METAL WORK ®
P N E U M A T I C

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
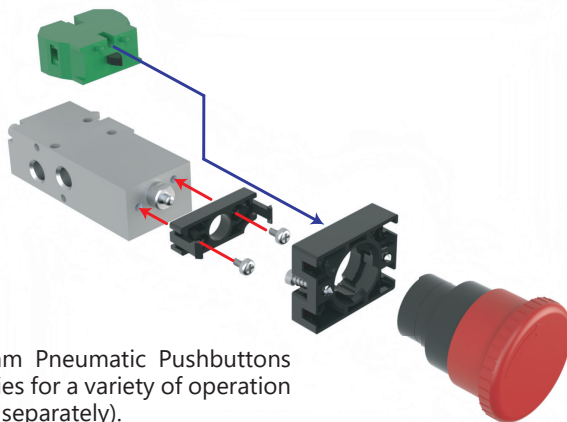• 3-port (3-way), 2-position and 5-port (4-way), 2-position configurations
• 1/8" NPT port sizes

NEED FITTINGS?

2 YEAR WARRANTY

See www.AutomationDirect.com for a wide variety of fitting options

Part No. 7010001800U

Metal Work Series 70 - Mechanical Valves		
Model	7010001800U	7010001900U
Price	$42.00	$46.00
Drawing Link	PDF	PDF
Weight (lb)	0.29	0.35
Manufacturer Specs	PDF	PDF
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 our 22mm Pneumatic Pushbuttons and Accessories for a variety of operation options (sold separately).

METAL WORK®
PNEUMATIC

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.
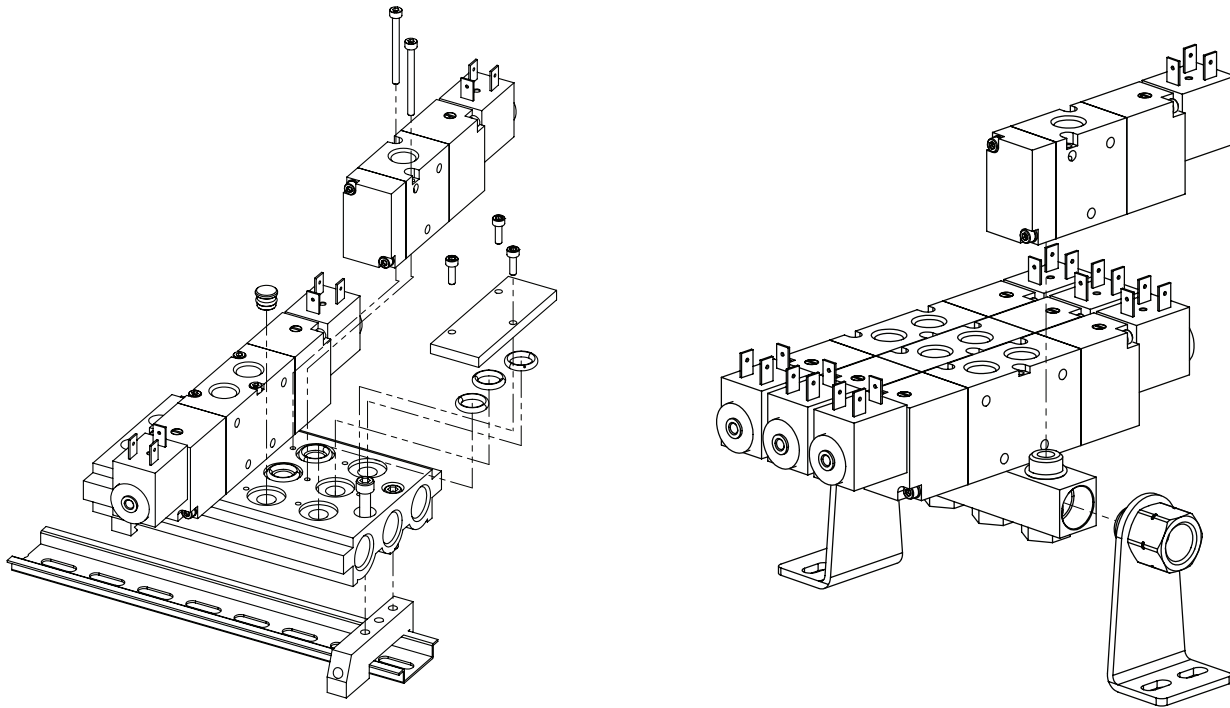
Features

