

# 3-Way Pilot Valves

## Models 4057 and 4457 Aluminum and stainless steel versions

### Overview

AMOT Models 4057 and 4457 3-way valves have been developed for use in manual and automatic hydraulic or pneumatic control systems. They offer versatility in operating requirements and allowable pressure limits. For a 1/4" size control valve, they offer exceptional flow capacity.

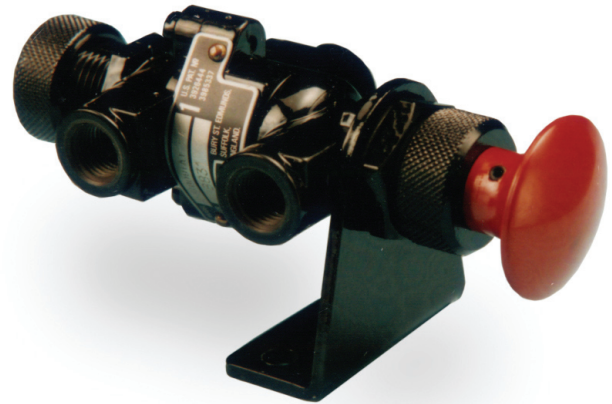
### Typical applications

Developed for use in manual and automatic control systems:

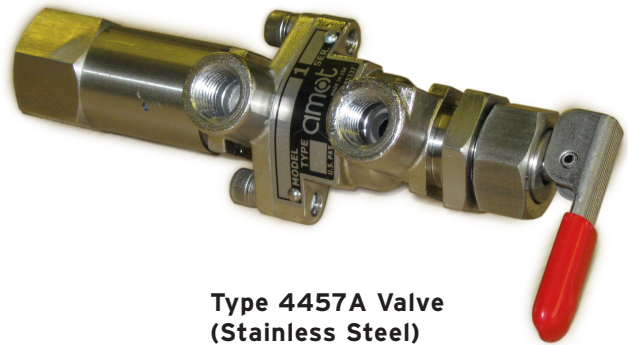
- Hydraulic fluid control
- Actuator control
- Pneumatic panel systems
- Safety control systems

### Key features and benefits

- Suitable for use on many fluid applications:
  - Clean air
  - Natural gas
  - LP gases
  - Petroleum base lubricants
  - Hydraulic oils
  - Many other fluids
- Balanced force design, pressure can be applied to any port - simplifies system design
- Can be panel or bracket mounted - simple, flexible and low cost installation
- Uses the AMOT patented "Tad Pole" seal - provides lower friction and longer cycle life than conventional O-rings



