

Unicode® 2 Series Aluminium Control Stations and Switches

Increased Safety

Aluminum

Zone 1 and 2 – 21 and 22

Gas (G) and Dust (D)

Applications

- Local control stations and motor control stations for use in hazardous areas covering the broadest possible range of applications.
- Control of equipment at:
 - Power plants
 - Chemical and petrochemical plants
 - Petroleum refineries
 - Reverse osmosis plants
 - Pulp and paper processing plants
 - Various industrial 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 washdown areas.

Features

- Employs Ex de method of protection which eliminates the need for external seals.
- Operators include push buttons, illuminated push buttons, selector switches, control and load break 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 254 Vac 50/60 Hz
 - 12 Vdc to 60 Vdc
- Up to 3 contact blocks per actuator can be used.
- Contact block technical data:
 - IEC rated operating voltage (Ue): 500 Vac – 110 Vdc
 - IEC switching capacity:
 - AC12: 16 Amp/400 Vac
 - AC14: 10 Amp/400 Vac
 - AC15: 6 Amp/500 Vac
 - DC13: 2 Amp/24 Vdc and 1 Amp/110 Vdc
- Selector switch technical data:
 - IEC rated operating voltage: 690 Vac
 - IEC rated operating current: maximum 16 Amp
 - IEC switching capacity:
 - AC1: 16 Amp/690 Vac
 - AC15: 16 Amp/415 Vac
 - AC3: 8 Amp/500 Vac
 - AC3: 4 Amp/690 Vac
 - AC3: 16 Amp/690 Vac
 - DC1: 10 Amp/24 Vdc
 - DC1: 6 Amp/60 Vdc
 - DC1: 6 Amp/110 Vdc (2 contacts wired in series)
 - DC1: 6 Amp/220 Vdc (3 contacts in series)
- Enclosures are rated for IP66 with firmly secured gasket.
- Operators and contact blocks are spaced so as to have easy and ample space for wiring.
- Wide selection of termination methods available.
- Choice of DIN rail mounted high performance contact block suitable for low intensity (less than 5mA).
- TS35 rail mounted components held securely in place during operation and easily removed for service.
- Brass Inserts are provided for TS35 DIN rails or mounting plate to be installed inside the enclosure.
- Captive, corrosion resistant stainless steel cover screws.



U83W2 PRA5A9
Aluminum

Standard Materials

- Body and cover: aluminum with gray epoxy powder coating RAL7038
- Cover screws for 316L stainless steel or aluminum body: 304 stainless steel
- Cover screws for fiberglass reinforced polyester body: 316 stainless steel

Accessories

- Key for changing actuator blocks.
- Guard for mushroom head actuator.
- Padlockable guard.
- M5 and M6 earth stud.
- Combination drain and breather available in brass, polyamide and stainless steel.

Options

- Nameplates: stainless steel or Lamacoid with different color combinations.
- Padlocking facility at left, center, right or any position on selector switches.
- Padlocking facility for momentary and maintained push buttons.
- Special contact arrangements available, see *Unicode 2 Series Customized Control Stations*.

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Certification and Compliances

◆ ATEX Certification

• Certification Type PCe (Aluminum)

- Gas: Zone 1 and 2
 - Conforming to ATEX 94/9/CE:  II2 G
 - Type of Protection: Ex de IIC or Ex demb IIC (depending of the actuator)
 - Temperature class: T6
- Dust: Zone 21 and 22
 - Conforming to ATEX 94/9/CE:  II2 D
 - Type of Protection: Ex tD A21
 - Surface Temperature: T80 °C
- Ambient Temperature: -55 °C to +60 °C (empty enclosure)
- -20°C or -25°C to +55°C or +60°C depending of the actuator
- CE Declaration of Conformity: 50221
- ATEX Certificate: LCIE 02 ATEX 6047
- Index of Protection according EN/IEC 60529: IP66
- Impact Resistance (shock): IK10

◆ EURASEC Certification

• Certification Type PCe (Aluminum)



