



Powerful Software Outstanding Support Complete Range of PLCs



Powerful Software

Single, intuitive, feature-rich programming environment & utilities suite

Unitronics provides a powerful solution; our software is more than a match for any requirement. Hardware configuration, HMI design and communications are all programmed in an single, intuitive software environment, which includes a extensive utilities suite with DataExport, Remote Access and more. This all-in-one approach reduces the time and effort needed to program a unit. Not only is our software user-friendly, all of Unitronics software and utilities are provided at no extra cost.

Outstanding Support

Expert support without fees or tiers

"The support, both via telephone, email and the Unitronics forum, is among the best in the industry" says Jose Padro, President of Alpha Systems, Inc. Unitronics offers best-of-breed technical support to every user without added fees, tiers, or hoops to jump through. Every question we receive is answered by an experienced member of our support team. The same team of experts is available at every step of the project.



Complete Range of PLCs

A range of product lines to match your exact requirements

With 25 years of experience in automation, Unitronics has established several PLC lines with options to meet a diverse range of requirements. Our R&D strategy is to stay close to the market; we listen to our customer's current needs and future plans and develop new solutions accordingly. This strategy enables us to offer simple tried-and-true solutions alongside cutting edge innovations.

PLC +HMI ALL IN ONETM Unitronics designs, manufactures, and markets quality PLCs for the global market. Easy to use, efficient, and affordable, our products have been automating processes, systems, and stand-alone applications since 1989.

We maintain more than 160 distributors in over 55 countries around the globe, enabling our customers to purchase our products with local marketing support.

Unitronics' field-proven PLCs automate hundreds of thousands of installations in diverse fields: petrochemical, automotive, food processing, plastic & textile, energy & environment, water & waste water management - anywhere automated processes are required.

Our clients include:

Coca-Cola, General Motors, Michelin, Tupperware, Intel, Bayer, Colgate-Palmolive, Land Instruments, Mercedes, Agfa, Tyson Foods, Pirelli, Fiat, Samsonite.



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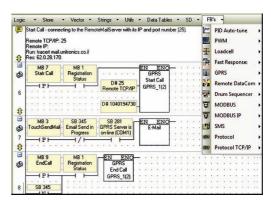
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Powerful software – included with your All-in-One package

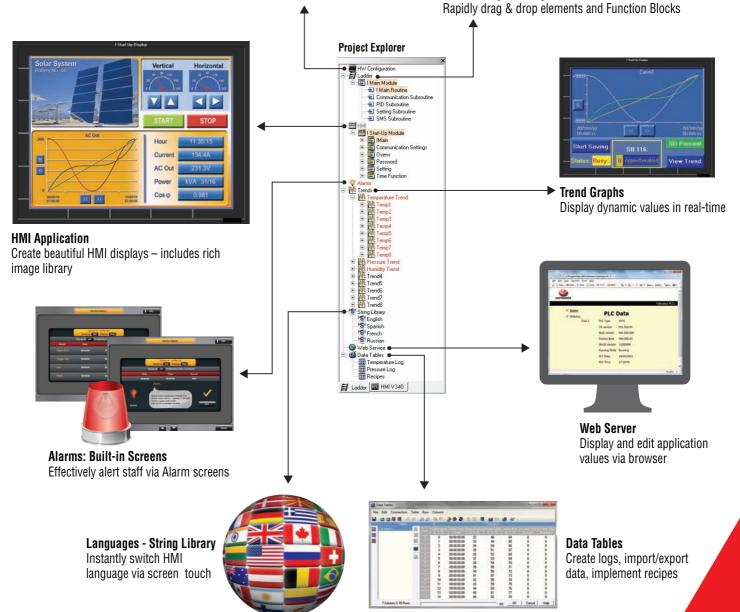
A single, intuitive environment for all of your application needs



Hardware Configuration Intuitive set up: controller, I/Os, and COM channels



Ladder Programming



Smart Utilities – Remote Access, Efficient Data Management and more

Utility Name	Function	Key Features	Targeted Users
Remote Access	View and control a PLC directly from PC, via local or remote connection	 View an HMI panel; use the PC keyboard + mouse to run the HMI application Operand and Data Table values: view values during runtime, import and export values to/from Excel/.csv files 	 Operators requiring Remote Access System integrators: remote debugging, troubleshooting, fault-finding
Remote Operator	Simultaneously view and operate the HMI panels of multiple PLCs in multiple locations	 Easily place HMI panels side-by-side to monitor distributed systems, or applications in several locations Run the HMI applications via PC keyboard + mouse 	Control room operatorsInstallation Managers
DataXport	Create Data Logs from Data Tables and operand values in PLCS	 Harvest data from multiple PLCs - on demand or according to time/date Export the data to Excel/CSV files Automatically email files 	 Data analysts Plant managers Process engineers
UniDownload Designer	Create compressed VisiLogic / U90Ladder applications(.udc files) for secure installation in local or remote PLCs	 Prevent end-users from uploading and opening the application Include an OS to be installed at download Set a Download channel, restrict end-user actions after installation and more 	OEMs / System Integrators can: • Protect source code. • Enable customers to install an application without using VisiLogic or U90Ladder
Download Manager & UniDownloader	Securely install .udc applications in local or remote PLCs	 Download Manager: installs the same application in multiple PLCs UniDownloader: installs an application in a single PLC 	 OEMs / System Integrators in installations with high security requirements
SD Card Suite	Remotely access and manage SD cards and their data	 Browse a remote PLC's SD card. Read/write data, including Data Table files View SD card contents - Trends, logs, alarm history, data tables - export to Excel 	Data analystsPlant managersProcess engineers
UniVision Licensing	Safeguard your PLC application security	 Embeds unique licenses in the PLC, which enables application to run only on a licensed PLC Option to activate or deactivate different sections of your application Prevents theft of applications 	System integratorsOEMs
UniOPC Server	Exchange data between Unitronics PLCs and OPC-supported software	 Create channel to connect PLCs to SCADA systems, such as plant control rooms Compliant with the OPC foundation standards 	Control room operators
UniDDE	Exchange data with Windows based applications	Enables data exchange between Unitronics PLC's and software that supports Microsoft's Dynamic Data Exchange protocols, like Excel.	Control rooms operators
Programming tools for developers	Easily implement communication between PLC & PC applications	Using ActiveX & .NET communication drivers	Developers

7

VISION 1210TM/1040TM Advanced PLC from the back-big & beautiful color touchscreen from th

Advanced PLC from the back-big & beautiful color touchscreen from the front, 12.1" /10.4". Snap-in I/Os for an All-in-One; expand up to 1000 I/Os

Features:

HMI

- Up to 1024 user-designed screens
- 500 images per application
- HMI graphs color-code Trends
- Built-in alarm screens
- Text String Library easy localization
- Memory and communication monitoring via HMI - No PC needed

PLC

- I/O options include high-speed, temperature & weight measurement
- Auto-tune PID, up to 24 independent loops
- Recipe programs and datalogging via Data Tables
- Micro SD card log, backup, clone & more
- Date & Time-based control

Communication

- TCP/IP via Ethernet
- Web server: Use built-in HTML pages, or design complex pages to view and edit PLC data via the Internet
- Send e-mail function
- SMS messaging
- GPRS/GSM
- Remote Access utilities
- MODBUS protocol support
- CANbus: CANopen, UniCAN, SAE J1939 and more
- DF1 Slave
- SNMP agent V1
- FB Protocol Utility: enables serial or TCP/IP communications with 3rd-party device; barcode readers, frequency converters, etc
- Ports: supplied with 2 isolated RS232/RS485, 1 CANbus, 1 USB programming port; 1 port may be added for serial/Ethernet



V1210 Flat Panel



V1040 Classic Panel

I've not yet encountered a job that a Unitronics PLC was unable to cover.

Timothy Moulder, Engineer at Black & Decker

	V1040	V1210					
Article Number	V1040-T20B	V1210-T20BJ					
I/O Options							
Snap-in I/O Modules	Plug these modules directly into the back of the Vision unit t include Digital, Analog and Temperature Measurement. Output	o create a self-contained PLC with up to 62 I/Os. Inputs may its may include Transistor, Relay or Analog (sold separately).					
I/O Expansion	Local or Remote I/Os may be adde	d via expansion port or via CANbus					
Program							
Application Memory	Application Logic: 2MB • In	nages: 32MB • Fonts: 1MB					
Scan Time	9µsec per 1K of ty	/pical application					
Memory Operands	8192 coils, 4096 registers, 512 long integers (32 bit), 256 double words (32 bit unsigned), 64 floats, 384 timers (32 bit), 32 counters Additional non-retainable operands: 1024 X-bits, 512 X-integers, 256 X-long integers, 64 X-double words						
Data Tables	120K dynamic RAM data (recipe parameters, datalogs, etc.), up to 256K fixed data						
SD Card (Micro)	Store datalogs, Alarm History, Data Tables, Trend data, export to Excel 🔹 Back up Ladder, HMI & OS, clone PLCs						
USB	1 USB programming port (Mini-B)						
Enhanced Features	Trends: graph any value and display on HMI • Built-in Alarm mar	nagement system • String Library: instantly switch HMI language					
Operator Panel							
Туре	TFT	LCD					
Display Backlight Illumination	White	e LED					
Colors	65,536 colors, 16-bit resolution • Brightne	ss - Adjustable via touchscreen or software					
Display Resolution & Size	800 x 600 pixels (SVGA), 10.4"	800 x 600 pixels (SVGA), 12.1"					
Touchscreen	Resistive	, Analog					
Keys	9 programmable function keys	Virtual Keyboard					
General							
Power Supply		4VDC					
Battery		-up for all memory sections and RTC					
Clock		tions (date and time)					
Environment	IP65/NEMA4X (when panel mounted)	IP66/IP65/NEMA4X (when panel mounted)					
Standard	CE, Many of our products are also UL Class 1 Div 2	UL and GOST certified - please contact Unitronics					

CE/UL

VISION 570™/560™

Advanced PLC from the back-big & beautiful color 5.7" touchscreen from the front. Snap-in I/Os for an All-in-One; expand up to 1000 I/Os

Features:

HMI

- Up to 1024 user-designed screens
- 500 images per application
- HMI graphs color-code Trends
- Built-in alarm screens
- Text String Library easy localization
- Memory and communication monitoring via HMI - No PC needed

PLC

- I/O options include high-speed, temperature & weight measurement
- Auto-tune PID, up to 24 independent loops
- Recipe programs and datalogging via Data Tables
- SD card log, backup, clone & more
- Date & Time-based control

Communication

- TCP/IP via Ethernet
- Web server: Use built-in HTML pages, or design complex pages to view and edit PLC data via the Internet
- Send e-mail function
- SMS messaging
- GPRS/GSM
- Remote Access utilities
- MODBUS protocol support
- CANbus: CANopen, UniCAN, SAE J1939 and more
- DF1 Slave
- SNMP Agent V1
- FB Protocol Utility: enables serial or TCP/IP communications with 3rd-party device; barcode readers, frequency converters, etc
- Ports: supplied with 2 isolated RS232/RS485 and 1 CANbus; In Vision570: 1 USB programming port; 1 port may be added for serial/Ethernet







V570-J Flat Panel

For a first time user, I had a great experience. I look forward to incorporating this brand of product on future jobs.

