

UniStream® Local Expansion Adapter Kits

User Guide
UAG-XKxxx, UAG-XKPxxx,
UAG-CX-XKPxxx, UAG-CX-XKPLxxxx,
and UAG-XKPLxxxx

Local Expansion Adapter Kits allow you to increase the number of I/Os connected to a single UniStream® by enabling you to link the controller to additional Uni-I/O™ modules.

This guide provides specifications for Unitronics' Short Range and Long Range Local Expansion Adapter Kit for Uni-I/O™.

All Kits comprise a Base unit, an End unit, and a connecting cable. The cable length varies according to kit model.

- Short-range adapter Kits
Up to 3 meters
- Long-range adapter Kits
3 meters and up

Kits whose models contain the letter 'P' include a built-in power supply; a powered adapter module supports a greater number of I/O modules.

There are two main classes of adapters:

▪ UAG-~~X~~K

Both the Base and End units of these adapters have DIN-rail clips. You can:

- Snap the base onto the DIN-rail type structure on the back of **UniStream Modular HMI**
- Snap the base directly onto a **UniStream PLC**

▪ UAG-CX

The base unit of these adapters has a plug; the end unit has DIN-rail clips. You can plug the base unit only into the **I/O Expansion Jack** offered by the **UniStream Built-in series**.

Note that the maximum number of modules supported by a single controller is provided in the controller's technical specifications.

Technical specifications are available in Unitronics' Technical Library at www.unitronicsplc.com.

Adapter Models

The 'x's in the model numbers are placeholders for the cable lengths.

Model	Installation Options	Integrated Power Supply	Module Support
UAG-XKxxx	DIN-rail structure DIN-rail	No	8, includes any modules directly connected to the controller
UAG-XKPxxx		Yes	16, in addition to any modules directly connected to the controller
UAG-XKPLxxxx			
UAG-CX-XKPxxx, UAG-CX-XKPLxxxx	Plug into controller Jack	Yes	16



Before You Begin

Before installing the device, the installer must:


- Read and understand this document and related technical specifications and documents, located in the Technical library section of the Unitronics website.
- Verify the Kit Contents.

Alert Symbols and General Restrictions


When any of the following symbols appear, read the associated information carefully.

Symbol	Meaning	Description
	Danger	The identified danger causes physical and property damage.
	Warning	The identified danger could cause physical and property damage.
Caution	Caution	Use caution.

- All examples and diagrams are intended to aid understanding, and do not guarantee operation. Unitronics accepts no responsibility for actual use of this product based on these examples.
- Please dispose of this product according to local and national standards and regulations.
- This product should be installed only by qualified personnel.



-  Failure to comply with appropriate safety guidelines can cause severe injury or property damage.
- Do not attempt to use this device with parameters that exceed permissible levels.
- Do not connect/disconnect the device when power is on.

Environmental Considerations

-  Ventilation: 10mm (0.4") of space is required between the device top/bottom edges and the enclosure's walls.
- Do not install in areas with: excessive or conductive dust, corrosive or flammable gas, moisture or rain, excessive heat, regular impact shocks or excessive vibration, in accordance with the standards and limitations given in the product's technical specification sheet.
- Do not place in water or let water leak onto the unit.
- Do not allow debris to fall inside the unit during installation.
- Install at maximum distance from high-voltage cables and power equipment.



UL Ratings, Programmable Controllers for Use in Hazardous Locations, Class I, Division 2, Groups A, B, C and D

These Release Notes relate to all Unitronics products that bear the UL symbols used to mark products that have been approved for use in hazardous locations, Class I, Division 2, Groups A, B, C and D.

- | | |
|--|--|
| <p>Caution</p> <p></p> <p></p> | <ul style="list-style-type: none"> ▪ This equipment is suitable for use in Class I, Division 2, Groups A, B, C and D, or Non-hazardous locations only. ▪ Input and output wiring must be in accordance with Class I, Division 2 wiring methods and in accordance with the authority having jurisdiction. ▪ WARNING—Explosion Hazard—substitution of components may impair suitability for Class I, Division 2. ▪ WARNING – EXPLOSION HAZARD – Do not connect or disconnect equipment unless power has been switched off or the area is known to be non-hazardous. ▪ WARNING – Exposure to some chemicals may degrade the sealing properties of material used in Relays. ▪ This equipment must be installed using wiring methods as required for Class I, Division 2 as per the NEC and/or CEC. |
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Certification UL des automates programmables, pour une utilisation en environnement à risques, Class I, Division 2, Groups A, B, C et D.

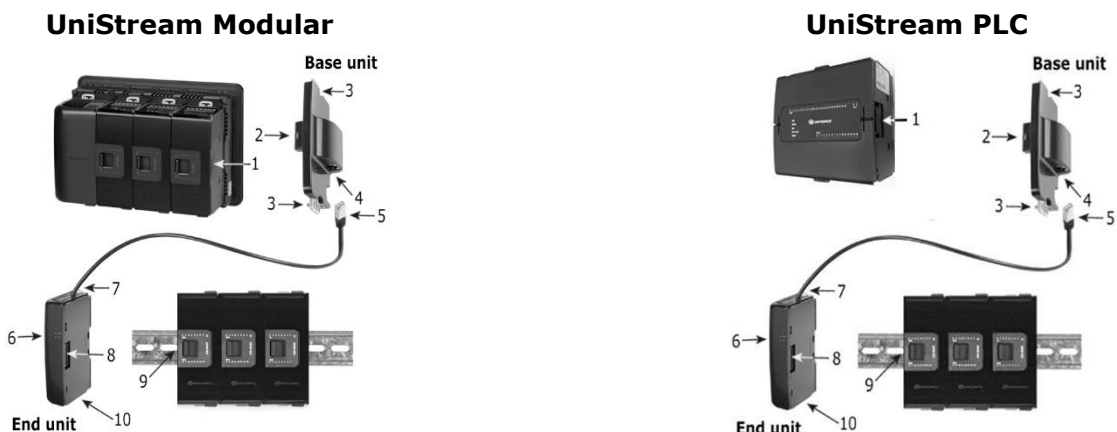
Cette note fait référence à tous les produits Unitronics portant le symbole UL - produits qui ont été certifiés pour une utilisation dans des endroits dangereux, Classe I, Division 2, Groupes A, B, C et D.