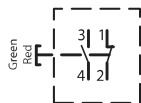

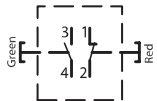

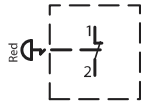

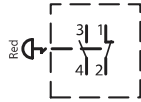

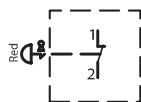

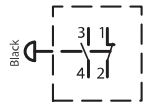
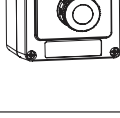
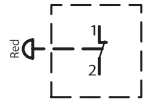

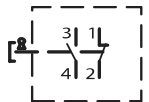
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Unicode® 2 Series Aluminium Control Stations and Switches

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Aluminum

Zone 1 and 2 – 21 and 22
Gas (G) and Dust (D)

Size 1 Aluminum Control Station Standard equipment: 1 white self-adhesive laminated plastic nameplate, 2 x M20 bottom clearance entries, 1 blanking plug, 1 cable gland in polyamide, 2 locknuts.						
Description/Function		Diagram	Bottom Entry	Weight kg	Volume dm³	Catalog Number
Impulse Push Button						
	Green insert 'I' + red insert 'O' with 1NO + 1NC momentary contact		2 x M20	1	2.7	U81W2A3
Twin Impulse Push Buttons						
	1x green push button 'I' with 1NO momentary contact 1 x red push button 'O' with 1NC contact momentary contact		2 x M20	1.1	2.7	U81W2A5A9
Emergency Stop						
	Red mushroom head push-pull 1NC maintained contact		2 x M20	1	2.7	U81W2D9
	Red mushroom head push-pull 1NO + 1NC maintained contacts		2 x M20	1	2.7	U81W2D3
	Red mushroom head key release 1NC maintained contact		2 x M20	1	2.7	U81W2C9
Mushroom Head Push Button						
	Black mushroom head push button 1NO + 1NC momentary contacts		2 x M20	1	2.7	U81W2B3
	Red mushrrom head push button 1NC momentary contacts		2 x M20	1	2.7	U81W2R9
Key Push Button						
	With key removable in both positions 1NO + 1NC momentary contacts		2 x M20	1	2.7	U81W2E3

Additional combinations available, please refer to Unicode 2 Series - Customized Control Stations section.

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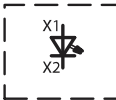

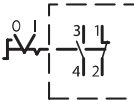

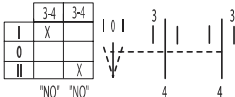
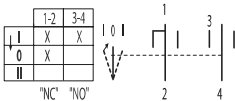
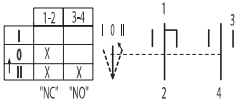
Zone 1 and 2 – 21 and 22

Gas (G) and Dust (D)

Size 1 Aluminum Control Station

Standard equipment: 1 white self-adhesive laminated plastic nameplate, 2 x M20 bottom clearance entries, 1 blanking plug, 1 cable gland in polyamide, 2 locknuts.



Description/Function		Diagram	Bottom Entry	Weight kg	Volume dm³	Catalog Number
Pilot Light						
	1 x red pilot light ①		2 x M20	1	2.7	U81W2PR
	1 x green pilot light ①		2 x M20	1	2.7	U81W2PG
	1 x blue pilot light ①		2 x M20	1	2.7	U81W2PB
	1 x yellow pilot light ①		2 x M20	1	2.7	U81W2PY
	1 x white pilot light ①		2 x M20	1	2.7	U81W2PW
2-Position Selector Switch						
	2 fixed positions '0 - I' 1NO + 1NC contacts		2 x M20	1	2.7	U81W2H3
3-Position Selector Switch						
	3 fixed positions 'I - 0 - II' 2NO contacts		2 x M20	1	2.7	U81W2J1
	3 positions 'I - 0 - II' with spring return from I to 0 1NO + 1NC contacts		2 x M20	1	2.7	U81W2N3
	3 positions 'I - 0 - II' with spring return from II to 0 1NO + 1NC contacts		2 x M20	1	2.7	U81W2M3

Additional combinations available, please refer to Unicode 2 Series - Customized Control Stations section.