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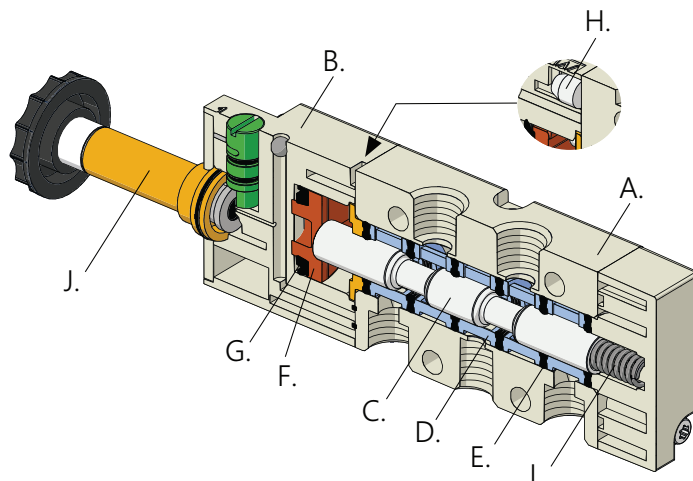
Scan or click the above QR code for the Metal Work Series 70 Instructions Insert

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
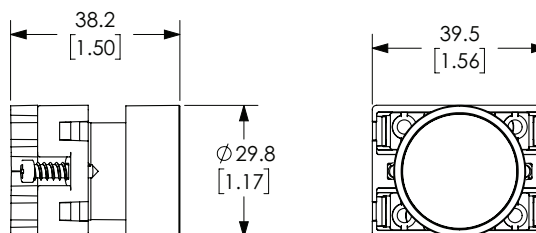J. OPERATOR: Brass pipe - Stainless steel core

Pneumatic Pushbuttons, 22mm

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

ECP3100

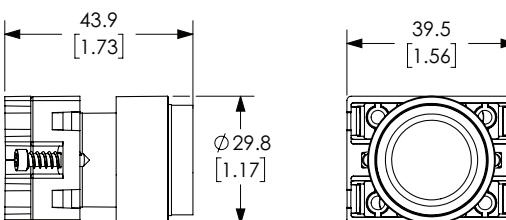| Part Number	Color	Description	Weight (lbs)	Price
ECP3100	Black	NITRA pneumatic pushbutton, IP65, 22mm, momentary, plastic base, plastic bezel, black, operator only, Operator: black, flush, 30mm, round, plastic.	0.07	$2.75
ECP3101	Red	NITRA pneumatic pushbutton, IP65, 22mm, momentary, plastic base, 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]

38.2 [1.50] ⌀29.8 [1.17] 39.5 [1.56]

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

ECP3110

Part Number	Color	Description	Weight (lbs)	Price
ECP3110	Black	NITRA pneumatic pushbutton, IP65, 22mm, momentary, plastic base, plastic bezel, black, operator only, Operator: black, extended, 30mm, round, plastic.	0.07	$2.75
ECP3111	Red	NITRA pneumatic pushbutton, IP65, 22mm, momentary, plastic base, plastic bezel, black, operator only, Operator: red, extended, 30mm, round, plastic.	0.07	$2.75
ECP3112	Green	NITRA pneumatic pushbutton, IP65, 22mm, momentary, plastic base, plastic bezel, black, operator only, Operator: green, extended, 30mm, round, plastic.	0.07	$2.75
ECP3113	Yellow	NITRA pneumatic pushbutton, IP65, 22mm, momentary, plastic base, plastic bezel, black, operator only, Operator: yellow, extended, 30mm, round, plastic.	0.07	$2.75
ECP3114	Blue	NITRA pneumatic pushbutton, IP65, 22mm, momentary, plastic base, plastic bezel, black, operator only, Operator: blue, extended, 30mm, round, plastic.	0.07	$2.75
ECP3115	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]

43.9 [1.73] ⌀29.8 [1.17] 39.5 [1.56]