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| <p>Attention</p> <p></p> <p></p> | <ul style="list-style-type: none"> ▪ Cet équipement est adapté pour une utilisation en Classe I, Division 2, Groupes A, B, C et D, ou dans Non-dangereux endroits seulement. ▪ Le câblage des entrées/sorties doit être en accord avec les méthodes de câblage selon la Classe I, Division 2 et en accord avec l'autorité compétente. ▪ AVERTISSEMENT: Risque d'Explosion – Le remplacement de certains composants rend caduque la certification du produit selon la Classe I, Division 2. ▪ AVERTISSEMENT - DANGER D'EXPLOSION - Ne connecter pas ou ne débranche pas l'équipement sans avoir préalablement coupé l'alimentation électrique ou la zone est reconnue pour être non dangereuse. ▪ AVERTISSEMENT - L'exposition à certains produits chimiques peut dégrader les propriétés des matériaux utilisés pour l'étanchéité dans les relais. ▪ Cet équipement doit être installé utilisant des méthodes de câblage suivant la norme Class I, Division 2 NEC et /ou CEC. |
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Kit Contents				
Item	Qty	UAG-XKxxx	UAG-XKPxxx UAG-CX-XKPxxx	UAG-CX-XKPLxxxx UAG-XKPLxxxx
Local Expansion Base Unit	1	✓	✓	✓
Local Expansion End Unit	1	✓	✓	✓
Requires connection to external Power Supply	-	-	✓	✓
Cable	1	Integrated	Integrated	✓
Terminal Block	1	✓	✓	✓

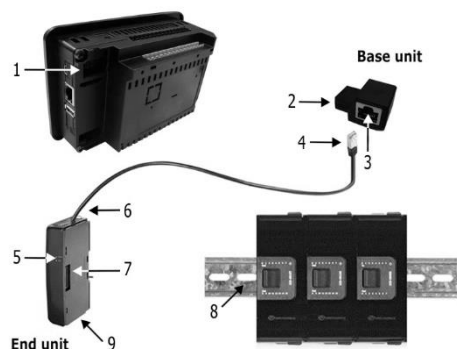
Item P/N	Accessories P/N		
Item	Base Unit	Cable	End Unit
UAG-XKxxx	UAG-XKxxx	CEXP-125 / 300	UAG-XKxxx
UAG-XKPxxx	UAG-XKPxxx	CEXP-125 / 300	UAG-XKPxxx
UAG-XKPLxxxx	UAG-XKPLxxxx	CEPL-600 / 1200 / 1500 / 2000 / 3000	UAG-XKPLxxxx
UAG-CX-XKPxxx	UAG-CX-XB-01	CEXP-125 / 300	UAG-CX-XKPxxx
UAG-CX-XKPLxxx	UAG-CX-XBL-01	CEPL-600 / 1200 / 1500 / 2000 / 3000	UAG-CX-XKPLxxx

Assembly Diagram: Short-range Adapters UAG-XKxxx and UAG-XKPxxx

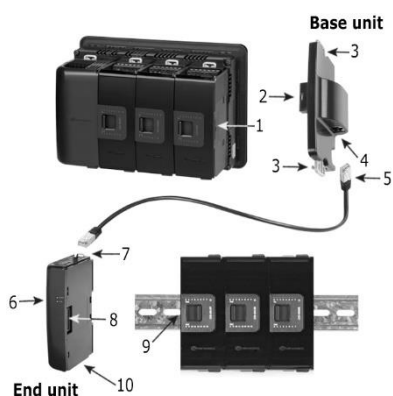
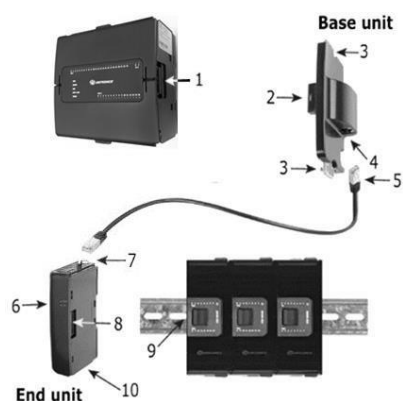


- 1 Bus connector
- 2 Base Unit plug
- 3 Clips
- 4 Base Unit's cable port
- 5 Cable with RJ45 connector
- 6 End Unit LED indicators
- 7 DIN-rail clips, top and bottom
- 8 End Unit I/O bus connector
- 9 I/O Bus - Left side connector
- 10 Model-dependent:
 - UAG-XKxxx earth point connector
 - UAG-XKPxxx power supply connector

Caution ▪ Please note that although they appear similar, the Base Units and End Units of Short-range and Long-range adapters are **not interchangeable**.

