



**UNICODE® 2 SERIES STAINLESS STEEL CONTROL STATIONS – PRODUCT GUIDE**



# BUILT FOR YOUR EXACT REQUIREMENTS

Appleton's Unicode® 2 modular series of control stations answers the increasing demands of hazardous location production lines. These stainless steel control stations are available in nine preconfigured models. Customized versions are available in four enclosure sizes with twenty-one operators to choose from – providing greater choice and flexibility to meet almost any application.

## STANDARD MATERIALS

- Body, cover and cover screws: 316L stainless steel, natural finish

## FEATURES

- Employs AEx de method of protection which eliminates the need for external seals.
- Operators include push buttons, selector switches, and LED pilot lights.
- Pilot light employs high intensity single LED with lifetime of 100,000 hours that can be used at:
  - 12 Vac to 250 Vac, 50/60 Hz
  - 12 Vdc to 60 Vdc
- Up to 3 contact blocks per actuator can be used.
- Enclosures are rated for IP66/ NEMA 4X with firmly secured gaskets.
- Operators and contact blocks are spaced to provide ample space for easy wiring.
- TS35 rail mounted components are held securely in place during operation and easily removed for service.
- No wiring to the cover required.
- Captive, corrosion resistant stainless steel cover screws.



**PRECONFIGURED CONTROL STATION**



**CUSTOMIZABLE EMPTY PRE-DRILLED ENCLOSURE**

# DESIGNED FOR THE GLOBAL MARKETPLACE

Unicode® 2 control stations are designed to suit your needs for corrosion resistance and durability. They offer extreme protection, with Ex de contacts – for component-level protection that does not require external sealing – and housing materials that are weather and impact resistant.

## SUITABLE APPLICATIONS

- Local control stations and motor control stations for use in hazardous areas covering the broadest possible range of applications.
- Push buttons and selector switches are used in conjunction with contactors or magnetic starters for remote control of motors in hazardous locations. They provide circuit control and/or selection.
- Pilot lights provide visual assurance that an electrical function is being performed at a remote or hazardous location.
- For use in highly corrosive and washdown areas.

## CERTIFICATIONS AND COMPLIANCES

- NEC/CEC Certification Type JBe
  - Class I, Division 2, Groups A, B, C and D; Class II, Groups E, F and G; Class III; Type 4X
  - Ex de IIC; DIP A21, IP66
  - Class I, Division 2, Groups A, B, C and D; Class II, Groups F and G, Class III; Type 4X
  - Class I, Zone 1, AEx de IIC; AEx tD 21, IP66
  - Voltage: Rated 600 V max., 10 A max.
  - Contact Block Voltage: Rated 600 V heavy duty
  - CAN/CSA Standards: C22.2 No. 0-M91, No. 14-05, No. 94-M91, No. 213-M1987, No. 60079-0:07, No. 60079-1:07, No. 60529:05, E60079-7-03, E61241-1-1:02
  - UL Standards: 50, 508, 60079-0, 60079-1, 60079-7
  - Other Standards: ANSI/ISA 61241-0(12.10.02)-2006, ANSI/ISA 61241-1(12.10.03)-2006
  - cCSAus Certificate: 2356952
- ATEX/IECEx Certification Type JBe
  - Gas: Zone 1 and 2
  - Dust: Zone 21 and 22
  - T Rating: T6 (at +40°C) or T5 (at +55°C)
  - Surface Temperature: T80°C (at +40°C) to T95°C (at +55°C) (T176°F to T203°F)
  - Ambient Temperature: -40°C to +55°C (-40°F to +131°F)
  - CE Declaration of Conformity: 50232
  - ATEX Certificate: LCIE 02 ATEX 6118X
  - IEC Certificate: LCIE Ex 02.010X
  - Impact Resistance (shock): IK10

## SUITABLE LOCATIONS



**CHEMICAL AND PETROCHEMICAL PLANTS**



**WASTEWATER TREATMENT PLANTS**



**PULP AND PAPER PROCESSING PLANTS**



**FOOD AND BEVERAGE PLANTS**

# SIMPLE OPERATION

Appleton's Unicode® 2 control stations are designed for easy operation with AEx de contact blocks with push buttons, LED pilot lights and selector switches.