CE/UL

Jeremy Charles Keene, Controls Manager at General Broach Company

	V57	V560					
Article Number	V570-57-T20B	V570-57-T20B-J	V560-T25B*				
I/O Options							
Snap-in I/O Modules	Inputs may	the back of the Vision unit to create a self-cor include Digital, Analog, and Temperature mea ay include Transistor, Relay, or Analog. (sold s	surement.				
I/O Expansion	Local or Ren	note I/Os may be added via expansion port or	via CANbus				
Program							
Application Memory	Application Logic	c: 2MB • Images: 12MB for V570, 6MB for V56	60 • Fonts: 1MB				
Scan Time		9µsec per 1K of typical application					
Memory Operands		ntegers (32-bit), 256 double words (32-bit uns le operands: 1024 X-bits, 512 X-integers, 256					
Data Tables	120K dynamic RAM	N data (recipe parameters, datalogs, etc.), up 1	to 256K fixed data				
SD Card	Store datalogs, Alarm History, Data Tables, Trend data, export to Excel • Back up Ladder, HMI & OS, clone PLCs						
Enhanced Features	Trends: graph any value and dis	play on HMI • Built-in Alarm management sy: switch HMI language	stem • String Library: instantly				
Operator Panel							
Туре		TFT LCD					
Display Backlight Illumination		White LED					
Colors	65,536 colors, 16 bi	t resolution • Brightness - Adjustable via toud	chscreen or software				
Display Resolution & Size		320 x 240 pixels (QVGA), 5.7"					
Touchscreen		Resistive, Analog					
Keys	Virtual ke	eyboard	24 programmable keys. Labeling options – function keys or customized				
General			· · · · ·				
Power Supply		12/24VDC					
Battery	7 years typica	l at 25°C, battery back-up for all memory secti	ons and RTC				
Clock		Real-time clock functions (date and time)					
Environment	IP65/NEMA4X (when panel mounted)	IP66/IP65/NEMA4X (when panel mounted)	IP65/NEMA4X (when panel mounted)				
Standard	Many of our products are	CE, UL also UL Class 1 Div 2 and GOST certified - p	please contact Unitronics				

* Not yet UL certified

VISION 430TM Advanced PLC integrated with a 4.3" wide aspect color touchscreen. Includes an onboard I/O configuration; expand up to 512 I/Os

Features:

HMI

- 1024 user-designed screens and 250 images per application
- HMI graphs color-code Trends
- · Built-in alarm screens
- Text String Library easy localization
- Memory and communication monitoring via HMI - No PC needed

PLC

- I/O options include high-speed, temperature & weight measurement
- · Auto-tune PID, up to 24 independent loops
- Recipe programs and datalogging via Data Tables
- Micro SD card log, backup, clone & more
- Date & Time-based control

Communication

- TCP/IP via Ethernet
- · Web server: Use built-in HTML pages, or design complex pages to view and edit PLC data via the Internet
- · Send e-mail function
- SMS messaging
- GPRS/GSM
- Remote Access utilities
- MODBUS protocol support
- CANbus: CANopen, UniCAN, SAE J1939 and more
- DF1 Slave
- SNMP Agent V1
- FB Protocol Utility: enables serial or TCP/IP communications with 3rd-party device; barcode readers, frequency converters, etc
- Ports: supplied with mini-USB programming port ; 2 ports may be added: 1 Serial/Ethernet/Profibus and 1 CANbus



V430

The huge advantage of this PLC was that - with everything built-in - the communications and use of tags in the HMI was so simple and intuitive.

CE/UL

Ashley Parr, HPS

	V43	80								
Article Number	V430-J-B1	V430-J-RH2	V430-J-R34	V430-J-TR34	V430-J-RH6	V430-J-RA22	V430-J-TRA22	V430-J-T2	V430-J-T38	V430-J-TA24
	No onboard I/Os	10 Digital 2 D/A Inputs ¹ 6 Relay Outputs 2 High-speed Transistor Outputs	20 Digital 2 D/A Inputs ¹ 12 Relay Outputs	20 Digital 2 D/A Inputs ¹ 8 Relay 4 High speed Transistor Outputs	6 Digital, 2 D/A 4 Analog Inputs ¹ 6 Relay Outputs 2 High-speed Transistor Outputs	8 Digital 2 D/A, 2 PT100/TC/ Digital ¹ Inputs 8 Relay 2 Analog Outputs	8 Digital, 2 D/A 2 PT100/TC/ Digital ¹ Inputs 4 Relay, 2 Analog 4 High-speed Transistor Outputs	10 Digital 2 D/A Inputs ¹ 12 Transistor Outputs	20 Digital 2 D/A Inputs ¹ 16 Transistor Outputs	8 Digital 2 D/A, 2 PT100/ TC/Digital ¹ Inputs 10 Transistor 2 Analog Outputs
Inputs										
Digital pnp/npn		12	22	22	8	12	12	12	22	12
HSC/Shaft-Encoder/ Max. Freq. Measurer ^{2&3}		3 200kHz ⁴ 32-bit	3 30kHz 32-bit	3 200kHz ⁴ 32-bit	1 200kHz ⁴ 32-bit	1 30kHz 32-bit	1 200kHz ⁴ 32-bit	3 30kHz 32-bit	2 30kHz 32-bit	1 30kHz 32-bit
Analog	None	2 10-bit, 0-10V 0-20mA 4-20mA	2 10-bit, 0-10V 0-20mA 4-20mA	2 10-bit,0-10V 0-20mA 4-20mA	2 10-bit, 0-10V 0-20mA, 4-20mA and 4 10-bit, 0-20mA 4-20mA	0-20mA 4-20mA	2 (2 modes) Normal: 14-bit Fast: 12-bit 0-10V, 0-20mA 4-20mA	2 10-bit 0-10V 0-20mA 4-20mA	2 10-bit 0-10V, 0-20mA 4-20mA	2 (2 modes) Normal:14-bit Fast: 12-bit 0-10V, 0-20mA, 4-20mA
Temperature Measurement		None	None	None	None	and 2 PT100/TC	and 2 PT100/TC	None	None	and 2 PT100/TC
Outputs									40	
Digital		6 relay	12 relay	8 relay	6 relay	8 relay	4 relay	12 pnp	16 pnp	10 pnp
High-Speed Outputs/PWM	None	2 npn (2 PTO) 200kHz max	None	4 npn (3 PTO) 200kHz max	2 npn (2 PTO) 200kHz max	None	4 npn (2 PTO) 200kHz max	7 0.5kHz	7 0.5kHz	5 0.5kHz
Analog		None	None	None	None	2 12-bit 0-10V, 4-20mA	2 12-bit 0-10V, 4-20mA	None	None	2 12-bit 0-10V, 4-20mA
I/O Expansion										
				Local or Remo	te I/Os may be a	dded via expans	ion port or via CAN	lbus		
Program										
Application Memory				Applicat	-	Images: 12M				
Scan Time		0100		Normalistances (K of typical appli		-t- 004 times	- (00 h ¹ +) 00 -	
Memory Operands							t unsigned), 64 flo 256 X-long intege			ounters
Data Tables						÷ .	s, etc.), up to 256k			
SD Card (Micro)		Stor					el • Back up Ladd		clone PLCs	
Enhanced Features			Trends: a	raph any value a	nd display on HN	MI • String Libra	ry: instantly switc	h HMI languad	le	
Operator Panel					. ,	0				
Type & Colors			TFT LCD • 65	,536 colors, 16-	bit resolution •	Brightness - Adj	ustable via touchs	creen or softw	are	
Display						272 pixels • Size				
Touchscreen						ive, Analog				
Keys			5 pro	ogrammable keys			vs, arrows, or cust	omized		
General										
Power Supply				24VDC	, except for V43	0-J-B1, which is	12/24VDC			
Battery			7		•		nory sections and	RTC		
Clock						nctions (date and	-			
Environment						(when panel mo	,			
Standard					C	E, UL				
			Many of our p	Many of our products are also UL Class 1 Div 2 and GOST certified - please contact Unitronics						

certain models as TC or PT100. This reduces the number of free digital inputs. For example, V350-35-RA22 offers 12 digital inputs. Implementing 2 TC inputs requires 4, leaving 8 free.

³ This specification depends on cable length.

⁴ This specification depends upon driver type.

