

# INSTALLER FRIENDLY SERIES® (IFS)

## SINGLE PHASE SIMPLEX

Demand Dose or Timed Dose, Float, Sensor or Transmitter Controlled System for Pump Control and System Monitoring



Panel layout may vary with options.

Reg. Cdn Pat. & TM Off

US Patent No. 8,336,385; 8,567,242; 8,650,949

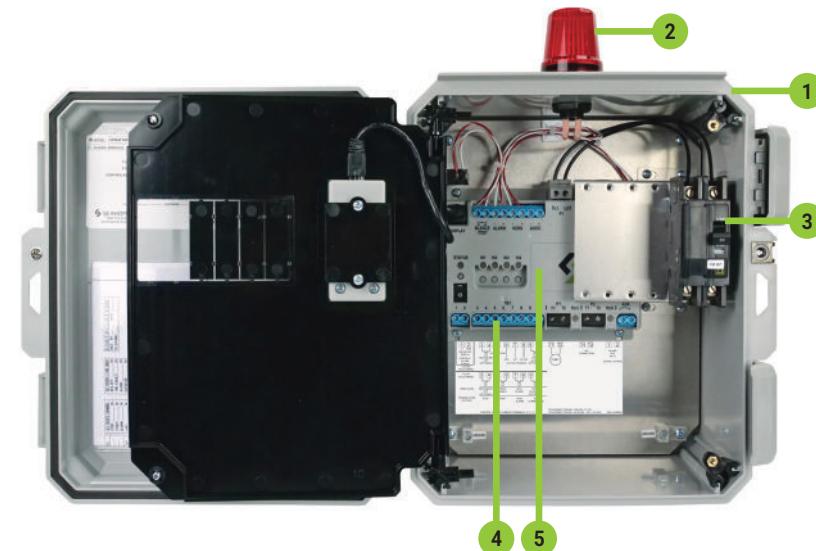
The Next Generation IFS simplex control panel utilizes an innovative circuit board design enclosed in a touch-safe housing to control one 120/208/240 VAC single phase pump in water and sewage applications. These newly redesigned IFS panels feature an easy-to-use color LCD interface located on the inner door for programming and system monitoring. The panel configuration can be easily converted in the field to either a timed dose or demand dose through the LCD interface.

The panel can easily be changed in the field to utilize floats, Sub-X™ LT Transmitter or the C-Level™ Sensor for continuous level monitoring. The Sub-X™ LT Transmitter and the C-Level™ Sensor sense the level in the tank and sends a signal to the panel. Pump activation levels can be adjusted by using the LCD interface.

- Five-year limited warranty on panel
- Two-year limited warranty on C-Level™ Sensor and Sub-X™ LT Transmitter

### LCD INTERFACE FEATURES

- Full color graphics and menu navigation encoder for easy setup
- Touch safe housing
- Pump Hand/Off/Auto Control selectable via menu navigation
- Sub-X™ LT Transmitter, C-Level™ Sensor or float operation selectable
- Demand or Timed Dose operation selectable via menu navigation
- Tank Level Indication and setpoint monitoring at-a-glance
- Lead pump is easily identified by a graphic ring around the current lead pump regardless of control mode (timed dose or demand)
- Displays remaining time in Timed Dose mode
- RJ45 communication connector
- Flashing function for alarm beacon and horn (configurable)
- Manual alarm reset (configurable)
- Thermal cutout and seal failure module (optional)



### COMPONENTS

1. Enclosure measures 12 x 10 x 6 inches (30.48 x 24.4 x 15.24) NEMA 4X (ultraviolet stabilized thermoplastic, padlockable with integral mounting flanges, drip shield, heavy duty cover latches, and stainless steel 1/4 turn set screw; for outdoor or indoor use)
2. Red Alarm Beacon provides 360° visual check of alarm condition
3. Circuit breakers provides pump power disconnect and branch circuit protection included as standard on all panels
4. Sub-X™ LT Transmitter, C-Level™ Sensor and float connection terminal blocks
5. Controller Features:
  - a. Incoming Control/Alarm Power terminal blocks
  - b. Control/Alarm Power/System Status green LED indicators illuminate if control/alarm power is present and controller is operating\*
  - c. Controller status green LED indicators for: Power/Active, Float Input Status, Pump Run, C-Level Active\*
  - d. Normally open auxiliary alarm contacts included as standard
  - e. Control Power On/Off switch
  - f. Green LED Pump Run indicators illuminate when pump is called to run\*
  - g. Control panel able to operate if LCD interface fails or is disconnected
  - h. Touch safe housing
6. Alarm Horn provides audible warning of alarm condition (not shown)
7. Exterior Alarm Test/Silence push button allows horn and light to be tested and horn to be silenced in an alarm condition; alarm automatically resets once alarm condition is cleared (not shown)
8. Modbus Port (RJ45) for future expansion - eg. remote monitoring, valve control, In-Site®, logging, etc. (not shown)

\*In fault condition, LED indicators will be red.