① 12 Vac to 254 Vac 50/60 Hz - 12 Vdc to 60 Vdc

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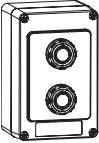
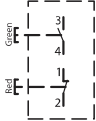
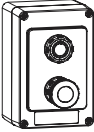
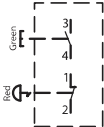
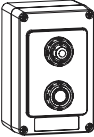


Aluminum

Zone 1 and 2 – 21 and 22
Gas (G) and Dust (D)

Size 2 Aluminum Control Station

Standard equipment: 1 white self-adhesive laminated plastic nameplate, 2 x M20 bottom clearance entries, 1 blanking plug, 1 cable gland in polyamide, 2 locknuts.



Description/Function	Diagram	Bottom Entry	Weight kg	Volume dm³	Catalog Number
Twin Push Buttons					
<div></div> <div>1x green push button 'I' with 1NO contact 1x red push button 'O' with 1NC contact Momentary contacts</div>		2 x M20	1.3	2.7	U82W2A5A9
Push Button + Push-Pull Emergency Stop					
<div></div> <div>1x green push button 'I' with 1NO momentary contact 1x red mushroom head push-pull emergency button with 1NC maintained contact</div>		2 x M20	1.3	2.7	U82W2A5D9
Pilot Light + Push Button					
<div></div> <div>1x green pilot light ① 1x green push button 'I' with 1NO Momentary contact</div>		2 x M20	1.3	2.7	U82W2GA5
		2 x M20	1.3	2.7	U82W2PRA9

Additional combinations available, please refer to Unicode 2 Series - Customized Control Stations section.
① 12 Vac to 254 Vac 50/60 Hz - 12 Vdc to 60 Vdc

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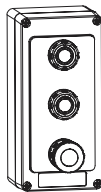
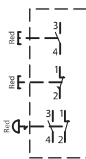
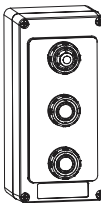
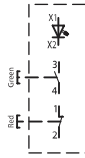
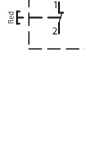
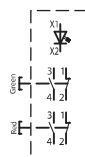
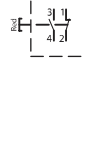
Zone 1 and 2 – 21 and 22

Gas (G) and Dust (D)

Size 3 Aluminum Control Station

Standard equipment: 1 white self-adhesive laminated plastic nameplate, 2 x M20 bottom clearance entries, 1 blanking plug, 1 cable gland in polyamide, 2 locknuts.



Description/Function	Diagram	Bottom Entry	Weight kg	Volume dm³	Catalog Number	
Twin Push Buttons + Push-Pull Emergency Stop						
	<p>1x green push button 'I' with 1NO contact 1 x red push button 'O' with 1NC contact Momentary contacts 1 red mushroom head push-pull emergency button with 1NO + 1NC maintained contacts</p> 	2 x M20 2 x M25	1.6 1.6	4.2 4.2	U83W2A5A9D3 U83W4A5A9D3	
Pilot Light + Twin Push Buttons						
	<p>1x green pilot light ① 1 x green push button 'I' with 1NO contact 1 x red push button 'O' with 1NC contact Momentary contacts</p>		2 x M20 2 x M25	1.6 1.6	4.2 4.2	U83W2PGA5A9 U83W4PGA5A9
	<p>1x red pilot light ① 1 x green push button 'I' with 1NO contact 1 x red push button 'O' with 1NC contact Momentary contacts</p>		2 x M20 2 x M25	1.6 1.6	4.2 4.2	U83W2PRA5A9 U83W4PRA5A9
	<p>1x green pilot light ① 1 x green push button 'I' with 1NO + 1NC contacts 1 x red push button'O' with 1NO + 1NC contacts Momentary contacts</p>		2 x M20 2 x M25	1.6 1.6	4.2 4.2	U83W2PGA3A3 U83W4PGA3A3
	<p>1x red pilot light ① 1 x green push button 'I' with 1NO + 1NC contacts 1 x red push button 'O' with 1NO + 1NC contacts Momentary contacts</p>		2 x M20 2 x M25	1.6 1.6	4.2 4.2	U83W2PRA3A3 U83W4PRA3A3

Additional combinations available, please refer to Unicode 2 Series - Customized Control Stations section.

