Zelio Smart Relay

The Simple Truths and Uses

By Allen Roberts

One of the most useful relay products in the market today and underutilized item in an electrician's basket is the Zelio smart relay. These relays were designed with the regular electrician in mind while also being useful to the OEM machine builder and the industrial plant electrician. Schneider Electric launched this product in 2000 with the Zelio model 1 and followed up with the model 2 a few years later.

Some of the applications I have been involved in include lunch bell time clocks, end-of-arm controllers, lawn sprinkler timers, lighting timers, and automated displays, just to mention a few. The basic Zelio unit has built-in timers, counters, analog inputs, comparators, and more. This is all accessible on the built-in HMI display or the free software that runs on most modern Windows-based computers. The software includes features ranging from basic relay ladder logic programming to advanced function block programming. It includes a great simulator so you can test your program before you install on the controller.

Zelio comes in two main types: expandable and non-expandable. Each of those categories contain multiple options, from 12VDC to 240VAC, 10 I/O to 26 I/O, and blind units (no display) to multi-functional display units. Communications in different protocols from serial to Ethernet to wireless are available options. These units come in either relay output rated at 2 amps per pole or 300ma transistor output for higher speed applications. Zelio's modularity makes application limitless.

Water park splash pads: Town of Aurora

Water Falls: 61 City View Drive in Scarborough

Water bottling plant: Huntsville Ontario

Batch Control: Plastics Company Huntsville

Winder Control: Fabric Mill Orangeville

Lunch Bell Timer: Manufacturing Plant Scarborough

Automated Christmas Light Display: Aurora
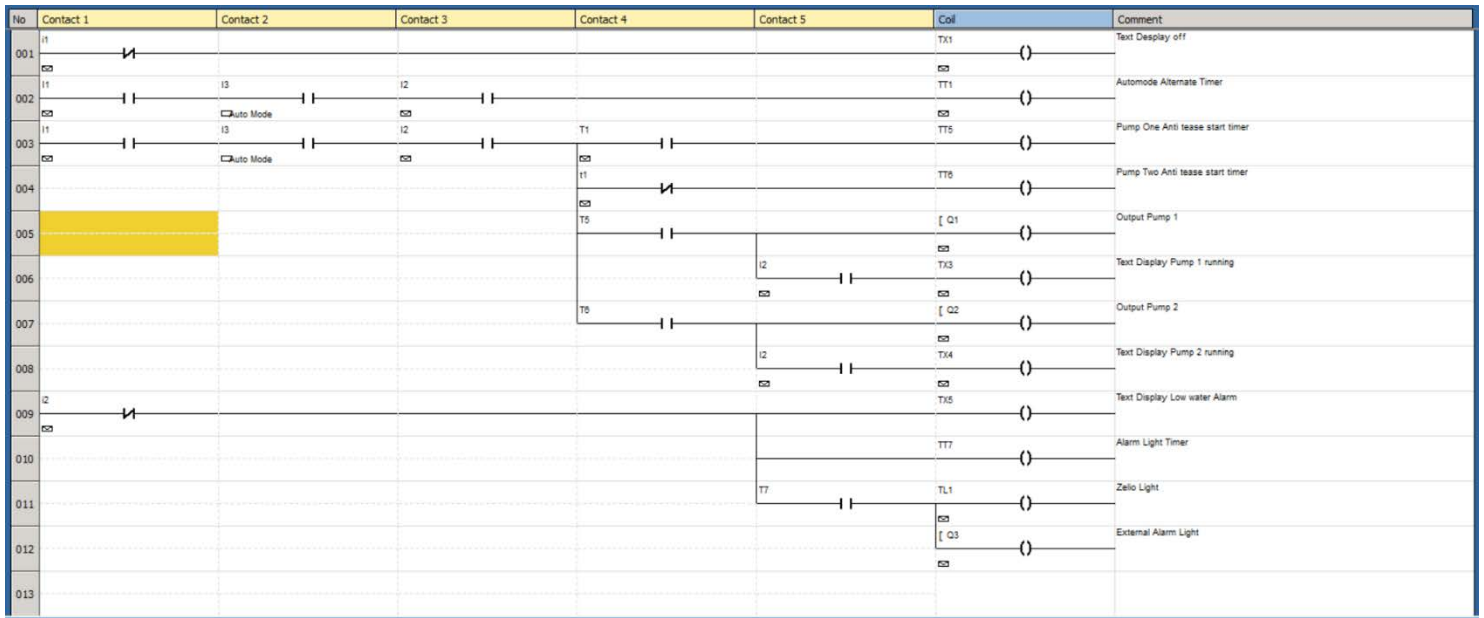
Conveyor Sorting Line: Mississauga

