



# Lynx<sup>®</sup> Smart Module



# THE BEST OF BOTH WORLDS: NEW LYNX<sup>®</sup> SMART HUB

This new type of field controller combines the flexibility of satellite controllers with the cost savings of a 2-wire system.

## LIKE A SATELLITE:

- Superior backup and operation if connection to the central computer is interrupted.
- Ideal for construction — can water without central control.
- Easy to troubleshoot and maintain.

## LIKE A 2-WIRE SYSTEM:

- Up to 20% lower installation cost
- 90% less cable on the course
- Uses low voltage



**PLUS**, each Smart Hub can control up to 1000 sprinklers, compared to 64 per traditional satellite controller.

## INTERFACE OPTIONS



### Lynx Smart Hub

Lynx Smart Hub is a new type of field controller that adds security, programmability and sensing to the benefits and simplicity of a two-wire system.

- ✓ The system can be segmented into manageable areas for simplified maintenance
- ✓ Provides for in-field manual operation or troubleshooting
- ✓ Stores and runs a fully flow-managed irrigation schedule in the event the central computer is offline
- ✓ Creates a convenient point of connection for soil, flow and status sensors

### Specifying Information—2-Wire Modules

LSM-1	
Type	Configuration
<b>LSM</b>	<b>1</b>
Lynx Smart Module	1—1-station

Example: A 1-station Lynx Smart Module would be specified as: **LSM-1**

\*Refer to sprinkler pages for specifying information on Sprinkler 2-wire Modules

### Specifying Information—Gateway or Lynx Smart Hub

DEC-XXX-1000-XX				
Type	Configuration	Cabinet	Station Count	Communication Type
<b>DEC</b>	<b>XX</b>	<b>X</b>	<b>1000</b>	<b>XX</b>
DEC	RS—Lynx Smart Hub	No letter: wall mount installation P—Green Plastic Pedestal B—Brown Plastic Pedestal T—Tan Plastic Pedestal	1000—1000 Stations, Lynx Smart Hub*	M—Wireline DR—Radio

Example: A 1000 station Lynx Smart Hub with green plastic pedestal and radio communication would be specified as: **DEC-RSP-1000-DR**

Note: A blank after RS indicates the wall mount cabinet. P, B, and T indicate green, brown, and tan plastic pedestals.

XXXXX-XX-X6X							
Type	Body inlet	Arc	Nozzle1	Nozzle 2	Pressure Regulation*	Activation Type*	Optional
<b>XXX</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>6</b>
INF FLX	3 - 1" 5 - 1.5"	4 - Full Circle 5 - Part Circle	3 - 1" 5 - 1.5"	0 - 7* 1 - 9	6 - 4,5 bar (65 psi) 8 - 5,5 bar (80 psi) 1 - 6,9 bar (100 psi)	6 - Lynx Smart Module w/DCLS	6 - Trjectory*

Example: When ordering and FLX55 Series Sprinkler, #54 nozzle, pressure regulation at 80 psi (5,5 Bar), with Lynx Smart module included and Trjectory, you would order: **FLX55-548-66**

Note: not all combinations nozzle-pressure regulations are available.

## SPECIFICATIONS

### Operational

#### Lynx<sup>®</sup> Central:

- Mapping capabilities
- Remote hand-held operation
- Weather station integration
- Pump station integration
- Enhanced diagnostics:
  - Communication
  - Electrical shorts/opens
  - Solenoid check
- No holding power required to operate stations
- 2-wire identification is a unique 6-character address

