

# INSTALLER FRIENDLY SERIES® - IFS Single Phase Duplex Capacitor (Start/Run)

Single phase, duplex demand dose, float or C-Level™ controlled system for pump control and system monitoring.

The IFS single phase duplex capacitor (start/run) control panel is designed to alternately control two 120, 208, or 240 VAC single phase pumps in water and sewage installations. The alternating action equalizes pump wear. In addition to the alternating pump control, this system provides override control should either pump fail.

The IFS single phase duplex capacitor (start/run) control panel features a simple, easy-to-use touch pad on the inner door for programming and monitoring pump and float operation.

The optional C-Level™ sensor is a pressure transducer that senses the liquid level in the tank and sends a signal to the IFS panel. Pump activation levels can be adjusted by using the panel touch pad. 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).

## TOUCH PAD FEATURES

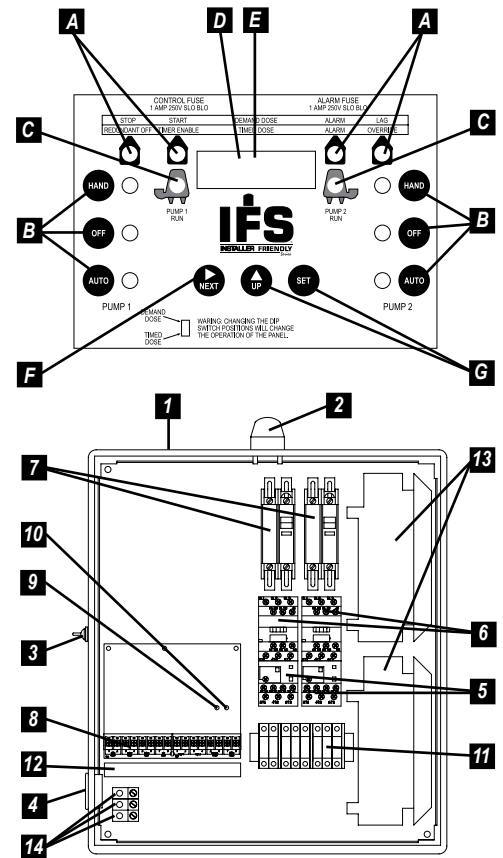
- A. **Level Status Indicators** illuminate when floats or set points are activated. Alarm will activate if a float operates out of sequence.
- B. **HOA (Hand-Off-Automatic) Buttons** control pump mode with indication. Hand mode defaults to Automatic when stop level or redundant off level is reached.
- C. **Pump Run Indicators** will illuminate when pumps are called to run.
- D. **Lead/Lag Selector** toggles pump operation (alternate 1-2 and 2-1).
- E. **LED Display** shows system information including: level in inches or centimeters (C-Level™ only), mode, pumps elapsed time (hh:mm), events (cycles), alarm counter, float error count, timed dose override counter (timed dose only), and ON/OFF times (timed dose only).
- F. **NEXT Push Button** toggles display.
- G. **UP and SET Push Buttons** set pump ON/OFF times (timed dose only) and activation levels (C-Level™ only).

## PANEL COMPONENTS

1. **Enclosure base** measures 18 X 16 X 8 inches (45.72 X 40.64 X 20.32 cm). NEMA 4X fiberglass. **Note:** Options, voltage, and amp range selected may change enclosure size and component layout.
2. **Red Alarm Beacon** provides 360° visual check of alarm condition.
3. **Exterior Alarm Test/Normal/Silence Switch** allows horn and light to be tested and horn to be silenced in an alarm condition. Alarm automatically resets once alarm condition is cleared.
4. **Alarm Horn** provides audio warning of alarm condition (83 to 85 decibel rating).
5. **Overload Relays** (optional) provide pump overload protection.
6. **IEC Motor Contactors** control pumps by switching electrical lines.
7. **Circuit Breakers** (optional) provide pump disconnect and branch circuit protection.
8. **Float and Control/Alarm Incoming Power Terminal Block**
9. **Control Power Indicator/Fuse** indicator light illuminates if control power is present in panel. Alarm activates if control fuse is blown.
10. **Alarm Power Indicator/Fuse** indicator light illuminates if alarm power is present in panel.
11. **Large Pump/Incoming Power Terminal Block**
12. **Terminal Block Float and Control/Alarm Incoming Power Wiring Label**
13. **Cap Kits**
14. **Ground Lugs**

