

Installation Manual



Automated Fuel Maintenance System

FTI-5A



FUEL TECHNOLOGIES INTERNATIONAL LLC

Replacement Manuals Available on Website: www.fueltech.us

Installation

Contents

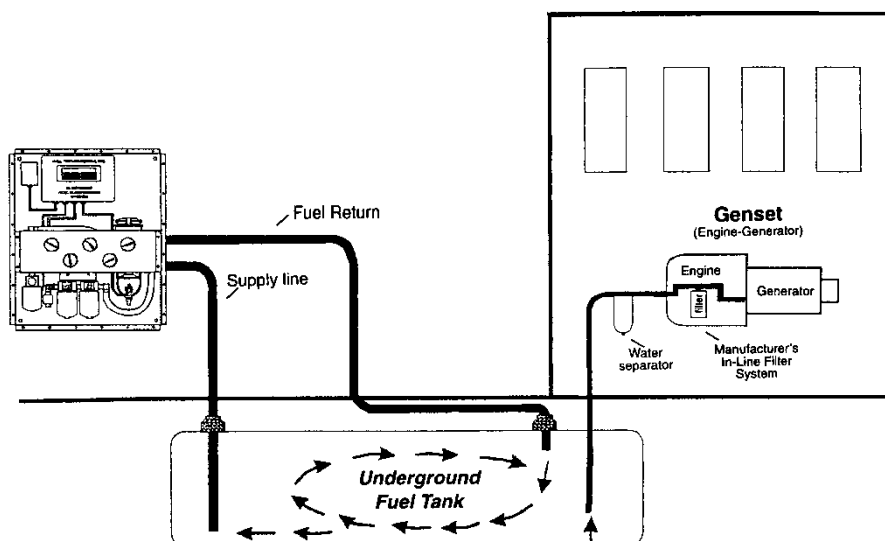
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OVERVIEW

1. The complete automated diesel fuel maintenance system with cabinet shall be designed for wall or pedestal mounting

Supply line to be installed at the sump end of the storage tank **1"** from the bottom and Plumbed to the automated fuel maintenance system. A **FOOT VALVE** must be installed on supply line to keep system primed.
2. A return line to be installed to the opposite end of the storage tank.
3. Caution should be taken not to exceed the 15-ft. suction lift capability of the fuel circulation pump. Should vertical suction lift exceed 15 ft. the circulation pump in FTI cabinet can be removed and replaced with a submersible pump in the storage tank. The submersible pump shall be wired to the FTI control panel. A flow control valve and a flow meter may be required to set fuel flow at 5 GPM, depending on the system.
4. Stabilizer to be added to the existing fuel tank, and proportionally when additional fuel is added to the storage tank.
5. Biocide to be added to stored diesel fuel annually.

HOW IT WORKS



INSTALLATION NOTES

1. FTI systems operate on either above ground or underground tanks. Any installation should be completed by a qualified plumbing contractor and qualified electrician.
2. Wall mount or pedestal mount should be bolted into place.
3. 120V AC, Single Phase, 20 Amp. Power supply must be available at system location.
4. A Disconnect switch is provided on the FTI control panel for power shut off.
5. Pipe plugs were installed in the supply and return line for shipping purposes only, and must be removed prior to installation.
6. Holes will need to be added in cabinet for electrical, Fuel supply line, and Fuel return line.
7. All FTI models are factory tested using lightweight oil. Some of this fluid may remain in the unit. It will not interfere with the performance of the system.
8. On initial start up, if the system does not fill with fluid, the pump may require priming.
(SEE PRIMING PORT LOCATION ON NEXT PAGE)

INSTALLATION PRECAUTIONS:

IF POWER TO THE FTI CONTROL PANEL IS TO BE TURNED OFF AFTER IT IS INSTALLED, THEN THE INSTALLER SHALL PROVIDE FOR THERMAL EXPANSION PROTECTION.

AFTER INSTALLATION, ALL MANUAL BALL VALVES SHALL REMAIN OPEN.

TO PROTECT AGAINST FUEL THERMAL EXPANSION, THE FTI CONTROL PANEL WILL AUTOMATICALLY OPEN ALL ELECTRICALLY CONNECTED VALVES WHEN THE FTI PRESSURE GAUGE REACHES 45 PSI. THIS FEATURE OPERATES AUTOMATICALLY ONLY WHEN POWER IS ON AND THE CONTROL PANEL IS SET TO AUTO OR MANUAL OFF MODES