**Type 4057D Valve  
(Aluminum)**



**Type 4457A Valve  
(Stainless Steel)**

**amot**

# 3-Way Pilot Valves - Models 4057/4457

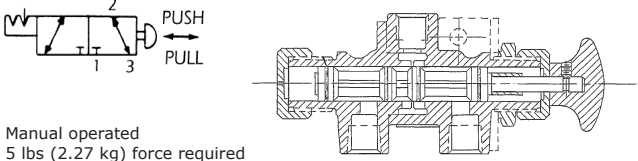
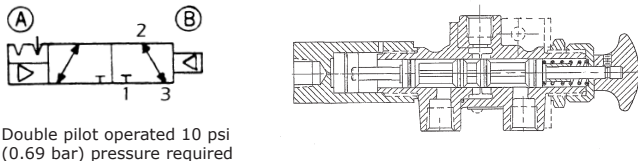
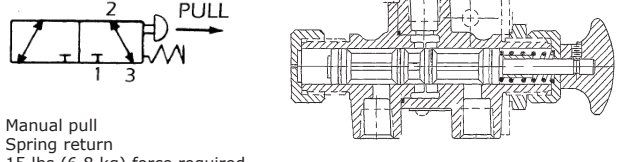
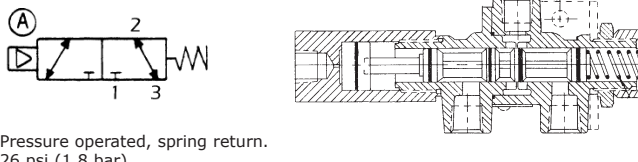
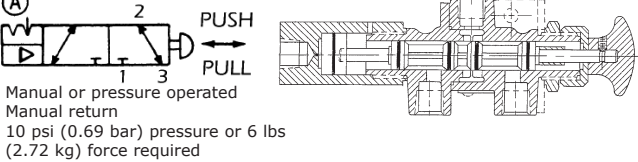
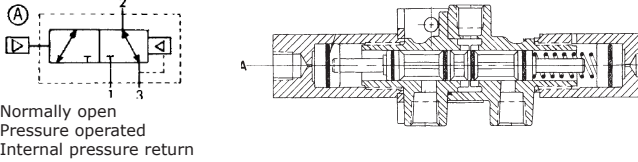
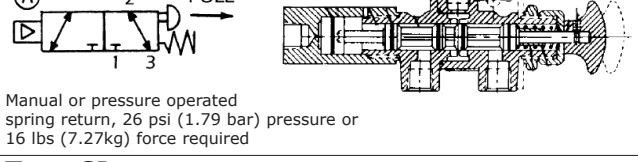
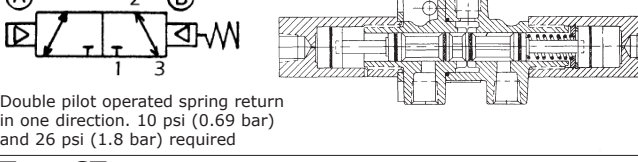
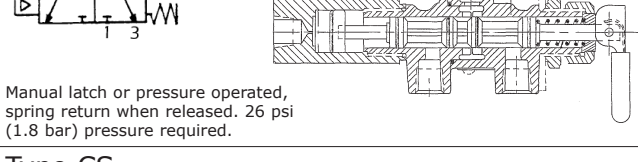
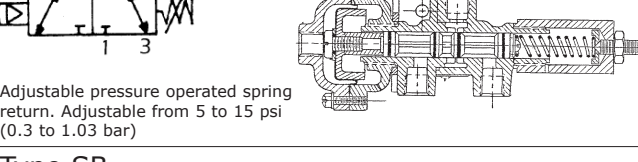
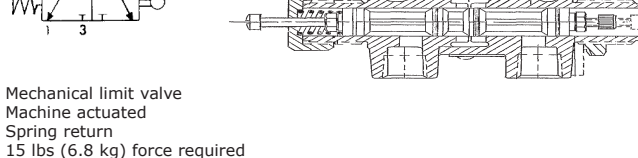
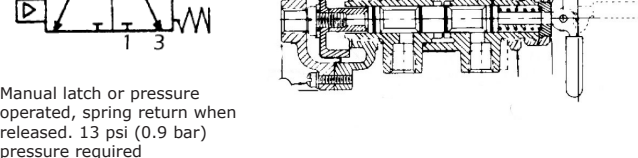
## Operation

The 3-way pilot valves feature modular construction and incorporate a sliding spool. The standard spool has a small center dead spot position and no valve port overlap. With the spool fully to the left (rest position), Port 2 is open to Port 3 and Port 1 is closed. With the spool moved to the right (actuated position),

Port 2 is open to Port 1 and Port 3 is closed.

The valves are available with a variety of manual and pressure operators and with manual, pressure or spring returns. See the valve types table below for the standard variations which are available.

