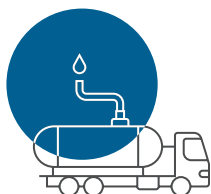




# Automation Systems for Oil Depots and Chemical Plants

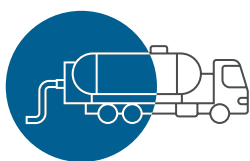
Engineered Solutions  
for Liquid Assets

As the world's energy requirements change to more sustainable sources, the technology and control solutions must adapt to meet these demands. The ability to safely and accurately measure increasingly varied products, in the petrochemical industries, is becoming more critical. Alternative fuels are driving the industry forward and Contrec's systems can adapt easily to these changing requirements.



### **Tanker Loading – LoadPro®**

LoadPro® is a Single Arm Load Controller. Ideally suited to smaller fuel depots and chemical plants, LoadPro® provides a safe and accurate solution for loading fuels, chemicals and other liquids into tankers. Easily integrated with Datamod™ Contrec's simple to use reporting software or most commercial TAS systems, the fully numeric keyboard allows easy configuration and operation of all loading operations. The frequency flow input, from volumetric or mass flowmeters, can accept a quadrature signal for ISO 6551 level B pulse security and temperature, pressure and/or density inputs can be used to provide volume correction. The controller can load on Gross or Net Volume(s) or Mass preset quantities.



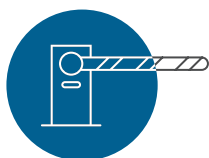
### **On-Truck Unloading – Trac-50**

For metering off the truck, Contrec's new advanced Truck Register, Trac-50 ensures every drop is accounted for when delivering your valuable assets. Our instruments are approved to international metrology standards when used as part of an approved metering system and can be supplied as cab/field mounting (safe area) or trailer mounted where hazardous area approvals are required. Our new Trac-50 is an intelligent off-loading controller for the safe and accurate discharge of chemicals, fuels and other liquids from trucks, railcars, barges and portable metering trolleys. Superseding the popular Trac-40, the new model comes with a host of new features and communication options to make off-loading of these expensive commodities safe, secure and fully traceable.



### **Aircraft Refuelling – LoadPro®/Trac-50**

For aircraft refuelling applications Contrec's LoadPro® Load Controller can significantly improve customer service, management efficiency, and accuracy of aviation fuel movements. Automating meter readings and associated transactional data at the fuel truck/fuelling depot and seamlessly interfacing data directly into your accounting software for real time fuel accounting. Wireless data transfer as well as printed tickets eliminates manual meter readings and the errors associated with transposed numbers on the original ticket, lost or illegible tickets as well as data entry errors into the accounting system.



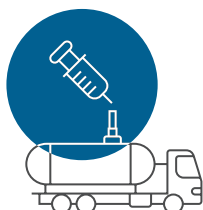
### **Site Access – 515-SA01**

In the strive for efficiency and flexibility, many sites are required to be operational 24 hours a day, 7 days a week but not necessarily manned during that time. Our Site Access Controller is a reliable and practical solution to provide secure controlled access to restricted or hazardous sites. Safe and authorised access is the paramount focus of this controller which can operate in integrated security systems or as a standalone instrument. Drivers are issued with a suitable 'RFID card, Touch Key or PIN number which they present to the SA01 Gate Access Controller upon arrival at the gate. The 'gate access system' will check that the driver has the necessary clearance, and will then initiate the gate mechanism to open, allowing entry to the site.



### **Fuel Blending – 515-CB01/02**

As the pressure for HVO blended fuel increases to reach government targets, Contrec's range of blending and ratio controllers provide a secure, reliable and accurate solution. Our 515-BR and 515-CB applications offer secure blending flow control designed to measure the volume flow in a main and process line using frequency flow inputs to determine the net volume flow. The operator can easily view and change the batch values of totals as well as the ratio of flow rates. The flow rate, deadband and control responsiveness can be adjusted to reduce wear on valves and plant.



### **Additive Injection – AC01 & TA02**

In today's competitive environment, fuels need to be adapted to provide increased efficiency and performance, in addition to this in some cases fuels need to be denatured or have marker dye introduced to signify differing levels of tax duty. Contrec's blending and additive control systems provide the ideal solution to these varied and often difficult fluids to measure. The Contrec 515-TA01/02 Dual Channel On-Truck Additive Batch Controllers are designed to allow an operator (driver) to pre-dose the appropriate amount of either of two additives into tanker compartments in accordance with the Load schedule.

Operating either from the control room or in the hazardous area at the point of loading, our flow controllers ensure you get the correct blend in every compartment, on every truck, every time.

Single Arm  
Explosion  
Proof Load  
Controller



## LoadPro®

### Single Arm Load Controller

For Volumetric or Mass Frequency Flowmeters, the LoadPro® Load Controller has a range of application packs tailored to the various requirements found in single arm loading systems. It is a simple to use numeric controller with the capabilities for Dual Stage Relay, Digital Valve Control or Analogue Valve/VSD drive for the reliable and accurate delivery of preset quantities of liquid products. The frequency flow input, from volumetric or mass flowmeters, can accept a quadrature signal for ISO 6551 level B pulse security along with pressure, temperature and/or density inputs can be used to provide volume correction to recognised national standards.