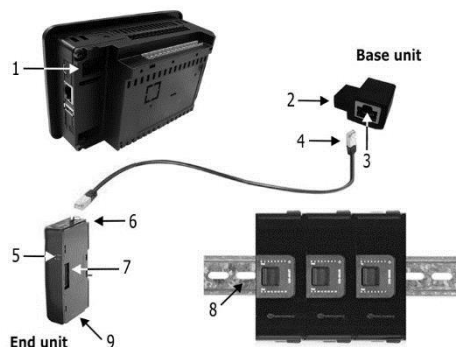
Assembly Diagram: Short-range Adapters UAG-CX-XKPxxx, UAG-CX-XKPLxxxx**UniStream Built-in**

- 1 I/O Expansion Jack
- 2 I/O Expansion Connector
- 3 Base Unit's cable port
- 4 Cable with RJ45 connector
- 5 End Unit LED indicators
- 6 DIN-rail clips, top and bottom
- 7 End Unit I/O bus connector
- 8 I/O Bus - Left side connector
- 9 Power supply connector

Assembly Diagram: Long-range Adapters UAG-XKPLxxxx**UniStream Modular****UniStream PLC**

- 1 Bus connector
- 2 Base Unit plug
- 3 Clips
- 4 Base Unit's cable port. (blue RJ45)
- 5 Cable with RJ45 connectors
- 6 End Unit LED indicators
- 7 DIN-rail clips, top and bottom
- 8 End Unit I/O bus connector
- 9 I/O Bus - Left side connector
- 10 Power supply connector

Caution ■ Please note that although they appear similar, the Base Units and End Units of Short-range and Long-range adapters are **not interchangeable**.

Assembly Diagram: Long-range Adapters UAG-CX-XKPLxxxx**UniStream Built-in**

- 1 I/O Expansion Jack
- 2 I/O Expansion Connector
- 3 Base Unit's cable port
Note: the port on this specific Base Unit is framed in blue.
- 4 Cable with RJ45 connectors
- 5 End Unit LED indicators
- 6 DIN-rail clips, top and bottom
- 7 End Unit I/O bus connector
- 8 I/O Bus - Left side connector
- 9 Power supply connector

Installation Space Considerations

Allocate space for the Base Unit and End Unit according to the dimensions in the kit's technical specifications. Also, consider the space required to install and connect them, as shown in the following Installation instructions.

Installation

- Turn off system power before connecting or disconnecting any modules or devices.
- Use proper precautions to prevent Electro-Static Discharge (ESD).

This kit enables you to connect a UniStream™ controller to a row of Uni-I/O modules located on a DIN-rail. To do this, you must:

- Connect the Base Unit to the controller.
- Connect the End Unit to the first module in a row of Uni-I/O modules.
- Link the End Unit into the Base Unit via the connecting cable.
- If you are using a:
 - UAG-XKPxxx, UAG-CX-XKPxxx, UAG-CX-XKPLxxxx, UAG-CX-XKPLxxxx or the UAG-XKPLxxxx, connect it to a power source
 - UAG-XKxxx, only earth it.

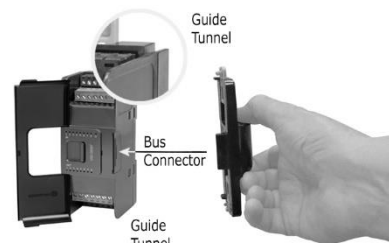
Connecting the Adapter's Base Unit: UniStream Modular

Note that:

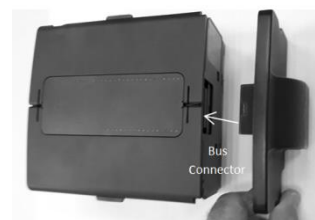
- Any Uni-COM™ modules snapped to the back of the UniStream HMI panel must be connected directly to the CPU-for-Panel or to another Uni-COM module.
- You must plug the Base Unit into the last element on the back of the UniStream™ HMI Panel. This may be a Uni-COM™, or Uni-I/O™ module.
- If the CPU-for-Panel is the only element that is plugged onto the back of the HMI Panel, plug the Base unit into it.

UAG-XKxxx, UAG-XKPxxx and UAG-XKPLxxxx

1. Hold the Base Unit as shown in the accompanying figure, and plug it into the last device installed on the back of the HMI panel.
Verify first that its Bus Connector is not covered.
2. Click the top and bottom clips into the Guide Tunnel of the last device.

**Connecting the Adapter's Base Unit: UniStream PLC****UAG-XKxxx, UAG-XKPxxx and UAG-XKPLxxxx**

1. Hold the Base Unit as shown in the accompanying figure, and plug it into the Bus Connector on the right side of the UniStream PLC.
Verify first that the connection point is not covered.
2. Click the top and bottom clips down onto the PLC.

**Connecting the Adapter's Base Unit: UniStream Built-in****UAG-CX-XKPxxx, UAG-CX-XKPLxxxx and UAG-CX-XKPxxx, UAG-CX-XKPLxxxxx**

1. Hold the Base Unit as shown in the accompanying figure, and plug it into the I/O Expansion Jack in the rear of the device.

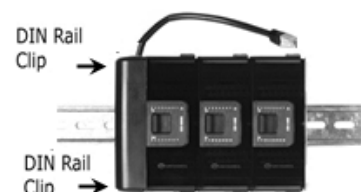
**Connecting the Adapter End Unit**

1. Push the End Unit onto the DIN-rail until the clips located at the top and bottom of the unit have snapped onto the DIN-rail.
2. Install Uni-I/O™ modules to the right of the End unit. Please refer to the specific Installation Guide of each Uni-I/O™ module.
3. Slide the Bus Connector Lock of the first module all the way to the left.

Connecting the Cable

Short-range kit: Link the adapter's units by plugging the RJ45 of the End Unit's cable into the port at the bottom of the Base Unit.

Long-range kit: Connect both sides of the blue cable to the RJ45 ports of the adapter's Base and End units. Please refer to the Long Range Adapter Assembly Diagram.

**Connecting the Power Supply and Earth**

If you are using a UAG-XKxxx, only earth it.