## Valve Types

<p><b>Type CA</b></p>  <p>Manual operated 5 lbs (2.27 kg) force required</p>	<p><b>Type CF</b></p>  <p>Double pilot operated 10 psi (0.69 bar) pressure required</p>
<p><b>Type CB</b></p>  <p>Manual pull Spring return 15 lbs (6.8 kg) force required</p>	<p><b>Type CG</b></p>  <p>Pressure operated, spring return. 26 psi (1.8 bar)</p>
<p><b>Type CD</b></p>  <p>Manual or pressure operated Manual return 10 psi (0.69 bar) pressure or 6 lbs (2.72 kg) force required</p>	<p><b>Type C1</b></p>  <p>Normally open Pressure operated Internal pressure return</p>
<p><b>Type CE</b></p>  <p>Manual or pressure operated spring return, 26 psi (1.79 bar) pressure or 16 lbs (7.27kg) force required</p>	<p><b>Type C2</b></p>  <p>Double pilot operated spring return in one direction. 10 psi (0.69 bar) and 26 psi (1.8 bar) required</p>
<p><b>Type CP</b></p>  <p>Manual latch or pressure operated, spring return when released. 26 psi (1.8 bar) pressure required.</p>	<p><b>Type CT</b></p>  <p>Adjustable pressure operated spring return. Adjustable from 5 to 15 psi (0.3 to 1.03 bar)</p>
<p><b>Type CS</b></p>  <p>Mechanical limit valve Machine actuated Spring return 15 lbs (6.8 kg) force required</p>	<p><b>Type SB</b></p>  <p>Manual latch or pressure operated, spring return when released. 13 psi (0.9 bar) pressure required</p>

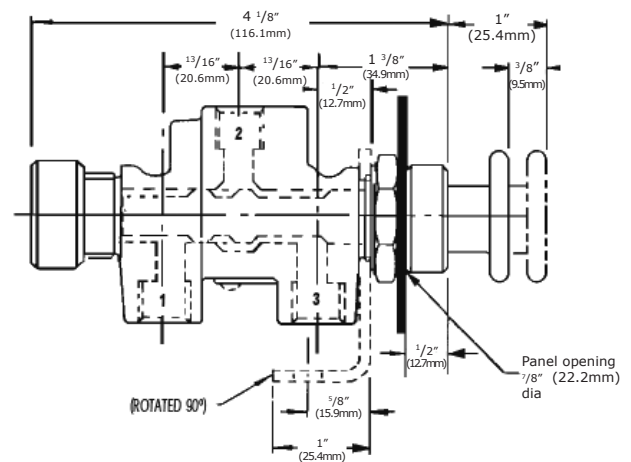
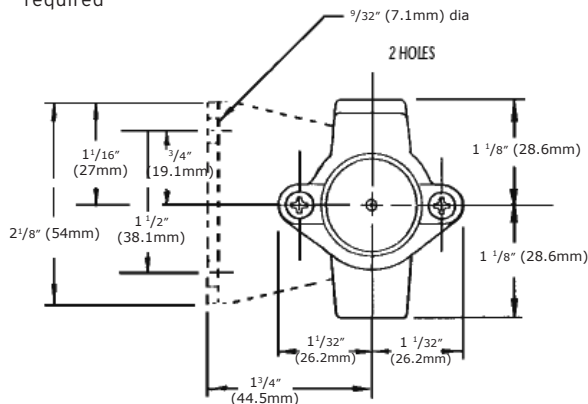
## Specification

	4057	4457
Body material	Anodized aluminum	Stainless steel
Standard spool and internal materials	Anodized aluminum	Anodized aluminum
Standard seal materials	Viton	Viton
Maximum temperature	250°F (120°C)	250°F (120°C)
Flow coefficient	Cv = 1.2	Cv = 1.2
Maximum pressure at Ports 1, 2 or 3	125 psi (8.62 bar)	125 psi (8.62 bar)
Maximum pressure at Ports A or B	150 psi (10.3 bar)	150 psi (10.3 bar)
Maximum pressure at Port C (types CT & SB only)	125 psi (8.62 bar)	Not available
Net weight	0.6 to 2 lbs (0.3 to 0.9 kg)	1.7 to 5.7 lbs (0.8 to 2.6 kg)

