

# X3

HEAD NODE

## SynField\*

### FEATURES

- ✓ Ultra-rugged and durable construction
- ✓ Configurable via Bluetooth with the SynField Control application (Android OS)
- ✓ Eight sensor ports (analog, pulse, I2C, SDI-12)
- ✓ Six actuator ports (electrovalves, latching relays, etc.)
- ✓ Integrated with SynField Cloud application, enabling almost real-time data monitoring
- ✓ Almost real-time control of valves, relays and automations using advanced, user-defined rules
- ✓ Integrated quad-band cellular module, NB-IoT compatible, on-board high-gain chip antenna
- ✓ Integrated GPS and barometric pressure sensor
- ✓ Simplified setup process
- ✓ Firmware update using the control application
- ✓ Built-in solar panel or external charger for all kinds of installations
- ✓ Rechargeable high capacity (4000mAh) battery
- ✓ On board non-volatile memory (8 Mbyte)
- ✓ Optimized user interface for desktop and mobile devices
- ✓ ESD/lightning protection



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### SPECIFICATIONS

	8 ports (analog, digital, pulse sensors). Specifically: analog: 10bit, 18-bit, single-ended , differential digital: UART, I2C, SDI-12 pulse counters 3.3V, 5V excitation
Sensor input ports	
	6 ports Latching solenoid valves (9VDC) 1 or 2-coil latching relays Direct digital outputs (9/12 VDC) with 2 rec resolution
Actuator ports	
Logging/Reporting interval	5 min to 12 h
Data storage	8 MB (1-year+ records depending on configuration)
Memory type	On-board, non-volatile flash, full data retention with loss of power
Global position	Integrated GPS receiver
GPS position accuracy	±3 m, with good sky view
Timekeeping	Synchronize automatically with SynField server
Battery	4000mAh 3.7V Lithium Polymer battery
Battery charging	Solar energy harvesting or external charger
Solar Panel	Monolithic photovoltaic ETFE panel, 3W
Internal sensors	NXP's MPL3115A2 barometric sensor Pressure accuracy: ± 0.4kPa, Temperature accuracy: ±3C
Cellular specifications	Quad-Band GSM/GPRS cellular module , NB-IoT compatible
Bluetooth interface	Bluetooth Version 2.1 Monolithic photovoltaic ETFE panel, 3W, 163 x 112mm
Internet downloads	SSL/TLS encrypted
Enclosure	Weather-, impact-, and UV-resistant polymer
Enclosure rating	IP56, NEMA 4
Enclosure size	13.5 cm × 19.5 cm × 7.0 cm
Enclosure access	Hinged door with latches and eyelets for lock or zip tie
Operating environment	-40 to +60 °C (0%–100% relative humidity)