

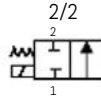
# BV14 - 14mm BULLET VALVE

The BV14 represents yet another evolution in air valve technology from MAC. The Bullet Valve® utilizes "lifting" solenoid technology. The MAC "lifting" configuration is unique, however, in that the valve maintains a balanced design – a signature feature of a MAC valve – shifting forces are consistently high and response times are repeatable regardless of inlet pressure fluctuations. 2-way and 3-way configurations of the BV14 cartridge are available.

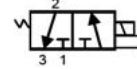
Function	Flow [max]	Manifold mounting	Series
2/2, 3/2 N.C., Universal	Up to 0.24Cv	Cartridge	BV214, BV314

### OPERATIONAL BENEFITS

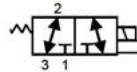
- 2-Way (BV214) & 3-Way (BV314) configurations available
- Very few parts
- Long life lifting solenoid
- One piece poppet / armature
- Balanced Design
- Solenoid isolated from contaminated air
- Unique mounting



3/2 Normally Closed



3/2 Universal



BV314

3-Way, Universal Cartridge Style  
- 0.24Cv

### 2-Way 14mm Bullet Valve

BV214A - C X 1 - 00 - B XX X - X XX  
                   1                  2 3 4 5 6

#### 1 - Spool Type

A 2-Way (Standard)      B 2-Way (Axial Flow)

#### 2 - Solenoid

B Round

#### 3 - Voltage

2-Way

EH 24 VDC (2.5w)      EG 24 VDC (4.0w)  
 EK 12 VDC (2.5w)      EJ 12 VDC (4.0w)

#### 4 - Lead Length Options

O No Leads      A 18"      B 24"      C 36"  
 D 48"      E 72"      F 96"      H 144"

#### 5 - Solenoid Can (round)

C For Top Cover Option and Can with Outer Threads

#### 6 - Solenoid Cover

JST	Pico	Flying Leads	
TA		BA	No ground wire
TC	PC	BC	Blocking & suppr. diode & LED (no ground)
TE	PE	BE	Blocking & suppr. diode (no ground)
TG	PG	BG	LED (no ground)
TJ	PJ	BJ	MOV (no ground)
TL	PL	BL	LED & MOV (no ground)
	PN		Transfer Board
		†GA	MAC JAC Connector

Note: Pico covers PC-PL have a 3rd Pin which  
 † Requires special spacing - consult MVP

#### Modifications

MOD L001 Low Leak Mod for Diaphragm Valve (09 & 10 only)



BV214

2-Way, Cartridge Style - 0.08Cv



BV214

2-Way, Normally Closed, Plastic  
Cartridge Style - 0.24Cv

#### How To Order Circuit Bar

##### Standard 2-Way

Port Size	Spacing	Cylinder Port	
M7	17mm	*CCMV14A-00AAA-XX	**CCMV14A-00BAA-XX
1/8"	17mm	*CCMV14A-00AAB-XX	**CCMV14A-00BAB-XX
5/32"***	17mm	*CCMV14A-00AAC-XX	**CCMV14A-00BAC-XX

##### Axial Flow 2-Way

M7	17mm	**CCMV14A-00BDA-XX
1/8"	17mm	**CCMV14A-00BDB-XX

\* - Side Cylinder Port      \*\* - Bottom Cylinder Port

XX = Number of stations

Note: For valves mounted to bar at factory, add -9 to model number.  
 Common inlet & exhaust are 1/4" NPTF. For BSPPL or BSPTR threads consult MVP



BVP214

2-Way, Normally Closed or Normally  
Open, Plastic Cartridge Body - 0.4Cv

SMALL  
3-WAY

LARGE  
3-WAY

SMALL  
4-WAY

LARGE  
4-WAY

ISO  
VALVES

PPC  
VALVES

PULSE  
VALVES

BULLET  
VALVES

### 3-WAY 14mm Bullet Valve

BV314A - C X1 - 00 - X XX X - X XX

1
2
3
4
5
6

#### 1 - Spool Type

C 3-Way Normally Closed    D 3-Way Universal

#### 2 - Solenoid

B Round

#### 3 - Voltage

HA 24VDC (1.0W)	HB 24VDC (1.8W)
HC 24VDC (2.5W)	HD 24VDC (3.0W)
HE 24VDC (4.0W)	HF 12VDC (1.0W)
HG 12VDC (1.8W)	HH 12VDC (2.5W)
HJ 12VDC (3.0W)	HK 12VDC (4.0W)

#### 4 - Lead Length Options

O No Leads	A 18"	B 24"	C 36"
D 48"	E 72"	F 96"	H 144"

#### 5 - Solenoid Can (round)

C For Top Cover Option and Can w/ Outer Threads

#### 6 - Solenoid Cover

JST	Pico	Flying Leads	
TA		BA	No ground wire
TC	PC	BC	Blocking & suppr. diode & LED (no ground)
TE	PE	BE	Blocking & suppr. diode (no ground)
TG	PG	BG	LED (no ground)
TJ	PJ	BJ	MOV (no ground)
TL	PL	BL	LED & MOV (no ground)
	PN		Transfer Board
	†GA		MAC JAC Connector

Note: Pico covers PC-PL have a 3rd Pin which  
 † Requires special spacing - consult MVP



BV314  
3-Way, Conveyer Ind. - 0.24Cv



BV314  
3-Way, Manifold Mount,  
Non Plug-In - 0.24Cv

#### Modifications

MOD L001 Low Leak Mod for Diaphragm Valve (09 & 10 only)

#### How To Order Circuit Bar

##### Standard 2-Way

Port Size	Spacing	*Cylinder Port	
M7	17mm	*CCMV14A-00ABA-XX	**CCMV14A-00BBA-XX
1/8"	17mm	*CCMV14A-00ABB-XX	**CCMV14A-00BBB-XX
5/32"***	17mm	*CCMV14A-00ABC-XX	**CCMV14A-00BBC-XX

\* - Side Cylinder Port  
 \*\* - Bottom Cylinder Port  
 \*\*\* - Tube Receptacle  
 XX = Number of stations

Note: For valves mounted to bar at factory, add -9 to model number.  
 Common inlet & exhaust are 1/4" NPTF. For BSPL or BSPT threads consult MVP

### BV214/314 CONNECTOR OPTIONS

BV214		
Flying Leads		
Flying Leads w/ LED		
JST Connector		
JST Connector w/ LED		
MAC Jac		

BV314		
Flying Leads		
Flying Leads w/ LED		
JST Connector		
JST Connector w/ LED		
MAC Jac		

SMALL 3-WAY

LARGE 3-WAY

SMALL 4-WAY

LARGE 4-WAY

ISO VALVES

PPC VALVES

PULSE VALVES

BULLET VALVES