

NANOXL

(4) RELAY CONTROLLER

The NanoTron “NANO” XL is the economical platform and exceptional choice for commercial and industrial water treatment systems.

MICROPROCESSOR CONTROL OF:

Conductivity and Feed Timers
(Pulse • 28-Day • Recycle • Post Bleed)



KEY FEATURES

- Compact Design
- Simple Step Through Menu
- NEMA 4X Style Enclosure
- Raised Dome Keypad
- Non-Volatile Memory
- Water Meter Totalizer
- mA Options
- Prewired Configuration
- 2 Year Warranty

PRODUCT OVERVIEW

The NANOXL is a compact, four relay microprocessor-based controller with many standard features. NANOXL models are available to control conductivity and three selectable feed timers, or four independently programmable feed timers.

The NANOXL platform provides an economical option for conductivity control of tower, boiler and other industrial water systems. Selectable feed timers and an optional 4-20 mA input provides a wide range of chemical feed options.

Build a Model NANOXL -

Step 1 choose a base model

All models have 4 control relays regardless of control options.

Conductivity Control (3) Feed Timers	
B2	BE-32C probe, 400°F and 250 PSI max
C	TE-4A Standard Tower probe; 3/4" PVC slip, 140°F and 150 PSI max
C3	AH-4ASS 212°F and 250 PSI max, 1" MNPT
C12	AL-4ASS pure water, 1/2" MNPT
pH Control (3) Feed Timers	
P	TPE-21 Standard Tower
P8	PE-21SS stainless steel probe 1/2" MNPT
ORP Control (3) Feed Timers	
R	TOE-21 Standard Tower
R8	OE-21SS stainless steel probe 1/2" MNPT
(4) Timer Only Selections F4	
Dual mA Input w/ 1 Differential Calculation D	

Step 2 whole unit options

Must select from each in order.

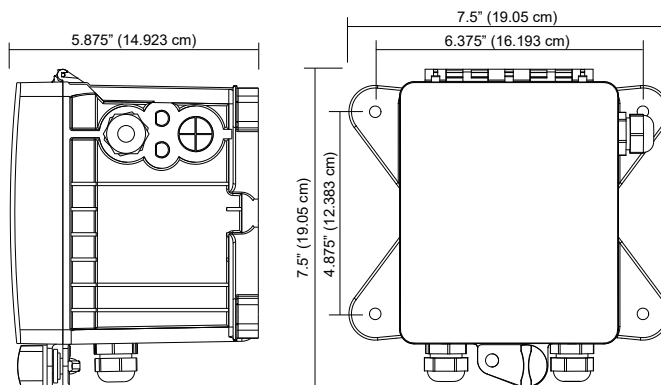
Options	List all desired
A	100-240 VAC conduit connections
A2	Class F power cord, 230 VAC relays
A3	Liquid tight only, 100-240 VAC
A6	Korean power cord, no pigtails, 240 VAC relay card
A7	Australian power cord (240 VAC)
E	Standard float style switch PVC assembly; 120 PSI (8.2 bar) @ 125°F (51.6°C)
E3	Paddle flow switch PVC assembly
E4	Paddle flow switch PVC unassem, 10' cord
E5	Paddle switch brass assembly
E6	Flow switch connection only with cable
N1	One mA input
N2	Two mA inputs
O1	One mA output
O2	Two mA outputs
V	Isolated 24 VDC power supply for powering mA inputs and outputs
Y	UL/CSA/CE testing approvals

Note: The F4 option for 4 timers can only be selected if no other base model selection is used. NANOXL units can have a maximum of four analog modules. Each sensor and mA (in or out) option uses one of the four module positions. A model number will not be valid if it is calling for more than for modules. Example: NANOXL-PR-O2 is valid but a NANOXL-PR-N1O2 is not valid.

Specifications

Electrical Input	95-240 VAC, 50/60 Hz
Relay Outputs	Individually fused and 2.5 amps Dry contact limited to 2.5 mA at 28 VDC
Display	LCD 1 x 16 backlit alphanumeric
Digital Inputs	Inputs have 10K Ω pullup to 3.3 VDC from open collector open drain output
Flow Totalizing Inputs	10K Ω pullup to 5 VDC max rate 2.5 KHz from open collector open drain output
mA Inputs	Optical isolation, 250 Ω / 5 VDC @ 20 mA Loop voltage to not exceed 30 VDC
mA Outputs	Non-isolated. 12 VDC max load = 400 Ω Isolated ext 24 VDC max load = 800 Ω
Enclosure	NEMA 4X style polycarbonate
Ambient Temp	0° to 125°F (-17° to 52°C)
Relative Humidity	0 to 100%
Shipping Weight	Approximately 6 lbs. (2.722 kg)
Dimensions	7.5" (19.05 cm) W&H x 5.875" (14.92 cm) D

Selectable Feed Timers	
Pulse	1-9999 counts, MM:SS run time
Recycle	HH:MM off cycle, MM:SS on cycle
28-Day	Weeks, Days, HH:MM run time
With Relay	HH:MM limit time
Post Relay	0-100%, HH:MM limit time



Conductivity Control Ranges (μ S/cm, mS/cm, PPM)	
Low	1-1,000 μ S tower; 1-700 boiler
Mid	10-10,000 μ S tower; 10-8,000 boiler
High	50-50,000 μ S tower; 50-38,000 boiler

Tower Probes	
Supplied in 3/4" quick release PVC tees. pH and ORP probe bodies are CPVC.	
TE-4A	150 psi (10.3 bar), 140°F (60°C) max
TPE-21	100 psi (6.8 bar), 140°F (60°C) max
TOE-21	100 psi (6.8 bar), 140°F (60°C) max
FS-OC (flow switch)	140 psi (9.6 bar), 140°F (60°C) max
AL-4ASS	100 psi (6.8 bar), 212°F (100°C) max
BE-32C	250 psi @ 400°F, SS/PEEK with 1" cross