See our website 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.
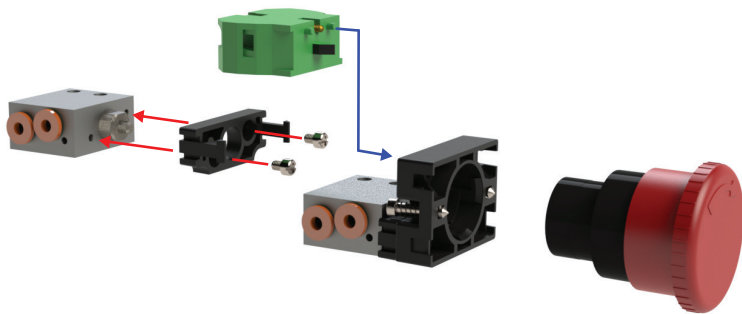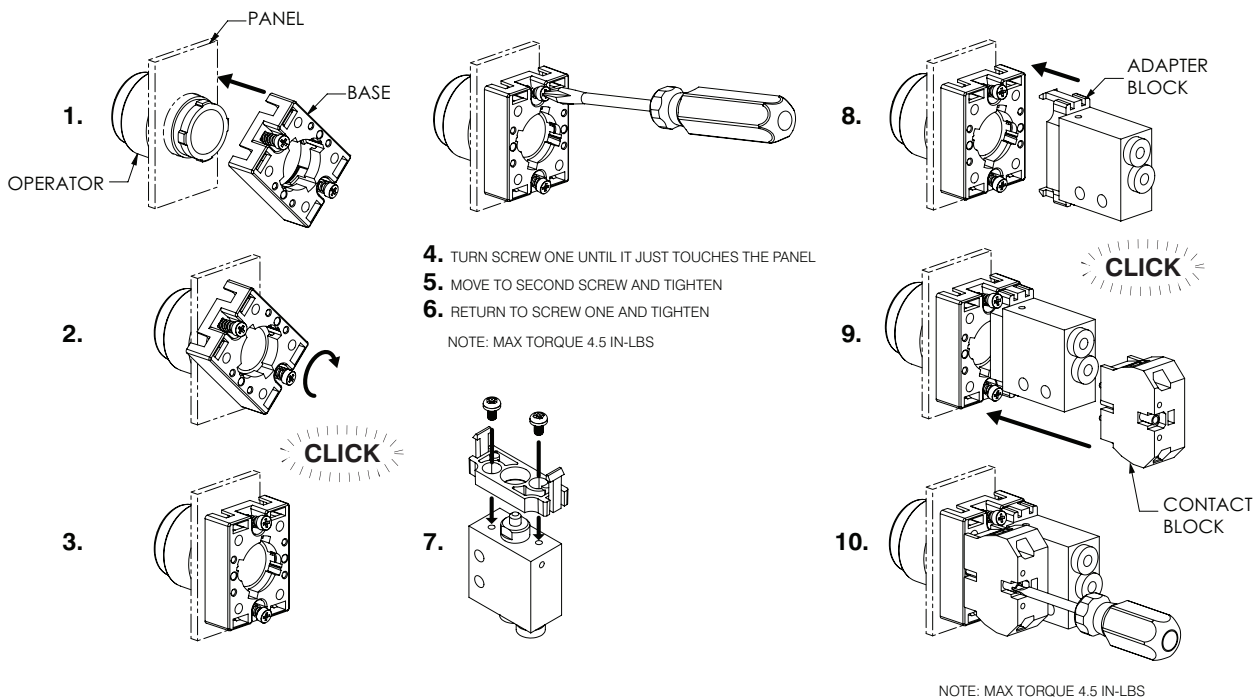
Features

- 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	
Operating Temperature	-13 to 158ºF (-25 to +70ºC)
Storage Temperature	-40 to 176ºF (-40 to +80ºC)
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

PANEL

BASE

1.

OPERATOR

2.

3.

CLICK

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

7.

8.

ADAPTER BLOCK

9.

CLICK

CONTACT BLOCK

10.

NOTE: MAX TORQUE 4.5 IN-LBS

ECX1040-2

ECX1042-2

ECX1030-2

NITRA® PNEUMATICS

Pneumatic Key Selector Switches, 22mm

Key selector switches

ECP3420

ECP3470

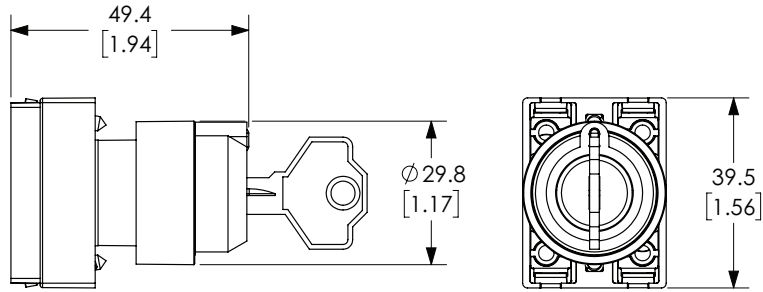| Part Number	Color	Description	Weight (lbs)	Price
ECP3420	Black	NITRA pneumatic selector switch, IP65, 22mm, 2-position, maintained, key removable in all positions, plastic base, plastic bezel, operator only, Operator: black, key, 30mm, round, plastic.	0.17	$12.00
ECP3430	Black	NITRA pneumatic selector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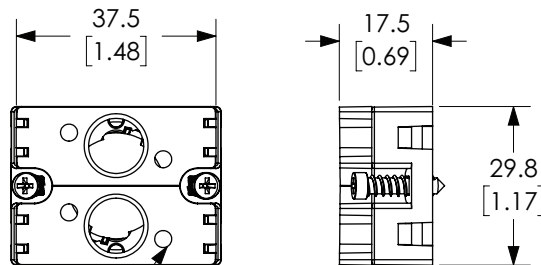
Dimensions
mm [inches]

49.4 [1.94]

∅ 29.8 [1.17]

39.5 [1.56]

Pneumatic switch accessory - support base with adapters

ECP3029-02

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

Dimensions
mm [inches]

37.5 [1.48]

17.5 [0.69]

29.8 [1.17]

M3 THRU HOLE SCREWS INCLUDED

Note: base sold as three piece kit.

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