All other models: connect it to a power source as described on page 7.



- Do not connect the cable to any device other than the Base Unit.
- Do not connect the Base Unit's cable port to any other cable or device.

Wiring

- ⚠ This equipment is designed to operate only at SELV/PELV/Class 2/Limited Power environments.
- All power supplies in the system must include double insulation. Power supply outputs must be rated as SELV/PELV/Class 2/Limited Power.
 - Do not connect either the 'Neutral' or 'Line' signal of the 110/220VAC to device's 0V point.
 - Do not touch live wires.
 - All wiring activities should be performed while power is OFF.
 - Use over-current protection, such as a fuse or circuit breaker, to avoid excessive currents into the UAG-XKPxxx, UAG-CX-XKPxxx, UAG-CX-XKPLxxxx, or UAG-XKPLxxxx supply port.
 - Unused points should not be connected (unless otherwise specified). Ignoring this directive may damage the device.
 - Double-check all wiring before turning on the power supply.

- Caution
- To avoid damaging the wire, use a maximum torque of 0.5 N·m (5 kgf·cm).
 - Do not use tin, solder, or any substance on stripped wire that might cause the wire strand to break.
 - Install at maximum distance from high-voltage cables and power equipment.

Wiring Procedure

Use crimp terminals for wiring; use 26-12 AWG wire (0.13 mm² –3.31 mm²).

1. Strip the wire to a length of 7±0.5mm (0.250–0.300 inches).
2. Unscrew the terminal to its widest position before inserting a wire.
3. Insert the wire completely into the terminal to ensure a proper connection.
4. Tighten enough to keep the wire from pulling free.

Wiring Guidelines

In order to ensure that the device will operate properly and to avoid electromagnetic interference:

- Use a metal cabinet. Make sure the cabinet and its doors are properly earthed.
- Use wires that are properly sized for the load.
- Connect the 0V point of the UAG-XKPxxx, UAG-CX-XKPxxx, UAG-CX-XKPLxxxx, or UAG-XKPLxxxx directly to the power supply 0V terminal.
- Connect the functional ground point (⏏) to the earth of the system (preferably to the metal cabinet chassis).
Use the shortest and thickest wires possible: less than 1m (3.3') in length, minimum thickness 14 AWG (2 mm²).
- Connect the power supply 0V to the earth of the system.

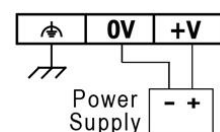
NOTE For detailed information, refer to the document System Wiring Guidelines, located in the Technical Library in the Unitronics' website.

Wiring the Power Supply (UAG-XKPxxx, UAG-CX-XKPxxx, UAG-CX-XKPLxxxx, or UAG-XKPLxxxx)

These end units require an external 12 or 24VDC power supply.

- ⚠
- The 0V of these end units must be connected to the controller's 0V. Ignoring this directive may damage the device.
 - In the event of voltage fluctuations or non-conformity to voltage power supply specifications, connect the device to a regulated power supply.

Connect the +V and 0V terminals as shown in the accompanying figure.



Removing the Expansion Adapter

1. Turn off the system power.
2. Remove the Power/Earth terminal block from the bottom of the End unit.
3. Disconnect the cable:
 - Short-Range: Unplug the cable from the RJ45 port on the Base Unit.
 - Long-Range: Unplug the blue cable from the RJ45 ports of the Base and the End units.
4. To remove the Base unit:
 - UAG-XKPxxx, UAG-XKxxx, UAG-XKPLxxxx Pull the top clip up and the bottom clip down, and pull the unit slowly away until the plug disengages.
 - UAG-CX-XKPxxx, UAG-CX-XKPLxxxx, UAG-CX-XKPLxxxx Pull the unit slowly away until the plug disengages.
5. To remove the End unit:
 - Locate the Bus connector lock of the Uni-I/O™ module connected to the End Unit and slide it to the right.
 - Pull the End Unit's top DIN-rail clip up and the bottom clip down.
 - Pull the End Unit out of its place (away from the DIN rail).

UniStream®

Technical Specifications

**UAG-XKxxx, UAG-XKPxxx,
UAG-CX-XKPxxx, UAG-CX-XKPLxxxx
and UAG-XKPLxxxx**

This guide provides specifications for Unitronics' Short Range and Long Range Local Expansion Adapter Kit for Uni-I/O™.

All Kits comprise a Base unit, an End unit, and a connecting cable. The cable length varies according to kit model.

- Short-range adapter Kits
Up to 3 meters
- Long-range adapter Kits
3 meters and up

Kits whose models contain the letter 'P' include a built-in power supply; a powered adapter module supports a greater number of I/O modules.

There are two main classes of adapters:

- **UAG-XK**
Both the Base and End units of these adapters have DIN-rail clips. You can:
 - Snap the base onto the DIN-rail type structure on the back of **UniStream Modular** HMI
 - Snap the base directly onto a **UniStream PLC**
- **UAG-CX**
The base unit of these adapters has a plug; the end unit has DIN-rail clips. You can plug the base unit only into the **I/O Expansion Jack** offered by the **UniStream Built-in series**.

Note that the maximum number of modules supported by a single controller is provided in the controller's technical specifications.

Technical specifications are available in the Unitronics Technical Library at www.unitronicsplc.com.

Adapter Models

The 'x's in the model numbers are placeholders for the cable lengths.

