

Control Stations & Switches: Control Stations – Increased Safety

Unicode 2 Series: Aluminum Control Stations



U83W2 PRA5A9

Compliance Data:
ATEX – IEC:



Zone 1 & 2 – 21 & 22	ATEX	II 2 GD	IEC	CE
Ex de IIC / Ex demb IIC	T6	Ex td A21	T80°C	IP66 – IK10

Voltage and Amperage:

Voltage	Amperage	Pilot Light Voltage	
Up to 500 V	16 A	12 Vac to 254 Vac 50/60 Hz and 12 Vdc to 60 Vdc	

Operating Temperature:

-55°C to +60°C				
-40°C to +60°C				
-25°C to +60°C				
(depending on type of actuator)				

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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 and 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 wash down areas.

Features:

- Employs Ex de (factory sealed) operators including push buttons, illuminated push buttons, selector switches, control and load break switches, contact blocks, pilot lights (LED), and terminal blocks.
- 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.
- 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 cable glands, union adapter entries at top and bottom locations.
- Choice of DIN rail mounted high performance contact block suitable for low intensity (less than 5 mA).
- 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.

Standard Material of Fixtures:

- Aluminum gray epoxy powder coated.
- Stainless steel cover screws.
- Polyamide cable gland and blanking plug.

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:


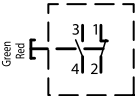
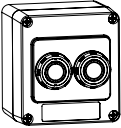
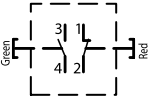
- Nameplates: Lamacoid with different color combinations. Stainless steel.
- Padlocking facility at left, center, right or any position on selector switches.
- Padlocking facility for momentary and maintained push buttons.
- Special contact arrangements available upon request, see options for details.

Ordering Information:

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.



Version	Description/ Function	Diagram	Bottom entries	Catalog Number	Weight (kg)	Volume (dm³)
Impulse Push Button						
	Green insert 'I' + red insert 'O' with 1NO + 1NC momentary contacts		2 x M20	U81W2 A3	1	2.7
Twin Impulse Push Buttons						
	1x green push button 'I' with 1NO contact 1x red push button 'O' with 1NC contact Momentary contacts		2 x M20	U81W2 A5A9	1.1	2.7

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

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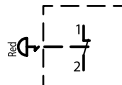
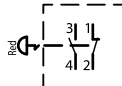

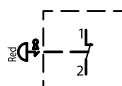
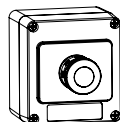
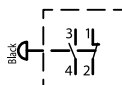
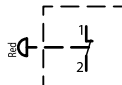

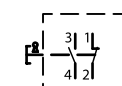



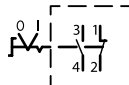
IP66 – IK10

Ordering Information - Continued:

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.



Version	Description/ Function	Diagram	Bottom entries	Catalog Number	Weight (kg)	Volume (dm³)
Emergency Stop						
	Red mushroom head push-pull 1NC maintained contact		2 x M20	U81W2 D9	1	2.7
	Red mushroom head push-pull 1NO + 1NC maintained contacts		2 x M20	U81W2 D3	1	2.7
	Red mushroom head key release 1NC maintained contact		2 x M20	U81W2 C9	1	2.7
Mushroom Head Push Button						
	Black mushroom head push button 1NO + 1NC momentary contacts		2 x M20	U81W2 B3	1	2.7
	Red mushroom head push button 1NC momentary contact		2 x M20	U81W2 R9	1	2.7
Key Push Button						
	With key removable in both positions 1NO + 1NC momentary contacts		2 x M20	U81W2 E3	1	2.7
Pilot Light						
	1x red pilot light (1)		2 x M20	U81W2 PR	1	2.7
	1x green pilot light (1)		2 x M20	U81W2 PG	1	2.7
	1x blue pilot light (1)		2 x M20	U81W2 PB	1	2.7
	1x yellow pilot light (1)		2 x M20	U81W2 PY	1	2.7
	1x white pilot light (1)		2 x M20	U81W2 PW	1	2.7
(1) 12 Vac to 254 Vac 50/60 Hz - 12 Vdc to 60 Vdc						
2-Position Selector Switch						
	2 fixed positions '0 - I' 1NO + 1NC contacts		2 x M20	U81W2 H3	1	2.7

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

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Ordering Information – Continued

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.

