

UNISTREAM®

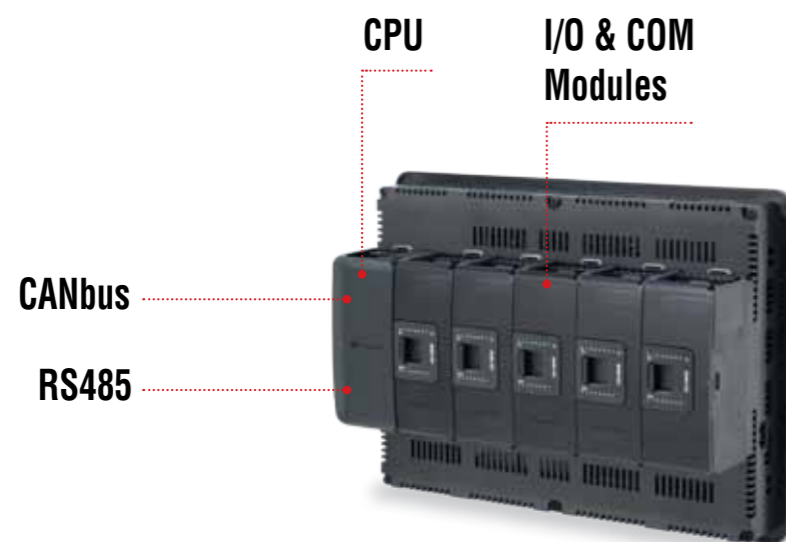
Powerful Award-winning Programmable Logic Controllers

For high-end automation projects, available in two All-in-One series:
Modular & Built-in.

UniStream® Modular

Create a custom control solution, perfectly matched to your requirements

Uniquely designed to enable you to create a customized controller in three steps: select an HMI panel, snap in a CPU, and add any I/O or communication modules necessary for your specific application.



UniStream® Built-in

Space-saving PLC that delivers the functionality to control complex machines

PLC+HMI+I/O built into a single, superbly compact unit in a range of built-in I/O configurations. Available in two versions: Built-in and Built-in Pro.



UniLogic®-UniStream®

All-in-One Programming Software



Ultimate All-in-One programming environment: configure hardware & communications, program Ladder, design HMI & web pages, configure & control VFDs and more.

New! Configure & Operate...

Unitronics VFDs using the same, efficient software

Build-it-Once...