Model	Installation Options	Integrated Power Supply	Module Support
UAG-XKxxx	DIN-rail structure DIN-rail	No	8, includes any modules directly connected to a controller
UAG-XKPxxx		Yes	16, in addition to any modules directly connected to a controller
UAG-XKPLxxxx		Yes	
UAG-CX-XKPxxx	Plug into controller Jack	Yes	16
UAG-CX-XKPLxxxx			

Power Supply

- Adapters without an integrated power supply:
UniStream Modular and UniStream PLC controllers can supply power to a maximum of 8 modules. Adapters that do not have a power supply draw power from UniStream and supply it to the modules. This means, for example, that if there are 3 modules directly connected to the controller, you can add an additional 5 via this type of adapter.
- Adapters with integrated power supply:
must be connected to a 24VDC power source. The adapter can then supply up to 16 modules with power, regardless of any directly connected to the controller.

Power Supply	UAG-XKxxx	UAG-XKPxxx, UAG-CX-XKPxxxx, UAG-CX-XKPLxxxx, UAG-XKPLxxxx
Input voltage	Not applicable	12 or 24 VDC
Permissible range	Not applicable	10.2 to 28.8 VDC
Max. current consumption	Not applicable	0.9@12VDC, 0.5A@24VDC

Available Cable Length	
Module	Length
UAG-XK125	125cm (49")
UAG-XKP125	125cm (49")
UAG-CX-XKP125	125cm (49")
UAG-XK300	300cm (118")
UAG-XKP300	300cm (118")
UAG-CX-XKP300	300cm (118")
UAG-CX-XKPL600	600cm (20')
UAG-CX-XKPL1200	1200cm (40')
UAG-CX-XKPL1500	1500cm (50')
UAG-CX-XKPL2000	2000cm (66')
UAG-CX-XKPL3000	3000cm (98')
UAG-XKPL600	600cm (20')
UAG-XKPL1200	1200cm (40')
UAG-XKPL1500	1500cm (50')
UAG-XKPL2000	2000cm (66')
UAG-XKPL3000	3000cm (98')

LED Indications			
Base Unit	There are no LEDs in the Base Unit.		
End Unit	Green	Output state	Comment
UAG-XKxxx	Link	Off	Cable is not connected, or no power from the Base unit
		On	Link has been established with the base unit
UAG-XKPxxx UAG-CX-XKPxxxx UAG-XKPLxxxx UAG-CX-XKPLxxxx	Power	Off	No external power
		On	External power is connected to the unit
	Link	Off	Cable is not connected, or no power from the Base unit
		On	Link has been established with the base unit

Daisy-Chaining: Extending and Expanding I/Os

Up to five Local Expansion Adapters may be chained to each other. The maximum number of I/O modules that can be connected to a single controller is:

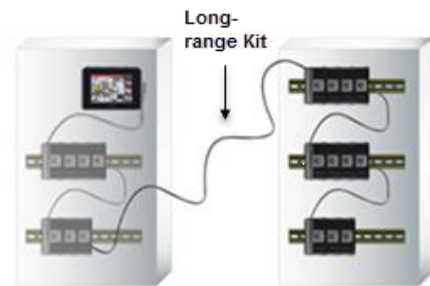
- 85, for UniStream modular. This includes modules directly connected to the controller.
- 88, for UniStream PLC. This includes modules directly connected to the controller.
- 80, for UniStream built-in with I/O Expansion Jack.

UniStream can be expanded locally in a single cabinet, using Short range Adapters of up to 3 meters each (UAG-XKxxxx , UAG-XKPxxxx and UAG-CX-XKPxxxx).

It can also be expanded further to another cabinet, using the Long Range Expansion Adapter (UAG-XKLxxxx, UAG-CX-XKPLxxxx) as shown in the following drawings:



Single Cabinet



Two Cabinets

Daisy-chaining Rules

- In order to connect a UniStream™ controller to more than one row of I/O modules via Local I/O Expansion adapters, you must follow these rules:
- UniStream Modular and UniStream PLC
- Up to 2 Short-range adapters can be daisy-chained to the controller or to any of the modules that are connected directly to the controller. These may be either two UAG-XKPxxxx (that include an integrated power-supply), or one UAG-XKPxxxx and one UAC-XKxxxx.
- When daisy chaining, you can include only 1 Long-range adapter. You may connect it directly to the controller or to any of the elements that are expanded from it.

UniStream Built-in

- Up to 2 Short-range adapters can be daisy-chained to the controller. A UAG-CX-XKPxxx must be plugged into the jack, and may be followed by a UAG-XKPxxxx or one UAC-XKxxxx.
- UniStream™ controllers of all series
- Since long range adaptors have integrated power supplies, you may follow any Long-range adapter by daisy-chaining up to 2 Short range adapters. These may be either two UAG-XKPxxxx, or one UAG-XKPxxxx and one UAG-XKxxxx.

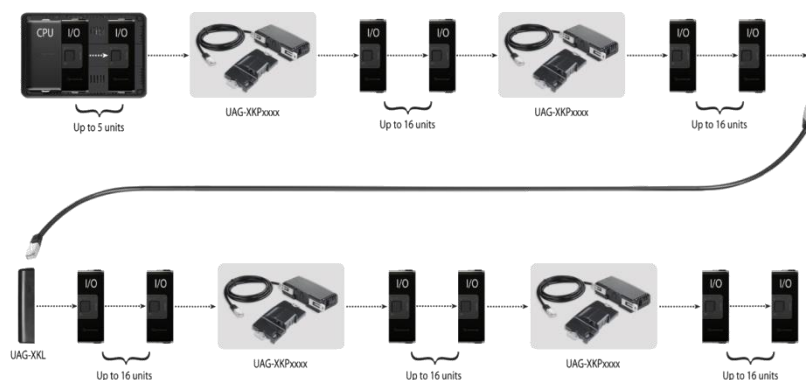
Configuration Examples

Notes:

1. All examples use the USP-104-B10 10.4" HMI panel.
2. The amount of modules at all examples relate to Uni-I/O modules. You can mix Uni-I/O modules with Uni-I/O Wide modules, considering that 1 Uni-I/O Wide module equals 1½ Uni-I/O module.

