

# 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.



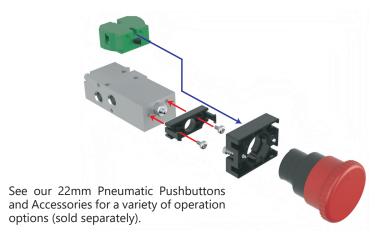
### **Features**

- 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

Metal Work Series 70 - Mechanical Valves			
Model	<u>7010001800U</u>	<u>7010001900U</u>	
Price	\$42.00	\$46.00	
Drawing Link	<u>PDF</u>	<u>PDF</u>	
Weight (lb)	0.29	0.35	
Manufacturer Specs	<u>PDF</u>	<u>PDF</u>	
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 manfacturer's technical specifications, manuals and inserts (where applicable).







See <u>www.AutomationDirect.com</u> for a wide variety of fitting options



### **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.

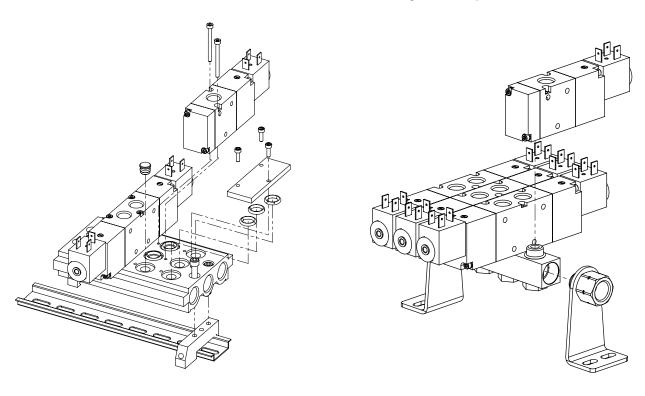
### **Features**

- 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

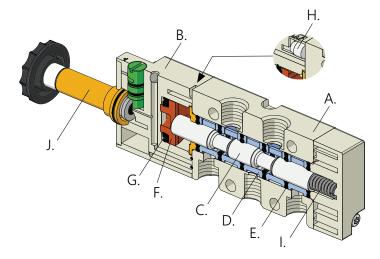


Scan or click the above QR code for the Metal Work Series 70 Instructions Insert

### **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**

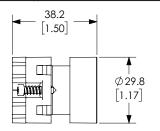
# Momentary flush pushbuttons with protective plastic ring (30mm diameter actuator)

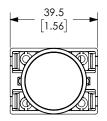


ECP3100

Part Number	Color	Description	Weight (lbs)	Price
ECP3100	Black	NITRA pneumatic pushbutton, IP65, 22mm, momentary, plastic base, plastic bezel, black, operator only, Operator: black, flush, 30mm, round, plastic.	0.07	\$2.75
ECP3101	Red	NITRA pneumatic pushbutton, IP65, 22mm, momentary, plastic base, plastic bezel, black, operator only, Operator: red, flush, 30mm, round, plastic.	0.07	\$2.75
ECP3102	Green	NITRA pneumatic pushbutton, IP65, 22mm, momentary, plastic base, plastic bezel, black, operator only, Operator: green, flush, 30mm, round, plastic.	0.07	\$2.75
ECP3103	Yellow	NITRA pneumatic pushbutton, IP65, 22mm, momentary, plastic base, plastic bezel, black, operator only, Operator: yellow, flush, 30mm, round, plastic.	0.07	\$2.75
ECP3104	Blue	NITRA pneumatic pushbutton, IP65, 22mm, momentary, plastic base, plastic bezel, black, operator only, Operator: blue, flush, 30mm, round, plastic.	0.07	\$2.75
ECP3105	White	NITRA pneumatic pushbutton, IP65, 22mm, momentary, plastic base, plastic bezel, black, operator only, Operator: white, flush, 30mm, round, plastic.	0.07	\$2.75
ECP3106	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
ECP3107	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]





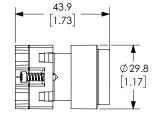
# Momentary extended pushbuttons with protective plastic ring (30mm diameter actuator)

