



Programmable controller with graphic display



What it can do

Run a local user program, designed by Ladder diagram and Simple C or just embodying a virtual component (patent pending), allowing to display information by its 128x64 pixels display, and interacting by its 4 contextual keys. It can display personalized icons, texts and formatted numeric values.

Some virtual components specifically designed for this unit allows to characterize it to act as a chronothermoregulator, chronoeventmanager, status monitor, small burglar alarm control, scene controller, etc. (contact us for further specific needs).

Available functions

Actuates local or remote outputs, read local and remote logic inputs, read analogic local input or the embedded thermal sensor, has 8 timers (from 1/10 sec. to 1:48:48.0), can read/write 60 byte of local non-volatile private data memory, trigger levels, management of network messages, remote execution, freeze of scheduled events, print to display texts, formatted numeric values, icons. Real time clock with automatic daylight saving time swap.

Available events

Catch of events from logic inputs and keys: click, longclick; analogic trigger, timer, net messages, scheduler.

Programmable networked controller NSC, with graphic display and keyboard Display 128x64 white-blue, with backlight Thermal sensor embedded

3 logic inputs

2 logic OC outputs, suitable for relay expansion ES3R

Analog auxiliary alternative input Real time clock, with DST (EU/US system) Include "powersave" control

Also available with external optional battery holder for battery type PP3 9V (not required if powered by ups or a battery backup power supply, such as the AL2412-30B)

Frame size suitable for in-wall boxes 503 EU/EEA standard size



The frame can host cover-plates made by several vendors

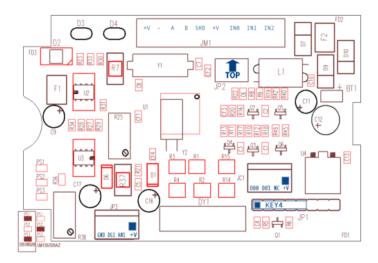
Main technical characteristics							
Display	LCD 64x128 moncrhome blue-white, backlight activated by key hitting, autoshutdown of backlight after keyboard inactivity						
Embedded thermal sensor	Digital sensor, accuracy 0,12°C, resolution 0,5°C, compensation of temperature can be set by program						
Logic inputs	3	Logic OC outputs	2	Analogic inputs	1	Alternative inputs	2 (external digital sensor / analogic)
Keyboard	4 multifunction/contextual keys						
Scheduler	Up to 182 setpoints and up to 12 exceptions, available for 4 distinct weekly programmes. Management by level (e.g. temperatures), and by status on/off (8 switches) (e.g. zones, outputs, etc.)						
Memory	2,8KB compressed user program						
User file	60 bytes of data, preserved even when not powered						
Protections	Insufficent supply voltage, reverse supply voltage, ESD on inputs and bus lines, autorecovering internal fuse, illegal function calls, release of outputs when progam anomalies are detected.						
Error checking	Division by zero, stack overflow, out of memory, subscript out of range, access violation, math stack overflow, net fault						
Operating system	NSC multitasking non preemptive event driven						



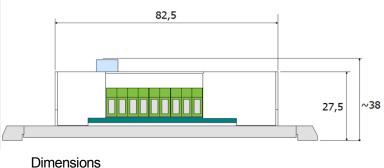
NSC LCDG 128

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Electrical and physical characteristics			
Nominal power supply	24		Vdc
Supply limit voltages	11	Vdc	
Consumption	Min: 40	Max: 130	mA
Sleep mode consumption (when allowed)	1,1 0,5		mA
Logic inputs voltage (logic high)	ogic high) Min: 8 Max: 35		V
Logic inputs voltage (logic low) max	0 < 3		V
Logic inputs inpedance	10		ΚΩ
Max frequency logic inputs	17		Hz
Antibouncing sampling, Max bouncing time (-3db)	20		ms
Max voltage open collector outputs (OC)	3	Vdc	
Max current open collector outputs	3	mA	
Free wheeling (clamp) diodes on oc outputs	NOT AV		
Extenal battery (only optional versions)	9V PP3		
Analog input voltage	0 < 5		V
Analog input inpedance	Min: 10	Max: 50	ΚΩ
Max frequency analog inputs	1		KHz
Operating temperature	Min: 0	Max: +50	°C
Operating humidity (without condensation)	Min: 30%	Max: 90%	UR
Weight (approximative)	90		gr
Dimensions	See		



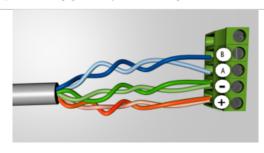
Connectors layout



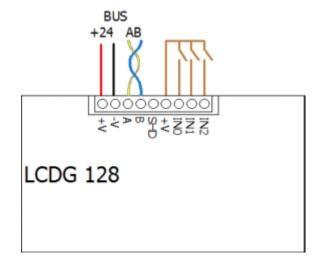
Technical data may change without prior notice.

Electric wiring (example)

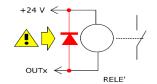
- 1 & Positive, power supply (24V)
- Negative, power supply
- 3 \(\text{Dus channel A} \)
- 4 Bus channal B
- 5 \(\psi \) Shield (optional, see notes)



Other information, common to all the NSC devices, please refer to the general technical manual, and the programming manual. Programming requires the MaticStudio which embed the NSC compiler.



If a relay is connected to one O.C. Output, is necessary to add a clamp diode in parallel to the coil of the relay (a suitable diode is the 1N4004). See figure.





Installation

