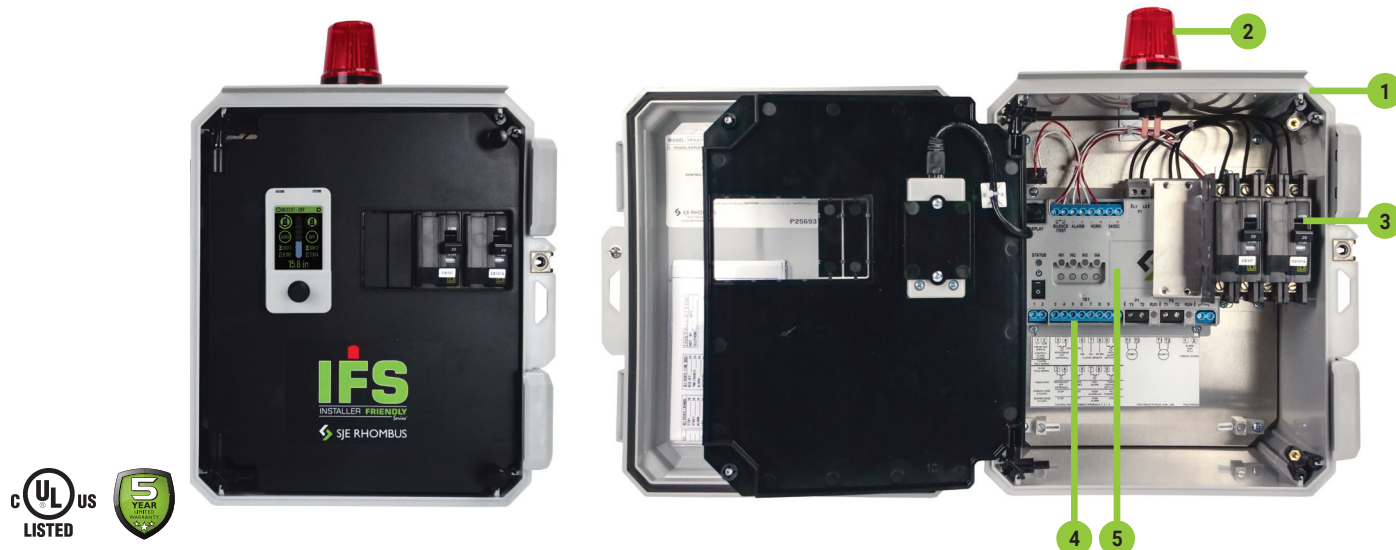# INSTALLER FRIENDLY SERIES® (IFS)
SINGLE PHASE DUPLEX
Demand Dose or Timed Dose, Float or C-Level™ Sensor Controlled System for Pump Control and System Monitoring

Panel layout may vary with options.
Reg. Cdn Pat. & TM Off
C-Level™ Sensor US Patent No. 8,336,385; 8,567,242; 8,650,949

The Next Generation IFS duplex control panel utilizes an innovative circuit board design enclosed in a touch-safe housing to control two 120/208/240V single phase pumps 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. Available with the EZconnex® float system.

The panel can easily be changed in the field to utilize either floats or the patented C-Level™ sensor for continuous level monitoring. The C-Level™ sensor senses the level in the tank and sends a signal to the panel. Pump activation levels can be adjusted by using the LCD interface. C-Level™ CL40 sensor operating range is 3-39.9 inches (7.6-101.3 cm). C-Level™ CL100 operating range is 3-99.5 inches (7.6-252.7 cm). The C-Level™ Sensor features a five year limited warranty.

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
- C-Level™ Sensor or Float operation selectable via menu navigation
- 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 each active ON or OFF Timed Dose mode, as well as at-a-glance ON or OFF time elapsed graphic around lead pump
- RJ45 communication connector
- Flashing function for alarm beacon and horn (configurable)
- Manual alarm reset (configurable)

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 ¼ 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. 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. seal fail modules, remote monitoring, valve control, In-Site®, logging, etc. (not shown)

*In fault condition, LED indicators will be red.

Note: Added options, voltage, and amp range selected may change enclosure size and enclosure features, and component layout.

Note: Schematic/Wiring Diagram and Pump Specification Label are located inside the panel.

