



# Series 70 - Mechanical Valves for Use with Panel Operators

These Metal Work Series 70 valves attach to pushbutton operators to provide numerous options for pneumatic control.



## Features

- Fit NITRA 22mm pneumatic pushbuttons
- 3-port (3-way), 2-position and 5-port (4-way), 2-position configurations
- 1/8" NPT port sizes

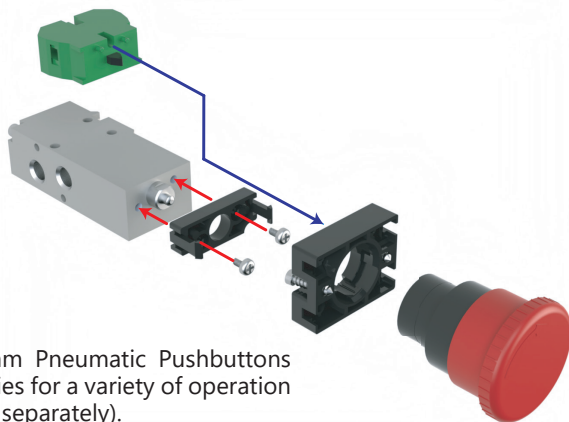
Part No. 7010001800U



See [www.AutomationDirect.com](http://www.AutomationDirect.com) for a wide variety of fitting options

| Metal Work Series 70 - Mechanical Valves |                                                                            |                                           |
|------------------------------------------|----------------------------------------------------------------------------|-------------------------------------------|
| Model                                    | 7010001800U                                                                | 7010001900U                               |
| Price                                    | \$42.00                                                                    | \$46.00                                   |
| Drawing Link                             | <a href="#">PDF</a>                                                        | <a href="#">PDF</a>                       |
| Weight (lb)                              | 0.29                                                                       | 0.35                                      |
| Manufacturer Specs                       | <a href="#">PDF</a>                                                        | <a href="#">PDF</a>                       |
| Valve Type                               | 3-port (3-way), 2-position, spring return                                  | 5-port (4-way), 2-position, spring return |
| Valve Configuration                      | N.C.                                                                       | N/A                                       |
| Operator                                 | Pneumatic switch                                                           |                                           |
| Acting                                   | Spring return                                                              |                                           |
| Inlet Port Size                          | 1/8" FNPT                                                                  |                                           |
| Outlet Port Size                         | 1/8" FNPT                                                                  |                                           |
| Flow (Cv)                                | 0.55                                                                       |                                           |
| Media                                    | Filtered air without lubrication; lubrication, if used, must be continuous |                                           |
| Pressure Range                           | 36.3 to 145 psi                                                            |                                           |
| Temperature                              | 14°F to 140°F (-10°C to 60°C)                                              |                                           |
| Lubrication                              | ISO and UNI FD 22                                                          |                                           |
| Life Cycle                               | 1 million cycles                                                           |                                           |

For additional details see manufacturer's technical specifications, manuals and inserts (where applicable).



See our 22mm Pneumatic Pushbuttons and Accessories for a variety of operation options (sold separately).



# Series 70 - Valve Components

Metal Work Series 70 valves is one of the most popular lines of valves produced in Italy by Metal Work. They feature heavy duty construction and many options to choose from.