# Dimensions

**Type CA:** Manual operated 5 lbs (2.27 kg) force required

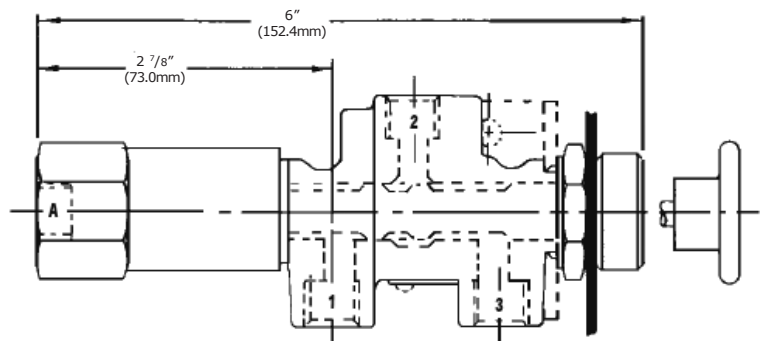
**Type CB:** Manual pull spring return 15 lbs (6.8 kg) force required



**Type CD:** Manual or pressure operated manual return, 10 psi (0.69 bar) pressure or 6 lbs (2.72 kg) force required

**Type CE:** Manual or pressure operated spring return, 26 psi (1.79 bar) pressure or 16 lbs (7.26 kg) force required

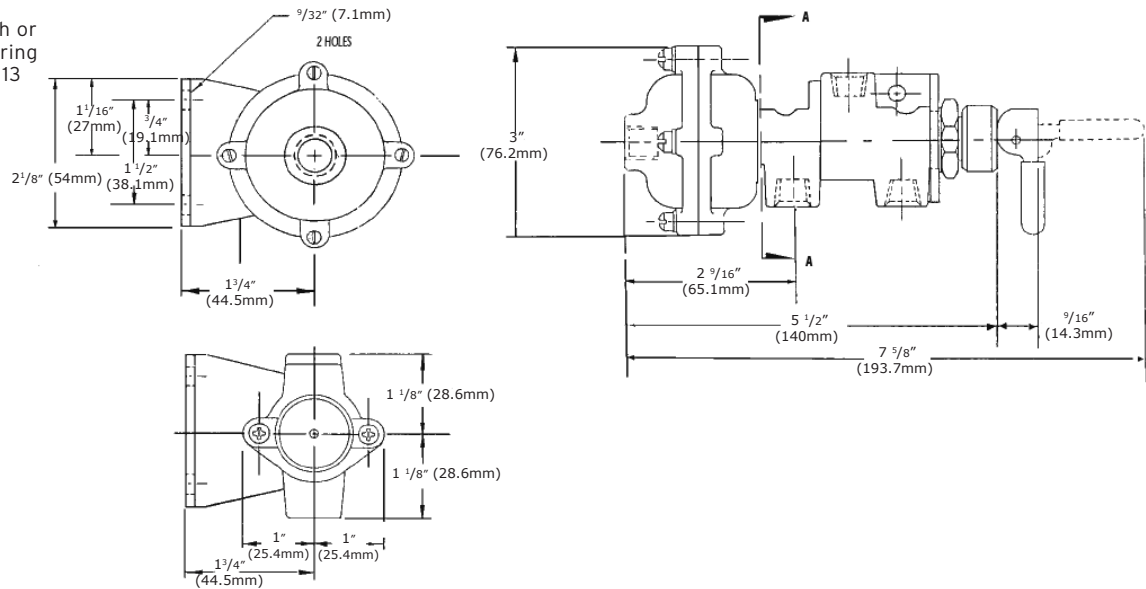
**Type CG:** Pressure operated, spring return, 26 psi (1.79 bar) pressure required