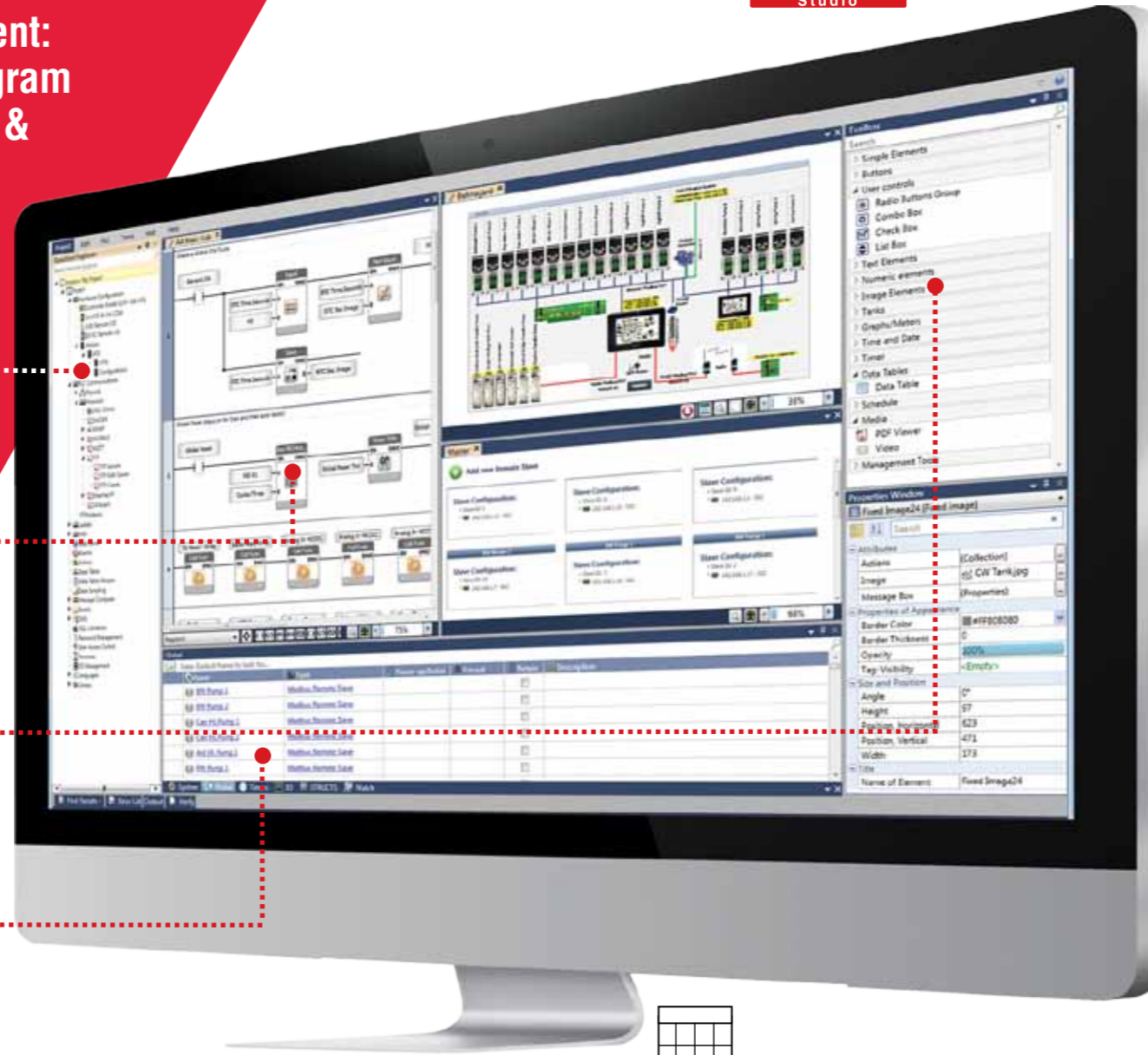
Reuse Library: Functions, HMI & Webpages

Context-sensitive...

Toolbox for Ladder, HMI & Web Elements

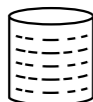
Power from C...

Structs & C Functions



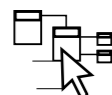
MQTT

Via MQTT, UniStream bridges between the production floor all the way up to the MES. Supports MQTT as a 'client' that can both publish and subscribe to messages.



Structs - Tag Database on Steroids

You create Structs - groups of data tags of different types organized into a single, logical unit - and reuse them across programs, especially with UDFBs (User Defined Function Blocks). UniLogic's built-in Structs enable you to configure and control hardware and complex functions such as Communications and PID.



Speed Ladder Programming - plus "C" Power

Build your Ladder: drag & drop elements that snap into place, error-free. Use the built-in C Function editor to write C functions. UniLogic means you 'write-it-once': create code to use, reuse, and export across projects.

Create UDFBs (User Defined Function Blocks) - self-contained functions for tasks such as oven control.



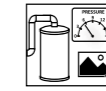
Power Data Tools - Data Sampler, Data Tables, Recipes, SQL

Data Samplers record dynamic application data, such as output values, at fixed intervals into files and display it as Trend graphs on the HMI. Data Tables organize and manipulate data via Ladder, create data logs, implement Recipes, import/export values from/to Excel, allow users to enter/edit data into Data Tables via HMI panel, and more. NEW SQL Connector: Access SQL databases, run Queries, connect Data Tables to SQL.



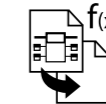
Web Server: Web Pages - No HTML Required

Design elegant web pages via a drag & drop interface, identical to the HMI editor. A rich graphic library is at your disposal. The Web toolbox offers user controls and widgets, enabling the end user to view and enter application data via any web browser.