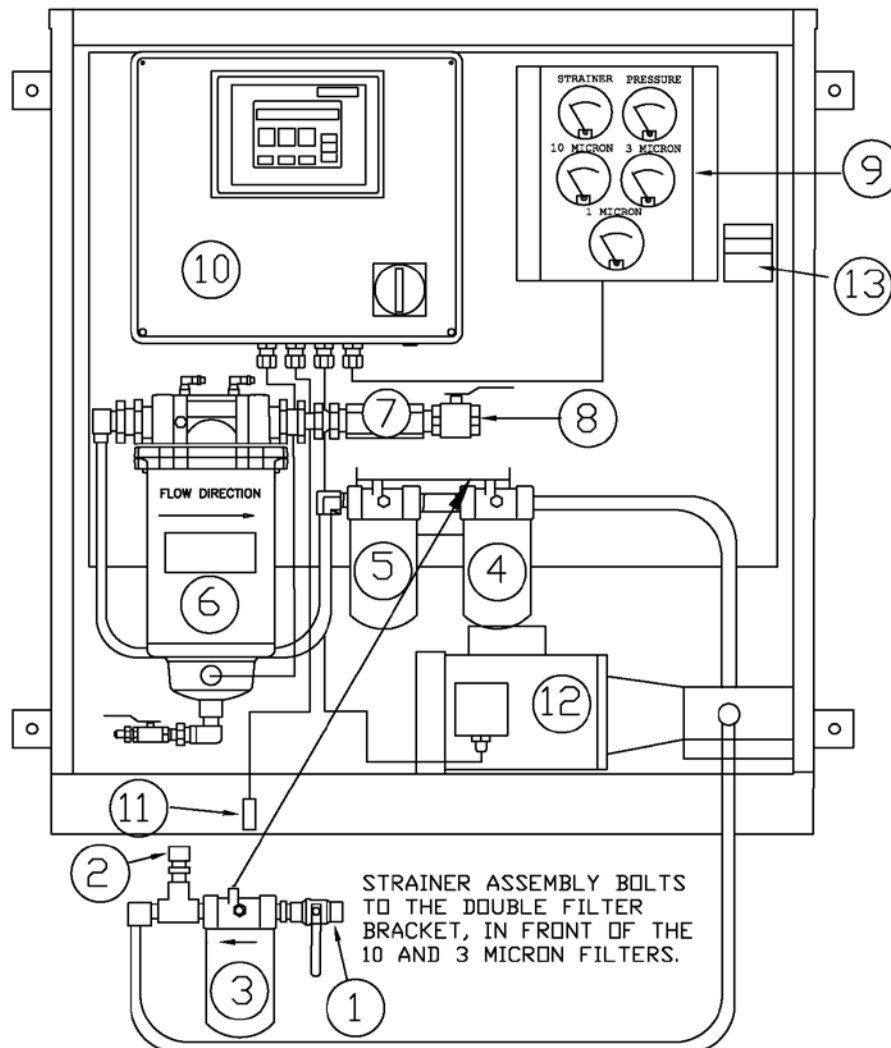
FTI WILL NOT BE RESPONSIBLE FOR ANY THERMAL EXPANSION DAMAGE DUE TO EXCESSIVE PRESSURE.

**DO NOT RUN LONGER THAN TWO MINUTES
WITHOUT FLUIDS**

9. To *prime the pump, fill supply line with fuel*. Remove the Priming Cap and fill. Restart the system.
10. For starting system see operations manual.

