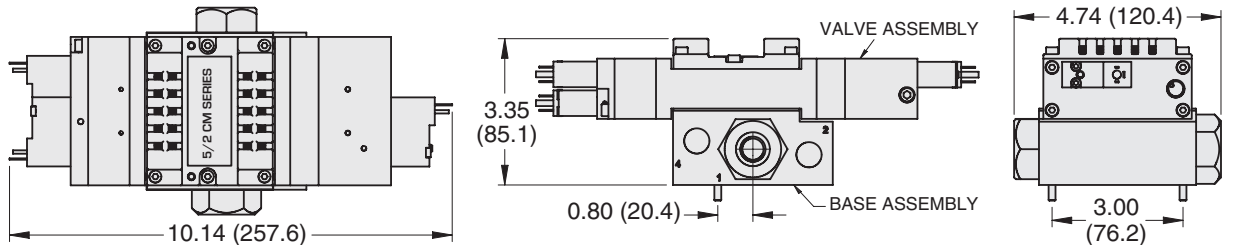
Valve and base assembly, with remote reset and without pressure switch.



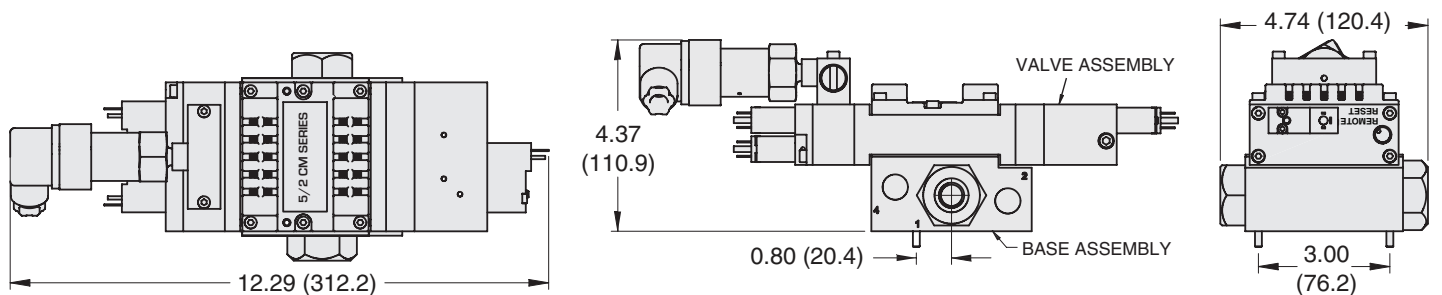
Valve and base assembly, with remote reset and pressure switch.



Valve and base assembly, with solenoid reset and without pressure switch.



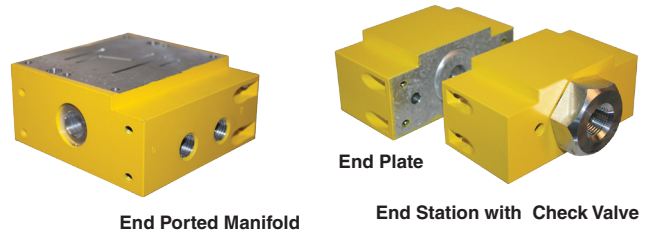
Valve and base assembly, with solenoid reset and pressure switch.



# Sub-Bases and Manifold Assemblies for CROSSMIRROR® Series Valves

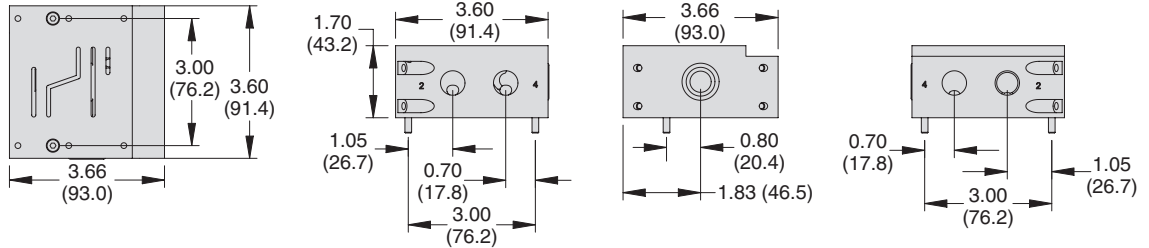
In addition to the manifold stations, an end station kit with a check valve must be ordered for each assembly. The number of manifolds with a single supply inlet will be limited to the pressure and flow rate of the system. Too many manifolds may result in too large of an internal pressure drop resulting in valve faults. The manifold end station kit with dual inlet check will allow the manifold to be supplied with air from both ends of the assembly.

Port Size	Manifold Base Assembly Model Number	Manifold End Plate w/ Check Valve Kit Number	Dual Supply Manifold End Plate w/ Check Valve Kit Number	
2, 4	1,			
1/4	1/4	Y1951D91	699K86	701K86
3/8	3/8	Y1949D91	698K86	700K86
G1/4	G1/4	YD1951D91	D699K86	D701K86
G3/8	G3/8	YD1949D91	D698K86	D700K86

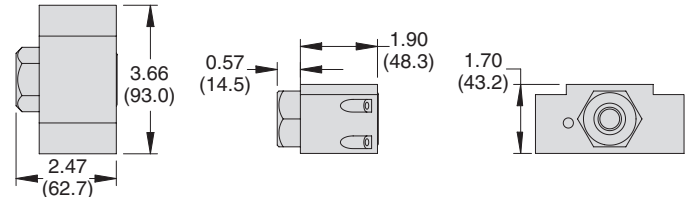


## Product Dimensions – inches (mm)

### End Ported Manifold



### End Station



## Service Kits and Accessories for 5/2 Pressure Return - CM Series Double Valves

Valve Size	Valve Body Service Kit Number	Valve Body Seal and Gasket Service Kit Number	Base Service Kit Kit Number	Pressure Switch Model Number	Pressure Switch Assembly
0	2436K77	2435K77	2434K77	1104A30	Y733B94



## Electrical Connectors

Wired connectors have a 3 meter (10 ft.) cord. Specify solenoid voltage for lighted connectors.

### Part Numbers of Form C Electrical Connectors

Connector Type	Without Light	With Light*
For use with dropcord (Cord included)	2449K77	2450K77*
Connector Only	2452K77	2453K77*

\* Specify voltage when ordering.

## FLUID POWER PRODUCTS FOR PNEUMATIC SOLUTIONS:

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