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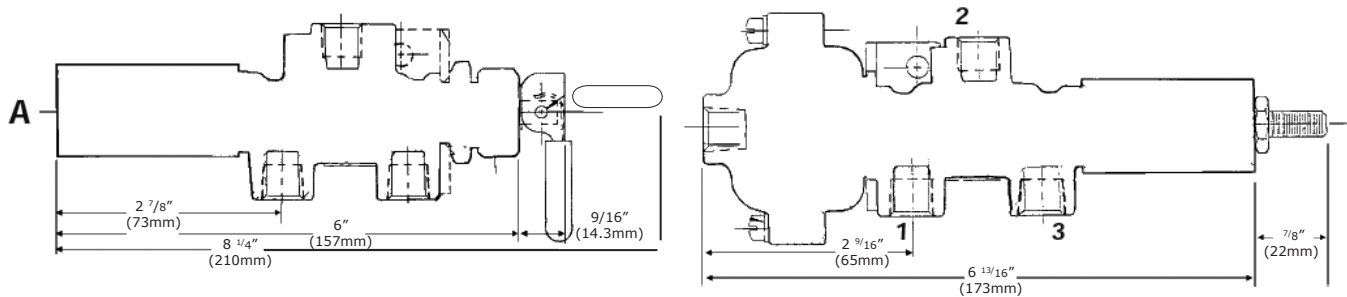
## Dimensions continued

**Type SB:** Manual latch or pressure operated, spring return when released 13 psi (0.9 bar)



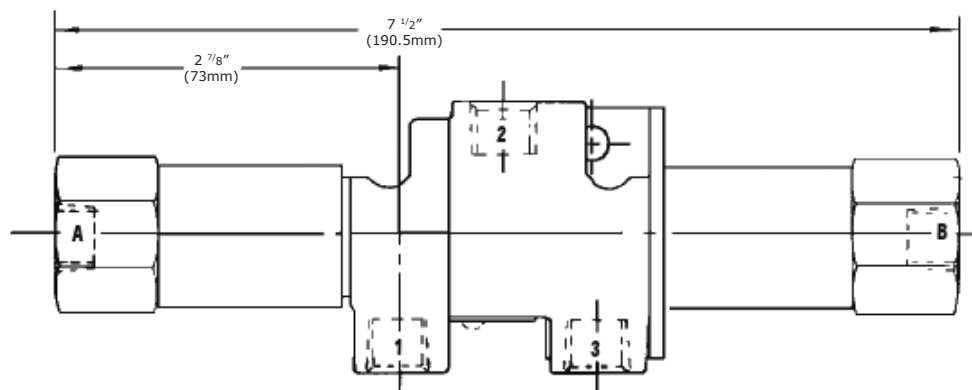
**Type CP:** Manual latch or pressure operated, spring return when released. 26 psi (1.8 bar) pressure required.

**Type CT:** Adjustable pressure operated spring return. Adjustable from 5 to 15 psi (0.3 to 1.03 bar).



**Type CF:** Double pilot operated, 10 psi (0.69 bar) pressure required.

**Type C2:** Double pilot operated, spring return in one direction, 10 psi (0.69 bar) and 26 psi (1.79 bar) pressure required.



# 3-Way Pilot Valves - Models 4057/4457

## How to order

Use the table below to select the unique specification of your 4057 3-Way Pilot Valve

<b>Example Code</b>	4057D	019F	1	-AA	
<b>Basic Model</b>					
<b>Basic Model</b>	4057D				Anodized Aluminum
<b>Operator, Finish and Thread - Gulf-Proofed NPT</b>					
<b>Operator, Finish and Thread - Gulf Proofed Anodized Aluminum NPT</b>	019F				CA - Manual operated - 5 lbs / 2.2 kg force required
	020F				CB - Manual pull spring return 15 lbs / 6.8 kg force required
	022H				CD - Manual or pressure operated manual return, 10 psi (0.69 bar) pressure or 6 lbs / 2.72 kg force required
	023H				CE - Manual or pressure operated spring return, 26 psi (1.79 bar) pressure or 6 lbs / 2.72 kg force required
	025H				CP - Manual latch or pressure operated, spring return when released. 26 psi (1.8 bar) pressure required
	027K				SB - Manual latch or pressure operated, spring return when released 26 psi (0.9 bar)
	029K				CT - Adjustable pressure operated spring return. Adjustable from 5 to 15 psi (0.3 to 1.03 bar)
	031H				CG - Pressure operated, spring return, 26 psi (1.79 bar) pressure required
	032J				CF - Double pilot operated, 10 psi (0.69 bar) pressure required
	035J				C2 - Double pilot operated, spring return in one direction, 10 psi (0.69 bar) and 26 psi (1.79 bar) pressure required
<b>Standard Spool - Valve type</b>					
<b>Spool</b>	1				Standard center dead spot
	2				Valve port overlap
	5				Standard center dead spot
	6				Valve port overlap
<b>Customer Special Code</b>					
<b>Customer Special Requirements</b>				-AA	Standard Product
				***	Customer Special Code