① 12 Vac to 254 Vac 50/60 Hz - 12 Vdc to 60 Vdc.

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Nameplates — Set of 10

Blank self-adhesive, laminated plastic 58 mm x 18 mm.

Color	Catalog Number
White (black letters)	UNPW
Yellow (black letters)	UNPY
Red (white letters)	UNPR
Blue (white letters)	UNPB
Black (white letters)	UNPN
Green (white letters)	UNPG

Inserts for Push Button — Set of 5

Marking	Color	Catalog Number
(unmarked)	Green	UIAG
(unmarked)	Red	UIAR
(unmarked)	Yellow	UIAY
(unmarked)	White	UIAW
(unmarked)	Blue	UIAB
(unmarked)	Black	UIAN
ON	Green	UIA01
OFF	Red	UIA02
START	Green	UIA03
STOP	Red	UIA04
MARCHE	Green	UIA05
ARRET	Red	UIA06
I	Green	UIA07
O	Red	UIA08

Inserts for Illuminated Push Button — Set of 5

Marking	Color	Catalog Number
(unmarked)	Green	UILG
(unmarked)	Red	UILR
(unmarked)	Yellow	UILY
(unmarked)	White	UILW
(unmarked)	Blue	UILB
ON	Green	UIL01
OFF	Red	UIL02
START	Green	UIL03
STOP	Red	UIL04
MARCHE	Green	UIL05
ARRET	Red	UIL06
I	Green	UIL07
O	Red	UIL08

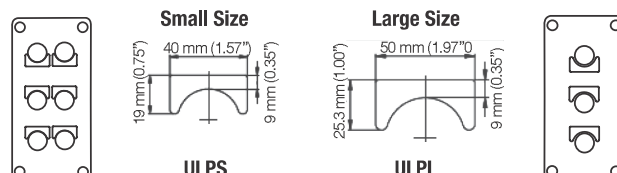
Spare Key

For all key-operated buttons.

Description	Catalog Number
Spare key type 4 A 185	SK4A185

Standard Legend Plates

Two sizes available. Self-adhesive yellow laminated plastic (black lettering).



Text	Catalog Number	
	Small	Large
Blank (set of 10)	ULPS	ULPL
ON	ULPSA01	ULPLA01
OFF	ULPSA02	ULPLA02
FORWARD	ULPSA03	ULPLA03
REVERSE	ULPSA04	ULPLA04
JOG	ULPSA05	ULPLA05
RUN	ULPSA06	ULPLA06
START	ULPSA07	ULPLA07
STOP	ULPSA08	ULPLA08
UP	ULPSA09	ULPLA09
DOWN	ULPSA10	ULPLA10
FAST	ULPSA11	ULPLA11
SLOW	ULPSA12	ULPLA12
RAISE	ULPSA13	ULPLA13
LOWER	ULPSA14	ULPLA14
OPEN	ULPSA15	ULPLA15
CLOSE	ULPSA16	ULPLA16
LOW	ULPSA17	ULPLA17
HIGH	ULPSA18	ULPLA18
TEST	ULPSA19	ULPLA19
RESET	ULPSA20	ULPLA20
EMERGENCY STOP	ULPSA21	ULPLA21
MARCHE	ULPSA22	ULPLA22
ARRET	ULPSA23	ULPLA23
ARRET D'URGENCE	ULPSA24	ULPLA24
HAUT	ULPSA25	ULPLA25
BAS	ULPSA26	ULPLA26
O—I	ULPSH01	ULPLH01
ON—OFF	ULPSH02	ULPLH02
STOP—STOP	ULPSH03	ULPLH03
START—START	ULPSH04	ULPLH04
HAND—AUTO	ULPSH05	ULPLH05
MANU—AUTO	ULPSH06	ULPLH06
FORWARD—REVERSE	ULPSH07	ULPLH07
REMOTE—LOCAL	ULPSH08	ULPLH08
MARCHE—ARRET	ULPSH09	ULPLH09
I—O—II	ULPSJ01	ULPLJ01
OFF—O—ON	ULPSJ02	ULPLJ02
START—NORMAL—STOP	ULPSJ03	ULPLJ03
HAND—OFF—AUTO	ULPSJ04	ULPLJ04
MANU—O—AUTO	ULPSJ05	ULPLJ05
FORWARD—OFF—REVERSE	ULPSJ06	ULPLJ06
LOCAL—REMOTE—AUTO	ULPSJ07	ULPLJ07
LOCAL—O—REMOTE	ULPSJ08	ULPLJ08
MARCHE—NORMAL—ARRET	ULPSJ09	ULPLJ09