VISION 350TM Advanced PLC integrated with a 3.5" color touchscreen. Includes an onboard I/O configuration; expand up to 512 I/Os

Features:

HMI

- 1024 user-designed screens
- 250 images per application
- · HMI graphs color-code Trends
- · Built-in alarm screens
- · Text String Library easy localization
- Memory and communication monitoring via HMI - No PC needed

PLC

- I/O options include high-speed, temperature & weight measurement
- Auto-tune PID, up to 24 independent loops
- Recipe programs and datalogging via Data Tables
- Micro SD card log, backup, clone & more
- Date & Time-based control

Communication

- TCP/IP via Ethernet
- Web server: Use built-in HTML pages, or design complex pages to view and edit PLC data via the Internet
- Send e-mail function
- SMS messaging
- GPRS/GSM
- Remote Access utilities
- MODBUS protocol support
- CANbus: CANopen, UniCAN, SAE J1939 and more
- DF1 Slave
- SNMP Agent V1
- FB Protocol Utility: enables serial or TCP/IP communications with 3rd-party device; barcode readers, frequency converters, etc
- Ports: supplied with 1 RS232/RS485; 2 ports may be added: 1 Serial/Ethernet/Profibus and 1 CANbus



V350-J Flat Panel



V350 Classic Panel

Extended temperature range unit, operational NEW! temperature between -30°C to 60°C.

> Available with classic or flat panel design Extended temperature options also available for Ethernet and CANBus cards.

Classic panel p/n: V350-S-TA24, Flat panel p/n: V350-JS-TA24, CANBus p/n: V100-S-CAN Ethernet p/n V100-S-ET2

-30°

60°

" There were significant cost savings using the Unitronics PLC.

Justin Butler, Senior Electrical Engineer at Energy Plant Solutions

		V35	50								V350-S-TA24
l			I		I		I			l	V350-JS-TA24
Article Number	Classic Panel		V350-35-TR20	V350-35-R34	V350-35-TR34		V350-35-RA22	V350-35-TRA22	V350-35-T2	V350-35-T38	V350-35-TA24
Nulliper	Flat Panel	V350-J-B1	V350-J-TR20	V350-J-R34	V350-J-TR34	V350-J-TR6	V350-J-RA22	V350-J-TRA22	V350-J-T2	V350-J-T38	V350-J-TA24
		No onboard I/Os	10 Digital 2 D/A Inputs ¹ 6 Relay Outputs 2 High-speed Transistor Outputs	20 Digital 2 D/A Inputs ¹ 12 Relay Outputs	20 Digital 2 D/A Inputs ¹ 8 Relay 4 High speed Transistor Outputs	6 Digital, 2 D/A 4 Analog Inputs ¹ 6 Relay Outputs 2 High-speed Transistor Outputs	8 Digital, 2 D/A 2 PT100/TC/ Digital ¹ Inputs 8 Relay 2 Analog Outputs	8 Digital, 2 D/A 2 PT100/TC/ Digital ¹ Inputs 4 Relay, 2 Analog 4 High-speed Transistor Outputs	10 Digital 2 D/A Inputs ¹ 12 Transistor Outputs	20 Digital 2 D/A Inputs ¹ 16 Transistor Outputs	8 Digital 2 D/A, 2 PT100/ TC/Digital ¹ Inputs 10 Transistor 2 Analog Outputs
Inputs											
Digital pnp/	/npn		12	22	22	8	12	12	12	22	12
HSC/Shaft- Max. Freq.	Encoder/ Measurer ^{2&3}		3 200kHz ⁴ 32-bit	3 30kHz 32-bit	3 200kHz ⁴ 32-bit	1 200kHz ⁴ 32-bit	1 30kHz 32-bit	1 200kHz ⁴ 32-bit	3 30kHz 32-bit	2 30kHz 32-bit	1 30kHz 32-bit
Analog		None	2 10-bit, 0-10V 0-20mA 4-20mA	2 10-bit, 0-10V 0-20mA 4-20mA	2 10-bit,0-10V 0-20mA 4-20mA	2 10-bit, 0-10V 0-20mA, 4-20mA and 4 10-bit, 0-20mA 4-20mA	0-20mA 4-20mA	2 (2 modes) Normal: 14-bit Fast: 12-bit 0-10V, 0-20mA 4-20mA	2 10-bit 0-10V 0-20mA 4-20mA	2 10-bit 0-10V, 0-20MA 4-20MA	2 (2 modes) Normal:14-bit Fast: 12-bit 0-10V, 0-20mA, 4-20mA
Temperatur Measureme			None	None	None	None	and 2 PT100/TC	and 2 PT100/TC	None	None	and 2 PT100/TC
Outputs				40	0 milion		0	4 mlm	10		
Digital			6 relay	12 relay	8 relay	6 relay	8 relay	4 relay	12 pnp	16 pnp	10 pnp
High-Speed	d Outputs/PWM	None	2 npn (2 PTO) 200kHz max	None	4 npn (3 PTO) 200kHz max	2 npn (2 PTO) 200kHz max	None	2 npn (2 PTO) 200kHz max	7 0.5kHz	7 0.5kHz	5 0.5kHz
Analog			None	None	None	None	2 12-bit 0-10V, 4-20mA	2 12-bit 0-10V, 4-20mA	None	None	2 12-bit 0-10V, 4-20mA
I/O Expa	insion			lr	ical or Remote I/	Os may be adde	d via expansion r	oort or via CANbus	3		
Program	1								,		
Application					Applicatio	n Loaic: 1MB • 1	mages: 6MB • Fo	onts: 512K			
Scan Time	,					•	typical application				
Memory Op	perands	819	92 coils, 4096 re Addi	egisters, 512 lor tional non-retai	ng integers (32-b	it), 256 double	words (32-bit uns	signed), 64 floats, X-long integers, 6	384 timers (3 64 X-double w	2-bit), 32 coun ords	ters
Data Tables	5			120K dy	namic RAM data	(recipe paramet	ters, datalogs, etc	c.), up to 256K fix	ed data		
SD Card (N	licro)		Store da	italogs, Alarm H	listory, Data Tabl	es, Trend data, e	export to Excel •	Back up Ladder, H	HMI & OS, clor	ne PLCs	
Enhanced F	eatures			Trends: graph	any value and d	isplay on HMI •	String Library: i	nstantly switch HI	VI language		
Operato	r Panel			- 1				-			
Type & Col				TFT LCD • 65	5,536 colors. 16-	bit resolution •	Brightness- Adiu	stable via touchs	creen or softwa	are	
Display				00			pixels (QVGA) •			-	
Touchscree	en						ive, Analog				
Keys				5 pr	ogrammable key		· · · · · ·	s, arrows, or cust	omized		
General					,						
Power Sup			24VDC, except for V350-35-B1, which is 12/24VDC								
Battery				7				ory sections and	RTC		
Clock				1		· ·	nctions (date and	•			
Environme	nt						K (when panel mc	,			
Standard							E, UL				
						UL Class 1 Div		ified - please cor	ntact Unitronic	S	
as TC or PT10	inputs to function as o O. This reduces the nu	mber of free digital i		shaft-encode	s can function as high-s r inputs, or normal digi	tal inputs.					
	/350-35-RA22 offers 1 2 TC inputs requires 4				ation depends on cable ation depends upon driv						15

VISION 130TM Palm-size, powerful PLC with built-in, black & white LCD 3.5" graphic display, keypad, & onboard I/O configuration, expand up to 256 I/Os

Features:

HMI

- 1024 user-designed screens
- 400 images per application
- HMI graphs & Trends
- · Built-in alarm screens
- Text String Library easy localization
- Memory and communication monitoring via HMI - No PC needed

PLC

- I/O options include high-speed, temperature & weight measurement
- Auto-tune PID, up to 24 independent loops
- · Recipe programs and datalogging via Data Tables
- Micro SD card log, backup, clone & more
- Date & Time-based control

Communication

- TCP/IP via Ethernet
- Web server: Use built-in HTML pages, or design complex pages to view and edit PLC data via the Internet
- Send e-mail function
- SMS messaging
- GPRS/GSM
- · Remote Access utilities
- MODBUS protocol support
- CANbus: CANopen, UniCAN, J1939 and more
- DF1 Slave
- SNMP Agent V1
- FB Protocol Utility: enables serial or TCP/IP communications with 3rd-party device; barcode readers, frequency converters, etc
- Ports: supplied with 1 RS232/RS485; 2 ports may be added: 1 Serial/Ethernet/Profibus and 1 CANbus



V130-J Flat Panel



V130 **Classic Panel**

The perfect solution for our need, the Vision130[™] is easy to program, user-friendly and backed up with responsive tech support. **77**