**NOTE:** Schematic/Wiring Diagram and Pump Specification Label are located inside the panel on enclosure cover.

**SEE BACKSIDE FOR COMPLETE LISTING OF AVAILABLE OPTIONS.**



Model Shown IFS81W114X912A8AC

Reg. Cdn Pat. & TM Off

C-Level™ Sensor US Patent No. 8,336,385; 8,567,242; 8,650,949

## FEATURES

- Entire control system is UL Listed to meet and/or exceed industry safety standards
- Dual safety certification for the United States and Canada
- Standard package includes three 20' SJE MilliAmpMaster™ control switches
- Complete with step-by-step installation instructions
- Five-year limited warranty. This express warranty does not apply to the motor start kit components. SJE-Rhombus will warranty motor start kit components supplied by SJE-Rhombus for one year. SJE-Rhombus makes no warranties of any type with respect to motor start kits supplied by a customer.



PO Box 1708, Detroit Lakes, MN 56502

1-888-DIAL-SJE • 1-218-847-1317

1-218-847-4617 Fax

email: customer.service@sjerhombus.com

**www.sjerhombus.com B.21**

IFS8 [ ] W 1 [ ] [ ] [ ] [ ]

**MODEL IFS8** ..... \$1878.00

**ALARM PACKAGE**  
 1 = alarm package (includes test/normal/silence switch, fuse, red light, horn) ..... Base

**ENCLOSURE RATING**  
 W = Weatherproof, NEMA 4X (engineered thermoplastic) ..... Base

**STARTING DEVICE**  
 1 = IEC motor contactor 120/208/240V ..... Base

**PUMP FULL LOAD AMPS**  
 0 = 0-7 FLA ..... Base  
 1 = 7-15 FLA ..... Base  
 2 = 15-20 FLA ..... \$105.00  
 3 = 20-30 FLA ..... \$125.00  
 4 = 30-40 FLA ..... \$150.00

**PUMP DISCONNECTS**  
 0 = no pump disconnect ..... Base  
 4 = circuit breaker ..... \$140.00

**FLOAT SWITCH APPLICATION**  
 H or L = pump down or pump up (select 17 option) ..... Base  
 X = no floats ..... -\$75.00  
 C = C-Level™ sensor (must select 24 or 29 option) ..... -\$75.00  
 (select option 3E and/or 4A & 4D for high water alarm and/or redundant off floats)