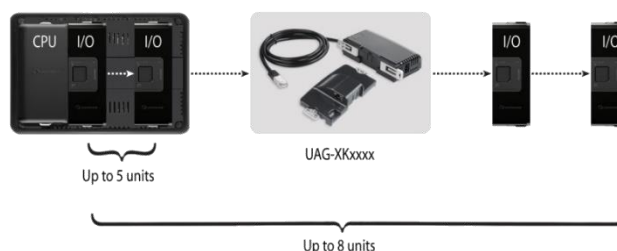
Configuring for maximum I/Os

The figure below shows the greatest number of I/O modules that can be connected to a single UniStream™ controller using Uni-I/O modules and 5 Local I/O Expansion adapters with power supplies.

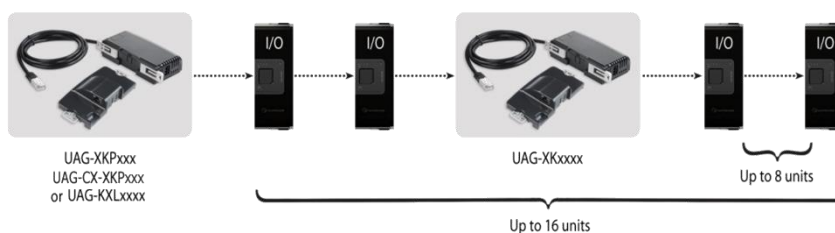


Configurations with Short-range adapter, no Power Supply (UAG-XKxxxx).

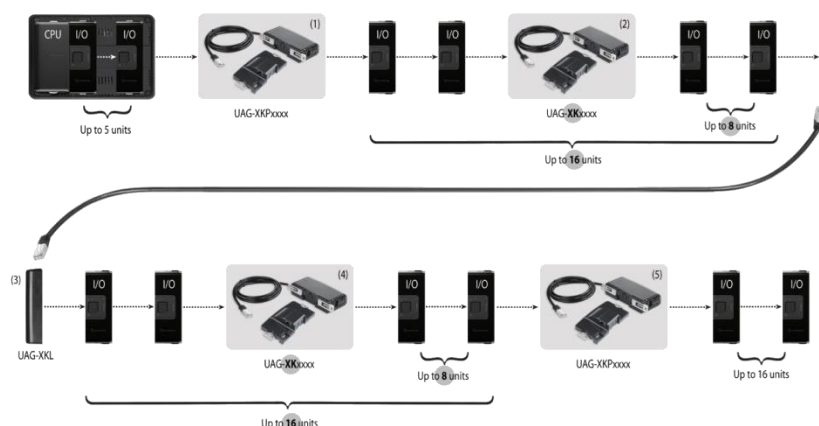
If UAG-XKxxxx is the only adapter connected to the controller, the system can support up to 8 modules.



If a UAG-XKxxxx follows another adapter with an integrated power supply, the support capacity of that powered module limits the number of Uni-I/Os that can be connected to the UAG-XKxxxx; in any event, no more than 8 Uni-I/Os can follow a UAG-XKxxxx adapter.



This example combines all types of adapters:



Daisy-chaining Configuration Summary

UniStream Modular and UniStream PLC

The tables below show the possible configurations between two cabinets.

Optional configurations in the cabinet
with the UniStream Controller

Controller	1st	2nd	Max. UniStream Modular 7"	Max. UniStream Modular 10.4",15.6"	Max. UniStream PLC
	-	-	3	5	8
	XK	-	8	8	8
	XKP	-	19	21	24
	XKP	XK	19	21	24
	XK	XKP	24	24	24
	XKP	XKP	35	37	40

Optional configurations
in the other cabinet

	3rd	4th	5th	Max. Modules
		-	-	16
		XK	-	16
		XKP	-	32
		XKP	XK	32
		XK	XKP	32
		XKP	XKP	48

XK-UAG-XKxxxx (Short Range Local Expansion Adapter without power supply)

XKP-UAG-XKPxxxx (Short Range Local Expansion Adapter with power supply)

XKL-UAG-XKLxxxx (Long Range Local Expansion Adapter)

NOTE	Each combination in the right table can be used with each combination in the left table. They are independent of each other and the total number of I/O modules that are supported is the sum of the two tables.
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UniStream™ built-in

You must use the UAG-CX-XKPxxx or UAG-CX-XKPLxxx, and it must be the adapter that is directly connected to the controller.

Optional configurations in the cabinet
with the UniStream Controller

Controller	1st	2nd	Max. Modules
	-	-	0
		-	16
		XK	24
		XKP	32

Optional configurations
in the other cabinet

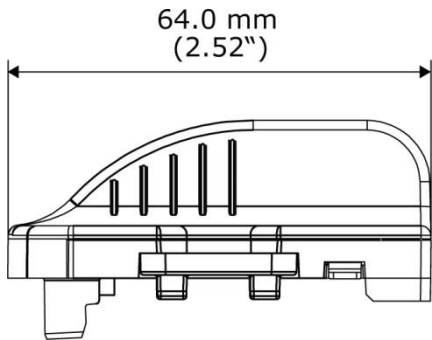
	3rd	4th	5th	Max. Modules
		-	-	16
		XK	-	16
		XKP	-	32
		XKP	XK	32
		XK	XKP	32
		XKP	XKP	48

