



PCX Pump Control Module with Remote Operation

PRODUCT OVERVIEW

The **PCX Pump Control Module** is an advanced controller for submersible pumps, delivering intelligent automation, full remote stop/start control, and superior operator safety. Designed for demanding environments like **mining**, **construction**, and **industrial dewatering**, it prevents pump damage, reduces maintenance costs, and ensures personnel are protected — all without opening the panel.

With **no live electrical work required**, the PCX offers **remote configuration and control**, including **safe start/stop**, **real time current monitoring**, and **automated dry-run protection** through intelligent "snore" detection.

Key targets

- Start/Stop the pump safely via remote unit — no panel opening required
- Eliminates arc flash hazard — fully compliant with modern safety standards
- Restart Program Button resets pump curve timing and immediately re-engages pump
- Adaptive dry-run (snore) detection adjusts run/pause cycles in real time
- Live current bar graph and LED indicators on remote for at-a-glance diagnostics

Operating Modes

- **Manual Mode**
Disables automatic pump cycles. Pump can be restarted via the **remote control unit**.
- **Automatic Mode**
Autonomous control based on float switch inputs and real-time current-based dry-run protection logic.

Advanced Pump Control Logic

- Long run times → **shorter pauses**
- Short run times → **longer pauses**

Combined with snooze (snore) detection, the PCX ensures the pump only runs when fluid is present, extending motor and impeller life significantly.

Remote Control Unit – Stop/Start & Setup Safety

The PCX is supplied with a **panel-mounted remote control unit**, allowing operators to:

- **Start/Stop the pump**

- View live pump current
- Adjust snooze threshold
- Restart pump timing program

This eliminates the need for electricians to open the enclosure or perform configuration while the panel is live — **removing arc flash risk and saving setup time.**

Remote Unit Functions

1. **Power LED** – Indicates active system power
2. **Run LED** – Pump is currently running
3. **Pump Current LED** – Normal operating current detected
4. **Snooze Current Adjustment** – Set snooze threshold for dry-run detection
5. **Current Bar Graph LED** – Shows % of selected current range in real-time
6. **Restart Program Button** – Resets run/pause algorithm and starts pump
7. **Start/Stop Buttons** – Full remote operational control

Remote Unit Enclosure:

- Dimensions: 96 mm (W) × 48 mm (H) × 103 mm (D)
- Cutout: 84 mm × 37 mm
- Enclosure: NGS-9410 panel mount

Key Features Summary

Pump Protection & Adaptive Control

- Intelligent dry-run ("snore") detection using current analysis
- Real-time adaptive run/pause timing for optimal wear reduction
- Supports float switch input for high/low level cut-in/out

Safe Remote Control & Setup

- Stop/Start control outside of panel — no contact with live wiring
- Restart program button on remote unit
- No need to open enclosure for setup, reducing safety risk and downtime

Monitoring & Outputs

- Real-time LED current bar graph (% of selected range)
- LED status: Power, Run, Pause, Alarm, Pump Current
- 4–20 mA analog output for motor current telemetry
- Output relays for **Run** and **Alarm**

Technical Specifications

Power Supply

Voltage Range	Type
100–250 V AC	AC
20–50 V AC/DC	AC or DC

Motor Current Ranges (Selectable)

- Range 0: 1–5 A
- Range 1: 5–25 A
- Range 2: 25–100 A
- Range 3: 100–200 A
- CT Ratio: 200:1 (CT included)

Relay Outputs

- 5 A @ 250 V AC (General)
- 5 A @ 30 V DC (Resistive)
- 100 VA max

Analog Output

- 4–20 mA output for current monitoring (into 2500 Ω)

Operating Temperature

- -10°C to 60°C

Mechanical Specifications

Main Controller

- Dimensions: 95 mm (W) × 95 mm (H) × 105 mm (D)
- Material: High-impact polycarbonate
- IP Rating: IP20
- Mounting: DIN rail or fascia
- Weight: 365 g

Remote Control Unit

- Panel Mount Enclosure (NGS-9410)
- Dimensions: 96 mm (W) × 48 mm (H) × 103 mm (D)
- Cutout: 84 mm × 37 mm

Ordering Information

Part Number Description

A01150 PCX Pump Control Module — 100–250 V AC

A01151 PCX Pump Control Module — 24 V AC/DC

A01152 PCX Remote Control Module

m-tronix Pty Ltd

info@m-tronix.com.au |  +61 435 939 513 |  www.m-tronix.com.au