

AUTOMATION CONTROLLERS

- Logic Controllers
- Communicating Logic Controllers
- Nano-PLCs
- Telecontrollers





Automation Controllers Selection Guide

		Simple & small applications	Simple applications	Connectivity needed	High-end & niche applications	Remote applications
		↓ Slim Logic Controller  MilleniumSlim	↓ Logic Controller  Millenium	↓ Communicating Logic Controller  MilleniumEvo	↓ Nano-PLC  em4NANOPLC	↓ Telecontroller  em4ALERT
INPUTS & OUTPUTS	Memory Capacity	1000 FB	2000 FB	1000 FB	2000 FB	2000 FB
	Number of I/Os	8	Up to 60	Up to 44	Up to 46	Up to 46
	Analog Inputs (CPU)	4	6	8	12	12
	4-20mA Inputs (CPU)	N/A	N/A	N/A	4	4
	High-Speed Digital Inputs	15 KHz	5 KHz	15 KHz	60 KHz	60 KHz
COMMUNICATION	Ethernet Embedded	NO	YES	YES	YES	N/A
	Modbus Interface	N/A	CLIENT/SERVER	SERVER	CLIENT/SERVER	CLIENT/SERVER
	Bluetooth Communication	YES	N/A	YES	YES	YES
	Mobile Communication (3G)	N/A	N/A	N/A	N/A	YES
	Datalog Number of Values	8 VALUES	24 VALUES	16 VALUES	24 VALUES	24 VALUES
	Event Number of Values	N/A	N/A	12 VALUES	24 VALUES	24 VALUES
		CROUZET SOFT (FBD-SFC)	CROUZET SOFT (LD-FBD-SFC)	CROUZET SOFT (FBD-SFC)		

LD: Ladder
FBD: Function Block Diagram
SFC: Sequential Function Chart

 CROUZET Virtual Display is compatible with Slim, Millenium EVO, em4 and em4 Alert. Web server available for Millenium.

THE SMALLEST LOGIC CONTROLLER EVER

Thousands of applications
in your hand



MILLENIUM SLIM

The smallest logic controller ever!

01. SPACE REDUCTION



The smallest logic controller ever, in a **17.5mm** body that fits in any panel or machine

02. MULTIPURPOSE



Replace several products in your control panel with this **highly configurable**, pocket-sized logic controller

03. INTERCONNECTIVITY



Give wireless capabilities to your applications via **Bluetooth** communication

04. SIMPLICITY



Easiest-to-use software and **Virtual Display** on your smartphone or PC.
+ Quick start with no cables
+ Fast maintenance



A MULTITUDE OF APPLICATIONS IN YOUR HAND

With our free **Virtual Display App** you get access to plenty of **pre-programmed applications** and the possibility to create and configure your own with **CrouzetSoft**, the easiest-to-use automation programming software available in the market.

Selection Guide - Automation

Crouzet's Automation Controllers

Automation for everyone! Easy to use and powerful Automation Controllers, adaptable for all kinds of projects - from the simplest to complex applications. Crouzet's Automation Controllers offer free software and are easy and intuitive to use, even for programming novices.

SLIM LOGIC CONTROLLER – MILLENIUM SLIM

MilleniumSlim, The smallest logic controller ever! For all your standalone small-scale applications

Type	Total I/Os	Convertible Inputs				Output Types		
		Digital	Analog	PWM	High-Speed	Digital	PWM	
 Slim Controller Kit	8 I/Os • 4 Inputs • 4 Outputs	4 • Classical Digital	-	-	-	4 • 6A Relay	-	
			4 • 0-10 VDC or 0-VCC	2 • 10 Hz to 1 KHz	2 • 5 KHz	4 • 6A Relay	-	
						-	4 • 0.5A Static	

LOGIC CONTROLLER

Millenium, the logic controller of choice for 15+ years

Type	Total I/Os	Convertible Inputs		Output Types			
		To Digital	To Analog	Digital	PWM	Analog	
 Expandable Short - With Screen	12 I/Os • 8 Inputs • 4 Outputs	8	4	4 Relay	-	-	
				4 Static	1		
				4 Relay	-		
 Expandable Short - No Screen	8	8	4	4 Relay	-	-	
			-				
 Expandable Long - With Screen	26 I/Os • 16 Inputs • 10 Outputs	16	0/6	10 Relay/ 10 Static	0/4	-	
				10 Static	4		
				10 Relay	-		
 Expansion Short - Digital	8 I/Os • 4 Inputs • 4 Outputs	4	-	4 Relay	-	-	
				4 SSR			
 Expansion Long - Digital	16 I/Os • 8 Inputs • 8 Outputs	8	-	4 Relay	-	-	
				8 SSR			
 Expansion Short - Analog	2 I/Os 2 Inputs		2 Analog (V/mA)	-			
			2 RTD				
	2 I/Os 2 Outputs		-				
						2 Analog (V/mA)	

