

PETRO AutoFuel FLUIDS MANAGEMENT

FUELING AUTOMATION

WIRELESS CONTROLLER FOR FUEL MANAGEMENT SYSTEMS (FMS)

- Relays information read by Vehicle RFID Tag to Fuel Management.
- Triggers fuel dispersion based on FMS decision rules.
- Multiple interface connection options available.



The HID Global iPETRO AutoFuel Wireless Controller is a device that receives data from the iPETRO AutoFuel Vehicle Tag and forwards this information to a central Fuel Management System (FMS - iPETRO Pro). The FMS software decides if and how much fuel to be dispensed based on received information and the configured business rules. The result is submitted back to the fuel pump or the Wireless Controller for execution. Using a variety of interface standards including Ethernet, RS485, RS232, Wiegand or USB, the IWC can integrate with third-party systems intended for product transfer, fueling automation or access control.

KEY TECHNOLOGY HIGHLIGHTS:

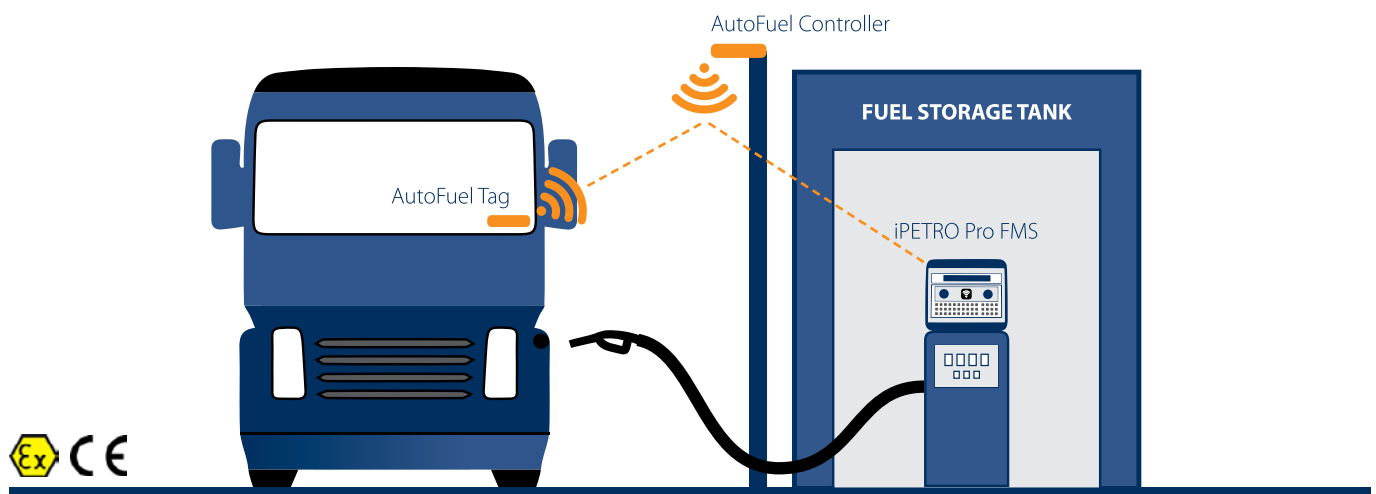
- Simple installation.
- Outdoor environment resistant housing.
- Multitude of connectivity options.
- Triggers fuel dispersion based on FMS decision.
- Encrypted communication to Vehicle and Nozzle Units.
- In-field firmware upgradeable.

The Wireless Controller utilizes an encrypted communication channel to the iPETRO Vehicle Tag and covers a distance of up to 328 ft (100 m). Firmware upgrades are easily, possible post installation, to keep the controller up to date. Two separate relays allow triggering external devices. The iPETRO AutoFuel Wireless Controller may either be embedded into other system components at the fueling site or be mounted externally by utilizing the optional waterproof housing.

TYPICAL APPLICATION AREAS:

Fueling stations for:

- Construction vehicles.
- Trucks.
- Bus coaches.
- Any other commercial fleet vehicles.



PETRO SecureFuel FLUIDS MANAGEMENT

FUELING AUTOMATION

Nozzle Unit 2

UNIVERSAL LOW FREQUENCY RFID READERS TO FIT ON FUELING NOZZLES

- Reads vehicle tag and identifies vehicle to the Fuel Management System.
- Automatic activation and standby mode via motion sensor.
- Supports a range of standard filling nozzles.