Design Beautiful HMI Displays - Stream Video, Audio, PDF

UniLogic's extensive free graphics library & HMI widgets enable you to be a graphic artist. The easy HMI editor supports layers, image transparency, overlap, rotation--plus drag & drop widgets, Video & Audio players, Data Tables, Trend graphs & Gauges to display run-time values, and more.



Build-it-Once, then Reuse - the Ultimate Time Saver

Add your UDFBs, HMI screens, HMI Custom Controls, and Web Pages to the Library--then drag & drop them where needed; UniLogic takes care of the tags. Import your Library into any project, and share it with others.



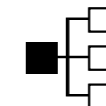
Languages - from Italian to Chinese at the Touch of a Button

UniLogic supports any language that you can type - including Asian languages such as Chinese, Japanese, and Korean. Instantly switch HMI language via user actions or program events.



Built-in Alarms - Easily Boost Application Safety

Compliant with ISA 18.2 standard guidelines for Alarm Management systems in the process industries. Detect & analyze Alarms, and take action. Export Alarm Logs via FTP to send via email, or copy directly from the controller via DOK. Alarms feature full multi-language support.



Communications - Configuration not Programming

Incredibly fast, easy to configure and implement, UniStream data communications run independently of Ladder. A single PLC can contain multiple slave definitions--and multiple master definitions. Communicate with any device: plug-and-play protocols such as MODBUS, CANopen, SNMP, MQTT, and EtherNet/IP. Use Message Composer to communicate with devices such as frequency converters and bar-code readers via any Ethernet, CANbus or serial 3rd-party protocol. Also supports CANLayer 2, FTP Client/Server, SMS, email, GSM/GPRS modem.

UNISTREAM® Modular

Features:

HMI

- Size: 7", 10.4" or 15.6"
- High quality color touchscreen. UniStream 10.4" is also available with Multi-Touch screen
- Multi-language display
- Built-in Alarm Screens
- Media support: Video, Audio and PDF viewer
- Multi-level password protection – easy and fast

PLC

- I/O options include digital, analog, high speed, temperature, and weight measurement
- Expand locally: up to 2048 I/Os
- Expand remotely: via UniStream Ethernet-based I/O
- Auto-tune PID, up to 64 independent loops
- Recipes & data logging via data tables & sampling
- MicroSD card - log, backup, clone & more
- Function Blocks & Structs

Communication

Built-in ports:

- 1 CANbus
- 2 Ethernet TCP/IP
- 1 RS485
- 2 USB host
- 1 Mini USB for programming

Add-on ports:

- Up to 8 RS232 (Using UAC-02RS2)
- Up to 4 RS232 + 4 RS485 (Using UAC-02RSC)

Protocols:

- MQTT Client
- EtherNet/IP
- MODBUS: Serial & TCP/IP
- CANopen, CANlayer2, UniCAN
- SNMP
- BACnet, KNX and M-Bus via gateway
- Message Composer for 3rd party protocols

General Features:

- SQL Client
- Web Server
- FTP server & client
- E-mail & SMS
- Remote access via VNC
- 3G Modem support

3 steps to an All-in-One controller: select HMI panel, add the powerful CPU, and snap on any I/O and COM modules. Expands up to 2048 I/Os.



UniStream® 7"



Available with Multi-Touch

UniStream® 10.4"



UniStream® 15.6"