Asphalt Plant Mixing Application: Toronto
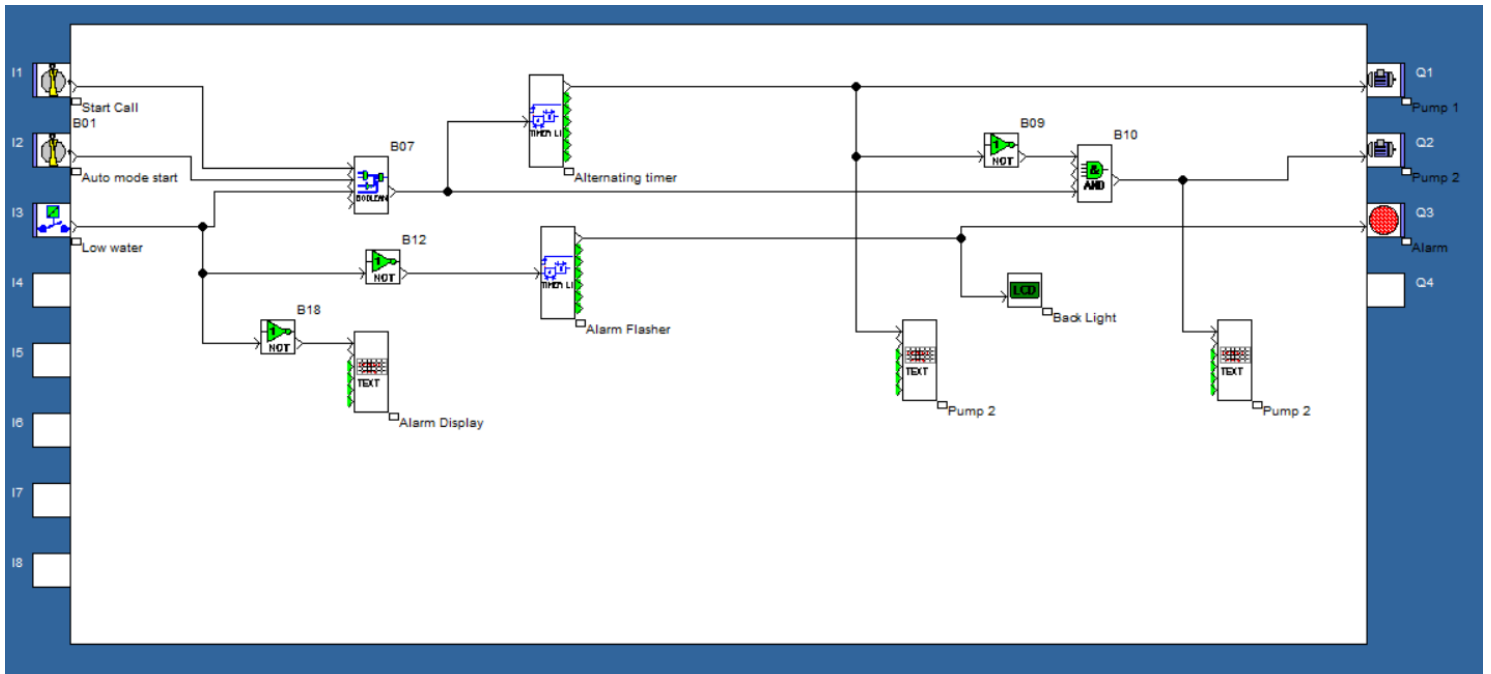
Amateur Radio Repeater Control: Holland Landing

Page 2 has some programming examples.

ZELIO SMART RELAY

No	Contact 1	Contact 2	Contact 3	Contact 4	Contact 5	Coil	Comment
001	i1					TX1	Text Desplay off
002	I1	I3 / Auto Mode	I2			TT1	Automode Alternate Timer
003	I1	I3 / Auto Mode	I2	T1		TT5	Pump One Anti tease start timer
004				t1		TT6	Pump Two Anti tease start timer
005				T5		[Q1	Output Pump 1
006				I2		TX3	Text Display Pump 1 running
007				T6		[Q2	Output Pump 2
008				I2		TX4	Text Display Pump 2 running
009	I2					TX5	Text Display Low water Alarm
010						TT7	Alarm Light Timer
011				T7		TL1	Zelio Light
012						[Q3	External Alarm Light
013							

Above is a program written in Basic Relay Ladder logic and below the same program in Function Block

For more information please contact one of our sales associates or visit the Schneider Electric Web site

We also stock a couple of different starter packs that complete with the controller, programming cable and software

(Included is a manual)

INDEPENDENT ELECTRIC SUPPLY INC.

Schneider Electric