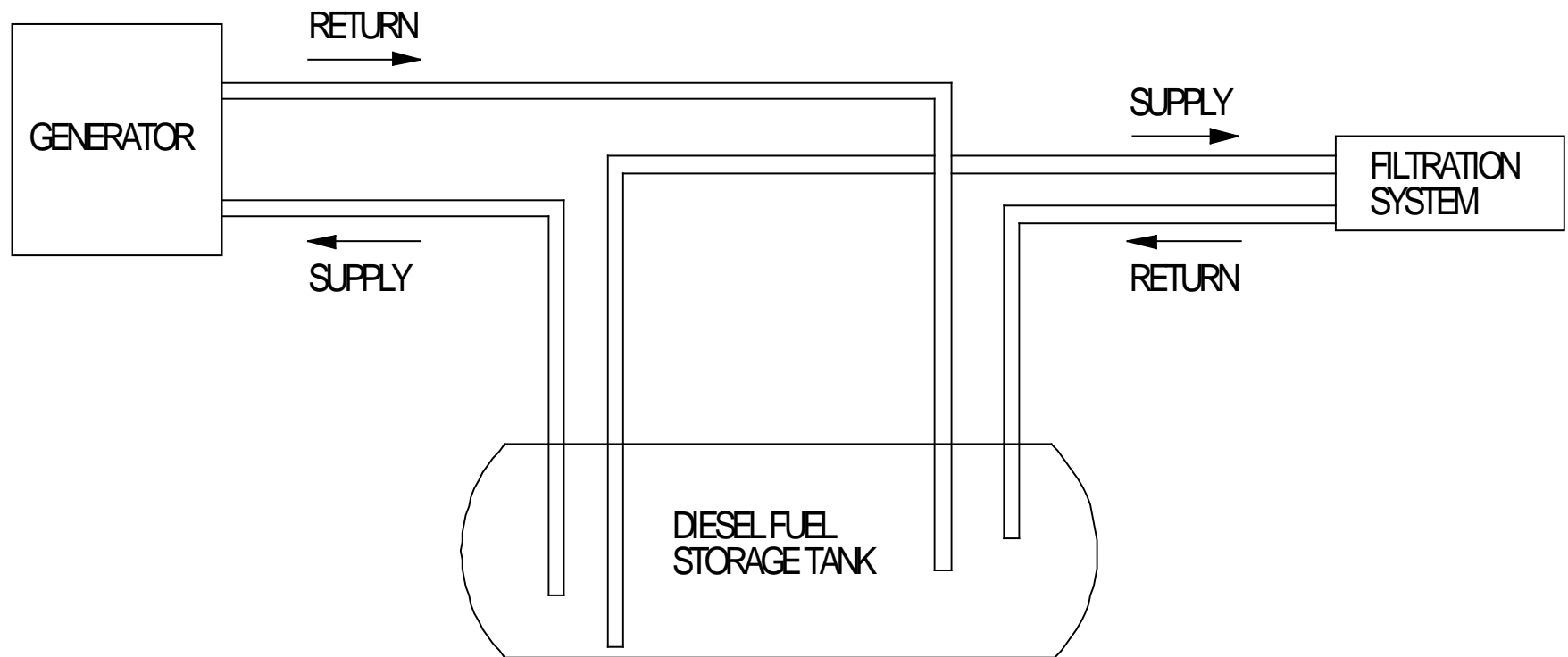
IDENTIFYING PARTS

FT-I-5A



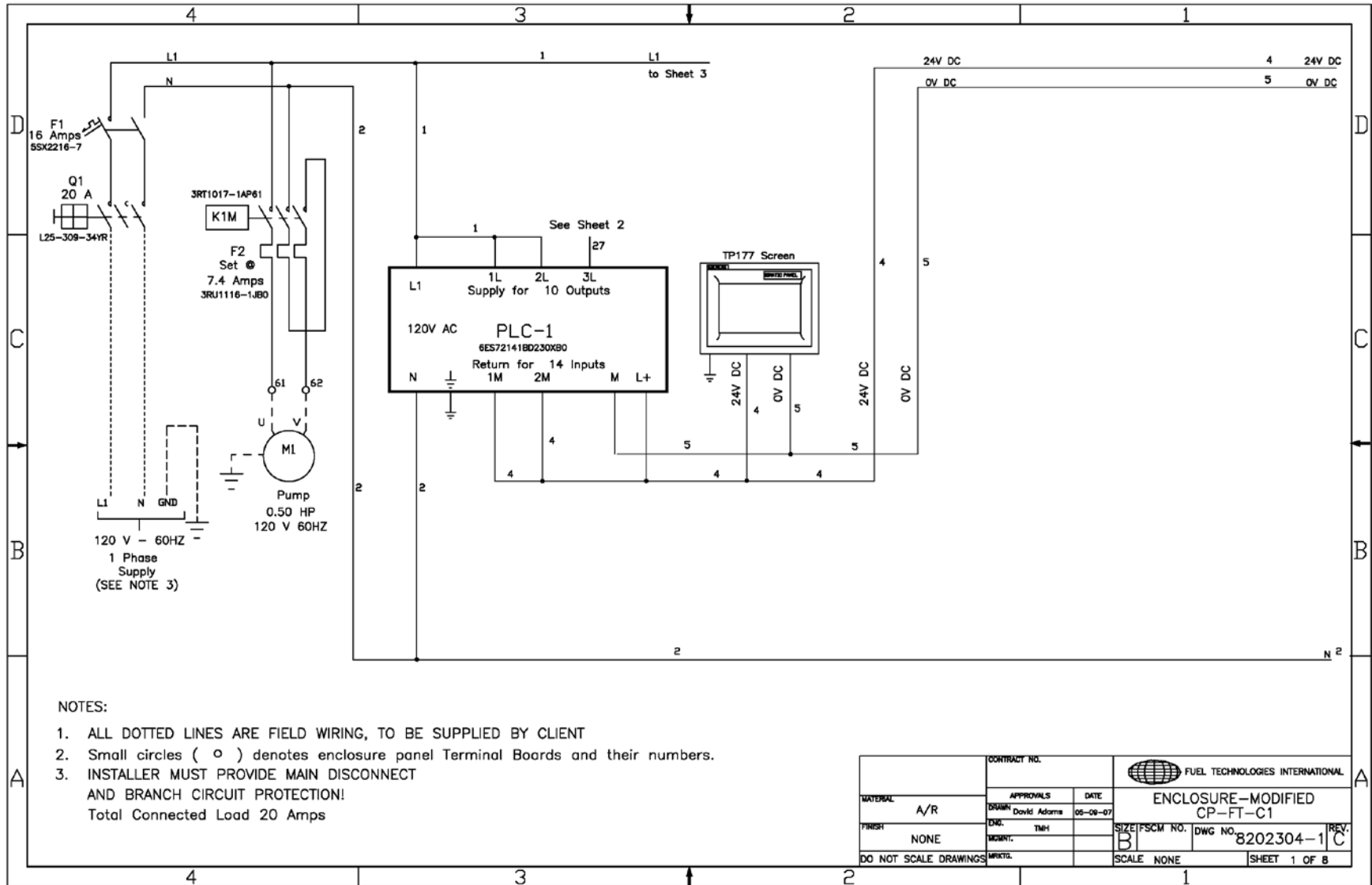
- 1) Supply Line Connection - 3/4" NPT
- 2) Priming Port (Remove Cap and fill with Fuel to prime pump)
- 3) Strainer – Spin on Type with 100 Mesh, 149 Micron Element
- 4) 10 Micron Pre Filter, Spin On Type
- 5) 3 Micron Pre Filter, Spin On Type
- 6) 1 Micron Element and Water Separator
- 7) Site Glass
- 8) Return line Connection – 3/4" NPT
- 9) Switch Gauge Panel
- 10) Controller
- 11) Leak Detector
- 12) Pump / Motor Assembly
- 13) Serial Number, Model Number, FM Approved Tags