The HID Global iPETRO SecureFuel Nozzle Unit 2 is a ruggedized, intrinsically safe RFID reader, used for Fueling Management Systems (FMS). The unique ring-mount design allows durable fixation on a wide range of fuel filling nozzles. The unit turns a filling nozzle into an RFID reader that is automatically activated when the nozzle is tilted.

The Nozzle Unit is designed to work in combination with iPETRO SecureFuel Vehicle Tag as RFID for the Fuel Management System.

As soon as the Nozzle Unit detects a corresponding vehicle tag, the tag's unique ID and required fuel information is sent

via an encrypted channel to the iPETRO Pro Terminal (FMS), which decides if and how much fuel to dispense. Once the nozzle is removed from the vehicle, and the vehicle tag can no longer be read, the Nozzle Unit notifies the FMS to stop the fuel dispersion. The iPETRO SecureFuel Nozzle Unit includes a dual-color led that indicates whether the unit is operational and a tag was successfully read. The rugged housing makes the Nozzle Unit resistant to typical fueling environments and rain water. Its tamper evident removal detection feature prevents potential fuel theft.

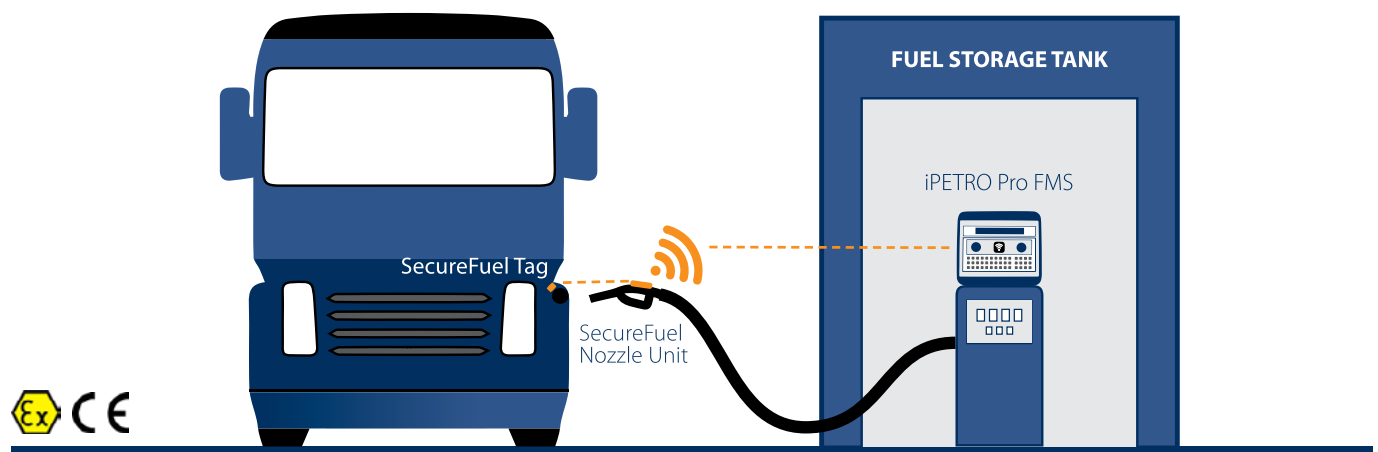
KEY TECHNOLOGY HIGHLIGHTS:

- Simple installation on various existing nozzles.
- Encapsulated, antistatic and anti-tamper design.
- ATEX / IECEx compliant.
- Multi-year battery life.
- Wireless operation incl. remote firmware update.
- Motion sensors to optimize battery life.

TYPICAL APPLICATION AREAS:

Fueling stations for:

- Construction vehicles.
- Trucks.
- Bus coaches.
- Any other commercial fleet vehicles.



