

# AUTOMATIC VEHICLE IDENTIFICATION SYSTEM (AVI)

Contactless refuelling and payment solution



- ✓ Exceptional loyalty for oil companies
- ✓ Maximum savings for fleets
- ✓ Relevant system in today's challenging times
- ✓ Increase customer loyalty

Keeping the world moving.



**GILBARCO  
VEEDER-ROOT**



# No cards. No cash. No problem.

Automatic Vehicle Identification (AVI) ensures the safety of your customer and employees by enabling contactless payment.

AVI is a wireless, battery-less, passive RFID tag which is installed on the vehicle and provides a tight bond between a vehicle, the flow of fuel, and the account.

Suitable for both self-service and forecourts with station attendants. A relevant solution for today's challenging times and tomorrow's refuelling experience.



**Solves**  
business problems



## Why AVI?

- Provide a unique offering that benefits fleets, ensuring they stay loyal.
- Make the fueling transaction, payment, and invoicing process easy, safe and convenient
- Build new revenue streams (offer accounts, services, deliver data, and invoicing fees)
- Benefit from pre-paid accounts (the float)
- Understand customer buying behaviours
- Provide targeted customer offerings (discounts, account types, etc.)



# Solves business problems



## For Forecourts

- Provide a unique offering that benefits fleets, ensuring they stay loyal.
- Make the fuelling transaction, payment, and invoicing process easy and convenient
- Build new revenue streams (offer accounts, services, deliver data, and invoicing fees)
- Benefit from pre-paid accounts (the float)
- Understand customer buying behaviours
- Provide targeted customer offerings (discounts, account types, etc.)



## For Fleets

- Ensure fuel goes into your vehicles (eliminate fraud, lower costs)
- Eliminate manual back office tracking process (all automated reporting)
- Simplify fuelling process for drivers
- Automatically collect and report vehicle / engine data (ID maintenance issues, stop tank siphoning)

# Benefits



## Safety & Security

No human intervention (faster, simpler, more accurate) or interaction ensures safe social distancing

Security that fuel goes into correct vehicle (protect fleet owner costs)

Sends alerts on unusual behaviour and fuel consumption.



## Maximise Revenue

Provide a unique offering that benefits fleets, ensuring they stay loyal

Make the fuelling transaction, payment, and invoicing process easy and convenient

Build new revenue streams (offer accounts, services, deliver data, and invoicing fees)

Benefit from pre-paid accounts (the float)



## Control

Automated operations with real-time insight on fleet and fuel status.

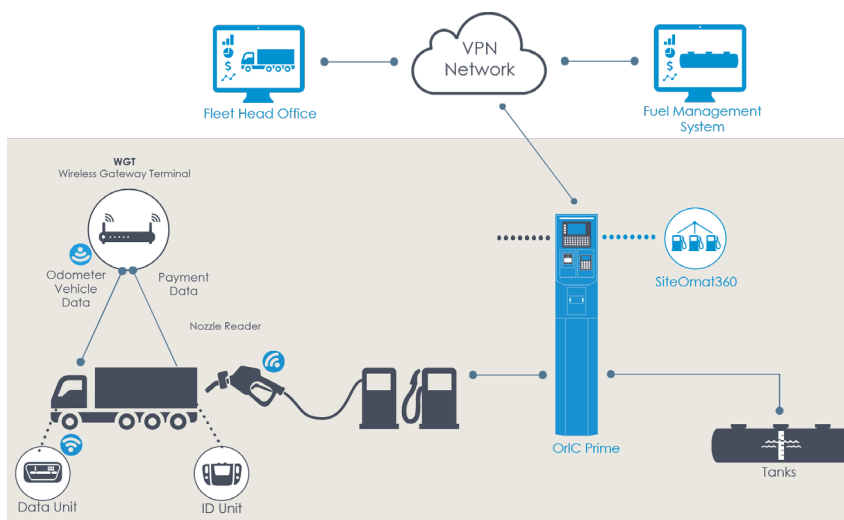
Complete control of fuel usage while reducing fuel expenses, misuse, and losses.

Automated, card-free system to enable fuel purchase at participating retail service station.