Version	Description/ Function	Diagram	Bottom entries	Catalog Number	Weight (kg)	Volume (dm³)
3-Position Selector Switch						
	3 fixed positions 'I - 0 - II' 2NO contacts		2 x M20	U81W2 J1	1	2.7
	3 positions 'I - 0 - II' with spring return from I to 0 1NO + 1NC contacts		2 x M20	U81W2 N3	1	2.7
	3 positions 'I - 0 - II' with spring return from II to 0 1NO + 1NC contacts		2 x M20	U81W2 M3	1	2.7

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.

Version	Description/ Function	Diagram	Bottom entries	Catalog Number	Weight (kg)	Volume (dm³)
Twin Push Buttons						
	1x green push button 'I' with 1NO contact 1x red push button 'O' with 1NC contact momentary contacts		2 x M20	U82W2 A5A9	1.3	2.7
Push Button + Push-Pull Emergency Stop						
	1x green push button 'I' with 1NO momentary contact 1x red mushroom head push-pull emergency button with 1NC maintained contact		2 x M20	U82W2 A5D9	1.3	2.7
Pilot Light + Push Button						
	1x green pilot light (1) 1x green push button 'I' with 1NO Momentary contact		2 x M20	U82W2 PGA5	1.3	2.7
	1x red pilot light (1) 1x red push button 'O' with 1NC Momentary contact (1) 12 Vac to 254 Vac 50/60 Hz - 12 Vdc to 60 Vdc		2 x M20	U82W2 PRA9	1.3	2.7

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

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Ordering Information – Continued:

Size 3 Aluminum Control Station:

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



Version	Description/ Function	Diagram	Bottom entries	Catalog Number	Weight (kg)	Volume (dm³)
Twin Push Buttons + Push-Pull Emergency Stop						
	1x green push button 'I' with 1NO contact		2 x M20	U83W2 A5A9D3	1.6	4.2
	1x red push button 'O' with 1NC contact Momentary contacts 1 red mushroom head push-pull emergency button with 1NO + 1NC maintained contacts		2 x M25	U83W4 A5A9D3	1.6	4.2
Pilot Light + Twin Push Buttons						
	1x green pilot light (1)		2 x M20	U83W2 PGA5A9	1.6	4.2
	1x green push button 'I' with 1NO contact		2 x M25	U83W4 PGA5A9	1.6	4.2
	1x red push button 'O' with 1NC contact Momentary contacts		2 x M20	U83W2 PRA5A9	1.6	4.2
	1x red pilot light (1)		2 x M25	U83W4 PRA5A9	1.6	4.2
	1x green push button 'I' with 1NO contact		2 x M20	U83W2 PGA3A3	1.6	4.2
	1x red push button 'O' with 1NC contact Momentary contacts		2 x M25	U83W4 PGA3A3	1.6	4.2
	1x green pilot light (1)		2 x M20	U83W2 PRA3A3	1.6	4.2
	1x green push button 'I' with 1NO + 1NC contacts 1x red push button 'O' with 1NO + 1NC contacts Momentary contacts		2 x M25	U83W4 PRA3A3	1.6	4.2

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

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

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Accessories:

Description	Catalog Number		
Nameplates (set of 10)	Color		Pack
Blank self-adhesive, laminated plastic 58x18 mm	White (black letters)	UNPW	1
	Yellow (black letters)	UNPY	1
	Red (white letters)	UNPR	1
	Blue (white letters)	UNPB	1
	Black (white letters)	UNPN	1
	Green (white letters)	UNPG	1

Standard Legend Plates:

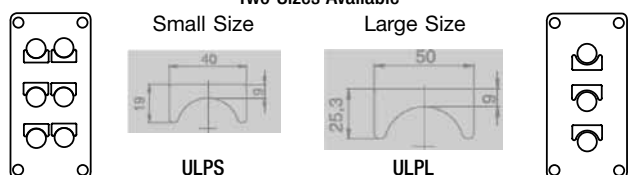
Self-adhesive yellow laminated plastic (black lettering)