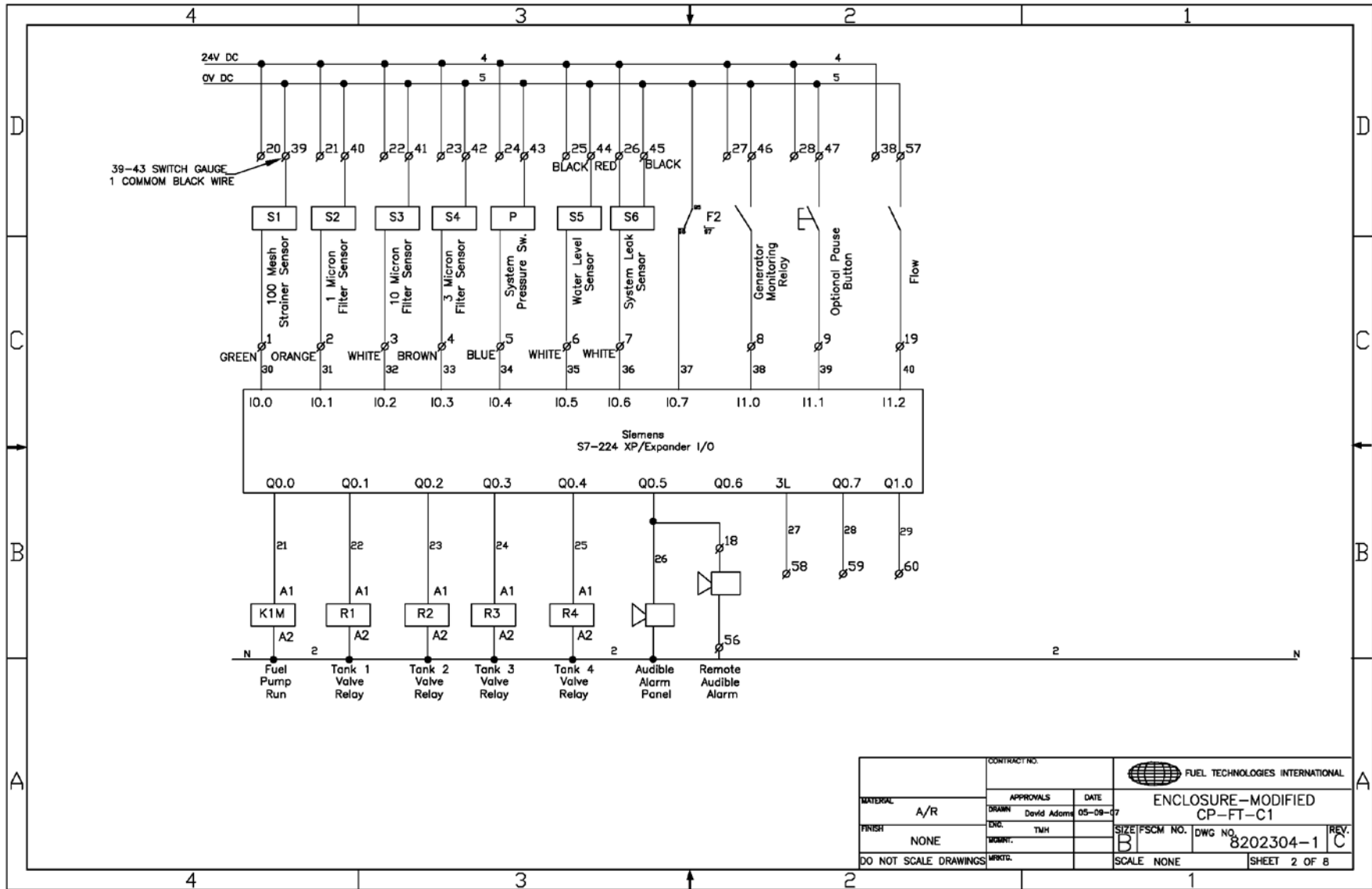
PREFERRED STAND ALONE INSTALLATION

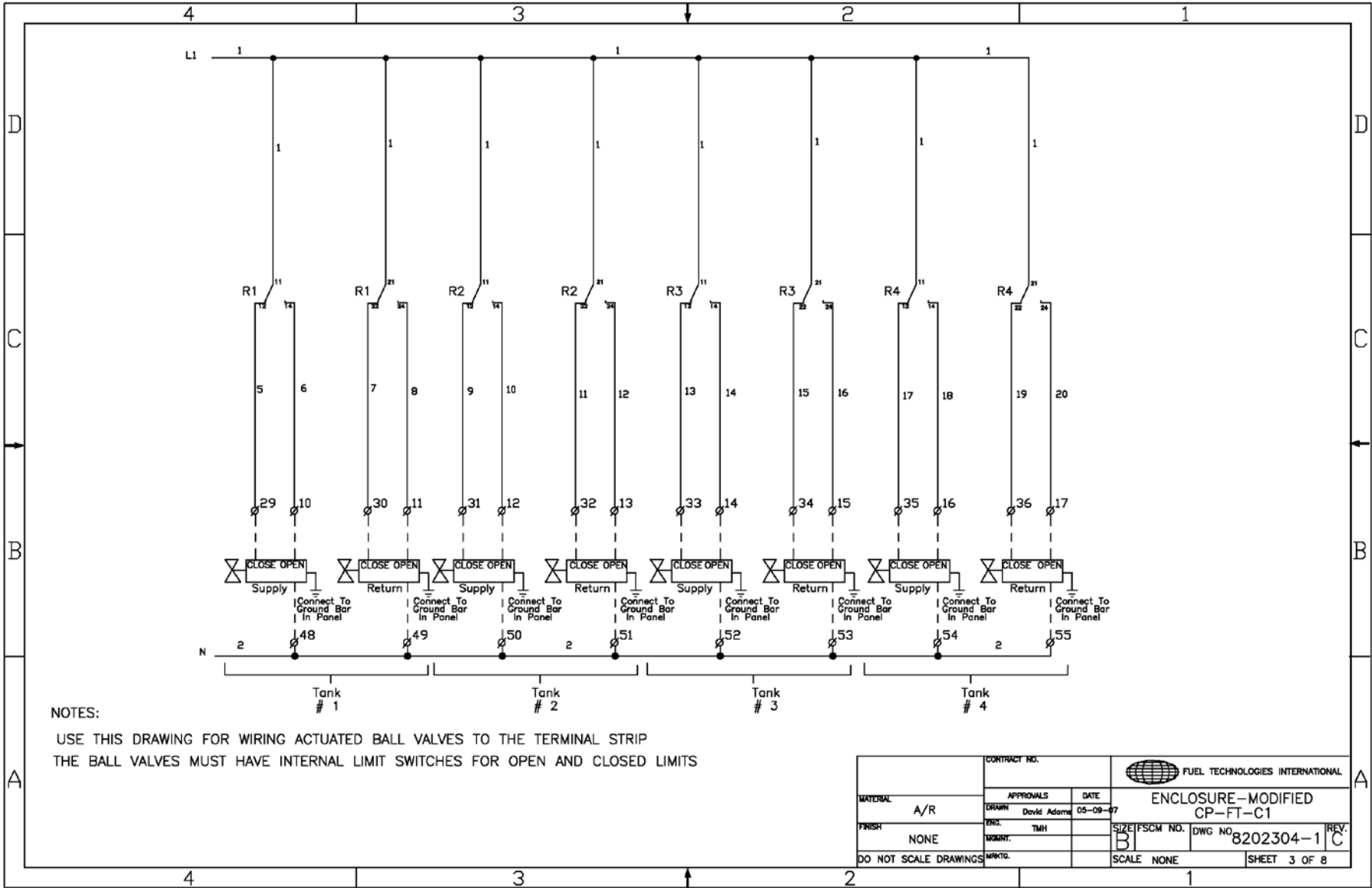


Notes:

1. FTI supply line should be installed 1” from bottom of storage tank, at sump end.
2. A foot valve must be installed on supply line to keep system primed.