## STAINLESS STEEL ENCLOSURE

The enclosure is designed to withstand high temperatures, low temperatures, high-impact resistance, are corrosion resistant and can be washed down.



## DIN RAIL MOUNT

Allows for easier wiring during installation and maintenance



## CONTACT BLOCK

1, 2 or 3 contacts can be stacked under an actuator.

## ILLUMINATED PUSH BUTTON

Pilot light can be stacked with up to two contacts for "Push-To-Test" functionality.

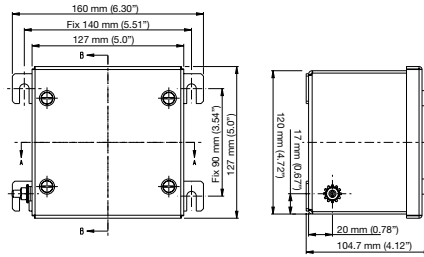


## CAPTIVE STAINLESS STEEL SCREWS





Our design incorporates captive stainless steel screws which can increase safety.

# PRECONFIGURED CONTROL

Appleton offers nine preconfigured Unicode® 2 control stations. Additional operators are available to allow units to be customized providing greater flexibility and more capabilities. These control stations can be customized on site with ease.

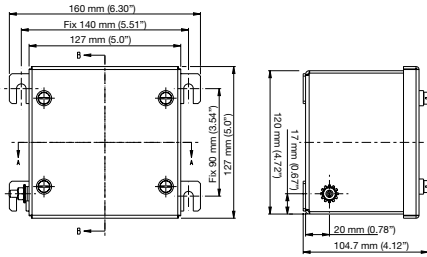


Size 1 Enclosure

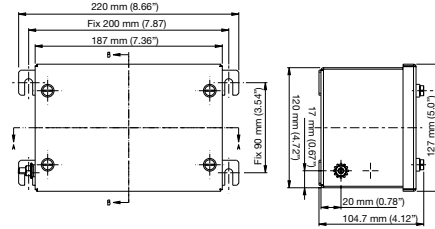
Description/Function	Enclosure Size	Bottom NPT Hubs	Catalog Number
<b>Two Momentary Pushbuttons</b>			
 <p>1x green pushbutton with 1NO + 1NC contact 1x red pushbutton with 1NO + 1NC contact START(G)/STOP(R)</p>	1	2 x 3/4" NPT Hubs, 1 Plugged	<b>U61Z4A3A3</b>
<b>One Red Maintained Mushroom Head Pushbutton</b>			
 <p>EMERGENCY-STOP 2NO Contacts</p>	1	2 x 3/4" NPT Hubs, 1 Plugged	<b>U61Z4D3</b>
<b>One Momentary Pushbutton</b>			
 <p>1x pushbutton with 1NO + 1NC contact with 1x red insert and 1x green insert (interchangeable)</p>	1	2 x 3/4" NPT Hubs, 1 Plugged	<b>U61Z4A3</b>
<b>One Pilot Light</b>			
 <p>1x red pilot light</p>	1	2 x 3/4" NPT Hubs, 1 Plugged	<b>U61Z4PR</b>
 <p>1x green pilot light</p>	1	2 x 3/4" NPT Hubs, 1 Plugged	<b>U61Z4PG</b>

# PRECONFIGURED CONTROL





Appleton offers nine preconfigured Unicode® 2 control stations. Additional operators are available to allow units to be customized providing greater flexibility and more capabilities. These control stations can be customized on site with ease.