Text	Small	Large	Pack
Blank (set of 10)	ULPS	ULPL	1
ON	ULPSA 01	ULPLA 01	1
OFF	ULPSA 02	ULPLA 02	1
FORWARD	ULPSA 03	ULPLA 03	1
REVERSE	ULPSA 04	ULPLA 04	1
JOG	ULPSA 05	ULPLA 05	1
RUN	ULPSA 06	ULPLA 06	1
START	ULPSA 07	ULPLA 07	1
STOP	ULPSA 08	ULPLA 08	1
UP	ULPSA 09	ULPLA 09	1
DOWN	ULPSA 10	ULPLA 10	1
FAST	ULPSA 11	ULPLA 11	1
SLOW	ULPSA 12	ULPLA 12	1
RAISE	ULPSA 13	ULPLA 13	1
LOWER	ULPSA 14	ULPLA 14	1
OPEN	ULPSA 15	ULPLA 15	1
CLOSE	ULPSA 16	ULPLA 16	1
LOW	ULPSA 17	ULPLA 17	1
HIGH	ULPSA 18	ULPLA 18	1
TEST	ULPSA 19	ULPLA 19	1
RESET	ULPSA 20	ULPLA 20	1
EMERGENCY STOP	ULPSA 21	ULPLA 21	1
MARCHE	ULPSA 22	ULPLA 22	1
ARRET	ULPSA 23	ULPLA 23	1
ARRET D'URGENCE	ULPSA 24	ULPLA 24	1
HAUT	ULPSA 25	ULPLA 25	1
BAS	ULPSA 26	ULPLA 26	1

Inserts for Push Button (set of 5):

Marking	Color	REF	Pack
(unmarked)	Green	UIA G	1
(unmarked)	Red	UIA R	1
(unmarked)	Yellow	UIA Y	1
(unmarked)	White	UIA W	1
(unmarked)	Blue	UIA B	1
(unmarked)	Black	UIA N	1
ON	Green	UIA 01	1
OFF	Red	UIA 02	1
START	Green	UIA 03	1
STOP	Red	UIA 04	1
MARCHE	Green	UIA 05	1
ARRET	Red	UIA 06	1
I	Green	UIA 07	1
O	Red	UIA 08	1

Two Sizes Available



Text	Small	Large	Pack
O - I	ULPSH 01	ULPLH 01	1
ON - OFF	ULPSH 02	ULPLH 02	1
START - STOP	ULPSH 03	ULPLH 03	1
STOP - START	ULPSH 04	ULPLH 04	1
HAND - AUTO	ULPSH 05	ULPLH 05	1
MANU - AUTO	ULPSH 06	ULPLH 06	1
FORWARD - REVERSE	ULPSH 07	ULPLH 07	1
REMOTE - LOCAL	ULPSH 08	ULPLH 08	1
MARCHE - ARRET	ULPSH 09	ULPLH 09	1

Text	Small	Large	Pack
I - O - II	ULPSJ 01	ULPLJ 01	1
OFF - O - ON	ULPSJ 02	ULPLJ 02	1
START - NORMAL - STOP	ULPSJ 03	ULPLJ 03	1
HAND - OFF - AUTO	ULPSJ 04	ULPLJ 04	1
MANU - O - AUTO	ULPSJ 05	ULPLJ 05	1
FORWARD - OFF - REVERSE	ULPSJ 06	ULPLJ 06	1
LOCAL - REMOTE - AUTO	ULPSJ 07	ULPLJ 07	1
LOCAL - O - REMOTE	ULPSJ 08	ULPLJ 08	1
MARCHE - NORMAL - ARRET	ULPSJ 09	ULPLJ 09	1

Inserts for Illuminated Push Button (set of 5):

Marking	Color	REF	Pack
(unmarked)	Green	UIL G	1
(unmarked)	Red	UIL R	1
(unmarked)	Yellow	UIL Y	1
(unmarked)	White	UIL W	1
(unmarked)	Blue	UIL B	1
ON	Green	UIL 01	1
OFF	Red	UIL 02	1
START	Green	UIL 03	1
STOP	Red	UIL 04	1
MARCHE	Green	UIL 05	1
ARRET	Red	UIL 06	1
I	Green	UIL 07	1
O	Red	UIL 08	5

Spare Key:

For all key-operated buttons.