*Current Millenium 3 26 I/Os is available at www.crouzet.com

Automation Controller Features

- Graphic Programming language (FBD) and several ways of communication (3G, Ethernet, Modbus...)
- Many Options: 10-12 I/Os, 24-26 I/Os, Expandable. Digital/Analog Inputs. Relay/PWM outputs, etc.
- DesignLab for custom adaptations, 100+ years of Engineering expertise at your service

	Embedded Communication	Embedded Screen	Power Supply	Comments	Designation	Part Number
	Bluetooth	Virtual only	110-240 VAC	• 17.5 mm body • DIN Rail & panel mount • Bluetooth programming	CB8R (AC)	88 983 903*
			24 VDC		CB8R (DC)	88 983 901*
			24 VDC		CB8S (DC)	88 983 902*

* **88 983 903** (kit: 88 983 003 + connectors) - * **88 983 901** (kit: 88 983 001 + connectors) - * **88 983 902** (kit: 88 983 002+ connectors)

	Embedded Communication	Embedded Screen	Power Supply	Comments	Designation	Part Number
	Ethernet TCP/IP	✓	12 VDC	-	MXD12	MXD12RD7ET
			24 VDC			MXD12SD1ET
			100-240 VAC			MXD12RU3ET
	Ethernet TCP/IP	-	24 VDC	-	MXB12	MXB12RD7ET
			100-240 VAC			MXB12RU3ET
	Ethernet TCP/IP	✓	12-24 VDC/ 100-240 VAC	More I/Os are possible by adding an expansion	MXD26	Coming soon*
	-	-	110-230V AC/DC	-		MXR08U3
			24 V AC/DC			MXR08U1
			12-24 VDC			MXR08D7
			24 VDC			MXS08D1
	-	-	110-230V AC/DC	-		MXR16U3
			24 V AC/DC			MXR16U1
			12-24 VDC			MXR16D7
			24 VDC			MXS16D1
			12-24 VDC			MXAI02D7
						MXAI02PD7
			24 VDC			MXA002D1

Selection Guide - Automation

COMMUNICATING LOGIC CONTROLLER - MILLENIUM EVO

Millenium EVO, the logic controller of choice for all your projects requiring communication

Type	Total I/Os	Convertible Inputs		Output Types			
		To Digital	To Analog	Digital	PWM	Analog	
 Screen Option Local / Standalone	24 · 16 Inputs · 8 Outputs	16 · 12 to Classical Digital · 4 to Classical Digital or 15 KHz High-Speed	8 · To 0-10 VDC or 0-VCC	8 · 6 x 8 A · 2 x 6 A	-	-	
 Blind Option Local / Standalone							
 Screen Option Ethernet Version	24 · 16 Inputs · 8 Outputs	16 · 12 to Classical Digital · 4 to Classical Digital or 15 KHz High-Speed	8 · To 0-10 VDC or 0-VCC	8 · 6 x 8 A · 2 x 6 A	-	-	
 Blind Option Ethernet Version							
 Expansion Digital	10 · 6 Inputs · 4 Outputs	6 · Classical Digital	-	4 · 2 x 8 A · 2 x 6 A			
 Expansion Analog			4 · 0-10 VDC or 4 to 20 mA	-			
					2 · 0.5 A Static	2 · 0-10 VDC	

	Embedded Communication	Embedded Screen	Power Supply	Comments	Designation	Part Number
	-	✓	24 VDC	-	XDP24	88 975 101
		-		-	XBP24	88 975 001
	Ethernet TCP/IP	✓	24 VDC	Embedded Ethernet Communication	XDP24-E	88 975 111
		-		Embedded Ethernet Communication	XBP24-E	88 975 011
	-	-	24 VDC	To control power actuators (valves, pumps...)	XRP10	88 975 201
				To control analog actuators (controlled valve, controlled pump...)	XAP10	88 975 303

ACCESSORIES

Type	Compatibility	Description	P/N
 Memory Cartridge Memory Storage	· Millenium: Logic Controller	Memory Cartridge	88 920 910
 Connectors Pluggable	· Millenium 3	For 12 I/Os version	88 970 310
		For 20 I/Os version	88 970 311
		For 26 I/Os version	88 970 312
 Modbus Interfaces	· Millenium: Logic Controller	Modbus - Polarization	88 920 923
		Modbus - No Polarization	88 920 922

Type	Compatibility	Description	P/N
 Interfaces For USB, Modbus or Bluetooth Communication	· em4: Nano-PLC · em4 Alert: Telecontroller · Millenium EVO: Communicating Logic Controller	USB programming	88 980 110
		Modbus - Polarization	88 980 123
		Modbus - No Polarization	88 980 122
		Bluetooth	88 980 112
		Bluetooth + PC Dongle	88 980 116
 Antenna For Cellular Network Communication	· em4 Alert: Telecontroller	Antenna 3M	88 980 160

Selection Guide - Automation

NANO-PLC - EM4

The PLC made simple, PLC performance with logic controller simplicity, for high-end applications