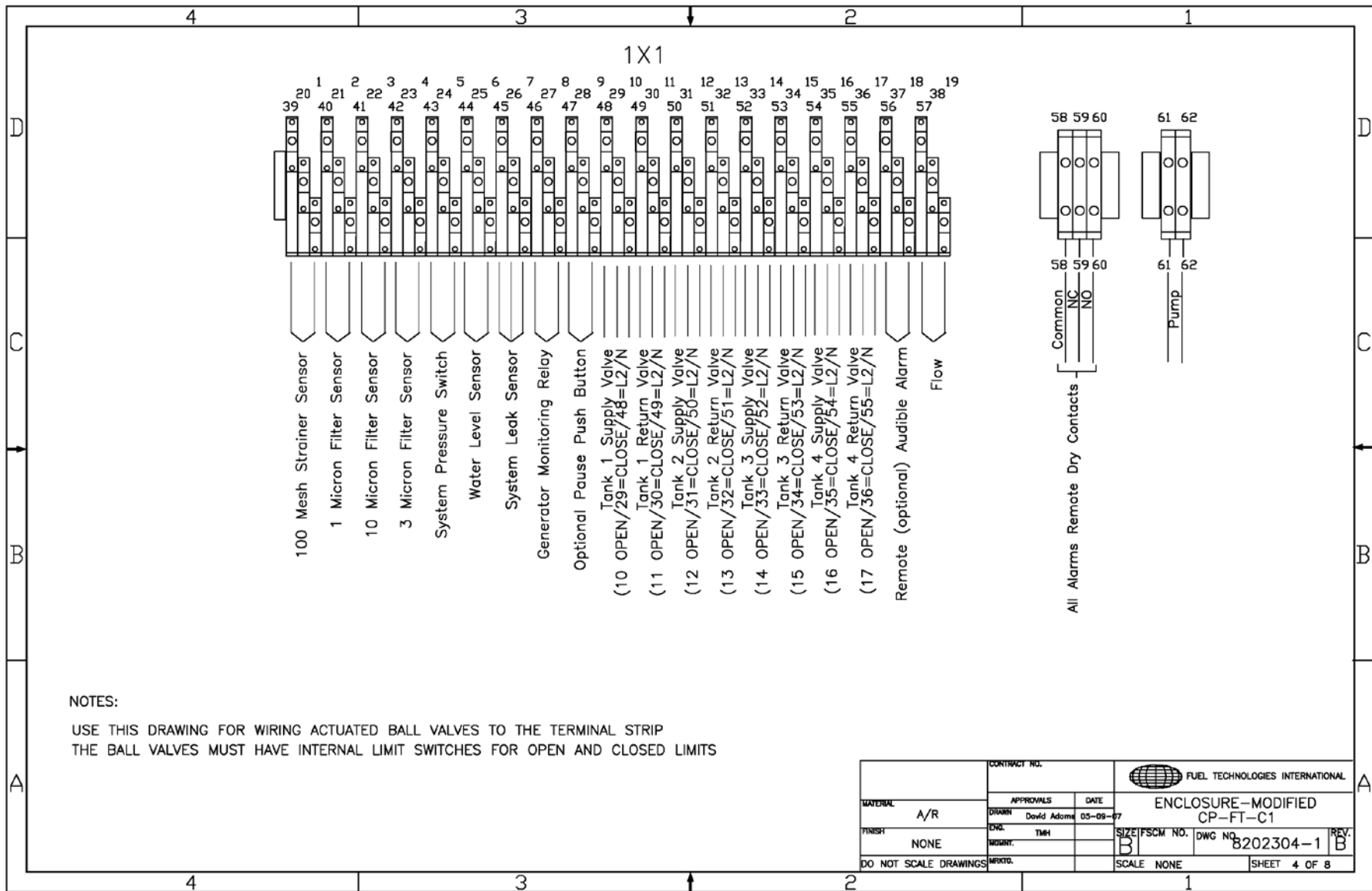


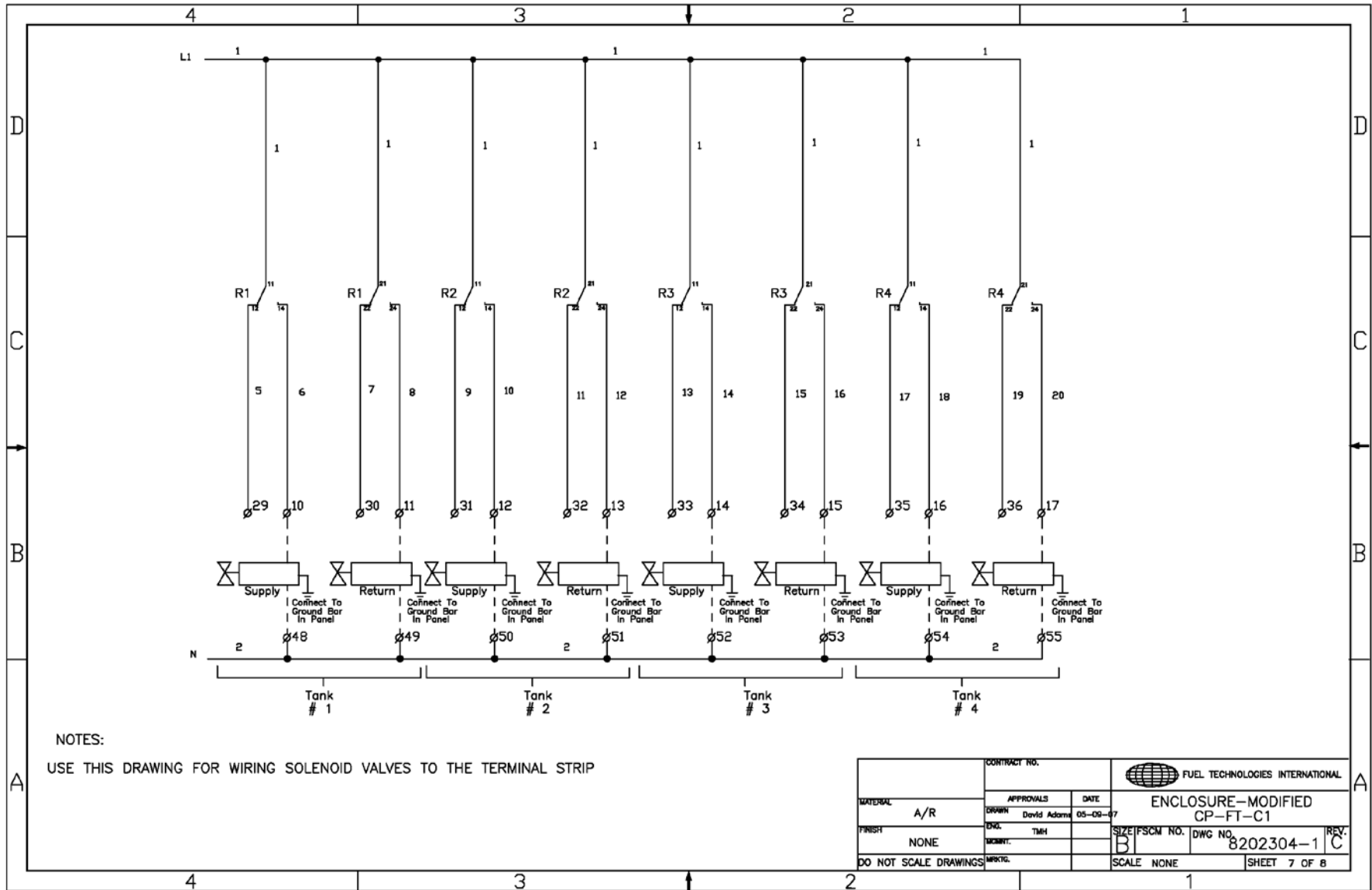


NOTES:

USE THIS DRAWING FOR WIRING ACTUATED BALL VALVES TO THE TERMINAL STRIP
 THE BALL VALVES MUST HAVE INTERNAL LIMIT SWITCHES FOR OPEN AND CLOSED LIMITS

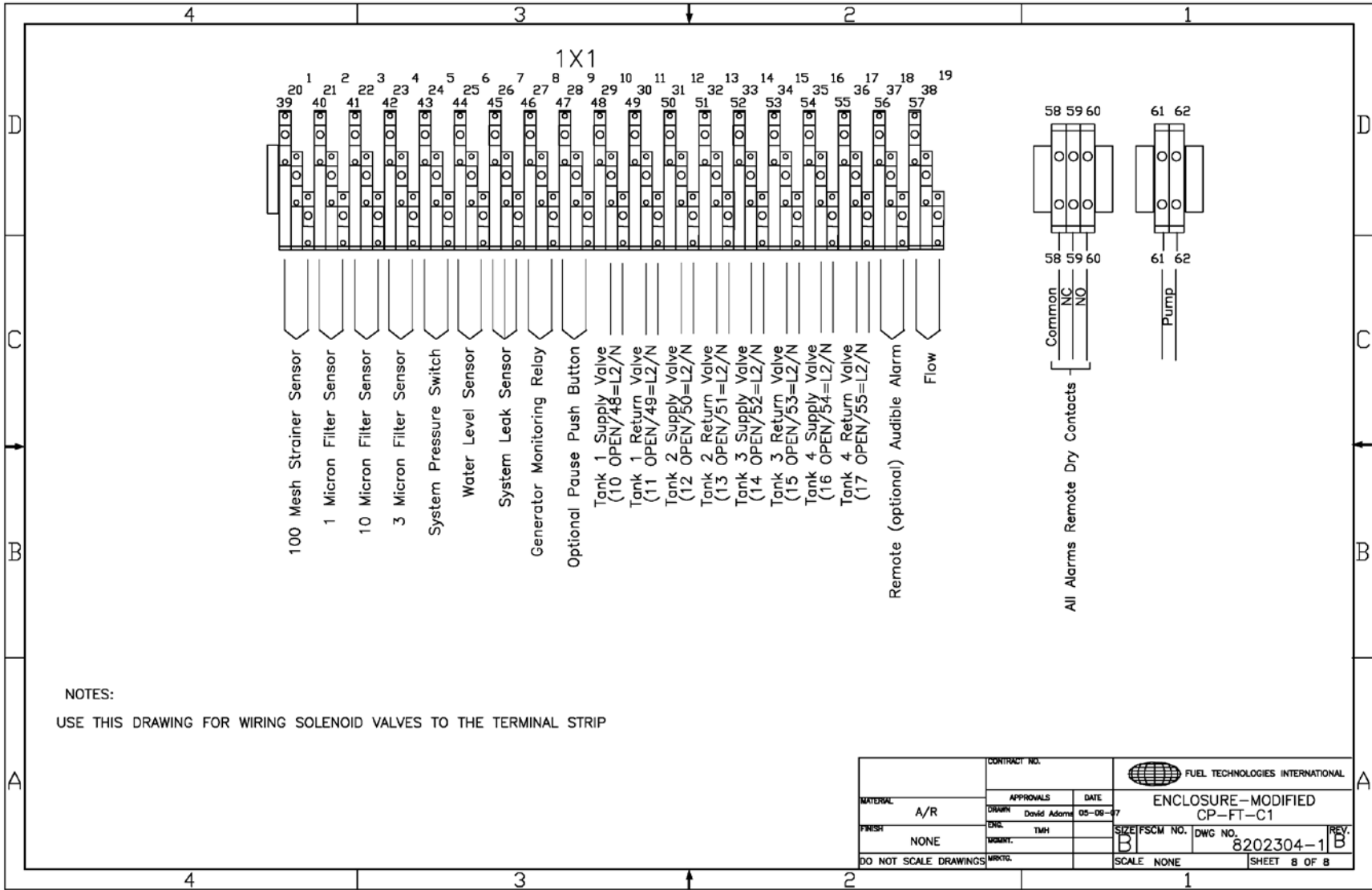
CONTRACT NO.		FUEL TECHNOLOGIES INTERNATIONAL	
MATERIAL	A/R	APPROVALS	DATE
FINISH	NONE	DRAWN	David Adams 05-09-07
DO NOT SCALE DRAWINGS	MARKTG.	ENGR.	TMH
SCALE NONE		SIZE/FSCM NO.	B
SHEET 3 OF 8		DWG NO.	8202304-1
		REV.	C