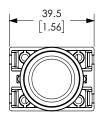


ECP3110

Part Number	Color	Description	Weight (lbs)	Price
ECP3110		NITRA pneumatic pushbutton, IP65, 22mm, momentary, plastic base, plastic bezel, black, operator only, Operator: black, extended, 30mm, round, plastic.	0.07	\$2.75
ECP3111		NITRA pneumatic pushbutton, IP65, 22mm, momentary, plastic base, plastic bezel, black, operator only, Operator: red, extended, 30mm, round, plastic.	0.07	\$2.75
ECP3112		NITRA pneumatic pushbutton, IP65, 22mm, momentary, plastic base, plastic bezel, black, operator only, Operator: green, extended, 30mm, round, plastic.	0.07	\$2.75
ECP3113		NITRA pneumatic pushbutton, IP65, 22mm, momentary, plastic base, plastic bezel, black, operator only, Operator: yellow, extended, 30mm, round, plastic.	0.07	\$2.75
ECP3114	Rlug	NITRA pneumatic pushbutton, IP65, 22mm, momentary, plastic base, plastic bezel, black, operator only, Operator: blue, extended, 30mm, round, plastic.	0.07	\$2.75
ECP3115		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  $\underline{\textit{www.AutomationDirect.com}}$  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**

3.





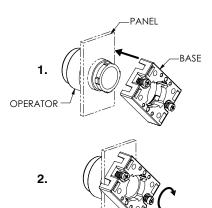
- Valve adapters and mounting screws included
- · Valves sold separately

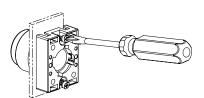
• Plastic bezel and button

 Bases will work with GCX plastic operators and only the three ECX Series contact blocks shown below

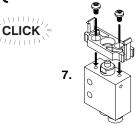
Pushbutton Specifications			
Operating Temperature	-13 to 158°F (-25 to +70°C)		
Storage Temperature	-40 to 176°F (-40 to +80°C)		
Mechanical Life	1,000,000 cycles		
Switching Cycles	3600 cycles/hr		
Mounting (Valve)	(4) M3x5 valve mounting screws included		
Protection	IP65 after installation		
Approvals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

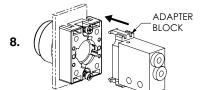
### **Adapter Block Installation**

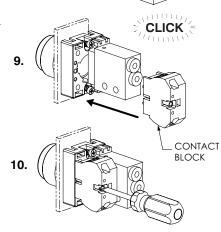




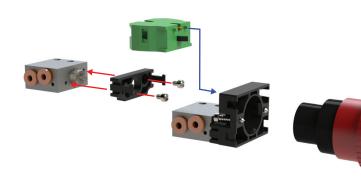
- 4. TURN SCREW ONE UNTIL IT JUST TOUCHES THE PANEL
- **5.** MOVE TO SECOND SCREW AND TIGHTEN
- **6.** RETURN TO SCREW ONE AND TIGHTEN NOTE: MAX TORQUE 4.5 IN-LBS







NOTE: MAX TORQUE 4.5 IN-LBS





ECX1040-2



ECX1042-2

ECX1030-2



# Pneumatic Key Selector Switches, 22mm

### **Key selector switches**



ECP3420

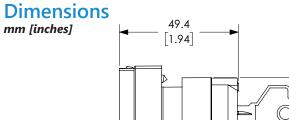
Part Number	Color	Description	Weight (lbs)	Price
ECP3420	Black	NITRA pneumatic selector switch, IP65, 22mm, 2-position, maintained, key removable in all positions, plastic base, plastic bezel, operator only, Operator: black, key, 30mm, round, plastic.	0.17	\$12.00
ECP3430	Black	NITRA pneumatic selector 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
ECP3470	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

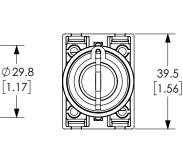


Note: Keyed switches come with two keys. All plastic 22mm keyed switches are keyed the same. Replacement keys are available. Order part no. ECX1067-2 (pkg. of 2). Keys for plastic 22mm keyed switches are not compatible with Cutler-Hammer key switches.



ECP3470





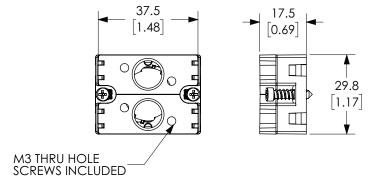
### Pneumatic switch accessory - support base with adapters



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

ECP3029-02

Dimensions mm [inches]



Note: base sold as three piece kit.

See our website www.AutomationDirect.com for complete Engineering drawings.