	UniStream 7	UniStream 10.4	UniStream 15.6
Article Number	USC-P-B10 • USP-070-B08/USP-070-B10	USC-P-B10 • USP-104-B10/USP-104-M10	USC-P-B10 • USP-156-B10
I/O Options			
Total supported I/Os	2048 (See I/O Expansion Modules- page 15)		
Onboard I/O modules	Fit up to 3 slim or 2 wide I/Os ¹	Fit up to 5 slim or 3 wide I/Os ¹	
I/O Expansion	Use Local Expansion Adapters to add up to 80 slim or 50 wide modules ¹		
Remote I/O via Ethernet	Use UniStream Ethernet-based Remote I/O adapters to add I/Os via Ethernet (See I/O Expansion Modules - page 16)		
Add-on COM modules	Supports up to 3 COM modules ¹	Supports up to 4 COM modules ¹	
Program			
Application Memory	8 MB		
HMI Panel			
Color Touchscreen	Resistive, Analog	Resistive, Analog / Multi-Touch	Resistive, Analog
Viewing Area Height x Width (mm)	USP-070-B08: 152.4 x 91.44 USP-070-B10: 154.08 x 85.92	211.2 x 158.4	344.23 x 193.53
Cut Out Height x Width (mm)	134.0 x 196.0	214.0 x 281.0	249.0 x 395.0
Resolution	800 x 480 (WVGA)	800 x 600 (SVGA)	1366 x 768
Keys	Virtual Keyboard		
Environment			
Protection	IP66, IP65 and NEMA4X when panel-mounted ²		
Operating Temperature	-20°C to 55°C		0°C to 50°C
Standard	UL, CE, EAC, UL Hazardous Locations, Class I, Division 2 ⁴		
General			
Battery	4 years typical at 25°C, battery back-up for memory and RTC		
Clock	Real-time clock functions (date and time)		
Power Supply	12/24VDC ³		

Local Expansion Adapters

UAG-XK125	Short Range Kit, 125 cm
UAG-XKP125	Short Range + embedded Power Supply Kit, 125 cm
UAG-XK300	Short Range Kit, 300 cm
UAG-XKP300	Short Range Kit + embedded Power Supply, 300 cm
UAG-XKPLXXX	Long Range + embedded Power Supply, lengths: 600, 1200, 1500, 2000, 3000cm

Uni-COM™ Communication Modules¹

UAC-01RS2	1x RS232
UAC-02RS2	2x RS232
UAC-02RSC	1x RS232 port and 1x RS485 port

¹ Add-on Modules, I/O and COM: the total number of modules, both I/O and COM that you can snap onboard an HMI panel is limited by the size of the panel.

I/O modules are "Slim" & "Wide". 1 "Wide" I/O module = 1.5 "Slim" or COM module.

² UniStream complies with IP66 and NEMA4X only if audio-jack seal is installed. Refer to HMI panel installation guide.

³ 12V applies to PLC power supply only, and not to the I/O.

⁴ For a list of relevant models, contact Unitronics

UNISTREAM® Built-in

Powerful PLC in a superbly compact hardware profile: PLC+HMI+I/Os built into one single unit. Available in two versions: Built-in and Built-in Pro. Expands up to 2048 I/Os.

Features:

HMI

- Size: 5", 7"
- High quality color touchscreen
- Multi-language display
- Built-in Alarm Screens
- Media support: Video*, Audio* and PDF viewer
- Multi-level password protection –easy and fast

PLC

- I/O options include digital, analog, high speed, temperature, and weight measurement
- Expand locally: up to 2048 I/Os
- Expand remotely: via UniStream Ethernet-based I/O
- Auto-tune PID, up to 64 independent loops
- Recipes & data logging via data tables & sampling
- MicroSD card - log, backup, clone & more
- Function Blocks & Structs

Communication

Built-in ports:

- 1 Ethernet TCP/IP
- 1 USB host
- 1 Mini USB for programming

Add-on ports:**

- 1 CANbus
- 1 RS485
- 1 RS232

Protocols:

- MQTT Client
- EtherNet/IP
- MODBUS TCP
- CANopen, CANlayer2, UniCAN
- SNMP
- BACnet, KNX and M-Bus via gateway
- Message Composer for 3rd party protocols

General Features:

- SQL Client*
- Web Server*
- E-mail & SMS
- Remote access via VNC
- FTP server & client
- 3G Modem support

* Pro version only. Model numbers including B5 refer to Built-in, B10 to Built-in Pro.