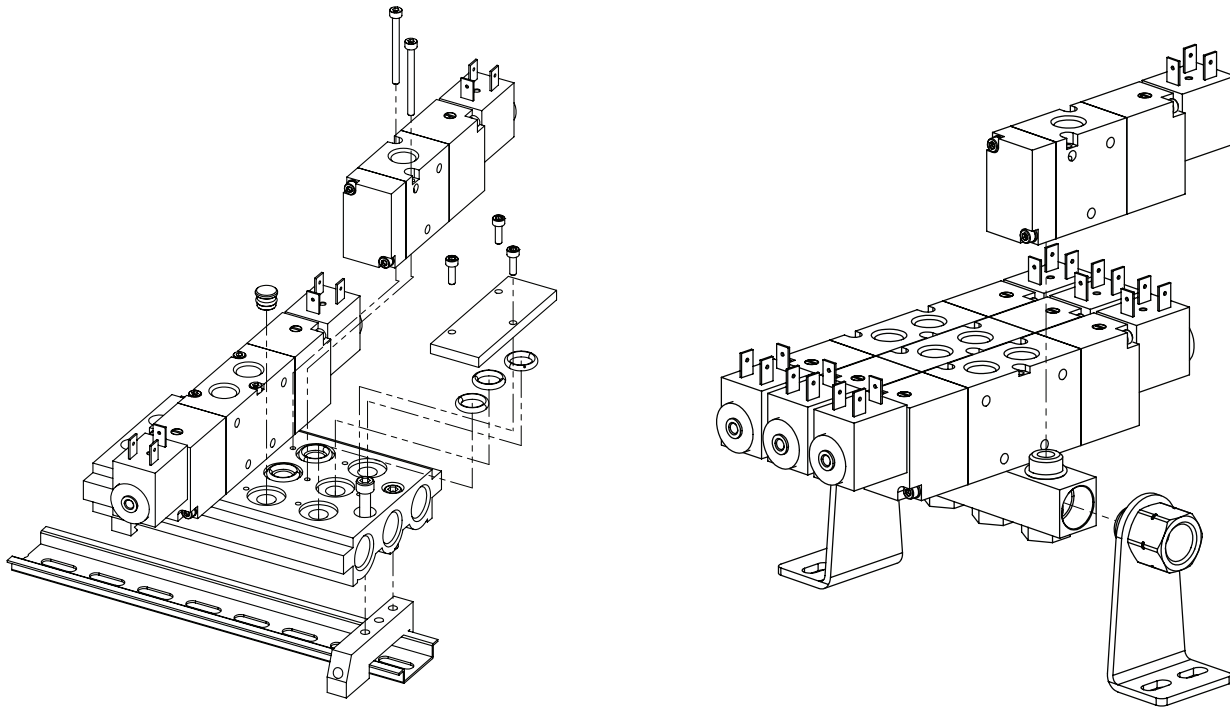
## Features

- Most styles available in four sizes
- 3-port (3-way) and 5-port (4-way) body-ported valves
- 2-position and 3-position operation
- Manual, mechanically operated, air pilot and solenoid valves

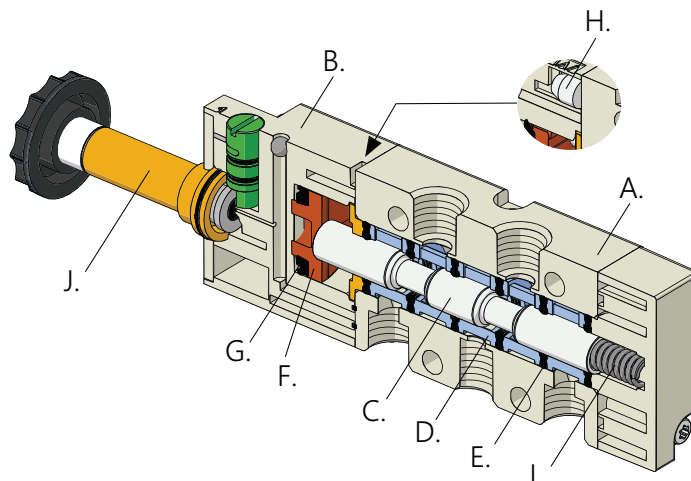


Scan or click the above QR code for the Metal Work Series 70 Instructions Insert

## Valve Base Assembly Examples



- A. VALVE BODY: Aluminum
- B. CONTROL/END CAP: Plastic
- C. SPOOL: chemically Nickel-plated aluminum
- D. SPOOL GUIDES: Plastic
- E. GASKETS: NBR
- F. PISTONS: Hostaform®
- G. PISTON GASKET: NBR
- H. FILTER: Sintered bronze
- I. SPRINGS: Spring steel
- J. OPERATOR: Brass pipe - Stainless steel core





# Pneumatic Pushbuttons, 22mm

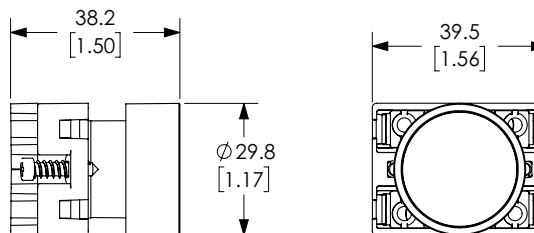
## Momentary flush pushbuttons with protective plastic ring (30mm diameter actuator)