Size 1 Enclosure

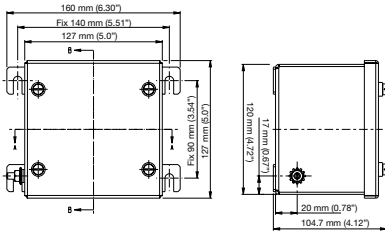


Size 2 Enclosure

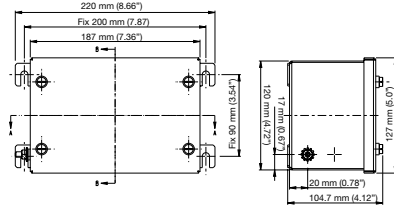
Description/Function	Enclosure Size	Bottom NPT Hubs	Catalog Number
<b>One Pilot Light and Two Momentary Pushbuttons</b>			
 <p>1x green pushbutton with 1NO + 1NC contact            1x red pushbutton with 1NO + 1NC contact            START(G)/STOP(R)            1x green pilot light</p>	2	2 x 3/4" NPT Hubs, 1 Plugged	<b>U62Z429PGA5A9</b>
<b>2-Position Selector Switch</b>			
 <p>2 fixed positions            1NO + 1NC contact</p>	1	2 x 3/4" NPT Hubs, 1 Plugged	<b>U61Z4H3</b>
<b>3-Position Selector Switch</b>			
 <p>Maintained contact            Hand-Off-Auto and Blank Nameplate            2NO contacts</p>	1	2 x 3/4" NPT Hubs, 1 Plugged	<b>U61Z4J1</b>
 <p>Spring Return from Left            Jog-Off-Auto and Blank Nameplate            2NO contacts</p>	1	2 x 3/4" NPT Hubs, 1 Plugged	<b>U61Z4N1</b>

# MORE FLEXIBLE CONTROL

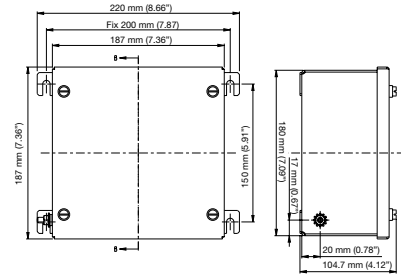
Appleton offers four pre-drilled Unicode® 2 enclosures that can be customized with operators and supporting accessories providing more flexibility and more capabilities. These control stations can be customized on site with ease.



Size 1 Enclosure



Size 2 Enclosure



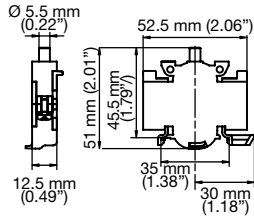
Size 3 Enclosure

	Description/Function	Bottom NPT Hubs	Catalog Number
<b>Size 1 Pre-Drilled Enclosures</b>			
	For 1 actuator 1 vertical rail	2 x 3/4" NPT Hubs, 1 Plugged	<b>U61Z401</b>
<b>Size 2 Pre-Drilled Enclosure</b>			
	For 2 actuators 1 vertical rail	2 x 3/4" NPT Hubs, 1 Plugged	<b>U62Z404</b>
	For 3 actuators 1 vertical rail	2 x 3/4" NPT Hubs, 1 Plugged	<b>U62Z429</b>
<b>Size 3 Pre-Drilled Enclosure</b>			
	For 6 actuators 2 vertical rails	2 x 3/4" NPT Hubs, 1 Plugged	<b>U63Z432</b>

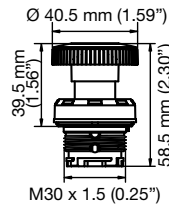


# CUSTOMIZE YOUR EXPERIENCE

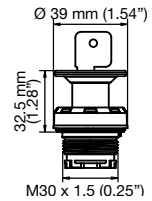
Appleton offers optional Unicode® 2 operators and supporting accessories offering flexibility and more capabilities.



