PSS 5000 Forecourt Controller

Automating Semi-mechanical Dispensers



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Revitalize Pumps

The Doms Mechanical Pump Interface (MPI) solution, with a DSB524 Hardware Interface Module (HIM) on the PSS 5000, enables you to make your mechanical dispensers with a pulser installed function similar to modern dispensers.

Onboard Diagnostics

The HIM LEDs provide basic diagnostics information, which makes it easier for Service personnel to diagnose and troubleshoot problems:

- Input/Output settings
- Communications
- CPU health
- Voltage settings

Dispense Control

- You decide when fuelling occurs by controlling dispenser authorization. Pumps are only able to start when they have received authorization either from the PSS or via the POS.
- Monitor fuelling activity by being able to see when customers initiate a fuelling. The MPI supports both nozzle cradles and start/ stop buttons. So, even if you cannot see the dispenser, you know if there is activity on it.
- Prevent prepay customers from taking too much by reducing overruns. For prepaid fuel sales, you can send a preset (calculated volume) to the dispenser. The intelligent HIM slows the pump when the preset target is close, and then stops the pump when the volume reaches the exact limit.

 Monitor volume totals. The PSS 5000 uses the pulse count and calculates the total volume of fuel dispensed by each pump. These values can be used, in association with the pump totalizers, for wet stock reconciliation.

Low Cost Outlay

No need for expensive forecourt device replacements — continue using your existing installations. In addition to the PSS 5000, you only need to acquire a pulser & nozzle switch for each grade and some cabling. The pulser measures the pumps revolutions (volume) and the cabling provides the communication between the pulser and the PSS 5000. These items can be installed by a local workforce and require no specialist training.

MPI HIM — DSB524		
Description	Provides an interface between a PSS 5000 and up to 2 mechanical pumps. Its functionality can be extended by connecting 1 6 modules together - giving support for up to 32 pumps on a single PSS port; but in practice this can be limited by the size of the cabinet.	
Pulsers supported	Туре:	Reed switches (+5V to +12V)
		Optocouplers (+5V to +12V)
		Onboard 5V or 12V power supply to a pulser or solid state relay
	Signals:	Single pulser
		Double pulser with phase shift (-90°, +90° & 180°)
LEDs	14	Indications: +5V power supply; CPU status; Data transmission activity; Motor status; Valve status; Pulse flow status & Nozzle status
Outputs	Motor	Supports a 20mA* output to stop valves/motor start control.
	Valves	* If motor control uses high voltage, an external solid state relay is required.
Nozzle switch	On/Off	Input source: 20mA Trigger current: 5mA

Configuration Parameters	Supported Values
Pulser Rate (pulses/liter)	1, 2, 10, 25, 50, 100, 200
Pulser Mode	Single pulses, Double pulses with phase shifts (-90° , $+90^\circ$, 180°)
Inverted Pulses	No, Yes (when pulse counter is active LOW)
Voltage Setting	+5V, +12V
Nozzle Mode	Start/Stop button, Nozzle switch

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