SJE RHOMBUS®

INSTALLER FRIENDLY SERIES® SINGLE PHASE DUPLEX - Demand or timed dose float controlled system for pump control and system monitoring.

IFN	4	1	W	1		4		6A8AC10E
CONTROL PANEL	MODEL TYPE	ALARM PACKAGE	ENCLOSURE RATING	STARTING DEVICE	PUMP FULL LOAD AMPS	PUMP DISCONNECTS	FLOAT SWITCH APPLICATION	OPTIONS (LISTED BELOW)

CONTROL PANEL	✓	IFN	
MODEL TYPE	✓	4	Single Phase Duplex (includes Options 6A, 8AC and 10E as standard)
ALARM PACKAGE	✓	1	Alarm Package (includes test/normal/silence switch, fuse, red light, & horn)
ENCLOSURE RATING	✓	W	Weatherproof, NEMA 4X (engineered thermoplastic)
STARTING DEVICE	✓	1	120/208/240V
PUMP FULL LOAD AMPS		0	0 - 7 FLA
		1	7 - 15 FLA
		2	15 - 20 FLA
PUMP DISCONNECTS	✓	4	Circuit Breaker 120/208/240V
FLOAT SWITCH APPLICATION		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 (select Option 33 or 35 below)
		X	No Floats
		C	C-Level™ Sensor (select Option 24 or 29) 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 _____

Float Switch Application _____

Total Options _____

TOTAL LIST PRICE _____

NOTE: 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 when using the C-Level™ sensor.

	OPTIONS	DESCRIPTION
	1J	Duo Alarm Inputs
	3E	High Water Alarm Float (must also select Option 17) **Only Available with Float Switch Application = C**
	4D	Redundant Off Float (must also select Option 17) **Only Available with Float Switch Application = C**
✓	6A	**Auxiliary Alarm Contact, Form C 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)
	11C	Additional NEMA 1 Remote Alarm Panel
	11D	Additional NEMA 4X Remote Alarm Panel
	15A	Control/Alarm Circuit Breaker
	16A	10' Cord in Lieu of 20' Cord (per Float)
	16B	15' Cord in Lieu of 20' Cord (per Float)
	16C	30' Cord in Lieu of 20' Cord (per Float)
	16D	40' Cord in Lieu of 20' Cord (per Float)

OPTIONS	DESCRIPTION
17C	Sensor Float® / Internally Weighted (per Float) - Mercury
17D	Sensor Float® / Externally Weighted (per Float) - Mercury
17G	SJE MilliAmpMaster™ / Pipe Clamp (per Float) - Mechanical
17H	SJE MilliAmpMaster™ / Externally Weighted (per Float) - Mechanical
17J	Sensor Float® / Pipe Clamp (per Float) - Mercury
19F	Additional 4th Float (Timer Override or Lag) **Only Available with Float Switch Application = H**
24E	C-Level™ CL40 Sensor with 4' Vent Tube and 20' Cord
24F	C-Level™ CL40 Sensor with 4' Vent Tube and 40' Cord
24G	C-Level™ CL40 Sensor with 8' Vent Tube and 20' Cord
24H	C-Level™ CL40 Sensor with 8' Vent Tube and 40' Cord
24X	No C-Level™ CL40 Sensor
29A	C-Level™ CL100 Sensor with 10' Vent Tube and 20' Cord
29B	C-Level™ CL100 Sensor with 10' Vent Tube and 40' Cord
29X	No C-Level™ CL100 Sensor
33D ■	EZconnex® 3-Port, 25', with 10' Floats (3) / Pipe Clamp
33E ■	EZconnex® 3-Port, 50', with 10' Floats (3) / Pipe Clamp
33G ■	EZconnex® 3-Port, 25', with 20' Floats (3) / Pipe Clamp
33H ■	EZconnex® 3-Port, 50', with 20' Floats (3) / Pipe Clamp
35D ■	EZconnex® 4-Port, 25', with 10' Floats (4) / Pipe Clamp
35E ■	EZconnex® 4-Port, 50', with 10' Floats (4) / Pipe Clamp
35G ■	EZconnex® 4-Port, 25', with 20' Floats (4) / Pipe Clamp
35H ■	EZconnex® 4-Port, 50', with 20' Floats (4) / Pipe Clamp

■ EZconnex® mechanically-activated, narrow angle float switches with quick release connections

◆ SJE RHOMBUS.