INSTALLER FRIENDLY SERIES® (IFS)
SINGLE PHASE SIMPLEX CAPACITOR (START/RUN)

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



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

Connects to PANEL LINK

The Next Generation IFS simplex capacitor (start/run) 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.

- **Panel Link Puck ready (self-connecting cellular device for remote monitoring)**

NOTE: SJE Rhombus will warranty motor start kit components supplied by SJE Rhombus for one year. SJE Rhombus makes no warranty of any type with respect to motor start kits supplied by the customer.

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)

SJE RHOMBUS®
Powered by SJE

COMPONENTS

1. Enclosure base measures 16 x 14 x 6 inches (40.64 x 35.56 x 15.24 cm); NEMA 4X (ultraviolet stabilized thermoplastic)
2. Red Alarm Beacon provides 360° visual check of alarm condition
3. Circuit breaker provides pump power disconnect and branch circuit protection included as standard on all panels
4. Option 9_A - Adjustable Overload Relay
5. Sub-X™ LT Transmitter, C-Level™ Sensor and float connection terminal blocks
6. 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
7. Panel Link Puck (optional - see Panel Link Puck catalog page for additional details)
8. Modbus Expansion Port (RJ45)
9. Option 5AE - Thermal Cutout/Heat Sensor & Seal Failure Module
10. Large incoming power connection terminal block
11. Alarm Horn provides warning of alarm condition (Not shown)
12. Exterior Alarm Test/Silence - alarm automatically resets once alarm condition is cleared (Not shown)

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

*In fault condition, LED indicators will be red.

Note: Options, voltage, and amp range selected may change enclosure size and component layout.

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

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INSTALLER FRIENDLY SERIES® SINGLE PHASE SIMPLEX CAPACITOR (START/RUN) - Demand or timed dose system for pump control and system monitoring.

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CONTROL PANEL	MODEL TYPE	ALARM PACKAGE	ENCLOSURE RATING	STARTING DEVICE	PUMP FULL LOAD AMPS	PUMP DISCONNECTS	LEVEL CONTROL APPLICATION	OPTIONS (LISTED BELOW)

CONTROL PANEL	✓	IFN	
MODEL TYPE	✓	7	Single Phase Simplex Capacitor (includes Option 6A, 8AC, and 10E as standard)
ALARM PACKAGE	✓	1	Alarm Package (includes test/silence switch, red light, & horn)
ENCLOSURE RATING	✓	W	Weatherproof, NEMA 4X (engineered thermoplastic)
STARTING DEVICE	✓	1	120/208/240V IEC Motor Contactor
PUMP FULL LOAD AMPS		0	0 - 7 FLA
		1	7 - 15 FLA
		2	15 - 20 FLA
		3	20 - 30 FLA
		4	30 - 40 FLA
PUMP DISCONNECTS		4	Circuit Breaker
LEVEL CONTROL 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
		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 Single Phase Simplex Capacitor Base Price	
Alarm Package	
Enclosure Rating	
Starting Device	
Pump Full Load Amps	
Pump Disconnects	
Level Control Application	
Total Options	
TOTAL LIST PRICE	

***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.

Start/run capacitor kits must be ordered separately (see Option 12 below or call factory).

	OPTIONS	DESCRIPTION	
	3E	High Water Alarm Float (must also select Option 17)** **Only Available with Level Control Application = C or T**	
	4D	Redundant Off Float (must also select Option 17)** **Only Available with Level Control Application = C or T**	
	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 (included as standard)**	
	9_A	Pump Overload - Specify Amperage after Number 9 Followed by Letter "A" (must select Option 15A) Example: 912A = 12 amp pump	0 - 30 FLA 30 - 40 FLA
✓	**10E**	**Lockable Latch - NEMA 4X (included as standard)**	
	10F	Lightning Arrestor (must select Option 15A)	
	10K	Anti-condensation Heater (must select Option 15A)	
	12B	Customer Supplied Motor Start Components, Mounted in Enclosure by SJE Rhombus	
	12C	Motor Start Components Mounted and Supplied by SJE Rhombus	
	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)	

****When selecting options 3E and 4D, you must also select an option 17 to indicate the type of float needed. There is no additional charge for the 17 option.**

	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 **Only Available with Level Control Application = H**
	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
		CONNECT THIS PANEL TO THE CLOUD
	27X	Panel Link Puck***

*****Panel Link Puck requires a subscription.**
See Panel Link Puck catalog page for additional details.

For additional level control and control panel options, please contact Technical Support at 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

California Prop 65 requires the following: ⚠ WARNING Cancer and Reproductive Harm - www.P65Warnings.ca.gov