**ECP3100**

| Part Number                    | Color  | Description                                                                                                                                                              | Weight (lbs) | Price  |
|--------------------------------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------|
| <a href="#"><u>ECP3100</u></a> | Black  | NITRA pneumatic pushbutton, IP65, 22mm, momentary, plastic base, plastic bezel, black, operator only, Operator: black, flush, 30mm, round, plastic.                      | 0.07         | \$2.75 |
| <a href="#"><u>ECP3101</u></a> | Red    | NITRA pneumatic pushbutton, IP65, 22mm, momentary, plastic base, plastic bezel, black, operator only, Operator: red, flush, 30mm, round, plastic.                        | 0.07         | \$2.75 |
| <a href="#"><u>ECP3102</u></a> | Green  | NITRA pneumatic pushbutton, IP65, 22mm, momentary, plastic base, plastic bezel, black, operator only, Operator: green, flush, 30mm, round, plastic.                      | 0.07         | \$2.75 |
| <a href="#"><u>ECP3103</u></a> | Yellow | NITRA pneumatic pushbutton, IP65, 22mm, momentary, plastic base, plastic bezel, black, operator only, Operator: yellow, flush, 30mm, round, plastic.                     | 0.07         | \$2.75 |
| <a href="#"><u>ECP3104</u></a> | Blue   | NITRA pneumatic pushbutton, IP65, 22mm, momentary, plastic base, plastic bezel, black, operator only, Operator: blue, flush, 30mm, round, plastic.                       | 0.07         | \$2.75 |
| <a href="#"><u>ECP3105</u></a> | White  | NITRA pneumatic pushbutton, IP65, 22mm, momentary, plastic base, plastic bezel, black, operator only, Operator: white, flush, 30mm, round, plastic.                      | 0.07         | \$2.75 |
| <a href="#"><u>ECP3106</u></a> | Red    | NITRA pneumatic pushbutton, IP65, 22mm, momentary, plastic base, plastic bezel, black, operator only, Operator: red, flush, 30mm, round, plastic, operator text "(O)".   | 0.07         | \$3.00 |
| <a href="#"><u>ECP3107</u></a> | Green  | NITRA pneumatic pushbutton, IP65, 22mm, momentary, plastic base, plastic bezel, black, operator only, Operator: green, flush, 30mm, round, plastic, operator text "(I)". | 0.07         | \$3.00 |

### Dimensions mm [inches]



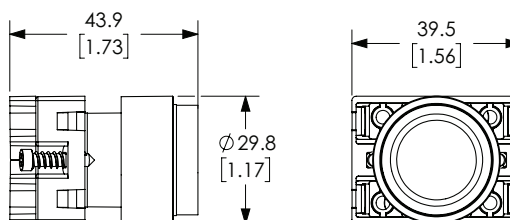
## Momentary extended pushbuttons with protective plastic ring (30mm diameter actuator)



**ECP3110**

| Part Number                    | Color  | Description                                                                                                                                             | Weight (lbs) | Price  |
|--------------------------------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------|
| <a href="#"><u>ECP3110</u></a> | Black  | NITRA pneumatic pushbutton, IP65, 22mm, momentary, plastic base, plastic bezel, black, operator only, Operator: black, extended, 30mm, round, plastic.  | 0.07         | \$2.75 |
| <a href="#"><u>ECP3111</u></a> | Red    | NITRA pneumatic pushbutton, IP65, 22mm, momentary, plastic base, plastic bezel, black, operator only, Operator: red, extended, 30mm, round, plastic.    | 0.07         | \$2.75 |
| <a href="#"><u>ECP3112</u></a> | Green  | NITRA pneumatic pushbutton, IP65, 22mm, momentary, plastic base, plastic bezel, black, operator only, Operator: green, extended, 30mm, round, plastic.  | 0.07         | \$2.75 |
| <a href="#"><u>ECP3113</u></a> | Yellow | NITRA pneumatic pushbutton, IP65, 22mm, momentary, plastic base, plastic bezel, black, operator only, Operator: yellow, extended, 30mm, round, plastic. | 0.07         | \$2.75 |
| <a href="#"><u>ECP3114</u></a> | Blue   | NITRA pneumatic pushbutton, IP65, 22mm, momentary, plastic base, plastic bezel, black, operator only, Operator: blue, extended, 30mm, round, plastic.   | 0.07         | \$2.75 |
| <a href="#"><u>ECP3115</u></a> | White  | NITRA pneumatic pushbutton, IP65, 22mm, momentary, plastic base, plastic bezel, black, operator only, Operator: white, extended, 30mm, round, plastic.  | 0.07         | \$2.75 |

### Dimensions mm [inches]



See our website [www.AutomationDirect.com](http://www.AutomationDirect.com) for complete Engineering drawings.