SPECIFICATIONS:



	Nozzle Unit 2
Base Model Number	FNU900-1-1-GB-XX
ELECTRONIC	
Operating Frequency to Wireless Controller	433.92 MHz
Operating Frequency to Vehicle Tag	121kHz – 129kHz
Max. Distance to Wireless Controller	328 ft (100m)
Power Supply	2 x 2.5 Ah Lithium Thionyl Chloride Batteries
Power Supply Lifetime	~3 years battery life @ 200 minutes per day operation
PHYSICAL	
Dimensions	3.71 x 5.17 x 2.54 in (94.4 x 131.3 x 64.6mm)
Mounting Method	Screw
Fits to Nozzle Type (different sets of fixation rings available to match target nozzle)	Elaflex, SL1 (ER 242.1T, ER 242.1, ER 242.2), Elaflex, SL2 (Vapour Recovery, ER042.1), Elaflex, ZVA Adblue (HV, LV) OPW (OPW11, OPW7H) OPW, Avance Gas + Vapour Recovery OPW, Avance, Diesel OPW, 12VW Husky (1A, VIII)
Housing Material	Glass filled Nylon (PA6)
Color	Black
Weight	8.1 oz (230g)
CHEMICAL AND MECHANICAL RESISTANCE	
Water	IP66
Withstands Exposure To	Fuel B, mineral oil, petroleum, salt mist, vegetable oil
Environmental Test Conditions	68° F (20° C), 100 h
Humidity	0 to 95% relative humidity at +104° F (+40° C) non-condensing
Drop Test	1 m (3.28 ft) drop (in packaging)
THERMAL	
Storage	-40° to +176° F (-40° to +80° C)
Operating	-13° to +140° F (-25° to +60° C)
OTHER	
Standards	ETSI 300 220, ETSI 300 330, EN 1127-1:2007, EN 1127-2:2002+A1:2008, EN 60079-0:2009, EN 50303:2000, EN 60079-11:2007, ATEX/IECEx (Ex ia IIB T4 Gb)
User Interface	Bi-color indication LED
Specialities	Tamper removal detection; custom branding
Quantity Per Box	2 pcs.
Warranty	2 years

SPECIFICATIONS:



	Wireless Controller IWC 900	Housing IWE 901
Base Model Number	IWC900-0-1-GB-XX	IWE901-0-0-GB-XX
ELECTRONIC		
Operating Frequency to Vehicle Unit and Nozzle Reader	433.92 MHz	N/A
Network Connector	RJ-45 10/100 Mbps	N/A
USB Connector	USB 2.0 mini-b	N/A
Serial Connector	RS-485 / RS-232	N/A
Magnetic Stripe Connector	Wiegand	N/A
Power Supply Voltage	10 V DC to 30 V DC, polarity sensitive	N/A
Power Supply Current	300 mA	N/A
PHYSICAL		
Dimensions	5.7 × 6.69 × 2.48 in (145 × 170 × 63mm)	7.67 × 7.48 × 3.34 in (195 × 190 × 82 mm)
Mounting Method	Screw	Screw
Housing Material	N/A	ABS Plastic
Housing Color	N/A	Grey
Weight	6.2 oz (177g)	16.4 oz (466 g) housing only
CHEMICAL AND MECHANICAL RESISTANCE		
Water	N/A	IP67, 68° F (20° C), 1 m × 1 h
Humidity	0 to 95% relative humidity at +104° F (+40° C) non-condensing	0 to 95% relative humidity at +104° F (+40° C) non-condensing
THERMAL		
Storage	-40° to +176° F (-40° to +80° C)	-40° to +176° F (-40° to +80° C)
Operating	-13° to +140° F (-25° to +60° C)	-13° to +140° F (-25° to +60° C)
OTHER		
Standards	IEC61000-4-2:1995 + A1:1998 + A2:2000, IEC61000-4-3:2006, EN301489-1 V1.8.1:2008, EN301489-3 V1.4.1:2002, EN55022:2006 Class B, ETSI EN 300 200-1 V2.3.1:2010/02, EN60950-1:2006 + A12:2011	N/A
Options	External LF reader for ID badge identification	N/A
Quantity Per Box	1 pc.	1 pc.
Warranty	1 year	1 year

PETRO Sales & Service Contact Information

AUSTRALIA

Australia HQ

Factory 2, 106 Potassium Street

PO Box 407

Narangba QLD 4504

P: 1300 987 789

E: sales@petroindustrial.com.au

INTERNATIONAL BRANCHES

AFRICA

South Africa

Factory 14 Bentonite Street

Alrode, Alberton, Johannesburg

South Africa

P: +27 (0)11 864 7758

F: +27 (0) 11 864 1649

E: sales@petroindustrial.co.za

MIDDLE EAST

Dubai

Office LB17233, Lobby Building 17

Jebel Ali Free Zone

PO Box 18602

Dubai, United Arab Emirates

P: +971 488 76688

E: salesuae@petroind.com

PETRO INDUSTRIAL



petroind.com