Use the table below to select the unique specification of your 4457 3-Way Pilot Valve

<b>Example Code</b>	4457A	001F	1	-AA	
<b>Basic Model</b>					
<b>Basic Model</b>	4457A				Stainless Steel
<b>Operator, Finish and Thread - Stainless Steel NPT</b>					
<b>Operator, Finish and Thread - Stainless Steel NPT</b>	001F				CA - Manual operated - 5 lbs / 2.2 kg force required
	002F				CB - Manual pull spring return 15 lbs / 6.8 kg force required
	004H				CD - Manual or pressure operated manual return, 10 psi (0.69 bar) pressure or 6 lbs / 2.72 kg force required
	005H				CE - Manual or pressure operated spring return, 26 psi (1.79 bar) pressure or 16 lbs / 7.27 kg force required
	007H				CP - Manual latch or pressure operated, spring return when released. 26 psi (1.79 bar) pressure required
	013H				CG - Pressure operated, spring return, 26 psi (1.79 bar) pressure required
	014J				CF - Double pilot operated, 10 psi (0.69 bar) pressure required
<b>Spool - Valve Type</b>					
<b>Spool</b>	1				Standard center dead spot
	2				Valve port overlap
<b>Customer Special Code</b>					
<b>Customer Special Requirements</b>				-AA	Standard Product
				***	Customer Special Code

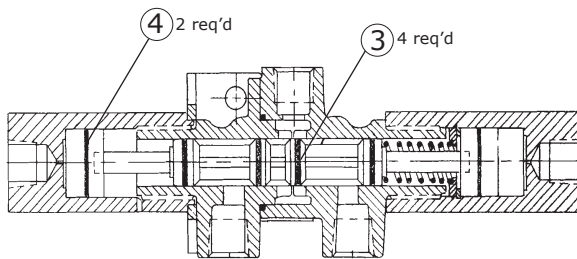
# 3-Way Pilot Valves - Models 4057/4457

## Options

Bracket Mounting or Panel Mounting. A satin chrome nut, Part Number: 3496L001 is available as an option, and it substitutes for the standard nut to improve the appearance for the front of a panel mounting.

Red Knob: Part Number 681L001 is available for types CA, CB, CD or CE as a substitute for the standard black knob.

## Service Kits

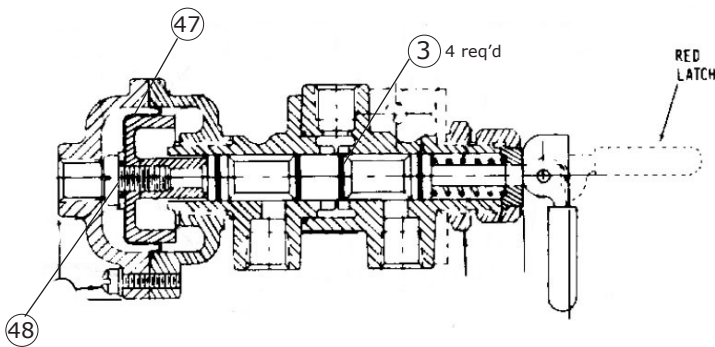


### For all types except CT & SB (Viton) Kit

**9113X001** (May contain extra parts when used with some valves).

Ref no.:	Qty	Description	Part no.
3	4	Seal ring, Viton	7896L002
4	2	Seal ring, Viton	7898L002

### Types CT & SB



### For Types CT & SB (Viton) Kit 9128X001

Ref no.:	Qty	Description	Part no.
3	4	Seal ring, Viton	7896L002
47	1	Diaphragm, Viton	2254L002
48	1	Thread seal	7898L002

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