

APX31 SMART PUMP CONTROL PANEL

Three phase, Simplex, Smart Pump Control

The **APX31** three phase, smart pump control panel is designed to control one pump at **380/400VAC, 50Hz**.

The control panel is compatible with multiple level sensors: float switches, air pressure, SJE SL-10F level transmitter, or a 4-20mA level transmitter.

It provides comprehensive level monitoring, pump protection and alarms for high level, pump failure, and signal failure.

It complies with EN60335-1, EMC (electromagnetic compatibility), has built-in IEC motor overload protection, and it is designed in a sleek and compact enclosure.

The control panel uses a high-definition, color touch screen, for simple set up, operation and troubleshooting.

Typical applications include lift pump chambers, sump pump basins, holding tanks, and other water applications.



FEATURES

- Sleek appearance, compact size
- UL certified enclosure, high strength and UV resistant, 5VA flame retardant
- Integrated mounting feet for simple, quick, and secure installation
- IP66 protection, clear door for easy viewing
- Compatible signal inputs, include float switch, SJE SL-10F level sensor, 4-20mA transmitter (Air Pressure input to be ready)
- Redundant control with level transmitter and back up high level float switch
- Auto detection for float switch or level sensor failure, activate backup control automatically
- High quality touch screen to indicate pump status and liquid level, with convenient operation or setup
- Simple and intuitive parameter set up
- Pump run time, cycles, and faults data log
- Dynamic liquid level displayed on screen
- Chinese and English languages, unit in cm and inch
- Simple transmitter calibration
- Pump failure detection and alarm
- High level backup float switch will also run the pump
- 360° sound and visual alarm
- Automatic alarm reset, one-touch test/silence
- Short circuit, overload, dry run, pump over temperature, surge, over voltage, under voltage protection
- Phase loss, incorrect phase sequence, phase unbalance protection
- Adjustable start and stop delay
- Rapid cycle monitoring, overtime run protection
- Scheduled test run (Programmable)
- Alarm relay to interface with BMS
- RS485 remote connection interface (MODBUS RTU)
- WiFi Connection for remote monitoring and alarm notifications (optional)

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COMPONENTS

1. Polycarbonate enclosure with clear door
2. Padlockable latch
3. Internal mounting feet
4. Color, graphic, touch screen, 4.3 inch
 - Operating mode selection: Hand-Off-Auto
 - Pump status display: Run, Stop, Fault
 - Alarm indication/alarm record
 - Liquid level display/float switch status display
 - Parameter setup
5. Alarm buzzer with test and silence function
6. Pump thermal switch input contacts
7. RS485 communication port (Modbus RTU protocol)
8. Alarm interface relay
9. 360° visible red alarm beacon
10. Waterproof cable glands
11. Alarm test/silence/reset switch
12. Terminal block cover
13. Circuit breaker

TECHNICAL SPECIFICATIONS

- Rated voltage: Three-phase 380/400VAC, 50Hz (With neutral line)
- Rated motor current: 1.0A ~ 11.5A
- Operating temperature: -5°C ~ 40°C (-41°F ~ 104°F)
- Protection level: IP66
- Enclosure Flame Rating: UL94 5VA
- Enclosure dimensions: H280 × W253 × D131mm (H11 × W10 × D5.2 inch)



SL-10F Sensor(optional)