Michael Lamore, President of Barrier1

		V13	80								
Article	Classic Panel	V130-33-B1	V130-33-TR20	V130-33-R34	V130-33-TR34	V130-33-TR6	V130-33-RA22	V130-33-TRA22	V130-33-T2	V130-33-T38	V130-33-TA24
Number	Flat Panel	V130-J-B1	V130-J-TR20	V130-J-R34	V130-J-TR34	V130-J-TR6	V130-J-RA22	V130-J-TRA22	V130-J-T2	V130-J-T38	V130-J-TA24
		No onboard I/Os	10 Digital 2 D/A Inputs ¹ 6 Relay Outputs 2 High-speed Transistor Outputs	20 Digital 2 D/A Inputs ¹ 12 Relay Outputs	20 Digital 2 D/A Inputs ¹ 8 Relay 4 High speed Transistor Outputs	6 Digital, 2 D/A 4 Analog Inputs ¹ 6 Relay Outputs 2 High-speed Transistor Outputs	8 Digital 2 D/A, 2 PT100/TC/ Digital ¹ Inputs 8 Relay 2 Analog Outputs	8 Digital, 2 D/A 2 PT100/TC/ Digital ¹ Inputs 4 Relay, 2 Analog 4 High-speed Transistor Outputs	10 Digital 2 D/A Inputs ¹ 12 Transistor Outputs	20 Digital 2 D/A Inputs ¹ 16 Transistor Outputs	8 Digital 2 D/A, 2 PT100/ TC/Digital ¹ Inputs 10 Transistor 2 Analog Outputs
Inputs											
Digital pnp	npn		12	22	22	8	12	12	12	22	12
HSC/Shaft Max. Freq.	-Encoder/ Measurer ^{2&3}		3 200kHz ⁴ 32-bit	3 30kHz 32-bit	3 200kHz ⁴ 32-bit	1 200kHz ⁴ 32-bit	1 30kHz 32-bit	1 200kHz ⁴ 32-bit	3 30kHz 32-bit	2 30kHz 32-bit	1 30kHz 32-bit
Analog		None	2 10-bit, 0-10V 0-20mA 4-20mA	2 10-bit, 0-10V 0-20mA 4-20mA	2 10-bit,0-10V 0-20mA 4-20mA	2 10-bit, 0-10V 0-20mA, 4-20mA and 4 10-bit, 0-20mA 4-20mA	2 14-bit 0-10V, 0-20mA 4-20mA	2 (2 modes) Normal: 14-bit Fast: 12-bit 0-10V, 0-20mA 4-20mA	2 10-bit 0-10V 0-20mA 4-20mA	2 10-bit 0-10V, 0-20mA 4-20mA	2 (2 modes) Normal:14-bit Fast: 12-bit 0-10V, 0-20mA, 4-20mA
Temperatu Measurem			None	None	None	None	and 2 PT100/TC	and 2 PT100/TC	None	None	and 2 PT100/TC
Outputs											
Digital			6 relay	12 relay	8 relay	6 relay	8 relay	4 relay	12 pnp	16 pnp	10 pnp
High-Spee	d Outputs/PWM	None	2 npn (2 PTO) 200kHz max	None	4 npn (3 PTO) 200kHz max	2 npn (2 PTO) 200kHz max	None	4 npn (2 PTO) 200kHz max	7 0.5kHz	7 0.5kHz	5 0.5kHz
Analog			None	None	None	None	2 12-bit 0-10V, 4-20mA	2 12-bit 0-10V, 4-20mA	None	None	2 12-bit 0-10V, 4-20mA
I/O Expa	ansion		I		and ar Pamota I	/Os may be adde		port or via CANbu	2	1	
Program	n								5		
Application					Application	n Logic: 512K • 1	lmages: 256K • F	onts: 128K			
Scan Time	-					-	f typical application				
Memory O	perands	40	96 coils, 2048 r Addi	egisters, 256 lo tional non-retai	ng integers (32-	bit), 64 double v	words (32-bit uns	signed), 24 floats, X-long integers, (192 timers (32 54 X-double w	2-bit), 24 coun ords	ters
Data Table	S			120K dy	namic RAM data	ı (recipe parame	ters, datalogs, et	c.), up to 256K fix	ed data		
SD Card (M	Vicro)		Store da	atalogs, Alarm H	listory, Data Tab	les, Trend data,	export to Excel •	Back up Ladder, H	IMI & OS, clor	ne PLCs	
Enhanced	Features		Trends: graph ar	ny value and dis	play on HMI • B	uilt-in Alarm ma	inagement syster	n • String Library:	instantly swite	ch HMI languag	le
Operato	or Panel										
Туре					Gr	aphic STN LCD,	white LED backli	ght			
Display			Resolution: 128 x 64 pixels • Size: 2.4"								
Keys					20, including	10 user labeled	keys (slide kit so	ld separately)			
General											
Power Sup	oply				24VDC, 6	except for V130-	33-B1, which is 1	2/24VDC			
Battery				7 ye	ears typical at 25	5°C, battery back	-up for all memo	ry sections and R	TC		
Clock					Rea	I-time clock fund	ctions (date and t	ime)			
Environme	ent				IP66	/IP65/NEMA4X ((when panel mou	nted)			
Standard				Many of our pro		CE	, UL	fied - please con	tact Unitronics	;	
1 In these mo	dels certain inputs are a	adantable and can f				n as high-speed counter					

In these models certain inputs are adaptable, and can function as either digital, analog, and in certain models also as thermocouple or PT100. Using adaptable inputs reduces the amount of free digital inputs. For example, V130-33-RA22 offers 12 digital inputs. Implementing 2 TC inputs requires 4 digital inputs, leaving 8 free. ² Certain inputs can function as high-speed counter shaft-encoder inputs, or normal digital inputs.

3 This specification depends on cable length.

⁴ This specification depends upon driver type.



VISION 120TM Full-function PLC with built-in, monochrome araphic I CD display, keyped & appeared 1/2 configuration; expand up to 256 I/Os

Features:

HMI

- Up to 255 user-designed screens
- Hundreds of images per application
- HMI graphs & Trends
- Memory and communication monitoring via HMI - No PC needed

PLC

- I/O options include high-speed, temperature & weight measurement
- Auto-tune PID, up to 12 independent loops
- Recipe programs and datalogging via Data Tables
- Date & Time-based control

Communication

- SMS messaging
- GPRS/GSM
- · Remote Access utilities
- MODBUS protocol support
- CANbus: CANopen, UniCAN, SAE J1939 NOT FOR V2XX, only Enhanced (in C models only)
- FB Protocol Utility: enables serial or TCP/IP communications with 3rd-party device; barcode readers, frequency converters, etc
- 2 RS232/RS485 built-in ports



V120

"

The Vision120[™] met and exceeded all our requirements in one compact, cost-effective package.

David Wong, President of NEXTChem

	V12	0								
Article Number	V120-22-R1	V120-22-R2C	V120-22-R6C	V120-22-R34	V120-22-T1	V120-22-T38	V120-22-T2C	V120-22-UN2	V120-22-UA2	V120-22-RA22
	10 Digital 1 Analog Inputs 6 Relay Outputs	10 Digital 2 Analog Inputs 6 Relay Outputs	6 Digital 6 Analog Inputs 6 Relay Outputs	20 Digital 2 D/A ¹ Inputs 12 Relay Outputs	12 Digital Inputs 12 Transistor Outputs	22 Digital Inputs 16 Transistor Outputs	10 Digital 2 D/A ¹ Inputs 12 Transistor Outputs	10 Digital 2 D/A/PT100/ TC ¹ Inputs 12 Transistor Outputs	10 Digital 2 D/A/TC ¹ Inputs 10 Transistor 2 Analog Outputs	8 Digital 2 D/A, 2 PT100/ TC/Digital ¹ Inputs 8 Relay 2 Analog Outputs
Inputs	<u>'</u>					I			1	
Digital pnp/npn	10	10	6	22	12	22	12	12	12	12
HSC/Shaft-Encoder/ Max Freq. Measurer ²	3 10kHz 32-bit	3 10kHz 32-bit	1 10kHz 32-bit	3 10kHz ³ 32-bit	2 10kHz 32-bit	2 10kHz ³ 32-bit	3 10kHz 32-bit	2 10kHz 32-bit	1 10kHz ³ 32-bit	1 10kHz ³ 32-bit
Analog	1 10-bit 0-10V, 0-20mA 4-20mA	2 10-bit 0-10V, 0-20mA 4-20mA	6 10-bit, 2 0-10V 0-20mA, 4-20mA and 4 0-20mA 4-20mA	2 10-bit 0-10V, 0-20mA 4-20mA	None	None	2 10-bit 0-10V 0-20mA 4-20mA	2 14-bit 0-10V, 0-20mA 4-20mA	2 14-bit 0-10V, 0-20mA 4-20mA	2 14-bit 0-10V, 0-20mA 4-20mA
Temperature Measurement	None	None	None	None	None	None	None	or 2 PT100/TC	or 2 TC	and 2 PT100/TC
Outputs				1	1	1			1	
Digital	6 relay	6 relay	6 relay	12 relay	12 pnp	16 pnp	12 pnp	12 pnp	10 pnp	8 relay
High-Speed Outputs/ PWM ⁴	None	None	None	None	2, first 2 outputs can function as HSO, 0.5kHz maximum None					None
Analog	None	None	None	None	None	None	None	None	2 12-bit 0-10V, 4-20mA	2 12-bit 0-10V, 4-20mA
I/O Expansions										
			Loca	I or Remote I/O	s may be adde	ed via expansio	n port or via C	ANbus		
Program										
Application Memory					· /	dder code capa f typical applica				
Memory Scan Time	409	6 coils 2048 re	aisters 256 long			21 11		nate 102 timer	s (32-bit), 24 cou	Inters
Operands Data Tables	100	0 00110, 20 10 10		mic RAM data (- //			
Operator Panel			12011 49114	ino in in data (toro, aatarogo,	01017, up to 20			
Туре					Graphic	STN LCD				
Display				Reso		64 pixels • Size	· 24"			
Keys				11000		keys				
General						,				
Power Supply	12/24VDC	12/24VDC	24VDC	24VDC	12/24VDC	24VDC	12/24VDC	12/24VDC	24VDC	24VDC
Battery		1		s typical at 25°						
Clock			7 your			ctions (date and	,			
Environment						hen panel moui	,			
standard				16.03	,	, UL	1.00)			

In these models certain inputs are adaptable, and can function as either digital, analog, and in certain models also as thermocouple or PT100. Using adaptable inputs reduces the amount of free digital inputs. For example, V120-22-UA2 offers 12 digital inputs. Implementing 2 TC inputs requires 4 digital inputs, leaving 8 free. ² Certain inputs can function as high-speed counters shaft-encoder inputs, or normal digital inputs.

³ This specification depends on cable length.

⁴ Certain outputs can function as high-speed or PWM outputs.

VISION 200[™]

Advanced PLCs with an integrated operator panel graphic or touch. Snap-in I/Os to create an All-in-One; expand up to 316 I/Os

Features:

HMI

- Up to 255 user-designed screens
- Hundreds of images per application
- HMI graphs & Trends
- Virtual alpha-numeric keypad (in V290 & V530)
- Memory and communication monitoring via HMI - No PC needed

PLC

- I/O options include high-speed, temperature & weight measurement
- Auto-tune PID, up to 12 independent loops
- Recipe programs and datalogging via Data Tables
- Date & Time-based control

Communication

- TCP/IP via Ethernet
- Send e-mail function
- SMS messaging
- GPRS/GSM
- Remote Access utilities
- MODBUS protocol support
- CANbus: CANopen, UniCAN, CANlayer 2
- FB Protocol Utility: enables serial or TCP/IP communications with 3rd-party device; barcode readers, frequency converters, etc
- Ports: supplied with 1 RS232, 1 RS232/RS485 and 1 CANbus; 1 port may be added for serial/Ethernet
- V280-B25B & V290-B25B Not yet UL certified.