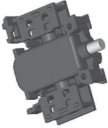

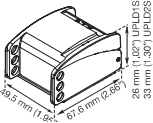


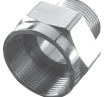


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Zone 1 and 2 – 21 and 22

Gas (G) and Dust (D)

Description		Catalog Number
	Additional Contacts	
	Each actuator is capable of activating 3 contacts. Exception: Illuminated push button and all actuators with key: 2 contacts maximum	
	1NO contact	UCB5R
	1NC contact	UCB9R
	Yellow Guard	
	Mushroom head protection for emergency stop	098657
	Padlockable Guard	
	Stainless steel and plastic cover, capacity: 3 padlocks diameter 6 mm maximum (not supplied)	
	For push button and rotary actuator	UPLD1S
	For mushroom head actuator	UPLD2S
	Cable Gland Exe	
	For unarmored cable Exe - IP66 - in polyamide entry thread seal	
	M20 (capacity 6.5-14.5 mm)	095605
	For armored cable Exe/Exd - IP66 - in nickel plated brass (without entry thread seal)	
	Braid and Tape type:	
	M20 (inner: 6.4-14.0/outer: 12.5-20.9 mm)	20E1FX5
	Single Wired Armor (SWA):	
	M20 (inner: 6.4-14.0/outer: 12.5-20.9 mm)	20E1FW5
	Adaptors	
	Exd/Exe - IP66 in nickel plated brass (without entry thread seal)	
	Male M20 - Female 1/2" NPT	737DM2T15
	Male M20 - Female 3/4" NPT	737DM2T25
	Entry Thread Seal	
	M20 (in white nylon)	20ETS2
	Combination Drain and Breather	
	Exe - IP66 - supplied with entry thread seal and locknut	
	M20 male thread in Polyamide	DBE20P
	M20 male thread in Brass	DBE20B
	M20 male thread in Stainless Steel	DBE20S

Shaded catalog numbers are normally stocked items. All other items are made to order.

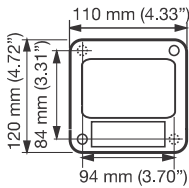
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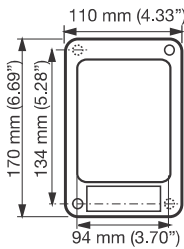
Aluminum

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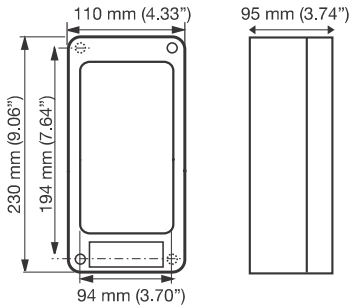
Dimensions in Millimeters



Size 1 Box



Size 2 Box



Size 3 Box

Mounting/Fixing Details for above Boxes: Two Holes Ø 5 mm