1-Pole Contact Blocks




Mushroom Pushbuttons





Key Release Mushroom Head Pushbutton


## 1-POLE CONTACT BLOCKS

		Weight kg (lb)	Volume dm <sup>3</sup> (in <sup>3</sup> )	Pack	Catalog Number
	1 x NO	0.032 (0.071)	0.06 (3.66)	1	UCB5R
	1 x NC	0.032 (0.071)	0.06 (3.66)	1	UCB9R

## MUSHROOM PUSHBUTTONS

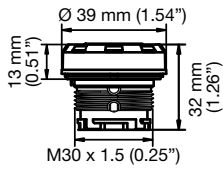
		Weight kg (lb)	Volume dm <sup>3</sup> (in <sup>3</sup> )	Pack	Catalog Number
<b>Spring Return Mushroom Head Pushbutton (40 mm)</b>					
	Red	0.045 (0.99)	0.26 (15.87)	1	UR0R
	Black	0.045 (0.99)	0.26 (15.87)	1	UB0R
<b>Push-Pull Maintained Mushroom Head Pushbutton (40 mm)</b>					
	Red Emergency Stop	0.045 (0.99)	0.12 (7.32)	1	UD0R

## KEY RELEASE MUSHROOM HEAD PUSHBUTTON

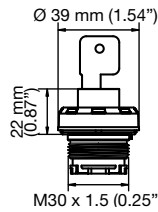
		Weight kg (lb)	Volume dm <sup>3</sup> (in <sup>3</sup> )	Pack	Catalog Number
	Red	0.085 (0.183)	0.09 (5.49)	1	UC0R

# CUSTOMIZE YOUR EXPERIENCE

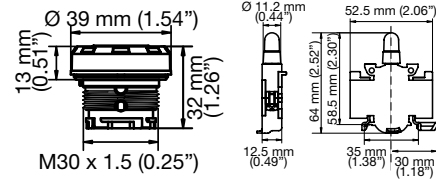
Appleton offers optional Unicode® 2 operators and supporting accessories offering flexibility and more capabilities.



Pushbutton




Key Momentary Pushbutton




Spring Return Illuminated Pushbutton and Contact Block


## PUSHBUTTONS

		Weight kg (lb)	Volume dm <sup>3</sup> (in <sup>3</sup> )	Pack	Catalog Number
<b>Spring Return - Pushbutton</b>					
	Red + Green	0.03 (0.06)	0.06 (3.66)	1	UA0RGR
	Green	0.03 (0.06)	0.06 (3.66)	1	UA0GR
	Red	0.03 (0.06)	0.06 (3.66)	1	UA0RR

## KEY MOMENTARY PUSHBUTTON

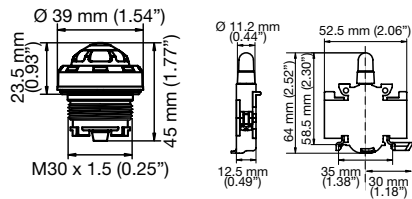
		Weight kg (lb)	Volume dm <sup>3</sup> (in <sup>3</sup> )	Pack	Catalog Number
	Key removable in both positions	0.080 (0.176)	0.08 (4.88)	1	UE0R

## SPRING RETURN ILLUMINATED PUSHBUTTON

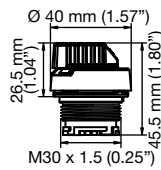
		Weight kg (lb)	Volume dm <sup>3</sup> (in <sup>3</sup> )	Pack	Catalog Number
<b>High Intensity Single LED Light: 12 Vac to 254 Vac, 50/60 Hz and 12 Vdc to 60 Vdc (Pilot Light Contact Block Included)</b>					
	Green	0.062 (0.137)	0.26 (15.87)	1	ULG0R
	Red	0.062 (0.137)	0.26 (15.87)	1	ULR0R

# CUSTOMIZE YOUR EXPERIENCE

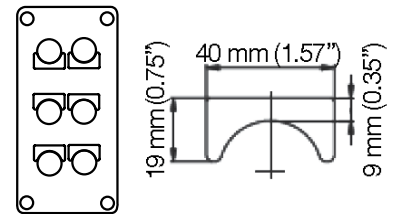
Appleton offers optional Unicode® 2 operators and supporting accessories offering flexibility and more capabilities.