IP65 Enclosure

Delivery of  
Fuels and  
Chemicals off  
the Truck



## Trac-50

### Intelligent Off-Loading Controller

The Trac-50 Electronic Truck Register is designed for Custody Transfer applications where the point of sale is from the truck/barge. It is a simple to use 5-key register with the capabilities of On-Off/Unload or Preset dual-stage delivery control for the reliable and accurate recording of preset or manually controlled quantities of liquid products. The frequency flow input, from volumetric flowmeters, can accept a quadrature signal for ISO 6551 level B pulse security and temperature and/or density inputs can be used to provide volume correction for a range of fluid groups, including LPG and general petroleum.

Please refer to data sheet for further information or contact our sales team.

Reliable,  
Secure Access  
Control to  
Restricted  
Sites



## 515-SA01

### Site Access Controller

The Contrec 515-SA01 Site Access Controller provides secure controlled access to restricted or hazardous sites. Safe and authorised access is the paramount focus of this controller that can operate in integrated or standalone installations.

In standalone mode the entered ID-Code is checked against an internal 'white' list, while in the integrated mode the ID-Code is passed via serial communication to a supervisory system to be checked against an external 'white' list before access authorization is sent back to the 515-SA01. ID-Codes can be entered as a PIN number via the numeric keyboard or via Touch Keys or RFID cards.

Accurate  
Blending  
of Liquids



## 515-CB01/02

### Secure Blending Controller

Ideal for blending of fuels and liquids, the 515 CB01/02 measures the blending flow in main and process line using frequency flow inputs. It can operate in PRESET, ON-OFF (manual) and RELEASE mode of operation. The latest mode allows for easier tuning of the control loop. The main and process flows are used to determine the net volume flow. The operator can view the proportion of totals as well as the ratio of flowrates. The control of the process flow is via a digital control valve which will accurately maintain the desired flowrate. The flowrate deadband and control responsiveness can be adjusted to reduce wear on valves.



Ex Enclosure



## Dosing of Additives and Chemicals during Loading



### 515-AC01

#### Additive Controller for Volumetric Frequency Flowmeters & Stroking Dosing Pumps

Contrec's AC01 Additive Controller has been designed to control the injection of additive chemicals with respect to a main flow.


Tailored for volumetric frequency flowmeters it will operate with a range of stroking dosing pumps controlling the dosing rate via either an output pulse or 4-20mA signal.

The instrument will calculate a Target Stroke Rate and the intervals of main volume at which a Stroke Output Pulse will be generated based on the dosing pump parameters and the process ratio set point, programmed in PPM (parts per million).

The additive flow is monitored and measured along with the main flow to continuously calculate the overall Process Ratio and the Sample

Ratio that provides a faster 'real time' PPM value of the dosing chemical. There are flow and deviation exceptions, alarms and a permissive that can be used to help maintain control and integrity of an additive injection system.



 Enclosure

Please refer to data sheet for further information or contact our sales team.

## On-Truck Dosing of Additives



### 515-TA02


#### Dual Channel, On-Truck Additive Batch Controller

The 515-TA02 allows an operator (driver) to pre-dose the appropriate amount of either of two additives into tanker compartments in accordance with the Load schedule.

The amount to be dosed is calculated from an entered fuel load quantity and a selected Product Code that is linked to an internal PPM dosing table.

Each channel (LINE) on the controller can accept a single frequency input from a volumetric flowmeter and has its own dual stage batch control functions. The 515-TA02 has a highly configurable start sequence that can guide even the most inexperienced operators through the dosing process. Prompts for ID Authorisation, a Permissive and a Job Number can all be enabled or disabled to suit the application. The controller can also be programmed to raise and record errors such as Emergency Stop, No-Flow, Overflow and Leakage.

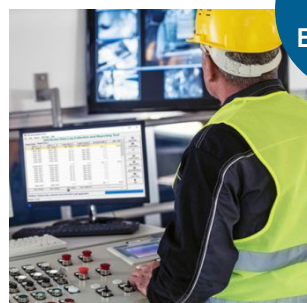


 Enclosure

The controller's Load sequence allows the required additive pre-dosing to be carried out compartment by compartment and for each compartment number to be entered in line with a master loading schedule.

## DataMod Tool

### Simple Data Extraction



The Contrec DataMod Tool allows engineers and managers to quickly and easily keep up-to-date with what's happening in their plant. No need for expensive, customised SCADA packages. DataMod is a one-size-fits-all solution which allows you to extract critical live or logged operating data from your Contrec 515 instruments installed in the field and to generate reports and spreadsheets quickly and easily.

In Batch or Load applications, DataMod can continually monitor the 515 controller and allow managers of single standalone systems to automatically generate and print a default or customised report (Delivery Docket) at the end of a delivery. This becomes a highly economical and efficient way to generate accurate and professional reports on the computer's existing office printer. For Load applications, Bill of Lading style report templates are provided as part of the standard DataMod install.



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