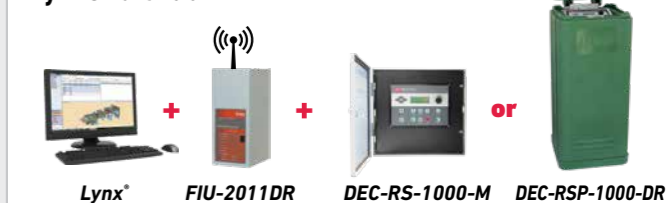
### Installation

- Maximum number of wire paths: 4 per gateway
- Maximum number of Lynx Smart Hubs: 20 per system
- Maximum number of modules per wire path: 250
- Maximum stations per Lynx Smart Hub: 1000
- Maximum stations per system: 10,000
- Simultaneous stations per output board: 100
- Maximum distance from central to module (using 14 gauge wire): 4,2 km (2.8 miles)
- Maximum distance from module to sprinkler (using 14 gauge wire): 121,9 m (400 ft.)
- Solenoids per output: 2 DCLS-P
- Stations per module: 1

### Electrical

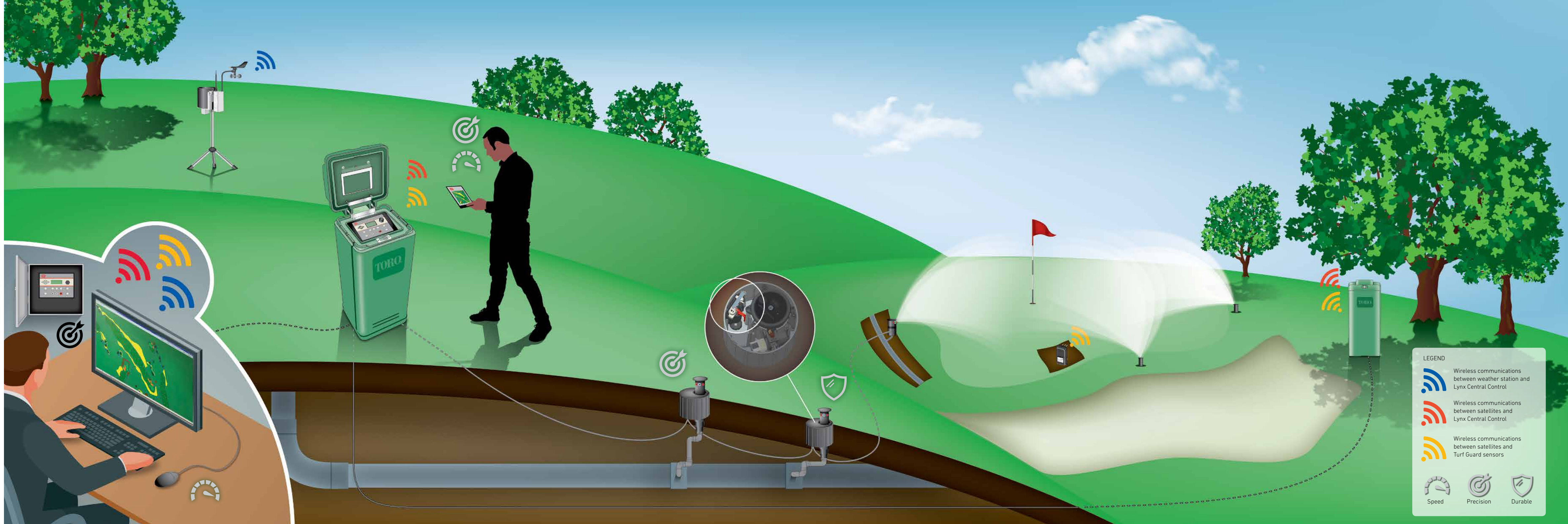
- Input power: 88-264 V ac, 50/60 Hz
- Output Power:
  - Output voltage: 40 V ac max
  - Output power: 75 VA max
  - Class 2, SELV
- ISP 2-wire modules are rated at 20 KV surge protection
- 2-Wire modules wiring: 14 awg