	V230™	V260 [™]	V280 [™]	V290 [™]	V530™						
Article Number	V230-13-B20B	V260-16-B20B	V280-18-B20B	V290-19-B20B	V530-53-B20B						
I/O Options			•	•							
Snap-in I/O Modules		Plug these modules directly into the back of the Vision unit to create a self-contained PLC with up to 62 I/Os. Inputs may include Digital, Analog and Temperature Measurement. Outputs may include Transistor, Relay or Analog (sold separately)									
I/O Expansion		Local or remote I/Os may be added via expansion port or via CANbus									
Program											
Application Memory			1MB								
Scan Time		30µ	isec per 1K of typical applica	tion							
Operands	4096 coils, 2048 regis	sters, 256 long integers (32 bit), 64 double words (32 bit u	nsigned), 24 memory floats	s, 192 timers, 24 counters						
Data Tables		120K dynamic RAM data (ecipe parameters, datalogs,	etc.), up to 256K fixed data	1						
Operator Panel		· · · ·									
Туре	STN LCD	Negative blue, STN LCD		Black & White FSTN LCD)						
Display Resolution & Size	128 x 64 pixels 3.2"	240 x 64 pixels 5.4"	320 x 240 pixels (QVGA), 4.7" active area	320 x 240 5.7") pixels (QVGA), active area						
Touch Screen	None	None		Resistive, Analog							
Keys	24 user labeled keys	33 user labeled keys	27 user labeled keys	Virtu	al keyboard						
General											
Power Supply			12/24VDC								
Battery Back-up		7 years typical at 25 ⁰ C, ba	ck-up for all memory section	ns and real-time clock (RTC	3)						
Environment		IP6	5/NEMA4X (when panel mou	inted)							
Standard	Ma	any of our products are also U	CE, UL L Class 1 Div 2 and GOST c	ertified - please contact U	nitronics						

OEMs Testimonials

The Vision570[™] is a fantastic and feature rich product! The Unitronics support team is like having a personal, well versed friend on hand.

Medical
Mar Cor Purification, Inc

Pure water and disinfection products



The main advantages of using the V350 is the small and compact design, a useful HMI, wide range I/O capability and SD memory card functions.

Food and Beverage
ZOOTECHNIKA Machinery Ltd

Milk Pasteurizers Use Vision350™ for Machine Control and Logging Process Parameters



The main advantages of using Unitronics were ease of use, very fast application development and of course excellent

performance/price ratio.

Packaging Machinery **Kolman d.o.o.**

Packaging Machinery OEM Uses Vision570[™] and Vision560[™] as Primary Control





Full-function PLC with built-in beautiful full-color touch-screen, & onboard I/O configuration. Great look, incredible price.

Features:

HMI

- Display: Color touch-screen 3.5" - 320 x 240, 4.3" - 480x272, 7" - 800 x 480
- 24 user-designed screens and 40 images per application
- HMI graphs color-code Trends
- Built-in alarm screens
- Text String Library easy localization
- Memory and communication monitoring via HMI - No PC needed

PLC

- I/O options: Digital, Analog, including High-speed
- Auto-tune PID, 2 independent loops
- Recipe programs and data logging via Data Tables
- Date & Time-based control

Communication

- TCP/IP via Ethernet
- Send e-mail function
- SMS messaging
- GPRS/GSM
- Remote Access utilities
- MODBUS protocol supported
- CANbus: CANopen, UniCAN, SAE J1939, and more
- DF1 Slave
- Programing Port: RS232 for 3.5" model, USB for 4.3" & 7"
- 2 ports may be added: 1 Serial (RS232/RS485)/Ethernet & 1 CANbus



SAMBA 3.5"







SAMBA 7"

" It really enhanced our product's look and flexibility.

Ralph Hannmann, President of Alyan Pump Company

SAMBA							
SM35-J-R20	SM35-J-T20						
SM43-J-R20	SM43-J-T20						
New SM70-J-R20	New SM70-J-T20						
10 Digital Inputs	10 Digital Inputs						
2 Digital /Analog ¹	2 Digital /Analog						
8 Relay Outputs	8 Transistor Outputs						
12	12						
1 32-bit 30 kHz	3 32-bit 30 kHz						
2: 10-bit, 0-10v	2: 10-bit, 0-10v						
0-20mA, 4-20mA	0-20mA, 4-20mA						
8 relay	8 pnp						
None	Outputs 0 to 6 can be used as PWM outputs 0.5 kHz						
No	ne						
Remote I/Os	s via CANbus						
	Images: 1 MB • Fonts: 512 k						
	Application Logic: 112kb • Images: 2 MB • Fonts: 512 k Application Logic: 112kb • Images: 5 MB • Fonts: 512 k						
· · · ·	-						
512 coils, 256 registers, 32 long integers (32-bi	it), 32 double words (32-bit unsigned), 24 floats,						
	X-integers, 16 X-long integers, 16 X-double words						
32K dynamic RAM data (recipe paramet	ters, datalogs, etc.), up to 16K fixed data						
No	one						
Trends: graph any value and display on HMI $ \cdot $	• String Library: instantly switch HMI language						
TFT LCD • 65,536 colors • 16 bit resolution • Bri	ghtness - Adjustable via touchscreen or software						
	pixels • Size: 3.5" (QVGA)						
	•						
	i i internetionalisti di seconda d						
24	VDC						
	\$ 7						
CE, Many of our products are also UL Class 1 Div 2	UL						
	SM35-J-R20 SM43-J-R20 (TET) SM70-J-R20 10 Digital Inputs 2 Digital /Analog ¹ 8 Relay Outputs 12 1 32-bit 30 kHz 2: 10-bit, 0-10v 0-20mA, 4-20mA 8 relay None 8 relay None None None None None None None None						

¹ When selecting NPN for the digital inputs, the 2 Analog inputs cannot be used.

² Certain inputs can function as high-speed counters, shaft-encoder inputs, or normal digital inputs.

³ This specification depends on cable length

23



An All-in-One that is as affordable as a "smart relay" full-function PLC combined with a textual HMI and keyboard, with up to 40 onboard I/Os

Meet the New Jazz 2 series Advantages:

- Faster performance 30x faster
- Double the memory
- Built-in mini-USB programming port
- Ethernet via Add-on Port
- Fully compatible with current Jazz projects

Features:

HMI

- Up to 60 user-designed screens
- Multilingual: supports over 15 languages and 20 graphic symbols

PLC

- Ladder Logic programming ensures functional flexibility
- Functions include: interrupt, loops, math, store & compare functions
- Date & Time-based control
- High-speed counters & PWM outputs
- Direct temperature inputs
- Auto-tune PID, up to 4 loops

Communication

- SMS messaging via GSM
- Remote Access utilities
- PC access via MODBUS or OPC server
- Supports MODBUS protocol



Jazz® Flat Panel



Jazz®-J Classic Panel

The Unitronics PLC provided the perfect solution for our need for control. Whether it was safety, mechanical or functionality, the Jazz had it all.

Peter Spano, President of GTS

		JZ2	0		_			JZ10		
Article	Classic Panel	JZ20-R10	JZ20-R16	JZ20-R31	JZ20-T10	JZ20-T18	JZ20-T40	JZ10-11-UN20	JZ10-11-UA24	JZ10-11-PT15
Number	Flat Panel	JZ20-J-R10	JZ20-J-R16	JZ20-J-R31	JZ20-J-T10	JZ20-J-T18	JZ20-J-T40	JZ10-J-UN20	JZ10-J-UA24	JZ10-J-PT15
		6 Digital Inputs 4 Relay Outputs	6 Digital, 2 D/A, 2 Analog Inputs ¹ 6 Relay Outputs	16 Digital, 2 D/A, 2 Analog Inputs ¹ 11 Relay Outputs	6 Digital Inputs 4 Transistor Outputs	6 Digital, 2 D/A 2 Analog Inputs' 8 Transistor Outputs	16 Digital 2 D/A, 2 Analog Inputs ¹ 20 Transistor Outputs	9 Digital, 2 D/A 1 Analog 1 PT100/TC Inputs ¹ 5 Relay 2 Transistor Outputs	9 Digital, 2 D/A 2 Analog, 2 PT100/TC Inputs ¹ 5 Relay, 2 Analog 2 Transistor Outputs	3 Digital, 3 D/A 3 PT1000/NI1000 Inputs ¹ 5 Relay 1 Transistor Outputs
Inputs										
Digital pnp/		6	8	18	6	8	18	11	11	6
High-Speed	Counters4			2 10kHZ,	16-bit				1 5kHZ, 16-bit	
Analog		None	2 10 or 12-bit, 0-10V & 2 10-bit 0-20mA, 4-20mA	2 10 or 12-bit, 0-10V & 2 10-bit 0-20mA, 4-20mA	None	2 10-bit, 0-10V & 2 10-bit 0-20mA, 4-20mA	2 10-bit, 0-10V & 2 10-bit 0-20mA, 4-20mA	2 10-bit, 0-10V & 1 10-bit 0-20mA, 4-20mA	2 10-bit, 0-10V & 2 10-bit 0-20mA, 4-20mA	3 10-bit 0-10V ²
	e Measurement	None	None	None	None	None	None	1 PT100/TC	2 PT100/TC	3 PT1000/NI1000
Outputs Digital		4 relay	6 relay	11 relay	4 pnp	8 pnp	20 pnp	5 relay, 2 pnp	5 relay, 2 pnp	5 relay 1 pnp/npn
High-Speed	Outputs/PWM	None	None	None	2 PWM	2 PWM	2 PWM	2 PWM	2 PWM	1 HSO
Analog		None	None	None	None	None	None	None	2 12-bit +/- 10V, 4-20mA	None
Progran	n de Memory			48K					24K	
Memory O				401		256 coils, 256 regis	ters. 64 timers		241	
Operato						; -	,-			
Туре						STN LC				
Display Siz	ze					2 lines x 16 cl				
Keys	1				16 k	eys, 10 of which m	ay be user-labeled			
General Power Sup						24VD(0			
Battery	рну			10 years typi	cal at 25°C hat		C and system data,	including variable d	ata	
Clock						-time clock functio		including variable a	utu	
Environme	nt					MA4X/IP65 (when				
Standard		CE, UL								
						UL Class 1 Div 2 an	d GOST certified -			
Programm	-			On Board	Mini USB			Article	No.: JZ-PRG sold se	eparately
Commu Serial	nication				RS232/RS48	5 Add-on port (isola	ated) Article No.: JZ	-RS4 sold separatel	у	
Ethernet			A	Ethernet add rticle No.: MJ20-E1	-on port	· · ·	,		Not supported	

These models comprise a total of 10/20 inputs (model-dependent). 6/16 (model-dependent) of these may be wired, in a group, as either digital npn or pnp. 2 inputs have added functionality. Both may be wired in a group as npn, pnp, or analog (voltage) inputs. Note that it is also possible to individually wire 1 input as a pnp input, and the other as an analog input. The two remaining inputs are analog (current). ² In order to download applications and enable communications,

install Jazz[®] with the appropriate Add-on Module.