**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.**

**OPTIONS** Listed below

**Start/run capacitor kits must be ordered separately (see option 12 below or call factory).** Total Options \_\_\_\_\_

**ENCLOSURE UPSIZE** - If one or more of the options are selected, add a one-time \$130.00 list enclosure upsize

Enclosure Upsize \_\_\_\_\_  
**TOTAL LIST PRICE** \_\_\_\_\_

CODE	DESCRIPTION	LIST PRICE	CODE	DESCRIPTION	LIST PRICE
<input type="checkbox"/>	3A Alarm flasher	\$50.00	<input type="checkbox"/>	11D NEMA 4X remote alarm panel	
<input type="checkbox"/>	3B Manual alarm reset	\$90.00	<input type="checkbox"/>	( <i>must select option 6A</i> )	\$250.00
<input type="checkbox"/>	3E High water alarm float ( <i>must select 17 option</i> )	\$25.00	<input type="checkbox"/>	12B Customer supplied motor start components, mounted in enclosure by SJE-Rhombus	\$110.00
<input type="checkbox"/>	( <i>Available only when Switch Applications = C</i> )		<input type="checkbox"/>	12C Motor start component, mounted and supplied by SJE-Rhombus	Call Factory
<input type="checkbox"/>	4A Redundant off ( <i>select option 4D if floats are required</i> )	\$55.00	<input type="checkbox"/>	16A 10' cord in lieu of 20' ( <i>per float</i> )	\$2.00
<input type="checkbox"/>	4D Redundant off float ( <i>must select 4A option</i> ) ( <i>must select 17 option</i> )	\$25.00	<input type="checkbox"/>	16B 15' cord in lieu of 20' ( <i>per float</i> )	\$1.00
<input type="checkbox"/>	5A Thermal cutout/heat sensor auto reset (for pumps w/thermal switch leads)	\$80.00	<input type="checkbox"/>	16C 30' cord in lieu of 20' ( <i>per float</i> )	\$5.00
<input type="checkbox"/>	5E Seal failure circuit & red indicator (2 wire)	\$315.00	<input type="checkbox"/>	16D 40' cord in lieu of 20' ( <i>per float</i> )	\$15.00
<input type="checkbox"/>	6A Auxiliary alarm contacts, form C	\$40.00	<input type="checkbox"/>	17C Sensor Float® / internally weighted ▲ ( <i>per float</i> )	\$5.00
<input checked="" type="checkbox"/>	8AC Display board includes: ETM counter, events (cycles) counter, alarm counter and lead/lag selector switch. ( <i>Included as standard</i> )	\$0.00	<input type="checkbox"/>	17D Sensor Float® / externally weighted ▲ ( <i>per float</i> )	\$7.00
<input type="checkbox"/>	9_A Pump overload specify amperage after number 9 followed by letter "A". Example: 912A = 12 amp pump.		<input type="checkbox"/>	17G SJE MilliAmpMaster™ / pipe clamp ● ( <i>per float</i> )	\$0.00
<input type="checkbox"/>	0-30 FLA	\$120.00	<input type="checkbox"/>	17H SJE MilliAmpMaster™ / externally weighted ● ( <i>per float</i> )	\$7.00
<input type="checkbox"/>	30-100 FLA	\$200.00	<input type="checkbox"/>	17J Sensor Float® / pipe clamp ▲ ( <i>per float</i> )	\$0.00
<input type="checkbox"/>	10E Lockable latch - NEMA 4X	\$40.00	<input type="checkbox"/>	19F Fourth float to separate alarm function from lag	\$25.00
<input type="checkbox"/>	10F Lightning arrestor ( <i>must select pump circuit breakers, control and alarm power combined</i> )	\$230.00	<input type="checkbox"/>	24E C-Level™ CL40 sensor with 4' vent tube & 20' cord	\$280.00
<input type="checkbox"/>	10K Anti-condensation heater	\$100.00	<input type="checkbox"/>	24F C-Level™ CL40 sensor with 4' vent tube and 40' cord	\$310.00
<input type="checkbox"/>	11C NEMA 1 remote alarm panel ( <i>must select option 6A</i> )	\$80.00	<input type="checkbox"/>	24G C-Level™ CL40 sensor with 8' vent tube and 20' cord	\$285.00
			<input type="checkbox"/>	24H C-Level™ CL40 sensor with 8' vent tube and 40' cord	\$315.00
			<input type="checkbox"/>	24X No C-Level™ CL40 sensor	\$0.00
			<input type="checkbox"/>	29A C-Level™ CL100 sensor w/10' vent tube & 20' cord	\$290.00
			<input type="checkbox"/>	29B C-Level™ CL100 sensor w/10' vent tube & 40' cord	\$320.00
			<input type="checkbox"/>	29X No C-Level™ CL100 sensor	\$0.00

● Mechanically-activated ▲ Mercury-activated

*If additional features are required, call the factory for a quote on an Engineered Custom control panel.*

**SAMPLE**

**MODEL** IFS8 1 W 1 1 4 H 912A 12B 17G

Alarm Package \_\_\_\_\_  
 Enclosure Rating \_\_\_\_\_  
 Starting Device \_\_\_\_\_  
 Pump Full Load Amps \_\_\_\_\_  
 Pump Disconnect \_\_\_\_\_  
 Float Switch Application \_\_\_\_\_  
 Options: Pump Overload, Motor Start Components Supplied by Customer, SJE MilliAmpMaster™/pipe clamp

IFS8 ..... \$1878.00  
 1 ..... Base  
 W ..... Base  
 1 ..... Base  
 1 ..... Base  
 4 ..... \$140.00  
 H ..... Base  
 912A ..... \$120.00  
 12B ..... \$110.00  
 17G ..... \$0.00  
**TOTAL LIST PRICE** \$2248.00