### Lynx Smart Hub



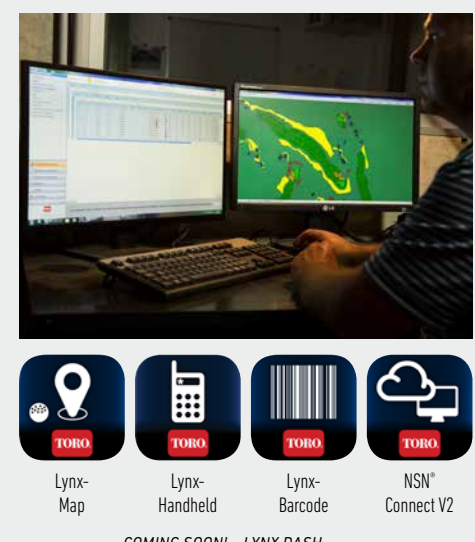
# MORE CONTROL THAN EVER

The Lynx® Smart Module (LSM) uses smart sprinkler technology to give you precision control for Toro Lynx 2-Wire systems. Developed with the needs of golf course superintendents in mind and based on decades of engineering experience, it delivers high speed diagnostics using rapid two-way communications. Smart Guard™ ensures robust lightning protection while installation and maintenance is made easier using barcode apps.



**LEGEND**

- Wireless communications between weather station and Lynx Central Control
- Wireless communications between satellites and Lynx Central Control
- Wireless communications between satellites and Turf Guard sensors
- Speed
- Precision
- Durable



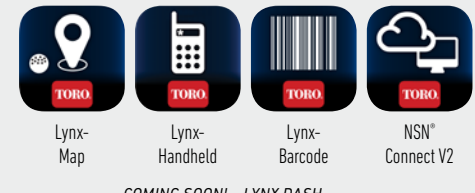
**LYNX® CENTRAL CONTROL**  
The Toro Lynx Central Control system makes all essential irrigation information available in a single, intuitive interface to help you save time, water and money. Powerful diagnostics automatically inform you about any problems. Key benefits include:

**Easy Setup** – Lynx gives you a fast, accurate way to program and control your irrigation activities right from your course map.

**Water Savings** – Put water exactly where you want, and easily make edits as your course conditions change.

**Easy Control** – A comprehensive Course Report function supports your scheduled irrigation with system status information, even on manual watering activities.

**Backward Compatible** – For those who have not upgraded to Lynx, the Lynx Smart Satellite is also compatible with the SitePro Central Control system.



**SPEED**  
The Lynx Smart Module provides diagnostic information up to 10 times faster than other 2-wire brands reducing test times from minutes to seconds for up to 1000 sprinklers. That means course managers can reduce downtime and optimize efficiency. In addition, the handy bar code app puts faster installation and replacement in the palm of your hand.

**PRECISION**  
Make significant water savings and prevent overwatering. The Lynx Smart Module lets you control sprinkler run times to within +/- 1 second tolerance so you get exactly the right amount of water precisely where it's needed. Just imagine: running 1000 sprinklers at 80 lpm for just 30 seconds less could save about 40 cubic metres per day!

**UPGRADEABLE**  
The Lynx Smart Module can be upgraded remotely with just a click. That means that course managers will always have the very latest innovative features and benefits as soon as they are released so they can count on being up to date.

**DURABLE**  
Each component of the Lynx Smart Module is designed with durability in mind. It also features best in class surge protection to withstand tough lightning conditions. The module also works with the Lynx Smart Hub to protect flow-managed irrigation schedules — even in the event of a central failure.

**GENERAL FEATURES**  
**Speed up installation and avoid errors** using the bar code app and the high speed 2-wire network. Lower power requirements and direct burial mean you can easily add stations.

**Simplify maintenance** using high speed diagnostics to quickly check the health of the system. Use familiar terms like "hole 1" or "greens" to set up schedules.

**Reduce costs** using less wire than other systems.

**Avoid damage** from vandalism, flooding or equipment collisions since most parts are buried.

**Relax!** The Lynx Smart Hub lets you manage everything and even create programs even if the central isn't working. Also, running at just 40 volts, you needn't worry about high voltage cables on the course.



Toro is always there to help you care for your landscapes  
the way you want, when you want, wherever you are.

**TORO**

**Count on it.**

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