³ Certain inputs can function as high-speed counters, or as normal digital inputs.

Add-on modules and accessories²

COM Port kit	Ethernet Communication Port	Program Cloner module	Keypad Slide kit
RS232/RS485 Add-on port (isolated) Article No.: JZ-RS4	Ethernet add on port Supported by Jazz®2 series only Article No.: MJ20-ET1*	Copy applications from PLC to PLC Article No.: MJ20-MEM1	Customize the Jazz®keypad to your application Article No.: MJ20-JZ-SL1



An affordable All-in-One: a smart PLC with a textual HMI and keyboard, plus an onboard I/O configuration; expand up to 150 I/Os

Features:

HMI

- Up to 80 user-designed screens
- Multilingual: supports over 15 languages and 20 graphic symbols
- Scroll between pre-programmed recipes/menus
- Memory and communication monitoring via HMI No PC needed

PLC

- Shaft-encoder inputs and PWM outputs
- Direct temperature inputs
- Auto-tune PID, up to 4 loops
- Date & Time-based control
- Database
- Print utilities
- Full source upload

Communication

- SMS messaging via GSM
- Remote access utilities
- PC access via MODBUS or OPC server
- Supports MODBUS protocol
- CANBus (in C models only)
- User-defined ASCII strings, enable communication with external devices
- RS232/RS485 built-in port



M91

	1									
	M91									
Article Number	M91-2-R1	M91-2-R2C	M91-2-R6C	M91-2-R34	M91-2-T1	M91-2-T38	M91-2-T2C	M91-2-UN2	M91-2-UA2	M91-2-RA22
	10 Digital 1 Analog Inputs 6 Relay Outputs	10 Digital 2 Analog Inputs 6 Relay Outputs	6 Digital 6 Analog Inputs 6 Relay Outputs	20 Digital 2 D/A ¹ Inputs 12 Relay Outputs	12 Digital Inputs 12 Transistor Outputs	22 Digital Inputs 16 Transistor Outputs	10 Digital 2 D/A ¹ Inputs 12 Transistor Outputs	10 Digital 2 D/A/PT100/TC ¹ Inputs 12 Transistor Outputs	10 Digital 2 D/A/TC ¹ Inputs 10 Transistor 2 Analog Outputs	8 Digital, 2 D/A 2 PT100/TC/ Digital ¹ Inputs 8 Relay 2 Analog Outputs
Inputs										
Digital pnp/npn	10	10	6	22	12	22	12	12	12	12
HSC/Shaft-Encoder/ Max. Freq. Measurer ²	3 10kHz 16-bit	3 10kHz 16-bit	1 10kHz 16-bit	3 30kHz ³ 16-bit	2 10kHz 16-bit	2 30kHz ³ 16-bit	3 10kHz 16-bit	2 10kHz 16-bit	1 30kHz ³ 16-bit	1 30kHz ³ 16-bit
Analog	1 10-bit 0-10V, 0-20mA 4-20mA	2 10-bit 0-10V, 0-20mA 4-20mA	6 10-bit 2 0-10V 0-20mA, 4-20mA and 4 0-20mA 4-20mA	2 10-bit 0-10V, 0-20mA 4-20mA	None	None	2 10-bit 0-10V, 0-20mA 4-20mA	2 14-bit 0-10V, 0-20mA 4-20mA	2 14-bit 0-10V, 0-20mA 4-20mA	2 14-bit 0-10V, 0-20mA 4-20mA
Temperature Measurement	None	None	None	None	None	None	None	or 2 PT100/TC	or 2 TC	and 2 PT100/TC
Outputs										
Digital	6 relay	6 relay	6 relay	12 relay	12 pnp	16 pnp	12 pnp	12 pnp	10 pnp	8 relay
High-Speed Outputs/ PWM ⁴	None	None	None	None	2 , f	irst 2 outputs car	function as HS	0, 0.5kHz maxim	ıum	None
Analog	None	None	None	None	None	None	None	None	2 12-bit: 0-10V, 4-20mA	2 12-bit: 0-10V, 4-20mA
I/O Expansion			1		L/Oo mov bo add		ort			
Program					I/OS IIIay De aud	ed via expansion p				
Application Memory					36K (virtual) I	adder code capaci	V			
Memory Operands					(/	registers, 64 timer	5			
Database						s, (indirect access)				
Operator Panel										
Туре					S	TN LCD				
Display Size					2 lines x	16 characters				
Keys		15 keys								
General										
Power Supply	12/24VDC	12/24VDC	24VDC	24VDC	12/24VDC	24VDC	12/24VDC	12/24VDC	24VDC	24VDC
Battery		7 years typical at 25°C, battery back-up for all memory sections and RTC								
Clock (RTC)		Real-time clock functions (date and time)								
Environment		IP65/NEMA4X (when panel mounted)								
Standard		CE, UL Many of our products are also UL Class 1 Div 2 and GOST certified - please contact Unitronics								

¹ In these models certain inputs are adaptable, and can function as either digital, analog, and in certain models also as thermocouple or PT100. Using adaptable inputs reduces the amount of free digital inputs. For example, M91-2-UA2 offers 12 digital inputs. Implementing 2 TC inputs requires 4 digital inputs, leaving 8 free.

- ² Certain inputs can function as high-speed counters, shaft-encoder inputs, or normal digital inputs.
- ³ This specification depends on cable length.
- ⁴ Certain outputs can function as high-speed or PWM outputs.

I/O Expansion Modules

Expand your system with local or remote I/O expansion modules. Vision series support both local & remote I/O modules. M91 supports local modules only. **Digital Modules**

IO-DI8-T08	10-D18-R04	10-D18-R08	EX90-DI8-R08 ³	IO-DI16	
24VDC* 8 Digital Inputs, pnp/npn, including one High-speed Counter 8 pnp Transistor Outputs	24VDC* 8 Digital Inputs, pnp/npn, including one High-speed Counter 4 Relay Outputs	24VDC* 8 Digital Inputs, pnp/npn, including one High-speed Counter 8 Relay Outputs	24VDC 8 Digital Inputs, pnp, including one High-speed Counter 8 Relay Outputs	24VDC* 16 Digital Inputs, pnp/npn, including one High-speed Counter	
IO-T016	10-R08	IO-R016	IO-DI8ACH		
24VDC 16 pnp Transistor Outputs	24VDC* (power supply) 8 Relay Outputs	24VDC* (power supply) 16 Relay Outputs	110/220 VAC 8 AC Inputs	High-speed Remote I/O	
				EXF-RC15 ² 24VCD	,5

*Also available as 12VDC – contact us for part number

Analog, Temperature and Weight/Strain Measurements

I/O Expansion Module Adapters

9 Digital Inputs pnp/npn, including 3 high-speed counter, 4 npn Transistor Outputs, may function as high-speed PWM/PTO, 2 relay outputs

C€/UL

10-AI4-A02	IO-PT400	IO-PT4K		EX-A2X ¹		
24VDC (power supply) 4 Analog Inputs	4 PT100/NI100/NI120 Inputs Range PT100:	4 PT1000/NI1000 Inputs Range PT1000: -50°C ÷ 460°C (-58°F ÷ 860°F) Range NI1000: -50°C ÷ 232°C (-58°F ÷ 449°F) 12-bit	Local I/O module adapter. Galvanic isolation. Up to 8 modules may be connected to a single PLC ¹ . Supports both 12/24 VDC			
12-bit, 0-10V, 0-20mA, 4-20mA,	-50°C ÷ 460°C (-58°F ÷ 860°F) Range NI100:		EX-RC1 ^{1,5}			
2 Analog Outputs, 12-bit+sign, ± 10V, 0-20mA, 4-20mA	-50°C ÷ 232°C (-58°F÷ 449°F) Range NI120: -50°C ÷ 172°C (-58°F÷ 341°F) 12-bit		Remote I/O module adapter, via CANbus. Connect multiple adapters to a single PLC; connect up to 8 modules per adapter. Supports both 12/24 VDC.			
IO-A06X	10-LC1 ⁴ 10-LC3 ⁴	IO-ATC8	IO-AI8	¹ Number of supported I/Os & I/O modules varies according to PLC model.		
24VDC (power supply) 6 Isolated Analog Outputs 0-10V, 0-20mA, 4-20mA 12-bit	12/24VDC (Power Supply) 1-3 Loadcell / Strain gauge Inputs Input voltage ranges: ± 20mV, ± 80mV Excitation: AC/DC 1 Digital pnp Input 2 pnp Outputs Not supported by all PLCs	8 Thermocouple/ Analog Inputs T/C J, K, T, B, E, N, R, S, 0.1 ⁰ Resolution, 0-10V, 0-20mA, 4-20mA, 12/14-bit	8 Analog Inputs 0 ÷ 10V / 0 ÷ 20mA 14-bit 0-10V, 0-20mA, 4-20mA 12/14-bit	 ² The EXF-RC15 functions as a CANbus node in a Vision UniCAN network. The EXF-RC15 is stand-a and does not support I/O Expansion Modules. ³ The EX90 is housed in an open casing. Only one EX90 can be connected per PLC, as a single expansion module; Expansion adapter not requirit ⁴ IO-LCx models are supported by the M91 & Visio series. Not supported by the M90 series. ⁵ Supported by Vision series. Not supported by M91 series. 		