** Up to 2 serial modules and one CANbus module.



UniStream® 5"



UniStream® 7"

	UniStream 5	UniStream 7
I/O Options		
Total supported I/Os	2048	
Built-In	According to model (See Built-in I/Os configurations- page 14)	
I/O Expansion	Add Local I/O via expansion port (See I/O Expansion Modules - page 15) ¹	
Remote I/O via Ethernet	Use UniStream Ethernet-based Remote I/O adapters to add I/Os via Ethernet (See I/O Expansion Modules - page 16)	
Add-on COM Modules	Add up to 3 COM modules ²	
Program		
Application Memory	8 MB	
HMI Panel		
Color Touchscreen	Resistive, Analog	
Viewing Area Height x Width (mm)	108 x 64.8	
Cut Out Height x Width (mm)	93.2 x 148.2	
Resolution Height x Width (mm)	800 x 480 (WVGA)	
Keys	Virtual Keyboard	
Environment		
Protection	IP66, IP65 and NEMA4X	
Operating Temperature	-20°C to 55°C	
Standard	CE, UL, EAC ³	
General		
Battery	4 years typical at 25°C, battery back-up for memory and RTC	
Clock	Real-time clock functions (date and time)	

Local Expansion Adapters

UAG-CX-XKP125	UniStream CX IO Exp.Kit 1.25m
UAG-CX-XKP300	UniStream CX IO Exp.Kit 3m

Uni-COM™ Communication Modules

UAC-CX-01RS2	Uni-COM: 1x RS232 port
UAC-CX-01RS4	Uni-COM: 1x RS485 port
UAC-CX-01CAN	Uni-COM: 1x CANbus port

¹ UniStream 5" I/O Expansion: the first unit plugged into the I/O expansion jack must be from the CX series I/O expansion - UAG-CX-XKP125 or UAG-CX-XKP300. The CX end unit may be followed by Uni-I/O modules or UAG-XXPLxxx adapters.

² Up to 2 serial modules and one CANbus module.

³ For a list of relevant models, contact Unitronics.

UniStream Built-in I/O Configurations

Article*	Summary	Inputs				Outputs				Operating Voltage
		Digital (Isolated)	HSC/Shaft-encoder ¹	Analog	Temperature inputs, RTD/TC	Transistor ² (Isolated)	PWM ²	Relay	Analog	
US5-B5-B1 US5-B10-B1 US7-B5-B1 US7-B10-B1	No built-in I/Os	-	-	-	-	-	-	-	-	12/24VDC
US5-B5-TR22 US5-B10-TR22 US7-B5-TR22 US7-B10-TR22	10 Digital Inputs, 2 Analog Inputs, 2 Transistor Outputs, npn, including 2 PWM Outputs, 8 Relay Outputs	10 Sink/Source	-	2 0-10V, 0-20mA, 4-20mA 12-bit	-	2 Sink (npn)	2 30kHz	8	-	24VDC
US5-B5-T24 US5-B10-T24 US7-B5-T24 US7-B10-T24	10 Digital Inputs, 2 Analog Inputs, 12 Transistor Outputs, pnp, including 2 PWM Outputs	10 Sink/Source	-	2 0-10V, 0-20mA, 4-20mA 12-bit	-	12 Source (pnp)	2 3kHz	-	-	24VDC
US5-B5-RA28 US5-B10-RA28 US7-B5-RA28 US7-B10-RA28	14 Digital Inputs, including 2 HSC, 2 Analog Inputs, 2 Temperature Inputs, 8 Relay Outputs, 2 Analog Outputs	14 Sink/Source	2 90kHz 32-bit	2 (isolated) 0-10V, 0-20mA, 4-20mA 14-bit	2 (isolated) Thermocouple, PT100/NI100/NI120/ PT1000/NI1000	-	-	8	2 0-10V 12-bit, ±10V, 11-bit+sign 0-20mA, 4-20mA 12-bit	24VDC
US5-B5-TA30 US5-B10-TA30 US7-B5-TA30 US7-B10-TA30	14 Digital Inputs, including 2 HSC, 2 Analog Inputs, 2 Temperature Inputs, 10 Transistor outputs, pnp, including 2 PWM Outputs, 2 Analog Outputs	14 Sink/Source	2 90kHz 32-bit	2 (isolated) 0-10V, 0-20mA, 4-20mA 14-bit	2 (isolated) Thermocouple, PT100/NI100/ NI120/ PT1000/NI1000	10 Source (pnp)	2 3kHz	-	2 0-10V 12-bit, ±10V 11-bit+sign 0-20mA, 4-20mA 12-bit	24VDC
US5-B5-R38 US5-B10-R38 US7-B5-R38 US7-B10-R38	24 Digital Inputs, including 4 HSC, 2 Analog Inputs, 12 relay Outputs	24 Sink/Source	4 90kHz 32-bit	2 0-10V, 0-20mA, 4-20mA 12-bit	-	-	-	12	-	24VDC
US5-B5-T42 US5-B10-T42 US7-B5-T42 US7-B10-T42	24 Digital Inputs, including 4 HSC, 2 Analog Inputs, 16 Transistor Outputs, pnp, including 2 PWM Outputs	24 Sink/Source	4 90kHz 32-bit	2 0-10V, 0-20mA, 4-20mA 12-bit	-	16 Source (pnp)	2 3kHz	-	-	24VDC

