FastFill

Electronic Fuel Delivery & Fleet Usage System

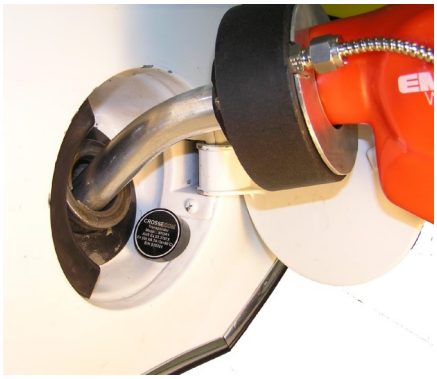
CROSSECOM

RETAIL FUEL SOLUTIONS
CARD PAYMENT SYSTEMS
RFID APPLICATIONS

Product Features

FastFill

- ◊ uses RFID contactless technology to eliminate card based systems fraud
- ◊ holds Australian Government Testing Authority issued "Certificate of Intrinsic Safety"
- ◊ is an innovative automatic vehicle identification and fuel monitoring system
- ◊ speeds up fuelling vehicles at the pump
- ◊ eliminates fumbling for a wallet or purse
- ◊ uses passive batteryless tag requiring no connection to the vehicle electrical system
- ◊ requires no hole drilling in the vehicle body
- ◊ it is simple, quick and inexpensive to fit, requires little downtime



- ◊ has virtually unlimited life for batteryless vehicle tag
- ◊ tags are rendered inoperative if removed from vehicle
- ◊ RFID antenna can be fixed to hose nozzle and/or mounted on pump for optional driver identification

- ◊ optional pinpad odometer reading entry
- ◊ optional interface to automatic tank gauges
- ◊ optional connection to financial institutions e.g. VISA or fleetcards

- ◊ minimises driver and filling attendant intervention
- ◊ reduces fuel shrinkage
- ◊ optimises control over fuel sales
- ◊ reduces vehicle queuing time
- ◊ improves fleet fuelling security
- ◊ ensures correct fuel pumped
- ◊ ensures only authorised vehicles are fuelled
- ◊ allows budgeting of fuel usage for individual vehicles or groups
- ◊ eliminates need for logbook documentation
- ◊ provides full audit trail
- ◊ allows emergency fillings of non-authorised vehicles when necessary-with full audit

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System Components

VEHICLE TAG

This is a small batteryless electronic data storage unit (20-50mm in diameter) epoxied to the vehicle near the fill pipe. It can contain information such as vehicle details, owner identification, driver identification, fuel type etc. The tag uses RFID contactless communication techniques to release its details to the authorising reader. This technique employs two-way authentication allowing only genuine authorised tags to ensure the correct fuel is pumped into the authorised vehicle.
To prevent fraud, a high security challenge and response crypto-algorithm is used.

ANTENNA / READER

The antenna, mounted conveniently on the dispensing nozzle spout, comprises a small loop antenna with its low power electronic components. It is connected to the reader (mounted inside the pump housing) via a special petroleum resistant cable.
An optional panel reader (with or without pinpad for odometer entry if required) can be mounted on the pump itself for driver identification purposes. It can also be used to authorise fuel deliveries if the additional security offered by the vehicle mounted tag is not required.

SITE CONTROLLER

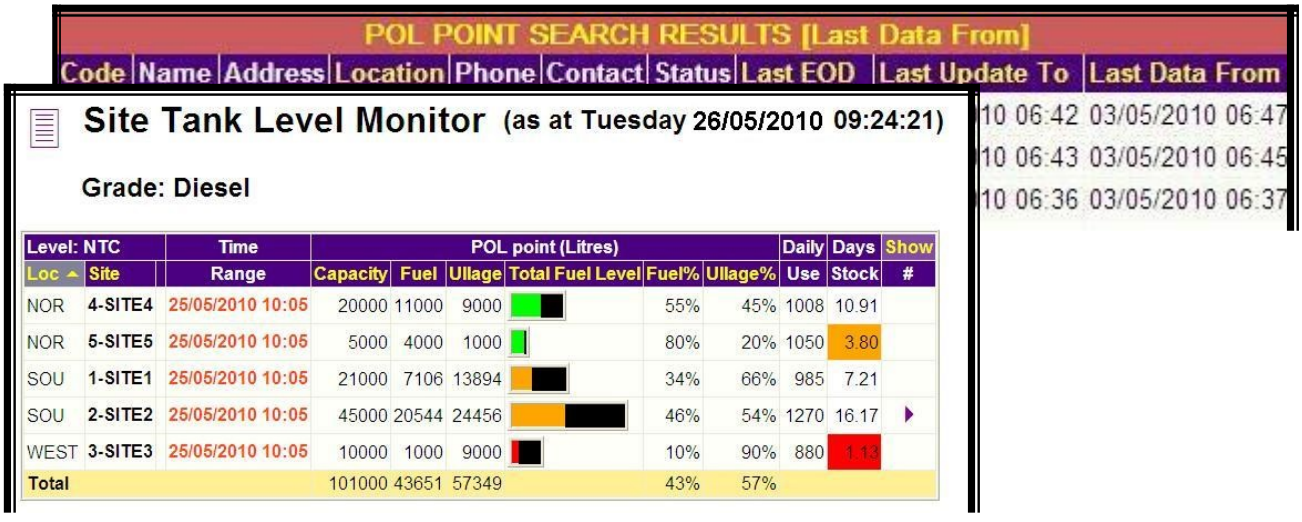
The Site Controller stores information on all authorised vehicles and their respective owners as well as the fuelling requirements for each vehicle.
This information is continually updated and shared between all service stations on the network. The site controller interfaces with all station devices/outlets such as tag readers, pump controllers, tank gauges, C-Store tills etc. The Site Controller checks the data obtained from the tag against available information on that particular vehicle and , if necessary, initiates automatic communication with the company's head office, banks etc. to obtain authorisation. In the case where the vehicle is not authorised for fuelling or if it has been reported stolen or missing, a suitable alert can be raised.
This system enables vehicles to be fuelled even if communication with the Head Office system is temporarily unavailable.