Functions as both I/O module and adapter*

IO-D16A3-R016	IO-D16A3-T016	EX-D16A3-R08	EX-D16A3-T016
24VDC, 16 Digital Inputs pnp/npn, including two High-speed Counters, 3 Analog Inputs, 10-bit, 0-20mA, 4-20mA, 16 Relay Outputs	24VDC, 16 Digital Inputs pnp/npn, including one High-speed Counter, 3 Analog Inputs, 10-bit, 0-20mA, 4-20mA, 15 pnp + 1 pnp/npn Transistor Outputs including 1 HSO	24VDC, built-in Expansion Module Adapter, 16 Digital Inputs, pnp/npn, including two High-speed Counters, 3 Analog Inputs 10-bit, 0-20mA, 4-20mA, 8 Relay Outputs	24VDC, built-in Expansion Module Adapter, 16 Digital Inputs, pnp/npn, including one High-speed Counter, 3 Analog Inputs 10-bit, 0-20mA, 4-20mA, 15 pnp + 1 pnp/npn Transistor Outputs including 1 HSO

*Functions as local adapter. Can support up to 7 I/O modules

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Snap-in I/O Modules





Plug a Snap-in module directly into the back of a Vision PLC. Compatible with all V200, V500, V1040 and V1210 Vision series models.

Article No.	V200-18-E1B	V200-18-E2B	V200-18-E3XB	V200-18-E4XB	V200-18-E5B	V200-18-E6B	V200-18-E46B ¹	V200-18-E62B ¹
Digital Inputs (isolated)	16 npn/pnp (including 2 Shaft-encoder inputs)	16 npn/pnp (including 2 Shaft-encoder inputs)	18 npn/pnp (including 2 Shaft-encoder inputs)	18 npn/pnp (including 2 Shaft-encoder inputs)	18 npn/pnp (including 2 Shaft-encoder inputs)	18 npn/pnp (including 2 Shaft-encoder inputs)	18 npn/pnp (including 2 Shaft-encoder inputs)	30 npn/pnp (including 2 Shaft-encoder inputs)
Analog Inputs	3 10-bit 0-10V, 0-20mA 4-20mA	2 10-bit 0-10V, 0-20mA 4-20mA	4 isolated 12-14-bit (software dependent) 0-10V, 0-20mA 4-20mA	4 isolated 12-14-bit (software dependent) 0-10V, 0-20mA 4-20mA	3 10-bit 0-10V, 0-20mA 4-20mA	3 10-bit 0-10V, 0-20mA & 2 14-bit 0-10V, 0-20mA 4-20mA	9 3 10-bit, 0-10V 0-20mA, 4-20mA 6 14-bit 0-10V, 0-20mA 4-20mA	2 10-bit 0-10V, 0-20mA 4-20mA
Temperature Measurement	None	None	and/or TC/PT100	and/or TC/PT100	None	and/or TC/PT100	None	None
Digital Outputs (isolated)	4 npn/pnp (including 2 High-speed outputs)	4 npn/pnp (including 2 High-speed outputs)	2 npn/pnp High-speed	15 pnp 2 npn/pnp (including 2 High-speed)	15 pnp 2 npn/pnp (including 2 High-speed)	2 npn/pnp High-speed	2 (including 2 High-speed)	28 pnp 2 npn/pnp High-speed
Relay Outputs (isolated)	10	10	15	None	None	15	15	None
Analog Outputs	None	2 12-bit 0-10V, 0-20mA 4-20mA	4 12-bit 0-10V, 4-20mA isolated	4 12-bit 0-10V, 4-20mA isolated	None	2 12-bit 0-10V, 4-20mA isolated	2 12-bit 0-10V, 4-20mA isolated	None

¹V200-18-E46B, V200-18-E62B are not yet UL certified

Additional COM Modules

Enhance Vision's communication capabilities¹

Vision Model	Ethernet	RS232/RS485	lsolated RS232/RS485	CANbus	Profibus ²
SAMBA	V100-17-ET2	V100-17-RS4	V100-17-RS4X	V100-17-CAN	None
V130, V350	V100-17-ET2 V100-S-ET2 ³	V100-17-RS4	V100-17-RS4X	V100-17-CAN V100-S-CAN ³	V100-17-PB1
V200, V500, V1040,V1210	V200-19-ET2	V200-19-RS4	V200-19-RS4-X	None	None

GSM-KIT-41J

Kit Including Enfora GSM1318 Q. Band Modem



DIN-rail Power Supplies

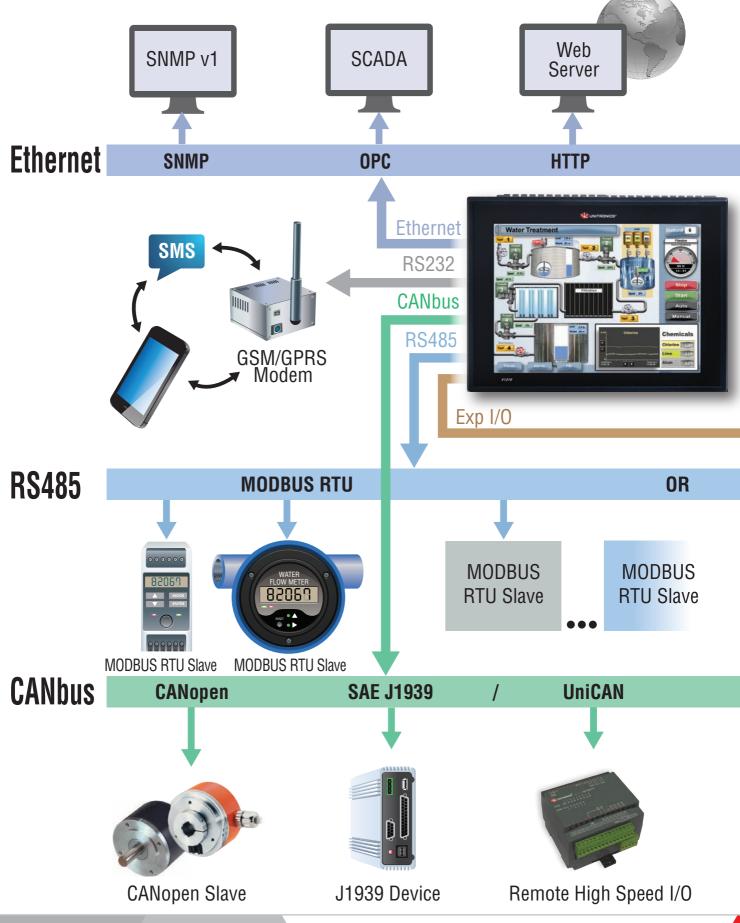
UAP-24V24W	UAP-24V60W	UAP-24V96W	
24W 24V 1A	60W 24V 2.5A	96W 24V 4A	

V200/V500/V1040/V1210: 1 optional port for serial or Ethernet

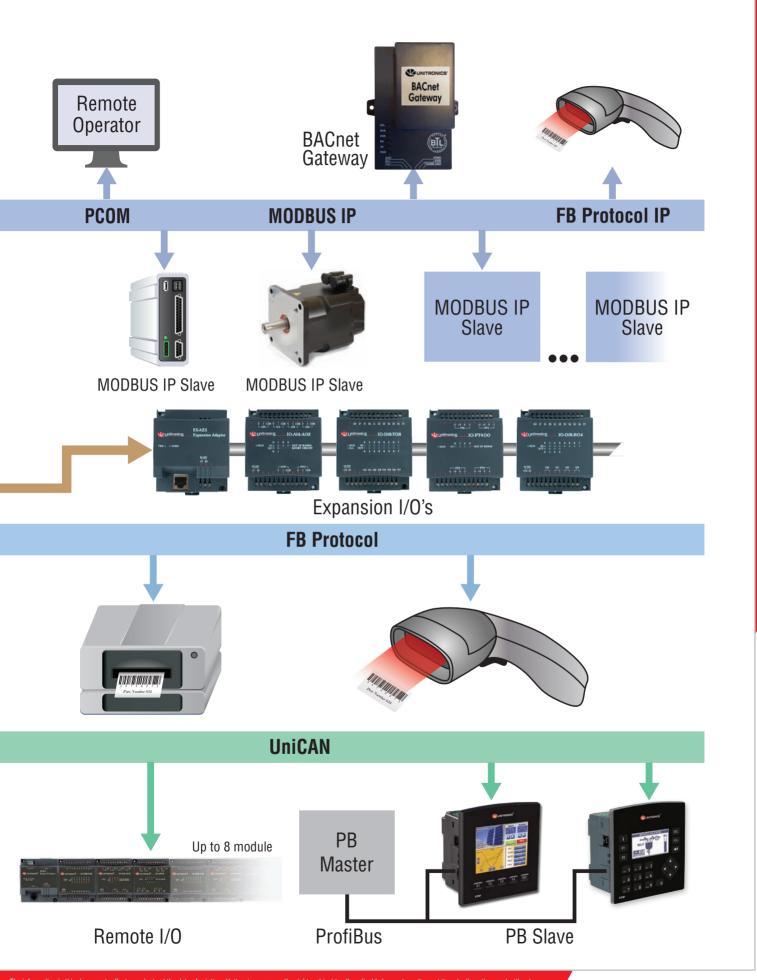
V130/V350: 1 optional port for serial or Ethernet & 1 optional port for CANbus/Profibus ² Not yet UL certified

 3 Extended temperature cards, operational temperature : -30°C to 60°C

Configure your Network Collect & communicate data. Display, access, and remotely control your application.



This image is for illustrative purposes only. Features and capabilities vary according to model.