Environmental

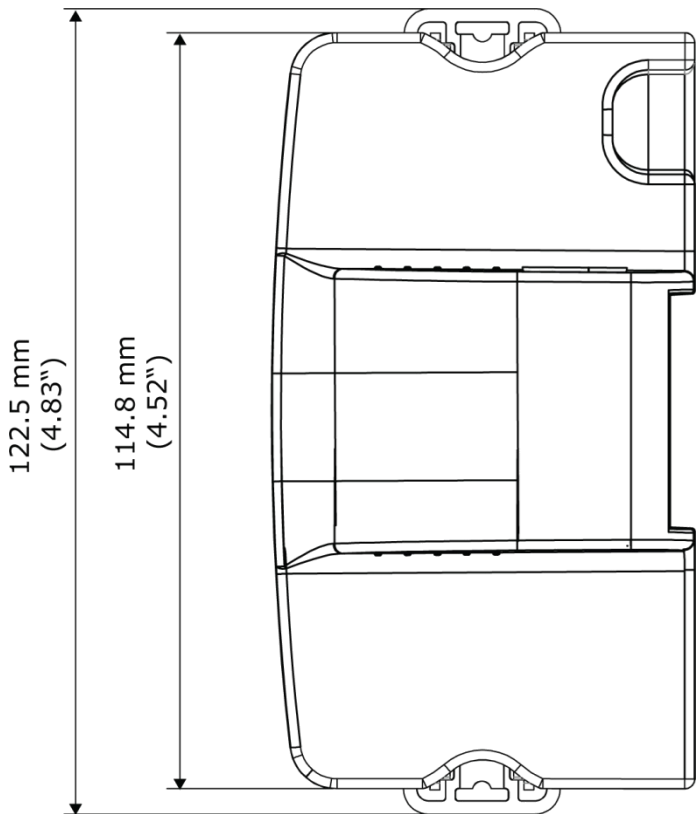
Protection	IP20, NEMA1
Operating Temperature	-20°C to 55°C (-4°F to 131°F)
Storage Temperature	-30°C to 70°C (-22°F to 140°F)
Relative Humidity (RH)	5% to 95% (non-condensing)
Operating Altitude	2,000 m (6,562 ft)
Shock	IEC 60068-2-27, 15G, 11ms duration
Vibration	IEC 60068-2-6, 5Hz to 8.4Hz, 3.5mm constant amplitude, 8.4Hz to 150Hz, 1G acceleration

Dimensions	UAG-XKxxx	UAG-XKPxxx	UAG-XKPLxxxx	UAG-CX-XKPxxx	UAG-CX-XKPLxxxx
Weight	Base: 65 g (0.14 lb) End: 142 g (0.31 lb)	Base: 65 g (0.14 lb) End: 150 g (0.33 lb)	Base: 64 g (0.14 lb) End: 92 g (0.2 lb)	Base: 15 g (0.033 lb) End: 150 g (0.33 lb)	Base: 15 g (0.14 lb) End: 92 g (0.2 lb)
Size	Refer to the images below				

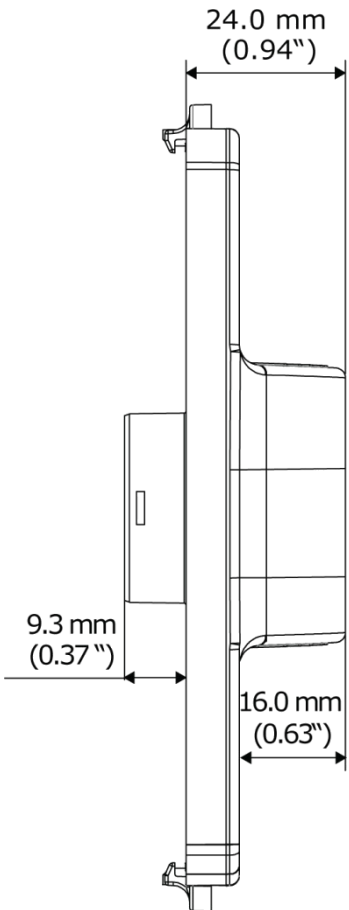
Base Unit (UAG-XKxxx, UAG-XKPxxx and UAG-XKPLxxxx)



