

### Four-Position Joystick Operators

The joystick operated control unit is intended for AC application only. For other use, see **Application** **Caution** on preceding page.

The panel area required for the four-position operator is equivalent to two standard pushbutton operators.

The latch holds the lever in the center position. The trigger latch must be released before lever can moved into any position.

**Four-Position Joystick Operator**



**Four-Position Joystick Operator with Latch**



### Four-Position Joystick Operators—UL (NEMA) Type 3, 3R, 4, 4X, 12, 13

Contact Block Limitations	Description ①	Catalog Number
<b>Operator Only—AC Application Only</b>		
Four contact blocks max.—two in each position	Four-position—without latch	<b>10250T451_</b>
	Four-position—with latch	<b>10250T461_</b>
<b>Hole Plug</b>		
Four contact blocks max.—two in each position	To plug unused hole	<b>10250TA7</b>

### Field Conversion—Gate

The factory assembled four-position operator is assembled with a gate arranged for four handle positions.

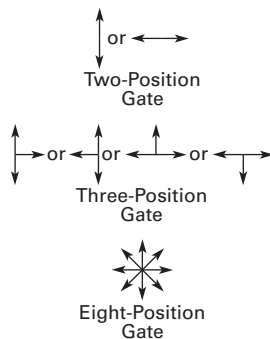
#### Handle Positions



Four-Position Gate

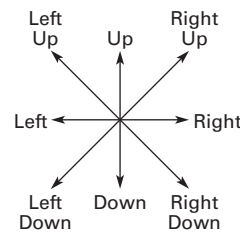
Three additional gates, supplied with every operator, allow on the job conversion to three- or eight-position operation as illustrated.

### Two-, Three- or Eight-Position Operation



The eight-position gate controls the four functions shown as “Up,” “Down,” “Left” and “Right.” The remaining four diagonal positions each actuate two adjacent functions; for example, “Left Down” actuates both “Left” and “Down.” The operator may be arranged for spring return of handle to center position, or maintained in up to eight positions (see description of maintained position operator).

### Adjacent Functions



### Maintained Position

For maintained position (non-spring return), locate required maintained position or positions of operating lever and add appropriate suffix number to the catalog number selected from the table above.

### Maintained Positions

Maintained Positions				Suffix Number
Up	Down	Left	Right	
X	—	—	—	<b>1</b>
—	—	—	—	<b>2</b>
—	X	—	—	<b>3</b>
—	—	X	—	<b>4</b>
—	—	—	—	<b>5</b>
X	—	X	—	<b>6</b>
X	—	—	X	<b>7</b>
—	X	X	—	<b>8</b>
—	X	—	X	<b>9</b>
—	—	X	X	<b>10</b>
X	X	X	—	<b>11</b>
X	X	—	X	<b>12</b>
X	—	X	X	<b>13</b>
—	X	X	X	<b>14</b>
X	X	X	X	<b>15</b>

On an eight-position gate, when an adjacent vertical and horizontal position are both maintained, the included diagonal position is also maintained.

**Note**

① Momentary operators—spring return to center. For maintained operators add suffix code from table on this page. Example: 10250T451**10**. Operator without latch, maintained in left and right positions.

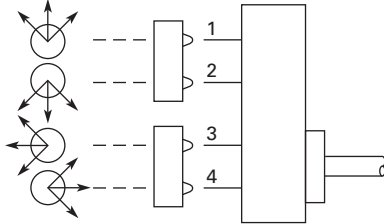
#### 1

#### Contact Block Operation

Contact blocks mount directly to the back of the operator. For reliable operation, the maximum number of contact blocks that should be installed behind each operator lever is two (four total).

The figure below identifies the circuits activated by each of the eight possible lever positions. Contact block plungers 1, 2, 3, 4 are depressed (change state) when handle is in the position indicated by arrows below.

#### Circuit Activation



**Note:** Joystick in its resting state, center position, does not activate contact block plungers.

#### Ordering Example:

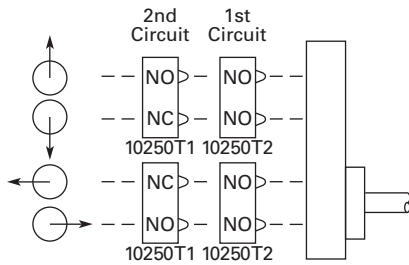
Suppose you are looking for a four-position momentary joystick without a latch and the following circuit arrangements. X = Closed Circuit, O = Open Circuit.

#### Example Circuit Arrangements

Circuit	Up	Down	Left	Right
1st	X	X	X	X
2nd	X	O	O	X

The contact blocks and their mounting locations would be as follows:

#### Example Contact Blocks and Locations



A complete bill of material for this example would include:

#### Example Order

Qty.	Catalog Number
1	10250T451
2	10250T2
2	10250T1

#### Blank Legend Plates for Joystick Operators

When ordering engraved legend plates, order by catalog number and insert the following into order notes:

- Legend required
- Size of characters: 3/16, 1/8, 3/32 in (4.8, 3.2, 2.4 mm)
- Location by letter (A–N)

Locations K and M can accommodate up to two lines horizontally; L and N up to two lines vertically.

Maximum number of characters:

- Horizontal  
3/16 in—13, 1/8 in—14, 3/32 in—19
- Vertical  
3/16 in—10, 1/8 in—13, 3/32 in—14

#### Ordering Example:

Two-position legend plate to be marked “UP” “DOWN.”

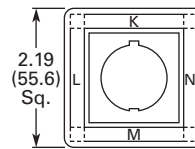
Catalog No. **10250TJ2S4STAMP**

Letter Size: 3/16 in (4.8 mm)

Pos. K—UP

Pos. M—DOWN

#### Two-Position



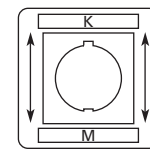
Catalog Number

Blank Plate

10250TJS3

Engraved Plate

10250TJS3STAMP

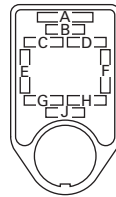


Catalog Number

Blank Plate  
10250TJS4

Engraved Plate  
10250TJS4STAMP

#### Four-Position



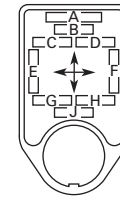
Catalog Number

Blank Plate

10250TJS1

Engraved Plate

10250TJS1STAMP



Catalog Number

Blank Plate  
10250TJS2

Engraved Plate  
10250TJS2STAMP