Part #		Pre-configured Panels for Easy Ordering						
1071427	IFN21W114X6A8AC10E							
1071416	IFN21W114H6A8AC10E17G							
IFN	2	1	W	1	PUMP FULL LOAD AMPS	4	LEVEL CONTROL APPLICATION	6A8AC10E
CONTROL PANEL	MODEL TYPE	ALARM PACKAGE	ENCLOSURE RATING	STARTING DEVICE	PUMP FULL LOAD AMPS	PUMP DISCONNECTS	LEVEL CONTROL APPLICATION	OPTIONS (LISTED BELOW)
<b>CONTROL PANEL</b>	<input checked="" type="checkbox"/>	IFN						
<b>MODEL TYPE</b>	<input checked="" type="checkbox"/>	2	Single Phase Simplex (includes Options 6A, 8AC and 10E as standard)					
<b>ALARM PACKAGE</b>	<input checked="" type="checkbox"/>	1	Alarm Package (includes test/silence switch, red light, & horn)					
<b>ENCLOSURE RATING</b>	<input checked="" type="checkbox"/>	W	Weatherproof, NEMA 4X (engineered thermoplastic)					
<b>STARTING DEVICE</b>	<input checked="" type="checkbox"/>	1	120/208/240V					
<b>PUMP FULL LOAD AMPS</b>		0	0 - 7 FLA					
		1	7 - 15 FLA					
		2	15 - 20 FLA					
<b>PUMP DISCONNECTS</b>	<input checked="" type="checkbox"/>	4	Circuit Breaker 120/208/240V					
<b>LEVEL CONTROL APPLICATION</b>		H	Floats - Pump Down (select Option 17 below) Timed dose = redundant off, timer enable, alarm / Demand dose = stop, start, alarm (all systems will ship with 3 floats by default)					
		E	EZconnex® Float Switch System					
		X	No Floats, Transmitter or Sensor					
		C	C-Level™ Sensor (select Option 24 or 29)* Select Option 3E and/or 4D for high water alarm and/or redundant off floats					
		T	Sub-X™ LT Transmitter (select Option 31).* Select Option 3E and/or 4D for high water alarm and/or redundant off floats.					

**PRICING WORKSHEET**

IFS Simplex Base Price	_____
Alarm Package	_____
Enclosure Rating	_____
Starting Device	_____
Pump Full Load Amps	_____
Pump Disconnects	_____
Level Control Application	_____
Total Options	_____
<b>TOTAL LIST PRICE</b>	_____

**\*NOTE:** When using the Sub-X™ LT Transmitter or C-Level™ Sensor: Operation is for Pump down applications only.

Industry practices suggest that a secondary device, such as a float switch, be used for redundant activation of the high level alarm and pump shut off.

OPTIONS	DESCRIPTION
1J	Duo Alarm Inputs
3E	High Water Alarm Float (must also select Option 17)** <b>Only Available with Level Control Application = C or T</b>
4D	Redundant Off Float (must also select Option 17)** <b>Only Available with Level Control Application = C or T</b>
5AE	Thermal Cutout/Heat Sensor & Seal Failure Circuit (2 wire)
6A	Auxiliary Alarm Contact, Form A (included as standard)
8AC	Display Board - Includes: ETM Counter, Events (Cycles) Counter, Alarm Counter, and Override Counter (Timed Dose Only) (included as standard)
10E	Lockable Latch - NEMA 4X (included as standard)
10F	Lightning Arrestor (must also select Option 15A)
10K	Anti-condensation Heater (must also select Option 15A)
10P	Panel Mounting Post - Factory Installed (max. enclosure size 14" x 12" x 6")
15A	Control/Alarm Circuit Breaker
16C	30' Cord in Lieu of 20' Cord (per Float)
16D	40' Cord in Lieu of 20' Cord (per Float)
16E	50' Cord in Lieu of 20' Cord (per Float)
16G	100' Cord in Lieu of 20 Cord (per Float)

OPTIONS	DESCRIPTION
17C	Sensor Float® / Internally Weighted (3 Floats) - Mercury**
17D	Sensor Float® / Externally Weighted (3 Floats) - Mercury**
17G	SJE MilliAmpMaster™ / Pipe Clamp (3 Floats) - Mechanical**
17H	SJE MilliAmpMaster™ / Externally Weighted (3 Floats) - Mechanical**
17J	Sensor Float® / Pipe Clamp (3 Floats) - Mercury**
19F	4th Float for Timer Override <b>Only Available with Level Control Application = H</b>
24E	C-Level™ CL40 Sensor with 25' Vented Cable
24F	C-Level™ CL40 Sensor with 50' Vented Cable
24P	C-Level™ CL40 Sensor with 100' Vented Cable
29A	C-Level™ CL100 Sensor with 25' Vented Cable
29B	C-Level™ CL100 Sensor with 50' Vented Cable
29C	C-Level™ CL100 Sensor with 100' Vented Cable
31A	Sub-X™ LT Transmitter 25' (4-20mA)
31B	Sub-X™ LT Transmitter 50' (4-20mA)
31C	Sub-X™ LT Transmitter 100' (4-20mA)
33D	EZconnex® 3-Port, 25', with 10' Floats (3) / Pipe Clamp
35D	EZconnex® 4-Port, 25', with 10' Floats (4) / Pipe Clamp

\*\*For 3E and 4D options, there is no charge when selecting any of the 17 options.

For additional level control and control panel options, please contact Technical Support at [techsupport@sjeinc.com](mailto:techsupport@sjeinc.com).

**Note:** Added options, voltage, and amp range selected may change enclosure size and enclosure features, and component layout. Schematic/Wiring Diagram and Pump Specification Label are located inside the panel.

SENSOR/TRANSMITTER	OPERATING RANGE
C-Level™ CL40	0-39.9 inWC
C-Level™ CL100	0-99.9 inWC
Sub-X™ LT Transmitter (4-20mA)	0-100 inWC