Top View

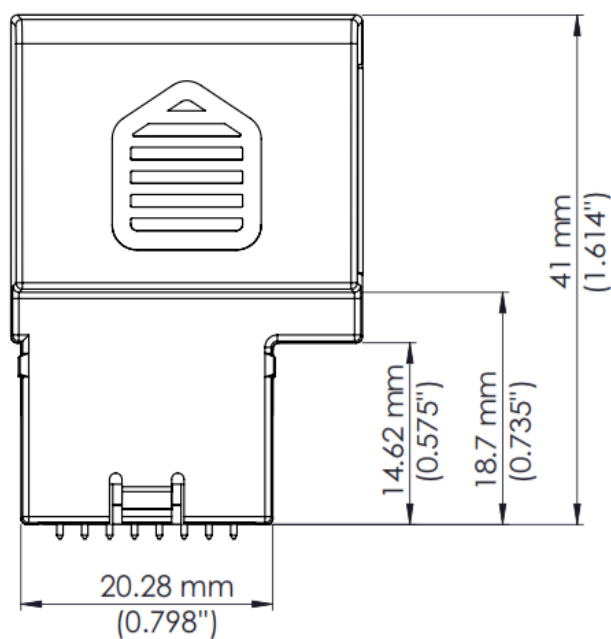


Side View

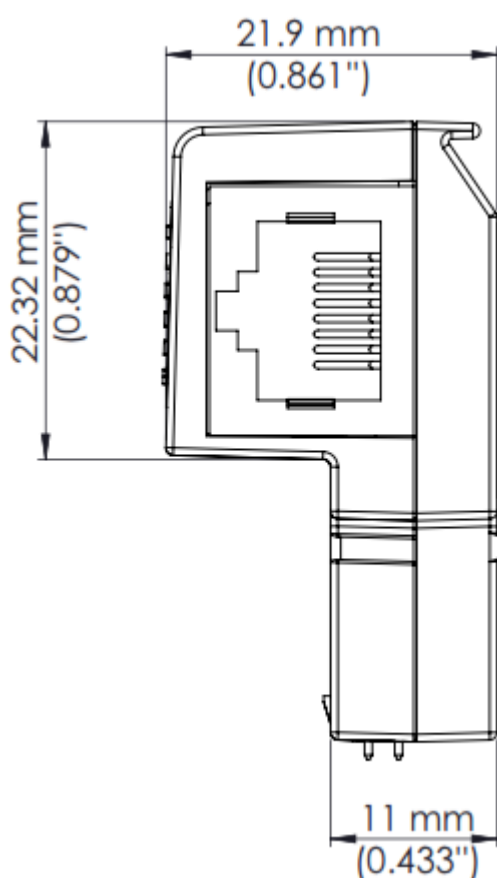


Front View

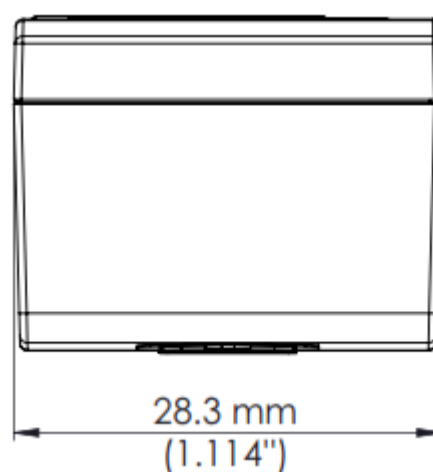
Base Unit (UAG-CX-XKPxxx, UAG-CX-XKPLxxxx)



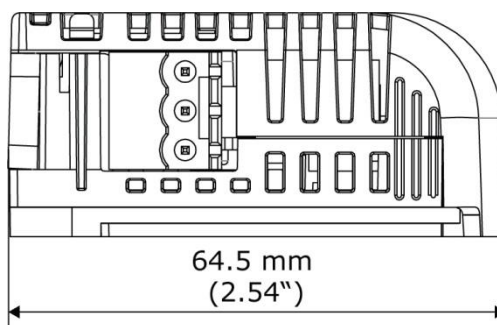
Top View



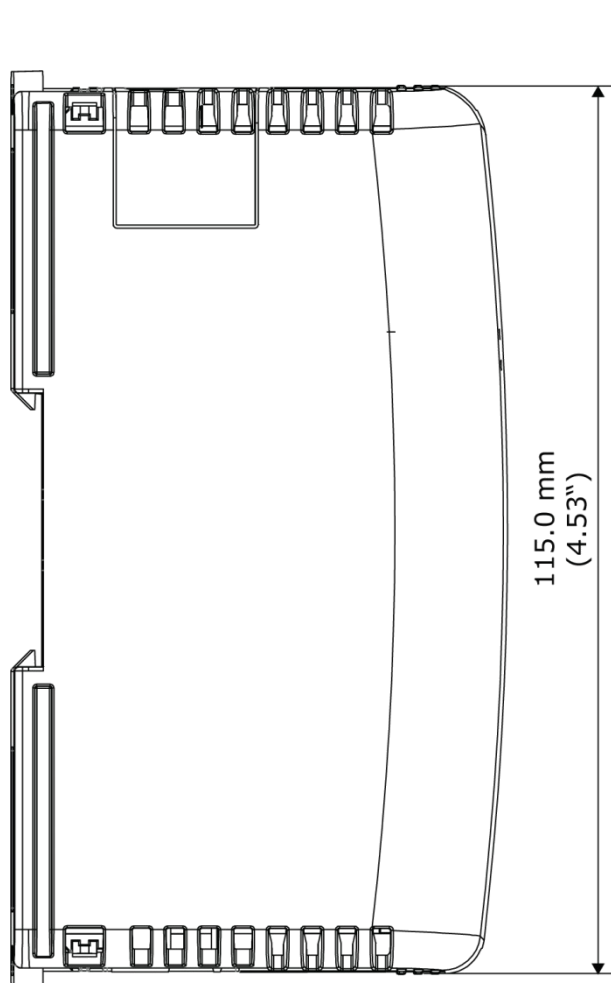
Side View



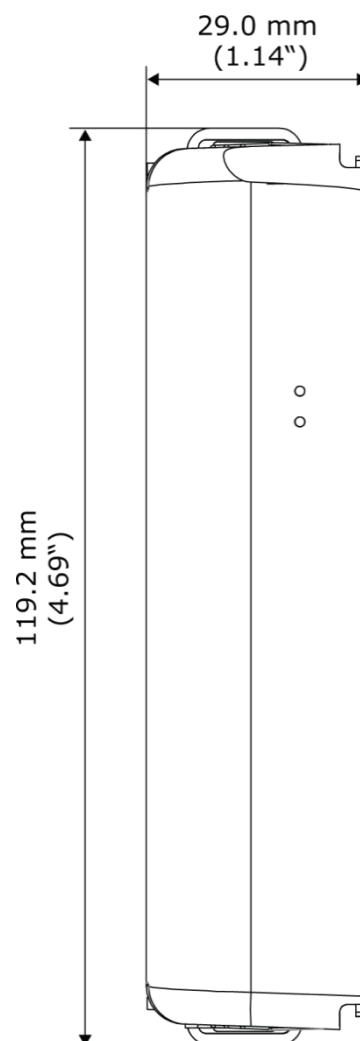
Front View

End Unit

Top View



Side View



Front View

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