

KilroLogic Controller	
Category	Specifications
Controller Type	Modular PLC with expandable I/O architecture. RS485 (MODBUS-RTU); Real-Time Clock (RTC) with scheduling. Wifi enabled for smart pumping applications.
Display (Option 1)	2×8 backlit LCD; 5 keys (4 configurable).
Display (Option 2)	7" TFT colour (800×480 px); Ports: RS485/422, RS232, USB-C/B, Ethernet (ET1); IP65 front; CE certified.
Control Functions	PID pressure control. Pump cascading. Stage-In (Freq + Time). De-Stage (Freq + Time). Sleep mode (Freq + Delay). Pump alternation. Up to 6 set points. RTC scheduling. Emergency Run.
Pump Logic	Lead pump starts at cut-in. Soft pressure build-up. Equal speed load sharing. Lag pumps start/stop by Stage-In/Stage-Out logic. Alternation by run hours. Sleep/wake by frequency & delay.
Protection Features	Dry-run protection. Minimum/Maximum pressure safety. Low-flow stop. Max starts/hour limit. Password protection. Alarm log (10–24 events).
Monitoring (Options)	Inlet/Outlet pressure (primary, redundant). Instant + total flow estimation. VFD: speed, frequency, current, voltage, power, temperature. Pump run hours & start count. Trends: pressure, flow, frequency, pump status.
Advanced Functions	Friction loss compensation. Flow estimation. Real-time graphs. Scheduler (daily with time slots).
User Interface (HMI Menus)	Overview, Alarms, Pumps, VFDs, Process, Trends, Curves, Schedule, Settings (Stage settings, Sleep/Wake, Cut-In, Change interval, Test mode).
Communication	MODBUS-RTU for BMS integration; Additional third-party protocol support via HMI.
Applications	HYPN, HVAC, Smart pumping solutions.