*Models R38+T42, as well as all standard (B5) models will be soon UL certified.

¹ Note that the high-speed inputs are included in the total number of digital inputs.

² Note that the PWM outputs are included in the total number of transistor outputs.

Expand Locally via Uni-I/O™

UniStream Modular & Built-in - Expand up to 2048 I/O via Uni-I/O modules.

	Article Number	Inputs				Outputs			
		Digital (Isolated)	HSC/Shaft-encoder ¹	Analog	Temperature Measurement	Transistor ⁵ (Isolated)	PWM/HSO ⁵	Relay	Analog
Digital	UID-1600	16 Sink/Source	—	—	—	—	—	—	—
	UID-0808T	8 Sink/Source	—	—	—	8 Source(pnp)	—	—	—
	UID-W1616T ³	16 Sink/Source	—	—	—	16 Source(pnp)	—	—	—
	UID-0808THS ¹	8 Sink/Source	2 250kHz 32-bit	—	—	8 Source(pnp)	2 ² 250kHz 2 3kHz	—	—
	UID-0016T	—	—	—	—	16 Source(pnp)	—	—	—
	UID-0808R	8 Sink/Source	—	—	—	—	—	8	—
	UID-W1616R ³	16 Sink/Source	—	—	—	—	—	16	—
	UID-0016R	—	—	—	—	—	—	16	—
Analog and Temperature	UIA-0006	—	—	—	—	—	—	—	6 (Isolated) 0-10V 14-bit, ±10V 13-bit+sign, 0-20mA, 4-20mA 13-bit
	UIA-0402N	—	—	4 0-10V, 0-20mA, 4-20mA 13-bit	—	—	—	—	2 0-10V 14-bit, ±10V 13-bit+sign, 0-20mA, 4-20mA 13-bit
	UIA-0800N	—	—	8 0-10V, 0-20mA, 4-20mA 13-bit	—	—	—	—	—
	UIA-0800NH (coming soon)	—	—	8 0-20mA, 4-20mA With HART communication	—	—	—	—	—
	UIS-04PTN	—	—	—	4 PT100/NI100/NI120	—	—	—	—
	UIS-04PTKN	—	—	—	4 PT1000/NI1000/NI1200	—	—	—	—
	UIS-08TC	—	—	—	8 (Isolated) Thermocouple	—	—	—	—
Digital/Analog	UIS-WCB1 ^{1,3}	10 Sink/Source	2 10kHz 32bit	2 (Isolated) 0-10V, 0-20mA, 4-20mA 14-bit	2 (Isolated) Thermocouple, PT100/NI100/NI120	2 ² Sink (npn)	2 250kHz	8	2 0-10V 14-bit, ±10V 13-bit+sign, 0-20mA, 4-20mA 13-bit
	UIS-WCB2 ^{1,3}	10 Sink/Source	2 10kHz 32bit	2 (Isolated) 0-10V, 0-20mA, 4-20mA 14-bit	2 (Isolated) Thermocouple, PT100/NI100/NI120	8 Source (pnp) 2 ² Sink(npn)	2 250kHz (Sink outputs only)	—	2 0-10V 14-bit, ±10V 13-bit+sign, 0-20mA, 4-20mA 13-bit