HEAD OFFICE

The Head Office System comprises a number of different applications that control the overall operation. These applications are responsible for the central price file maintenance, tag information database & authorisation process as well as the production of various management reports.

REPORTS

A wide range of reports of reports is available from the system as well as having the ability to download / export to .csv file format for further analysis in tools such as Microsoft Excel. Dashboard reports also graphically display key management data such as fuel stocks and estimated days of stock remaining.



POL POINT SEARCH RESULTS [Last Data From]

Code	Name	Address	Location	Phone	Contact	Status	Last EOD	Last Update To	Last Data From
								10 06:42	03/05/2010 06:47
								10 06:43	03/05/2010 06:45
								10 06:36	03/05/2010 06:37

Site Tank Level Monitor (as at Tuesday 26/05/2010 09:24:21)

Grade: Diesel

Level: NTC		Time	POL point (Litres)						Daily	Days	Show
Loc	Site	Range	Capacity	Fuel	Ullage	Total Fuel Level	Fuel%	Ullage%	Use	Stock	#
NOR	4-SITE4	25/05/2010 10:05	20000	11000	9000		55%	45%	1008	10.91	
NOR	5-SITE5	25/05/2010 10:05	5000	4000	1000		80%	20%	1050	3.80	
SOU	1-SITE1	25/05/2010 10:05	21000	7106	13894		34%	66%	985	7.21	
SOU	2-SITE2	25/05/2010 10:05	45000	20544	24456		46%	54%	1270	16.17	
WEST	3-SITE3	25/05/2010 10:05	10000	1000	9000		10%	90%	880	1.13	
Total			101000	43651	57349		43%	57%			

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CROSSECOM **FastFill**

Benefits of FastFill

to Fleet managers / owners

- ◊ ensures paying only for fuel actually pumped into vehicle
- ◊ better monitoring of fleet fuel consumption
- ◊ improved data collection
- ◊ reduced errors due to minimised human intervention
- ◊ elimination of plastic cards or paper coupons
- ◊ minimisation of fuelling to non-authorised vehicles
- ◊ elimination of stolen cards problem
- ◊ reduced disputes on unauthorised fuel transactions
- ◊ reduction of manpower requirements
- ◊ better market information
- ◊ improved customer loyalty
- ◊ increased market share due to improved service
- ◊ enhanced company image
- ◊ 24x7 operation if required
- ◊ auditable "Super tags" allow filling of un-tagged vehicles
- ◊ EVERY LITRE PUMPED IS AUTOMATICALLY RECORDED TO AN AUTHORISED TAG OR SUPER TAG

to drivers / customers

- ◊ reduced queuing time and instant approvals
- ◊ elimination of interaction with pump attendant
- ◊ elimination of signed chits or plastic cards
- ◊ elimination of cash transactions
- ◊ eliminates necessity for logbooks

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SOME OTHER PRODUCTS AVAILABLE FROM CROSSECOM

ISSAS — Integrated Service Station Accounting System comprising a comprehensive suite of applications covering the full range of retail automation requirements.

CrossEGAUGE — Automatic Tank Gauging System. Fuel tank monitoring and management, utilising Cloud or Stand-alone mode.

CrossESEAL — Sealed Parcel Delivery System. Protects and tracks bulk fuel transportation and delivery.

FastFill — Electronic Fuel Delivery and Fleet Usage System. Utilises state of the art RFID technology. Certified Intrinsically Safe.

VeriFill — Stand-alone fuelling authorisation, monitoring and recording system. Fits to any electronic pump.

MobiFill — Mobile Tanker Fuelling Station. Update and monitor fuelling details and locations from anywhere in the world.

RECARD — Fleet Fuel Accounting System. Issues cards, statements and reports. Secure Cloud Server.

Custom Hardware — Design and production of unique and specialised components for the forecourt.

CROSSECOM

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CARD PAYMENT SYSTEMS
RFID APPLICATIONS
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