

Nelson 8710 EZ Pro™ Max: Product Description

Background

The revolutionary 8710 will change the way you think about sprinkler controllers forever! Nearly all controllers have traditionally relied on a timer, or clock. While convenient, clock-based controllers have serious drawbacks. Since the amount of water that landscaping plants and turf require varies continuously through the growing season, the clock settings should be constantly adjusted. In many cases, the timer is set for the hottest part of the growing season and never changed. This leads to massive overwatering during most of the year.

The 8710 overcomes the problem of chronic over watering through the use of a revolutionary moisture sensor, the Nelson Digital TDT™ Soil Moisture Sensor. Instead of controlling the sprinkler system with a clock, the 8710 is controlled by the actual moisture level in the root zone; the area is watered only on demand.

Water Savings

Installing a closed loop Nelson precision irrigation system generally results in water savings in excess of 30%. Many of our customers have experienced payback periods in a single watering season! With the Nelson system, your landscaping will look great. Many of our customers report that their properties have never looked better.

No Hassle Operation

Tired of resetting your clocks as seasons change? With the Nelson control system, you can forget about the clock. Once the moisture levels are set, the closed loop system self-corrects for changes in conditions. During the



hottest part of the year, the system might water every day. Then when the temperature cools, or you get a big rainstorm, the system will hold off watering until the moisture level in the ground falls below the threshold you have set.

Flexibility

Each zone can be set to one of three modes of operation: as a reference zone with its own sensor, as a dependant zone that tracks a reference zone, or as a timed zone. The 8710 easily accommodates both drip zones and spray zones. Multiple zones can be watered simultaneously and Nelson's flow control optimizes the use of your water source. So no matter how complicated your system, the 8710 can handle it.

Easy Installation

Nelson's patent pending 2-wire system makes installation of both new systems and retrofits a snap. No re-wiring is needed, and the 8710 system is compatible with all 24V AC solenoids.

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Capacity

The 8710 supports up to 64 zones and 16 Digital TDT™ Soil Moisture Sensors

- Sensors are fully isolated. Stainless Steel sensor rods are electrically isolated to prevent galvanic corrosion
- Non-volatile memory restores system after power failure or brownout conditions

Communications

There are two communication ports built into the 8710:

- One analog modem port for communication by phone – Does not require a dedicated line
- One RS232 9-pin serial port
- Optional radio control - between PC and Controller
- Optional annunciated cell phone access
- Handheld Radio for simple maintenance

2-Wire System

The 8710 utilizes a sophisticated patent pending 2-wire system for power and communication.

- Uses standard 24V AC valve solenoids
- Zone Adapters are provided for connecting valves to the two-wire network
- Sensors and other accessories connect directly to the 2-wire systems

Data Logging

All controller events are logged in memory, including:

- Sensor readings of temperature, soil salinity, and moisture levels
- Watering cycle's, time and duration
- System status like failing solenoids
- All logs can be viewed through Nelson's custom Windows™ based Irrigation Manager
- Software run on desktop computers

Central Control

Multiple sites can be monitored and managed from a desktop computer in a central location. Communication with each site's controller is via telephone modem. Nelson's Windows™ based software provides the backbone for central control.

Environmental Hazard Immunity

The Nelson System has been carefully designed to protect against lightning and power surges. A few designed protections are:

- All external controller ports are electrically isolated
- The power supply is isolated from incoming power lines
- Power supply output is engineered to prevent any system device from receiving higher than specified voltages

Specifications

- 105-125 Volts AC at 12 watts
- 1/2" - 3/4" Conduit Entry Power Inlet
- 1/2" Conduit Entry Phone Line
- 1" Conduit Entry for Two-Wire System Output
- Operating Temperature Range:
-20 C to +70 C
- Survival Temperature Range:
-30 C to +80 C
- Dimensions (Inches)

Height	9.5"
Width	12"
Depth	5"