Digital Pressure Control System
Eaton's Carter® product line of ground refueling equipment includes the 4th Edition of our Digital Pressure Control System, which employs a proprietary method of controlling and monitoring fuel pressure into the aircraft. The combination of Hydro-mechanical valves and a microprocessor eliminates the need for air-reference pressure, servo controls or venturis to control pressure. Fuel cannot cross contaminate the air system such as occurs in air operated systems.

Eaton’s Carter Digital Pressure Control System with dual controllers operates both the primary and secondary pressure controls during the fueling operation and eliminates the interference gap created by purely mechanical systems. This allows for maximum flow throughout the total fueling cycle and reduced backpressure interference. The improved flow reduces overall fueling time allowing for faster fueling turns, minimized gate delays, and smaller fleet size.

The system can be operated with all existing industry standard configurations with either single or dual pressure controllers.

Adjustments for pressure control, rate of flow control, opening and closing times are set by connecting a laptop through a provided graphical user interface (GUI) software application. The system is tamper proof with user level security or can be unplugged and stored by an authorized technician. Once the Laptop is removed, the fueling operator cannot make any further changes. There are no buttons or key locks on the Display module making this a safer and tamper resistant system.

Higher flow rates are achieved due to lower system pressure drop as compared to a conventional system. Initial Setup time and subsequent periodic maintenance is also reduced through the provided software by automatically calculating flow resistance without an iterative manual adjustment process.

The Display Control Module (DCM) denotes which nozzles are being used, the units of measure for the pressure settings and the rate of flow. Each nozzle has a specific profile stored into the digital system which maximizes fueling efficiency.

Multiple remote displays can be procured to provide readouts for various locations on the vehicle or lift decks.

The Digital IV diagnostic error readouts are highly descriptive which reduces maintenance time and improves troubleshooting effectiveness. Error logs can be extracted for further analysis.

Eaton’s Carter® Digital Pressure Control System can be installed on new build Refuelers and Hydrant Servicers or installed as a retrofit to existing equipment. Eaton will also support upgrades from an earlier version of Eaton’s Carter Digital Pressure Control System.

### System Components
(Each purchased separately)
- 64435 - Pressure Control System
- 64436 - Display Control Module or Remote Display control module
- Wire Harness Kits
- 64302, 64303 or 64304 Solenoid Manifold for Pressure Control Coupler operation
- 64902 - Digital 4-inch Pressure Control Coupler or
- 64802/64804 - Digital 3-inch Pressure Control Coupler
- 64504 - Digital 3-inch Inline Valve
- 64505 - Digital 3-inch Bypass Valve
- 64514 - Digital 4-inch Inline Valve
- 64515 - Digital 4-inch Bypass Valve

### Features
- Easy User interface
- Accurate control
- Future enhancements through upgradeable software
- Detailed Diagnostics Features
- 7” LCD color display
- Displays nozzle pressure and flow simultaneously
- Display module shows which nozzles are being used
- No Venturi(s) required
- No air reference pressure required
- No fuel-to-air cross contamination
- Maximum rate of flow control standard. No rate of flow valve required
- Optional 7” LCD color Remote displays available
- Robust IP67 pressure control modules
- Three different units of pressure and flow readouts on the module (e.g. psi, kpa, bar)
- Adjustable timer deadman- standard
- Deadman warning message will display on display screen & the same time beacon will illuminate provide alert message to operator
- Error message will display on screen to assist with trouble shooting
- System can be used with Inline or Bypass Valves and Pressure control hydrant couplers (Hydrant coupler)
- All calibrations done using a common laptop computer
- Up to six hose profiles can be individually calibrated
- System can receive inputs from two meters simultaneously
- Tamper Proof calibration

### 64435 Total Pressure Control System
ATEX and IECEx certification in progress.