Type	Total I/Os	Convertible Inputs		Output Types			
		To Digital	To Analog	Digital	PWM	Analog	
 Nano-PLC Local / Standalone	26 • 16 Inputs • 10 Outputs	16 • 12 to Classical Digital • 4 to Classical Digital or 60 KHz High-Speed	12 • 8 to 0-10 VDC or 0-VCC • 4 to 20 mA or 0-10 VDC	8 • 6 x 8 A • 2 x 6 A	2 • 0.5 A Static	-	
 Starter Kit Local / Standalone							
 Nano-PLC Ethernet Version	26 • 16 Inputs • 10 Outputs	16 • 12 to Classical Digital • 4 to Classical Digital or 60 KHz High-Speed	12 • 8 to 0-10 VDC or 0-VCC • 4 to 20 mA or 0-10 VDC	8 • 6 x 8 A • 2 x 6 A	2 • 0.5 A Static	-	
 Starter Kit Ethernet Version							
 Expansion Digital	10 • 6 Inputs • 4 Outputs	6 • Classical Digital	6 • 0-10 VDC or 0 VCC	4 • 2 x 8 A • 2 x 6 A	-	-	
 Expansion Analog			6 • 0-10 VDC or 4 to 20 mA	-	2 • 0.5 A Static	2 • 0-10 VDC	

TELECONTROLLER - EM4 ALERT

em4 Alert has a built-in GSM modem to connect to any cellular network to control and monitor

Type	Total I/Os	Convertible Inputs		Output Types			
		To Digital	To Analog	Digital	PWM	Analog	
 Telecontroller 4G Version	26 • 16 Inputs • 10 Outputs	16 • 12 to Classical Digital • 4 to Classical Digital or 60 KHz High-Speed	12 • 8 to 0-10 VDC or 0-VCC • 4 to 20 mA or 0-10 VDC	8 • 6 x 8 A • 2 x 6 A	2 • 0.5 A Static	-	
 Starter Kit 4G Version							
 Expansion Digital	10 • 6 Inputs • 4 Outputs	6 • Classical Digital	6 • 0-10 VDC or 0-VCC	4 • 2 x 8 A • 2 x 6 A	-	-	
 Expansion Analog			6 • 0-10 VDC or 4 to 20 mA	-	2 • 0.5 A Static	2 • 0-10 VDC	

*Coming soon

	Embedded Communication	Embedded Screen	Power Supply	Comments	Designation	Part Number
	-	✓	24 VDC	To use in local applications	B26	88 981 103
				em4 + Software + USB interface + USB cable	B26 Starter Kit	88 981 106
	Ethernet TCP/IP	✓	24 VDC	Embedded Ethernet Communication	B26 ET	88 981 133
				em4 + Software + Ethernet RJ45 cable	B26 ET Starter Kit	88 981 136
	-	-	24 VDC	To control power actuators (valves, pumps...)	E10R	88 982 113
				To control analog actuators (controlled valve, controlled pump...)	E10A	88 982 213

	Embedded Communication	Embedded Screen	Power Supply	Comments	Designation	Part Number
	4G Cellular Network	✓	24 VDC	Embedded GSM Modem	B26-4GS	88 981 143*
				em4 Alert + Antenna + Software + USB interface + USB cable	B26-4GS Starter Kit	88 981 146*
	-	-	24 VDC	To control power actuators (valves, pumps...)	E10R	88 982 113
				To control analog actuators (controlled valve, controlled pump...)	E10A	88 982 213

CROUZET SOFT

The Easiest-To-Use Automation Software on the Market

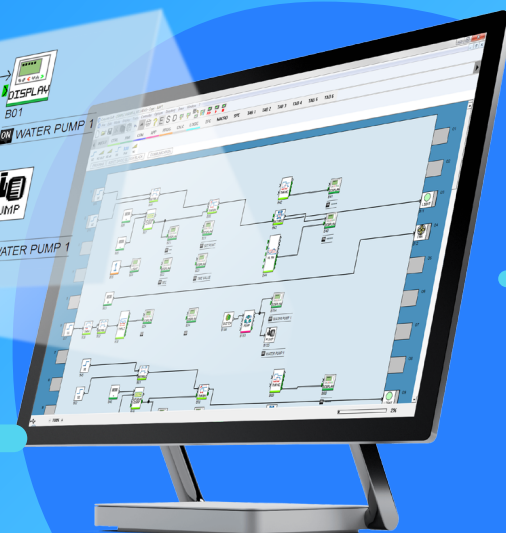
Powerful software for all kind of projects, from the simplest to very complex applications, designed to be easy even for non-programmers,

-  **Visual Programming**
-  **Learn while you play!**
-  **You are in control of your application**

SIMPLY EASY

MORE THAN
120
FUNCTION
BLOCKS

MEMORY
UP TO
2000
FUNCTION
BLOCKS



CROUZET VIRTUAL DISPLAY

Access your controller screen and control buttons at a distance in real-time and change parameters from any of your PC's or mobile devices, either by

- **Bluetooth**
- **Ethernet network or**
- **USB**