¹ This module utilizes two high speed blocks that can each be assigned either to the inputs or to the outputs.
² 2 outputs are high-speed, up to 250kHz; function as normal or high-speed PWM (same freq. and different duty-cycles). 2 outputs are normal speed; function as normal-speed PWM outputs (same freq. and same duty cycle).
³ Width: 1 "wide" I/O module = 1.5 "slim" I/O modules.
⁴ Note that the high-speed inputs are included in the total number of digital inputs.
⁵ Note that the high-speed outputs are included in the total number of digital outputs.
⁶ Not isolated.

DIN Rail Power Supplies

UAP-24V24W	24W 24V 1A
UAP-24V60W	60W 24V 2.5A
UAP-24V96W	96W 24V 4A

Modems

GSM-KIT-17J-3G	Cinterion GPRS modem, EHS6T, 3G
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Remote I/O

- Ethernet based
- Up to 63 I/O modules per adapter
- Slim modules - only 12mm
- 16-bit Analog Resolution
- Operating temperature: -40°C to 70°C



Remote I/O Adapter

Article Number	Description
URB-TCP	UniStream Remote IO Ethernet Adapter

Input Modules

Article	Description	Digital	HSC/Shaft encoder	Analog	Temperature Measurements
URD-0800	8 Digital inputs (sink or source), 10RTB	8	-	-	-
URA-04000	4 Analog Current Inputs 12bit, 10RTB	-	-	4	-
URA-08000	8 Analog Current Inputs 12bit, 10RTB	-	-	8	-
URA-0400P	4 Analog Voltage Inputs 12bit, 10RTB	-	-	4	-
URA-0800P	8 Analog Voltage Inputs 12bit, 10RTB	-	-	8	-
URA-0400T	4 Analog Current Inputs 16bit, 10RTB	-	-	4	-
URA-0400U	4 Analog Voltage Inputs 16bit, 10RTB	-	-	4	-
URS-04TC (Coming soon)	4 Thermocouple, 10RTB	-	-	-	4
URS-04RT (Coming soon)	4 RTD, 10RTB	-	-	-	4
URD-0400C (Coming soon)	4 Digital inputs, 240VAC, 10RTB	4	-	-	-
URD-0400B (Coming soon)	4 Digital inputs, 120VAC, 10RTB	4	-	-	-
URD-0200D (Coming soon)	2 Shaft Encoder, 10RTB	-	2	-	-
URD-0200E (Coming soon)	2 High Speed Counter, 10RTB	-	2	-	-

Output Modules

Article	Description	Outputs		
		Transistor	Relay	Analog
URD-0004RH	4 Relay Outputs, 10RTB	-	-	-
URD-0008NH	8 Digital Outputs (Sink), 10RTB	8 (Sink)	-	-
URD-0008CH	8 Digital Outputs (Source), 10RTB	8 (Source)	-	-
URA-0004W	4 Analog Current Outputs 12bit, 10RTB	-	-	4
URA-0008W	8 Analog Current Outputs 12bit, 10RTB	-	-	8
URA-0004X	4 Analog Voltage Outputs 12bit, 10RTB	-	-	4
URA-0008X	8 Analog Voltage Outputs 12bit, 10RTB	-	-	8
URA-0004Y	4 Analog Current Outputs 16bit, 10RTB	-	-	4
URA-0004Z	4 Analog Voltage Outputs 16bit, 10RTB	-	-	4
URD-0004SN (Coming soon)	4 Solid State Relay, 24VDC/VAC, 2A, 10RTB	-	4	-
URD-0004SM (Coming soon)	4 Solid State Relay, 110VDC/VAC, 1A, 10RTB	-	4	-
URD-0004SK (Coming soon)	4 Solid State Relay, 240VDC/VAC, 0.5A, 10RTB	-	4	-

Power Module

Article Number	Description
URP-PS24V ¹	Input 24VDC, Output system Power 5VDC/1A

¹ To be used when the required system current exceeds 1.5A

From OT to IT

Bridge the Gap with UNISTREAM® series