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Argentina: AFA SACI

Tel: 11 457 41 555, Fax: 11 457 42 400 servicioalcliente@aea.com.ar, www.aea.com.ar



Australia: Micromax Specialists in Automation Tel: 1300 36 26 26, Fax: 1300 01 71 00 info@micromaxsa.com.au, www.micromaxsa.com.au



Austria: chmachtl GmbH Tel: 0732/7646-0. Fax: 0732/7-646-704 office@schmachtl.at, www.schmachtl.at

Belarus Klinkmann Belarus Tel: 17 2000876, Fax:17 2272082 minsk@klinkmann.com, www.klinkmann.com



Isotron Systems BVBA Tel: 034 507 045, Fax: 034 507 046 info@isotron.eu, www.isotron.eu

Belaium:

Brazil

Bosnia and Herzegovina: Tipteh d.o.o. Beograd Tel: 381 11 30 18 326, Fax: 381 11 31 31 057 damir.vecerka@tipteh.rs, www.tipteh.rs



DAKOL Instrumentos e Sistemas Ltda. Tel: (11) 3231 4544, Fax: (11) 3231 4544 vendas@dakol.com.br, www.dakol.com.br Bulgaria:

Tel: 2 942 4754, Fax: 2 942 4762 engineering@semo.bg, www.semo.bg

Canada: Unitronics. Inc Toll free: 866 666 6033 Tel: 617 657 6596, Fax: 617 657 6598 usa.sales@unitronics.com, www.unitronics.com

Chile: chädler Sick SpA Tel: (2) 274 7430, Fax: (2) 204 9338 info@schadler.com, www.schadler.com



China: eijing Ample Thrive CO, Ltd. Tel: 010-88177186, 010-88177187 sales@a082.com, www.a082.com

Colombia: COLSEIN Ltda Tel: 1-519 0967, Fax: 1-519 0967 Ext. 101 info@colsein.com.co, www.colsein.com.co

Croatia: Tipteh d.o.o. (Slovenia) Tel: 013 816 574, Fax: 013 816 577 tipteh@tipteh.hr, www.tipteh.si

Cyprus: Anaxagoras Pneumatics Ltd Tel: 022 442 200, Fax: 022 495 953 sales@anaxagoras.eu, www.anaxagoras.eu

Czech Republic: Schmachtl CZ, spol. s r.o. Tel: 244 001 559, Fax: 244 910 700 unitronics@schmachtl.cz, www.schmachtl.cz

Denmark: Desim Elektronik ApS Tel: 70 22 00 66, Fax: 70 22 22 20 desim@desim.dk, www.desim.dk

Ecuador: Local Ecuadorian distributors: contact Unitronics Ltd. Tel (Israel): +972 3 9778893 / 5, Fax: +972 3 9778877 export@unitronics.com, www.unitronics.com

Estonia: Klinkmann Festi AS Tel: 6 684 500, Fax: 6 684 501 klinkmann.est@klinkmann.ee, www.klinkmann.com

Finland: ann Automation O Klinkmann Automation Oy Tel: 9 540 49 40, Fax: 9 541 35 41 automation@klinkmann.fi, www.klinkmann.com

France PL Systems Tel: 016 092 4171, Fax: 016 928 4193 info@pl-systems.fr, www.pl-systems.fr

Germany: Spectra GmbH & Co. KG. Tel: 0 71 21/ 143 21-0, Fax: 0 71 21/ 143 21-90 spectra@spectra.de, www.spectra.de

Greece: Automation & Power Control Ltd. Tel: 210 531 3111, Fax: 210 598 1435 info@apc.com.gr, www.apc.com.gr

Hong Kong: Automate Control Engineering Ltd. Tel: 02 342 72 76, Fax: 02 342 72 29 ace@automate.corp.com.hk, www.automate-ace.com





info@electrical-dealer.com, www.electrical-dealer.com Hungary: Kvalix Automatika Kft

Tel: 1 272 2242, Fax: 1 272 2244 info@kvalix.hu, www.kvalix.hu

Tel: 558 1400 Eax: 557 9709

Honduras:

India:

Israel:

Italy

Latvia:

Lithuania:

Malaysia:

Malta:

UAB Klinkmann Lit

TELESTAR s.r.l

Electrical Deale



Samey ehf Tel: 510 5200 , Fax: 510 5200 Sala@samey.is, www.samey.is

Rajdeep Automation Pvt Ltd

Tel: 020-243 937 55. Fax: 020 243 937 56

Tel (Israel): +972 3 9778893 / 5, Fax: +972 3 9778877



sales@rajdeep.in / info@rajdeep.in, www.rajdeep.in Ireland: Local distributors: contact Unitronics Ltd



Island: Samey ehf Tel: 354 510 5200. Fax: 354 510 5201 Sala@samey.is, www.samey.is

Zivan Instruments Co. Ltd

Tel: 04 872 98 22, Fax: 04 872 66 27

Tel: +39 0321 966 768 Fax: +39 0321 996 281

Klinkmann Lat Ltd. Tel: 6738 16 17, Fax: 6738 24 51 klinkmann@klinkmann.lv, www.klinkman.com

telestar@telestar-automation.it, www.telestar-automation.it

info@zivan.co.il, www.zivan.co.il







Tel: 5 216 1646, Fax: 5 216 2641 post@klinkmann.lt, www.klinkmann.com Macedonia: Tipteh d.o.o Skopje Tel: 070 399 474, Fax: 023 174 197 tipteh@on.net.mk, www.tipteh.si





Info@rayair-automation.com sales@rayair-automation.com, www.rayair-automation.com Sistemas de Control Autec, S.A. de C.V.



The Netherlands: Isotron Systems BV Tel: 073 639 1639, Fax: 073 639 1699 info@isotron.nl, www.isotron.nl

Tel: 55 527 885 19, Fax: 55 527 885 32

Yewtech SDN BHD Tel: 168 761 575, Fax: 856 112 99

RAYAIR Automation Limited

Tel: 2 16 724 97, Fax: 21 8 051 81

sales@yewtech.com, www.yewtech.com



New Zealand: EMC Industrial Group Ltd Tel: 9 415 5110, Fax: 9 415 51 15 sales@emc.co.nz, www.emc.co.nz



Nigeria: Technosuite Limited Tel: 1 804 0237, Fax: 1 271 6985 enquiries@technosuiteltd.com, www.technosuiteltd.

Norway: Tormatic as Tel: 33 16 50 20, Fax: 33 16 50 45 info@tormatic.no, www.tormatic.no



EPLI SAC Tel: 330 1595, Fax: 431 1492 info@epli.com.pe, www.epli.com.pe

Elmark Automatyka Sp. zo.o

Tel: 22 541 84 60, Fax: 22 541 84 61



Philippines: Cosine Industries INC Tel: 2 350 74 48, Fax: 2 412 73 21 sales@cosine.net.ph, www.cosine.net.ph Poland:





elmark@elmark.com.pl, www.elmark.com.pl Portugal: Tecnilab Portugal, SA Tel: 21 722 08 70, Fax: 21 726 45 50 geral@tecnilab.pt, www.tecnilab.pt



Romania[.]

Russia⁻

Local Romanian distributors: contact Unitronics Ltd. Tel (Israel): +972 3 9778893 / 5, Fax: +972 3 9778877 export@unitronics.com, www.unitronics.com



ZAO Klinkmann Spb St.Petersburg Tel: 812 327 37 52/26, Fax: 812 327 37 53 klinkmann@Klinkmann.spb.ru, www.klinkmann.com Moscow branch Tel: 495 641 1616, Fax: 495 641 3434 moscow@klinkmann.spb.ru, www.klinkman.com Yekaterinburg branch Tel: 343 287 19 19, Fax: 343 287 19 19 yekaterinburg@klinkmann.spb.ru, www.klinkman.com Samara branch Tel: 846 273 95 85, Fax: 846 273 95 85 samara@klinkmann.spb.ru, www.klinkman.com Serbia: Tipteh d.o.o. Beograd Tel: 381 11 30 18 326, Fax: 381 11 31 31 057



damir.vecerka@tipteh.rs, www.tipteh.rs Singapore: YT AUTOMATION SINGAPORE PTE LTD Tel: 66840702, Fax: 66840703 ytautomation@singnet.com.sg, www.ytautomation.com



Slovakia Tel: 48 472 34 11, Fax: 48 472 34 69 sekretariat@s-d-a.sk, www.s-d-a.sk



Slovenia inteh d o o Tel: 012 005 150. Fax: 012 005 151 info@tipteh.si, www.tipteh.si

South Africa: Vision Automation Tel: 011 826 7365, Fax: 011 826 7361 info@visionautomation.co.za, www.unitronics.co.za

> Spain: SIDE, SA Tel: 93 846 4801, Fax: 93 849 1394 info@side.es, www.side-automatizacion.com



Sweden: SensorGruppen AB Tel: 08 731 5190, Fax: 08 731 5105 info@sensorgruppen.se, www.sensorgruppen.se

COMAT AG Industrielle Flektronik Tel: (0) 31 838 55 77, Fax: (0) 31 838 55 99 info@comat.ch. www.comat.ch Taiwan: MARK Automation Tek. Inc.



Switzerland:

Themtech Company Ltd. Tel: (2) 693 66 29, Fax: (2) 693-66 30 sales@themtech.co.th, www.themtech.co.th



Turkey: YORUM OTOMASYON MALZEMELERI SAN. VE TIC. A.S

Tel: 216 364 69 69 , Fax: 216 364 69 75 yorum@yorum-automation.com, www.yorum-automation.com

Ukraine: Klinkmann Ukraine LLC Tel: 44 495 33 40, Fax: 44 495 33 41 klinkmann.kiev@klinkmann.kiev.ua. www.klinkmann.com



United Kingdom: Local UK distributors: contact Unitronics Ltd Tel (Israel): +972 3 977 88 94, Fax: +972 3 977 88 77 export@unitronics.com, www.unitronics.com



USA: Unitronics Inc. Toll free: 866 666 6033 Tel: 617 657 6596, Fax: 617 657 6598 usa.sales@unitronics.com, www.unitronics.com



Venezuela: Intrave, C.A Tel: 0212 953 5080, Fax: 0212 951 2521 ventas@intrave.com, www.intrave.com



Vietnam ANS Tel: 8 3517 0401 Ext:17, Fax: 8 3517 0403 sales ans@ansvietnam.com_www.ansvietnam.com



International Headquarters: P.O.B. 300, Ben Gurion Airport 70100, Israel Tel: +972 3 977 88 88, Fax: +972 3 977 88 77, export@unitronics.com



Peru: