

MultiLoad II[®] II

BREAKING THE BARRIERS OF TRADITIONAL PRESETS

MultiLoad II

EXL

Toptech
Systems, Inc.

TOPTTECH SYSTEMS
INSERT YOUR CARD

GLOBAL SOLUTIONS FOR TERMINAL AUTOMATION

CONTROL UP TO 12 LOADING ARMS
UP TO 16 ADDITIVES PER LOAD ARM
RATIO, SEQUENTIAL AND HYBRID BLENDING
SWING-ARM CAPABILITY
PRODUCT OPTIONS TO FIT ANY APPLICATION



IDEX

LIQUID CONTROLS GROUP

CORKEN | FAURE HERMAN | LIQUID CONTROLS | SAMPI | SPONSLER | TOPTTECH SYSTEMS

Setting the Standard Even Higher

Traditional electronic presets have been at the center of the load rack for many years. Although incremental improvements have been made and their capabilities have increased, the fundamental design of electronic presets has not changed in more than a decade. The release of Toptech MultiLoad introduced a new era of load rack control by eliminating the need to maintain multiple interfaces between terminal automation systems and intelligent control devices, such as additive injection controllers and electronic presets.

Toptech has taken the characteristics that have made MultiLoad so successful and incorporated them into a suite of next generation load rack control solutions. MultiLoad II is available in three functional varieties: MultiLoad II Package, MultiLoad II 1-arm, and MultiLoad II SMP.

Components of the MultiLoad II Package

MultiLoad II RCU - Remote Control Unit

DRIVER INTERFACE



Specifications

Instrument Power:

AC: 85-250 VAC, 50-60 Hz
DC: 18-36 VDC

Display:

Active Matrix TFT Color LCD
16-Line, 640x480 VGA (320x240 QVGA on SMP)
Division 2: 8.4" Diagonal
Ex-Proof: 6.5" Diagonal
EXL: 5.7" Diagonal
SMP: 4.0" Diagonal

Environmental:

Operating Temperature: -25°C to 60°C
Operating Temperature (with AC heater option): -40°C to 60°C
Enclosure: NEMA 4, IP-65

Communications:

1- RS-485
1- RS-485/232 (User Selectable)
1- RS-232 (Full Function)
1- 10/100 Mb Ethernet

FCM II - Flow Control Module

DISTRIBUTED I/O

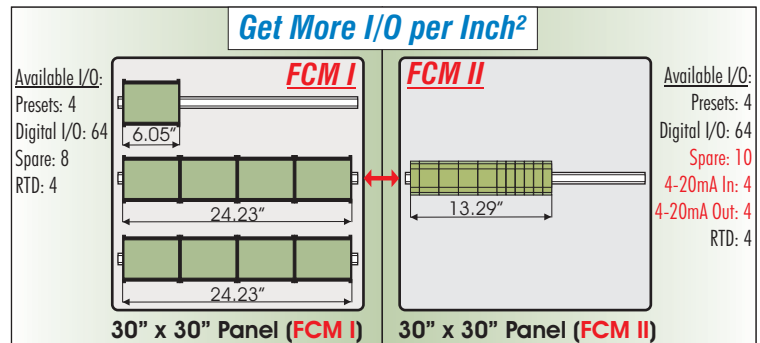
FCM II - "The Preset on a Card™"

Each FCM II contains its own microprocessor to monitor and control product delivery. Some of the common functions of the FCM II are:



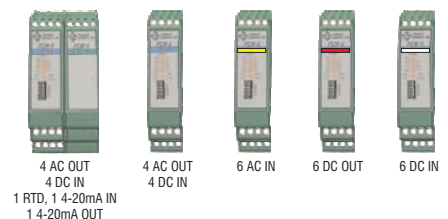
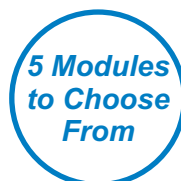
- Digital Valve Control
- Meter Pulse Counts and Factoring
- Additive Injection
- Pump Permissives

FCM IIs are UL listed for installation in Class 1, Division 2 environments and are installed (via snap track or DIN rail) in a cabinet that can be mounted up to 4000 feet away from the load rack. As a result of the small form-factor, these units can even accommodate economical installation in an explosion proof Division 1 enclosure.



Expanding Presets/Load Arms is a Snap!

If you need to add a preset to a loading lane, all you have to do is snap in one or more Flow Control Modules (FCM II) into the FCM enclosure and configure it accordingly. Customers already using previous generation (FCM I) units, will be pleased to know FCM II is backwards compatible with FCM I; both units can co-exist on the same RS-485 bus.



Welcome to Modular Preset/Load Rack Control

Features of the MultiLoad II Package

The MultiLoad II Package can handle the most demanding applications and offers an abundance of features, including:

- Controls up to 12 Loading Arms
- Up to 16 Additives per Load Arm
- Up to 5-component Ratio Blending
- Up to 8-component Sequential Blending
- Swing Arm Capability
- Supports Mass Pulse Input
- Semi-automatic Additive and Temp. Calibration
- Full Alphanumeric Keypad Available
- Full Color VGA Display (640 x 480)
- Single Point Diagnostics for Entire Lane
- Supports Hybrid Control Schemes
- Multi-lingual Interface (English & Spanish)

Benefits of the MultiLoad II Package

Integrated System

The MultiLoad II eliminates the need to maintain multiple interfaces between terminal automation systems and intelligent control devices, such as additive injection controllers and electronic presets. These control functions are now provided in a single system. **With fewer discrete devices at the rack, installation, maintenance and troubleshooting are simplified.**

Distributed Control

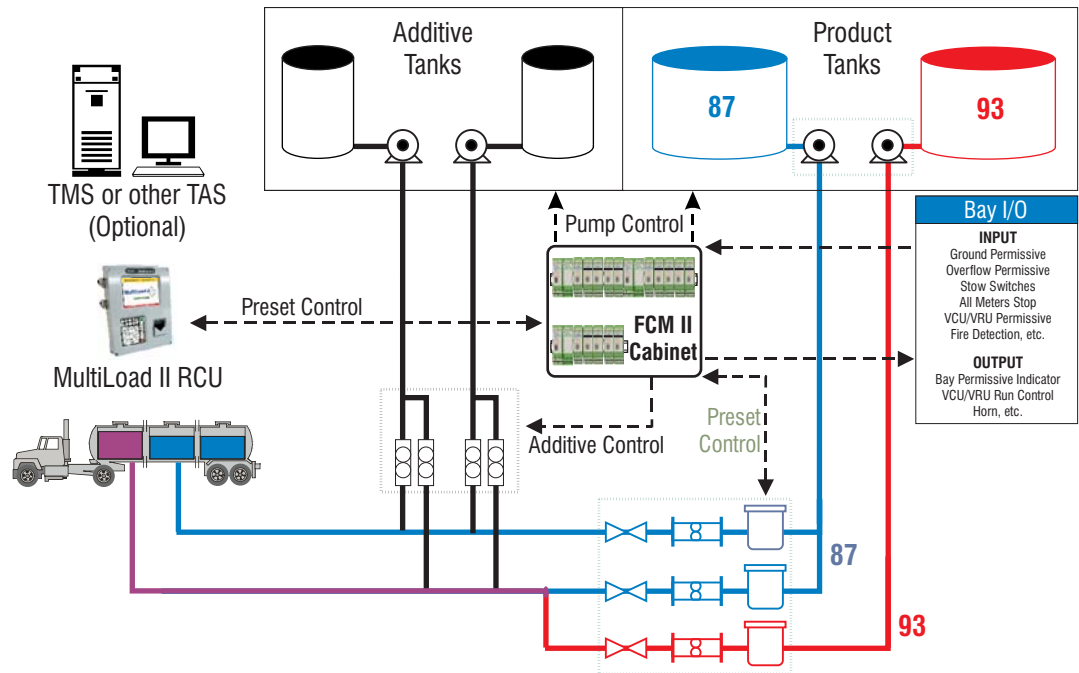
The MultiLoad II architecture extends control beyond the confines of the expensive enclosures that clutter today's load racks. To that end, a single lane's FCMs can be distributed across multiple locations. **Now you can buy only as much control as necessary and locate that control where it is needed.**

One Driver Interface Simplifies Loading

The MultiLoad II utilizes one driver interface for the entire loading lane. The driver cards in at the MultiLoad II RCU and proceeds to enter customer and preset data for as many orders as the truck can handle. **It is no longer necessary for a driver to enter data into multiple presets at the load rack.** From this common interface, you can operate and troubleshoot all of the meter runs and injectors at the lane.

Reduce Load Rack Clutter and Wiring

Naturally, with one MultiLoad II RCU controlling an entire lane, the load rack is less crowded, giving you more space and less clutter. **Wiring for all of a lane's field devices is located in a common, spacious enclosure.**



Typical MultiLoad II Installation

Unprecedented Flexibility

The MultiLoad II offers unprecedented flexibility to ideally handle a variety of applications and blending schemes. In addition, the MultiLoad II can function in two different modes:

Remote Mode - The MultiLoad II works in conjunction with Toptech's TMS or other terminal management system.

Stand-alone Mode - The MultiLoad II functions as an independent load rack control system.

Product Options to Fit your Needs

MultiLoad II provides a variety of platforms, fitting virtually any application!

Functional Platforms

MultiLoad II Package

The MultiLoad II Package consists of a MultiLoad II RCU and a number of external Flow Control Modules (FCM). One RCU is required for each lane. The RCU II serves as card reader, load arm (preset) controller and additive controller for the entire lane. The FCMs provide the I/O to operate all meters, valves and injectors at the lane.

The MultiLoad II Package is ideal for environments that utilize complex blending schemes and have significant I/O requirements.

MultiLoad II 1-arm

MultiLoad II 1-arm consists of a special MultiLoad II RCU appointed with internal I/O. This cost-effective package is ideal for applications that require minimal I/O.

The MultiLoad II 1-arm is ideal for less complex applications that require product delivery through a 1-arm bay. Suggested applications include: Asphalt, Propane, simple gas or diesel loading with additive injection, and product offloading. This flexible package can utilize additional FCMs if future I/O needs increase.

MultiLoad II SMP

The MultiLoad II SMP is an economical package designed to handle single arm, straight product loading with additive injection capability. This unit consists of a compact, explosion-proof enclosure with an active matrix QVGA (320x240) display and numeric keypad.

This solution is ideal for bulk plants, shipping docks, or any environment that requires single/straight product loading. The SMP is well suited for applications such as: refined product racks, AvJet distribution, lube oils, chemical loading, LPG, fleet refueling, truck offloading, and barge loading.

Enclosure Options



Division 2 Enclosure

1

Features

- Alphanumeric Keypad
- Card Reader
- 8.4" (Diagonal) Color Display

Compliance Information

- UL Listed Class 1
 - Division 2
 - Groups C & D
- CE Marked
- Group IIB
 - Category 3G



Explosion Proof Enclosure

1

Features

- Alphanumeric Keypad
- Card Reader
- 6.5" (Diagonal) Color Display

Compliance Information

- UL Listed Class 1
 - Division 1
 - Groups C & D
- Inmetro Certified
- ATEX Certified Group IIB
 - Category 2G



EXL Enclosure

1

Features

- Numeric Keypad
 - Alpha Functionality
- Card Reader
- 5.7" (Diagonal) Color Display

Compliance Information

- ATEX Certified Group IIB
 - Category 2G



SMP Enclosure

2

Features

- Numeric Keypad
- 4" (Diagonal) Color Display

Compliance Information

- UL Listed Class 1
 - Division 1
 - Groups C & D
- Inmetro Certified
- ATEX Certified Group IIB
 - Category 2G

1

Available with MultiLoad II Package and MultiLoad II 1-arm Functionality

2

Available with MultiLoad II SMP Functionality Only