# Pneumatic Pushbuttons, 22mm

NITRA® pneumatic pushbuttons are all plastic and come with adapters to allow mounting of up to two 3-way valves, or one valve and one to three contact blocks. They fit in a standard 22.5mm hole, just like electrical pushbuttons.

## Features

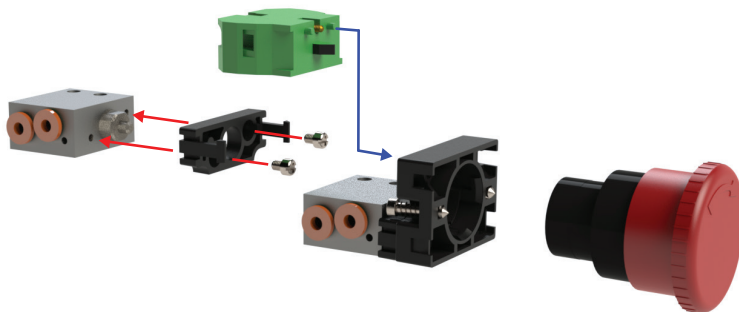
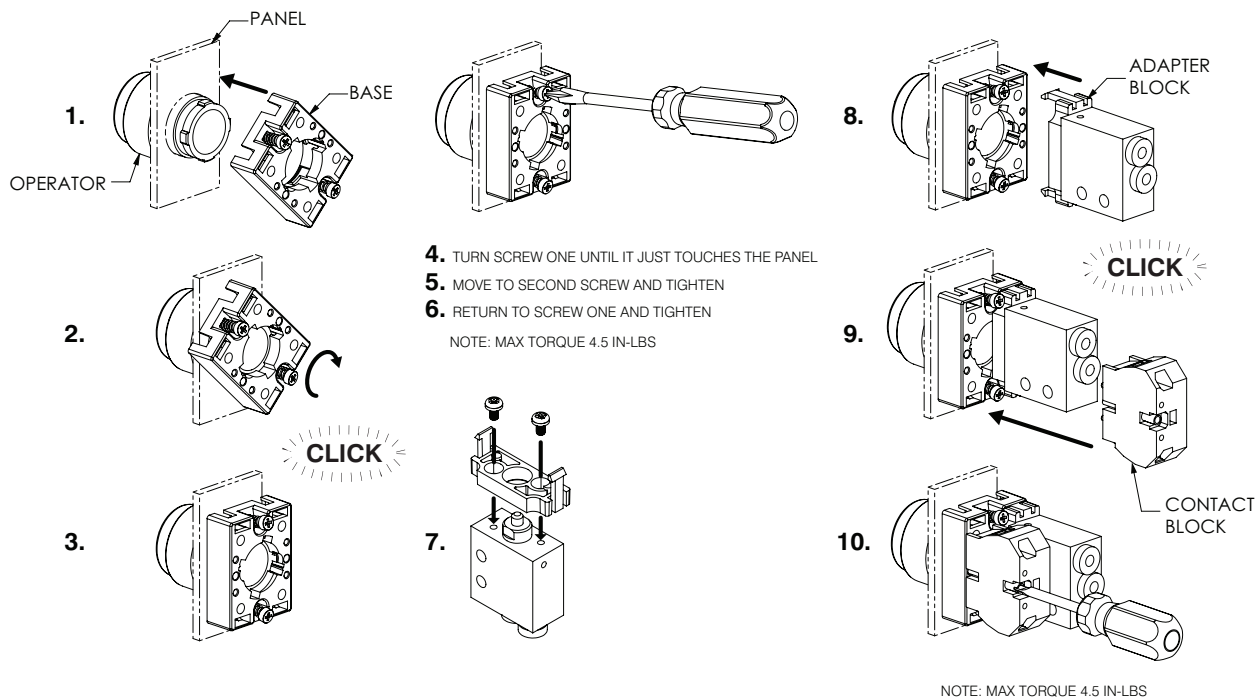
- Plastic bezel and button
- Valve adapters and mounting screws included
- Valves sold separately
- Bases will work with GCX plastic operators and **only** the three ECX Series contact blocks shown below



## Pushbutton Specifications

|                              |                                         |
|------------------------------|-----------------------------------------|
| <b>Operating Temperature</b> | -13 to 158°F (-25 to +70°C)             |
| <b>Storage Temperature</b>   | -40 to 176°F (-40 to +80°C)             |
| <b>Mechanical Life</b>       | 1,000,000 cycles                        |
| <b>Switching Cycles</b>      | 3600 cycles/hr                          |
| <b>Mounting (Valve)</b>      | (4) M3x5 valve mounting screws included |
| <b>Protection</b>            | IP65 after installation                 |
| <b>Approvals</b>             | CE                                      |

## Adapter Block Installation



**ECX1040-2**



**ECX1042-2**



**ECX1030-2**



# Pneumatic Key Selector Switches, 22mm

## Key selector switches



**ECP3420**

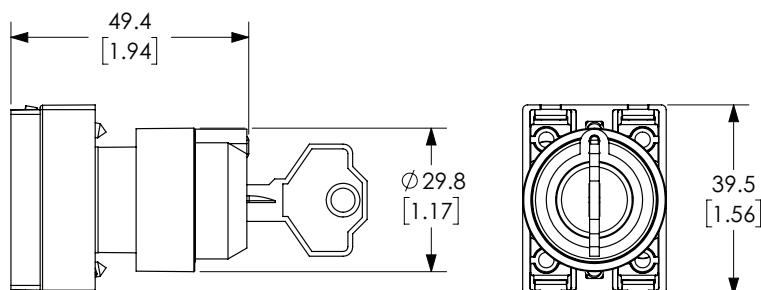
| Part Number    | Color | Description                                                                                                                                                                                             | Weight (lbs) | Price   |
|----------------|-------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|---------|
| <b>ECP3420</b> | Black | NITRA pneumatic selector switch, IP65, 22mm, 2-position, maintained, key removable in all positions, plastic base, plastic bezel, operator only, Operator: black, key, 30mm, round, plastic.            | 0.17         | \$12.00 |
| <b>ECP3430</b> | Black | NITRA pneumatic selector switch, IP65, 22mm, 2-position, spring return from right, key removable left position, plastic base, plastic bezel, operator only, Operator: black, key, 30mm, round, plastic. | 0.17         | \$12.00 |
| <b>ECP3470</b> | Black | NITRA pneumatic selector switch, IP65, 22mm, 3-position, maintained, key removable in all positions, plastic base, plastic bezel, operator only, Operator: black, key, 30mm, round, plastic.            | 0.17         | \$11.00 |



*Note: Keyed switches come with two keys. All plastic 22mm keyed switches are keyed the same. Replacement keys are available. Order part no. ECX1067-2 (pkg. of 2). Keys for plastic 22mm keyed switches are not compatible with Cutler-Hammer key switches.*

## Dimensions

mm [inches]



**ECP3470**

## Pneumatic switch accessory - support base with adapters

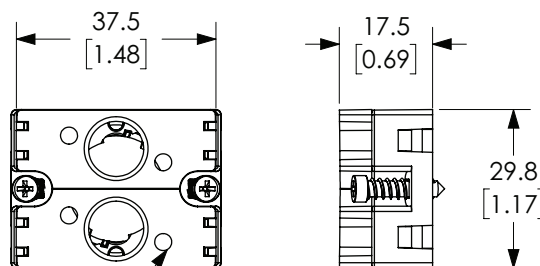


**ECP3029-02**

| Part Number       | Description                                                                                     | Weight (lbs) | Price  |
|-------------------|-------------------------------------------------------------------------------------------------|--------------|--------|
| <b>ECP3029-02</b> | NITRA valve adapter block, replacement, plastic. For use with ECP series pneumatic pushbuttons. | 0.03         | \$1.00 |

## Dimensions

mm [inches]



M3 THRU HOLE  
SCREWS INCLUDED

*Note: base sold as three piece kit.*

See our website [www.AutomationDirect.com](http://www.AutomationDirect.com) for complete Engineering drawings.