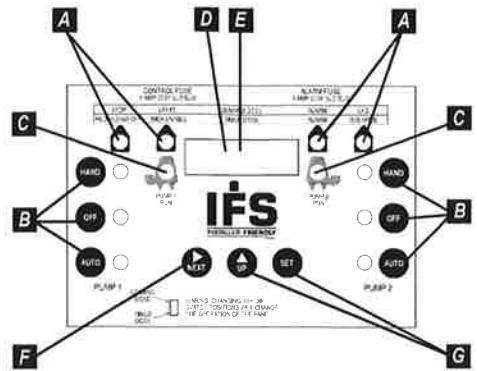# INSTALLER FRIENDLY SERIES® · IFS Single Phase Duplex (Demand/TD)

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

The IFS duplex control panel is designed to control two (alternating) 120, 208, 240 VAC single phase pumps in water and sewage installations. The panel features an easy-to-use touch pad with display on the inner door for programming and system monitoring. The alternating action equalizes pump wear. In addition to the alternating pump control, this system provides override control should either pump fail.
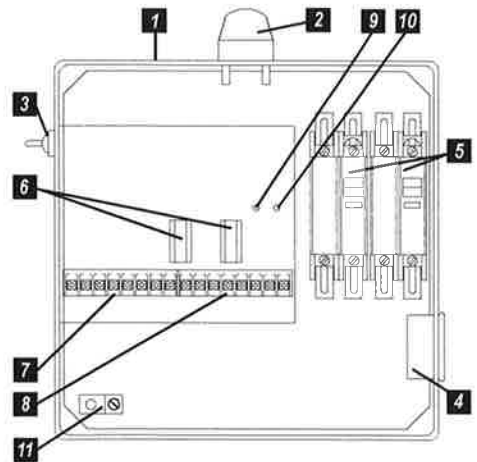
The panel configuration can be easily converted in the field to either a timed dose or demand dose.

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™ sensor operating range is 3-39.9 inches (7.6-101.3 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

Model Shown IFS31W114X8AC

Reg. Cdn Pat. & TM Off

1. **Enclosure** base measures 10 X 10 X 6 inches (25.4 X 25.4 X 15.24 cm). NEMA 4X (ultraviolet stabilized thermoplastic with removable mounting feet for outdoor or indoor use). **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. **Circuit Breakers** (optional) provide pump disconnect and branch circuit protection.

6. **Power Relays** control pump by switching electrical lines. Definate purpose contactors used when pump full load amps are above 15.

7. **Float Connection Terminal Block**

8. **Incoming Control/Alarm Power & Pump 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. **Ground Lug**

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

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:
  Demand Dose - three 20' MilliAmpMaster™ control switches
  Timed Dose - two 20' MilliAmpMaster™ control switches

- Complete with step-by-step installation instructions

- Three-year limited warranty

c(UL)us LISTED

IFS		1	W					8AC

MODEL IFS

MODEL TYPE ────────
3 = DPLX TIMED DOSE (includes option 8AC standard)
4 = DPLX DEMAND DOSE (includes option 8AC standard)

ALARM PACKAGE ────────
☑ 1 = alarm package (includes test/normal/silence switch, fuse, red light & horn)

ENCLOSURE RATING ────────
☑ W = NEMA 4X

STARTING DEVICE ────────
1 = 120/208/240 VAC
9 = 120 VAC

PUMP FULL LOAD AMPS ────────
0 = 0-7 FLA
1 = 7-15 FLA
2 = 15-20 FLA

PUMP DISCONNECTS ────────
0 = no pump disconnect
4 = circuit breaker(s)
    120 VAC (must select starting device option 9)
    120/208/240 VAC (must select starting device option 1)

SWITCH APPLICATIONS ────────
H = floats (Timed dose = timer enable and alarm / Demand dose = stop, start, and lag/alarm) (select 17 option)
X = no floats
    timed dose
    demand dose
C = C-Level™ sensor (must select 24 option)
    (select option 3E and/or 4A & 4D for high water alarm and/or redundant off floats)
    timed dose
    demand dose
Note: Pump down applications only.

OPTIONS *Listed below* ────────

CODE	DESCRIPTION
1J	Duo alarm inputs
3A	Alarm flasher
3B	Manual alarm reset
3E	High water alarm float *(must select 17 option)* **(Available only when Switch Applications = C)**
4A	Redundant off *(select option 4D if floats are required)* Demand Dose / Timed Dose
4D	Redundant off float *(must select 4A option) (must select 17 option)*
6A	Auxiliary alarm contacts, form C
☑ 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
10F	Lightning arrestor *(must select pump circuit breakers, control and alarm power combined)*
10K	Anti-condensation heater
11C	NEMA 1 alarm panel *(must select option 6A)*
11D	NEMA 4X alarm panel *(must select option 6A)*

CODE	DESCRIPTION
15A	Control / Alarm circuit breaker
16A	10' cord in lieu of 20' *(per float)*
16B	15' cord in lieu of 20' *(per float)*
16C	30' cord in lieu of 20' *(per float)*
16D	40' cord in lieu of 20' *(per float)*
17C	Sensor Float® / internally weighted ▲ *(per float)*
17D	Sensor Float® / externally weighted ▲ *(per float)*
17G	MilliAmpMaster™/ pipe clamp ● *(per float)*
17H	MilliAmpMaster™/ externally weighted ● *(per float)*
17J	Sensor Float® / pipe clamp ▲ *(per float)*
18A	Timer override float (timed dose float panel only)
19F	Fourth float to separate alarm function from lag (demand dose float panel only)
24E	C-Level™ sensor with 4' vent tube and 20' cord
24F	C-Level™ sensor with 4' vent tube and 40' cord
24G	C-Level™ sensor with 8' vent tube and 20' cord
24H	C-Level™ sensor with 8' vent tube and 40' cord

● Mechanically-activated   ▲ Mercury-activated

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

SAMPLE ────────

MODEL | IFS | 3 | 1 | W | 9 | 1 | 4 | H | 8AC 10E 17G

Model Type
Alarm Package
Enclosure Rating
Starting Device
Pump Full Load Amps
Pump Disconnects
Switch Application
Options: Display, Lockable Latch,
   MilliAmpMaster™/pipe clamp