Description	REF	Pack
Spare key type 4 A 185	SK4A185	1

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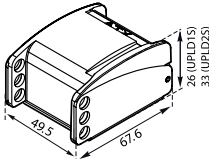






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Accessories - Continued:

	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 1NC contact	UCB5R UCB9R
	Yellow Guard Mushroom head protection for emergency stop	098657
	Padlockable Guard Stainless steel and plastic cover, capacity: 3 padlocks dia. 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 with entry thread seal M20 (capacity 6.5-14.5 mm) M25 (capacity 8-18.5 mm)	095605 095606
	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) M25 (inner: 11.1-20.0 / outer: 18.2-26.2 mm) Single Wired Armor (SWA): M20 (inner: 6.4-14.0 / outer: 12.5-20.9 mm) M25 (inner: 11.1-20.0 / outer: 18.2-26.2 mm)	20E1FX5 25E1FX5 20E1FW5 25E1FW5
	Adaptors Exd / Exe - IP66 in nickel plated brass (without entry thread seal) Male M25 - Female 1" NPT Male M25 - Female 3/4" NPT Male M20 - Female 1/2" NPT Male M20 - Female 3/4" NPT	737DM3T35 737DM3T25 737DM2T15 737DM2T25
	Entry Thread Seal M20 (in black neoprenne) M25 (in black neoprenne) M20 (in white nylon) M25 (in white nylon)	20ETS 25ETS 20ETS2 25ETS2
	Combination Drain and Breather Exe - IP66 - supplied with entry thread seal and locknut M20 male thread in polyamide M20 male thread in brass M20 male thread in stainless steel	DBE20P DBE20B DBE20S
	Feedthrough Earth Stud Terminal Exe - IP66 – supplied with entry thread seal, locknut and green/yellow earth conductor (length 300 mm) M20 with M5 earth and 2.5 mm² conductor M25 with M6 earth and 6 mm² conductor	PREESTM20 PREESTM25

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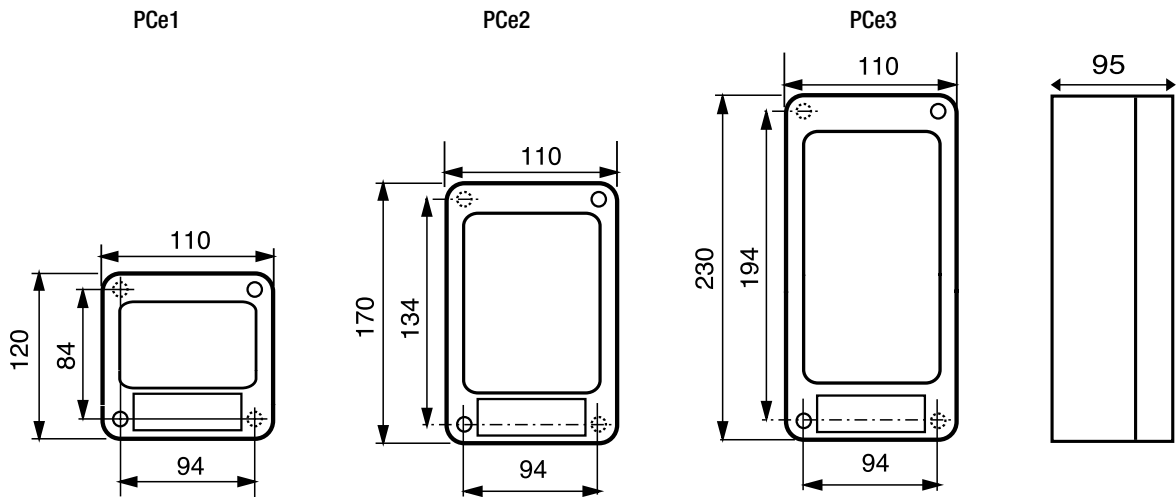
Compliances:

Hazardous Area	Gas	Dust
Certified Type	PCe	
Zones	1–2	21–22
Conforming to ATEX 94/9/CE	CE 0081 Ex II 2 G	CE 0081 Ex II 2 D
Symbol of Protection ATEX	Ex de IIC / Ex demb IIC	Ex tD A21
Symbol of Protection IEC		
T Rating	T6	N.A.
Surface Temperature	N.A.	T75°C
Ambient Temperature	-55°C to +60°C	
CE Declaration of Conformity	50221	
ATEX Certificate	LCIE 00 ATEX 6047	
IEC Certificate	LCIE Ex 00.017	
Other Certifications	GOST	
Index of Protection (solid and liquid)	IP66	
Impact Resistance (shock)	IK10	

Standards:

Ex Standards	EN / IEC 60079-0; 60079-1; 60079-7; 60079-18; 61241-0; 61241-1
Product Standards	EN / IEC 60947-1; 60947-5
EMC Standards	–
Other Standards	EN / IEC 60529 (IP); 62262 (IK)

Dimensions (mm):



Fixing Details for above Boxes: Two Holes Ø 5