Pilot Light and Contact Block




Rotary Actuators




Standard Legend Plate

## PILOT LIGHTS

		Weight kg (lb)	Volume dm <sup>3</sup> (in <sup>3</sup> )	Pack	Catalog Number
<b>Pilot Light: 12 Vac to 254, Vac 50/60 Hz, 12 Vdc to 60 Vdc (Pilot Light Contact Block Included)</b>					
	Green	0.056 (0.123)	0.29 (17.70)	1	UPG0R
	Red	0.056 (0.123)	0.29 (17.70)	1	UPR0R
	Yellow	0.056 (0.123)	0.29 (17.70)	1	UPY0R
<b>Spare Lenses</b>					
	Green	0.03 (0.06)	0.06 (3.66)	1	UPGL
	Red	0.03 (0.06)	0.06 (3.66)	1	UPRL
	Yellow	0.03 (0.06)	0.06 (3.66)	1	UPYL

## ROTARY ACTUATORS

		Weight kg (lb)	Volume dm <sup>3</sup> (in <sup>3</sup> )	Pack	Catalog Number	
<b>2-Position Rotary Actuator</b>						
	2-Positions Selector Switch (O-I), 2 maintained positions	0.038 (0.084)	0.09 (5.49)	1	UH0R	
	<b>3-Position Rotary Actuator</b>					
	3-Position Selector Switch, I and II position maintained (I-O-II)	0.038 (0.084)	0.09 (5.49)	1	UJ0R	
3-Position Selector Switch, I and II spring return to O (I->O<-II)	0.038 (0.084)	0.09 (5.49)	1	UK0R		
3-Position Selector Switch, I maintained, II spring return to O (I-O<-II)	0.038 (0.084)	0.09 (5.49)	1	UM0R		
3-Position Selector Switch, I spring return to O, II maintained (I->O-II)	0.038 (0.084)	0.09 (5.49)	1	UN0R		

## STANDARD LEGEND PLATES *Self-adhesive yellow laminated plastic (black lettering)*

Text	Catalog Number
Blank (set of 10)	ULPS
START	ULPSA07
STOP	ULPSA08
RESET	ULPSA20
EMERGENCY STOP	ULPSA21
ON—OFF	ULPSH02
HAND—OFF—AUTO	ULPSJ04
JOG—OFF—AUTO	ULPSJ10



Emerson brings integrated manufacturing solutions to diverse industries worldwide. Our comprehensive product line, extensive experience, world-class engineering and global presence enable us to implement solutions that give our customers the competitive edge. Appleton is our premium line of lighting and electrical products for hazardous and industrial locations.

For over 150 years, our electrical product brands have been providing a rich tradition of long-term, practical, high quality solutions with applications ranging from the construction and safe operation of petrochemical and process plants to providing quality power that precisely controls automotive robotic production.

Engineers, distributors, contractors, electricians and site maintenance professionals around the world trust Emerson brands to make electrical installations safer, more productive and more reliable.

The Appleton Group business unit of Emerson is organized into three focused groups that provide distributors and end users expert knowledge and excellent service.

#### **Electrical Construction Materials**

This group is made up of the Appleton and O-Z/Gedney brands. They manufacture a broad range of electrical products including conduit and cable fittings, plugs and receptacles, enclosures and controls, conduit bodies and industrial and hazardous lighting. Whether the application is hazardous location, industrial or commercial, the electrical construction materials group has the products to meet your needs.

#### **Power Quality Solutions**

The SolaHD brand offers the broadest power quality line, including uninterruptible power supplies, power conditioners, voltage regulators, shielded transformers, surge protection devices and power supplies.

#### **Heating Cable Systems**

This group is made up of the EasyHeat and Nelson brands. They offer a broad range of electrical heating cable products for residential, commercial and industrial applications.

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