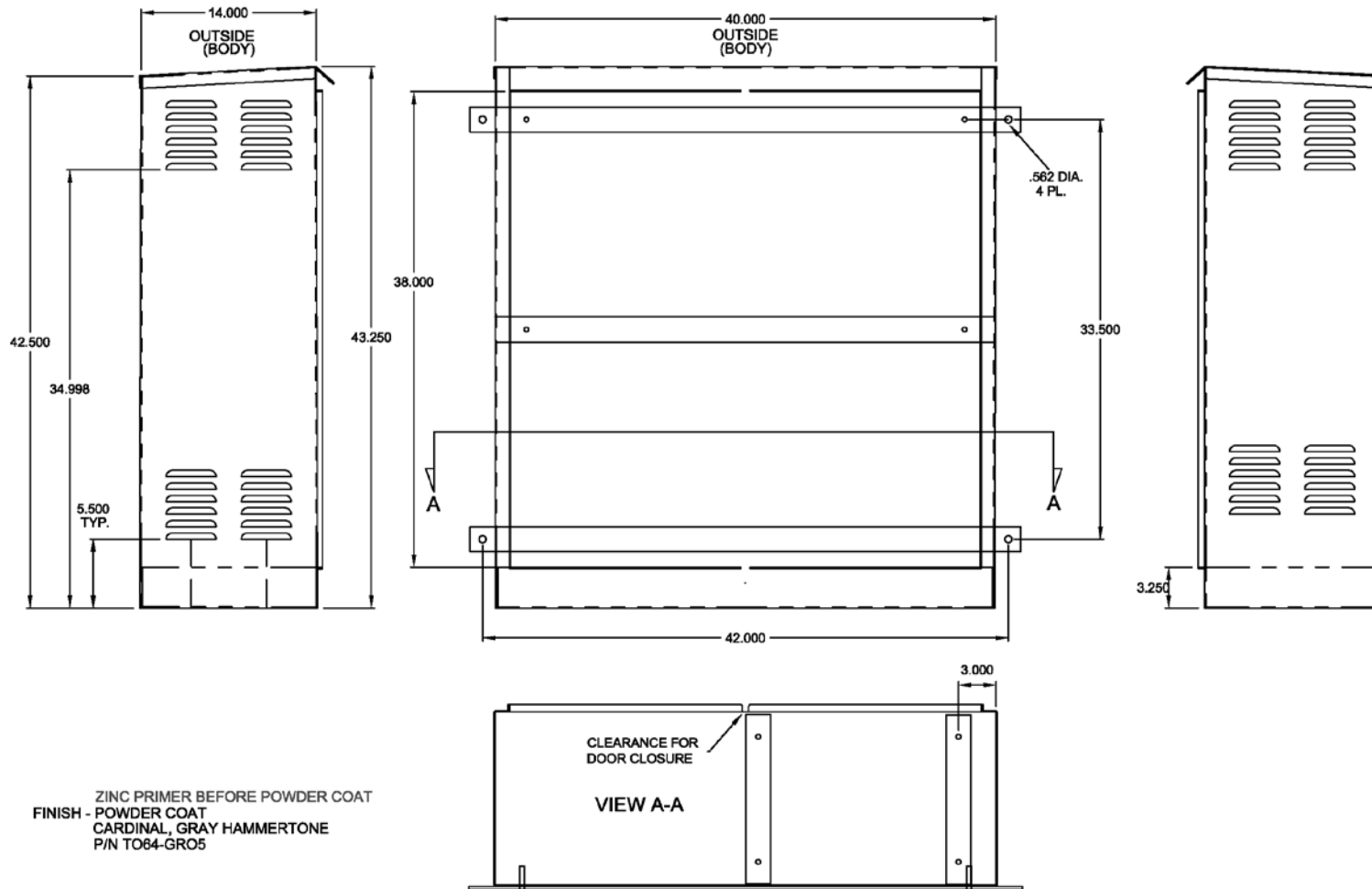




NOTES:
USE THIS DRAWING FOR WIRING SOLENOID VALVES TO THE TERMINAL STRIP

		CONTRACT NO.		FUEL TECHNOLOGIES INTERNATIONAL	
MATERIAL	A/R	APPROVALS	DATE	ENCLOSURE-MODIFIED	
FINISH	NONE	DRAWN	David Adams	05-09-07	CP-FT-C1
DO NOT SCALE DRAWINGS		CHK.	TJM	SIZE (FSCM NO.)	DWG NO. 8202304-1
		MARKG.		SCALE	NONE
				REV.	C
				SHEET 7 OF 8	





DIMENSIONS ARE IN INCHES DECIMALS: XXX .000 XXXX .015		FUEL TECHNOLOGIES INT.			
DRAWN TOM HAASE		CABINET FTI-5A			
MATERIAL 14 GA. CRS	SIZE B	DATE 3/15/2010	DWG NO. 6601900	REV A	
FINISH POWDER COAT	SCALE		SHEET 1 OF 2		

