X1
HEAD NODE

SynField*

FEATURES

- ✅ Ultra-rugged and durable construction
- ✅ Configurable via Bluetooth with the SynField Control application (Android OS)
- ✅ Five sensor ports (analog, pulse, I2C, SDI-12)
- ✅ Four 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
- ✅ 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

SPECIFICATIONS

Sensor input ports	5 ports (analog, digital, pulse sensors). Specifically: analog: 10bit digital: UART, I2C pulse counters 3.3V, 9V excitation
Actuator ports	4 ports Latching solenoid valves (9VDC) 1 or 2-coil latching relays Direct digital outputs (9/12 VDC) with seconds resolution
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
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, 1.5W, 127 x 77mm
Internal sensors	MCP9700AT temperature sensor (accuracy: -2C to +4C)
Cellular specifications	Quad-Band GSM/GPRS cellular module , NB-IoT compatible
Bluetooth Interface	Bluetooth Version 2.1
Internet downloads	SSL/TLS encrypted
Enclosure	Weather-, impact-, and UV-resistant polymer
Enclosure rating	IP56, NEMA 4
Enclosure size	10 cm × 15 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)

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