# ORPAK Automatic Vehicle Identification (AVI) System

## Contactless refuelling and payment solution

Orpak's Automatic Vehicle Identification (AVI) ensures the safety of your customer and employees by enabling contactless payment. Suitable for both self-service and forecourts with station attendants. A relevant solution for today's challenging times and tomorrow's refuelling experience.



## HOW IT WORKS

ORPAK AVI works through wireless communication and authorises dispensing when it identifies a vehicle that is fitted with an ORPAK AVI RFID unit.

Forecourts with station attendants can even provide a complete handsfree refuelling experience. Customers can opt to make pre-paid payment or direct bank charge through a simple online account setup.

# Technical Specifications

The following table provides technical specifications for the components of the AVI solution. Specifications are subject to change without notice

|                              | ID                             | DP   | μDP                            | WGT   | nNR  |
|------------------------------|--------------------------------|--|--------------------------------|---|--|
| <b>Dimensions (HxWxD) cm</b> | 4.2 x 2.3 x 0.78 (Nan-Opass)   | 7 x 5 x 1.5  | 2.2 x 4 x 1.7                  | 18 x 18.2 x 6.2 (outdoor box)<br>20.1 x 12.5 x 6.1 (integrated box) | 4 x 8.4 x 6  |
| <b>Wireless</b>              | RFID ISO 18000-2               | 3dbm (2mW), IEEE802.15.4 with proprietary mesh network |                                |   | 3dbm (2mW), IEEE802.15.4, with proprietary mesh network RFID ISO 18000-2 |
| <b>Frequencies</b>           | RFID, 108-131 kHz              | 2.405-2.480 GHz  |                                |   | 2.405-2.480 GHz<br>RFID, 108-131 kHz                                     |
| <b>Interfaces</b>            |                                | OBD-II CAN & K-LINE, J1708/J1587/ J1939/FMS            | OBD-II CAN & K-LINE            | LAN, RS485, RS232   |  |
| <b>Operating Voltage</b>     |                                | 9 - 32 VDC   | 9 - 16 VDC                     | 12 - 28 VDC<br>100 - 240 VAC w/p.s.                                 | 3.6 VDC  |
| <b>Operating Temperature</b> | -40° to +80°C (-40° to +176°F) | -40° to +70°C (-40° to +158°F)                         | -40° to +70°C (-40° to +158°F) | -40° to +55°C (-40° to +131°F)                                      | -40° to +60°C (-40° to +140°F)   |
| <b>IP Rating</b>             |                                |  |                                | IP66 (NEMA 4X) (outdoor box)  | IP67   |
| <b>Certifications</b>        |                                | FCC, CE, cETLus, E mark                                | FCC, CE, cETLus, E mark, UL    | FCC, CE, cETLus   | ATEX Group II 1 G, Ex ia II B T3 Ga, cLCus Zone 0                        |

\*Specifications are subject to change without notice

## Why choose AVI?

### ✓ Safe distancing

- Near-zero physical contact
- Contactless payment through charging account

### ✓ Efficient refuelling

- Automatically identifies and authorises refuelling for approved vehicles
- Monitor and manage refuelling

### ✓ Increase customer loyalty

- Encourage brand loyalty and repeat visits
- Easy refuelling and payment method

### ✓ Maximum security

- Fuel is dispensed only to authorised vehicles with valid charging account
- Secure RFID wireless communication system and management software
- Integration into existing forecourt controller and POS system





AVI provides more benefits and more control and ensures that fuel is dispensed only into authorized vehicles, thereby eliminating fraud and lowering costs.

## AVI Components

Automatic Vehicle Identification (AVI) ensures the safety of your customer and employees by enabling contactless payment. Suitable for both self-service and forecourts with station attendants. A relevant solution for today's challenging times and tomorrow's refuelling experience.



### Passive RFID tags

Secure chip consisting of encrypted identification and payment information. For any vehicle type.



### FuelOpass

High runner vehicle identification device with patented removal protection mechanism. For any vehicle type.



### NanOpass

An innovative passive RFID vehicle identification tag that contains RFID chip and antenna in one compact unit. Perfect for light vehicles.



### Wireless Network Gateway Terminal (WGT)

Offering powerful site coverage, the WGT seamlessly connects the AVI's components to the Station Controller.



### Data Units

Optional compact transmitters that connect to the vehicle's on-board computer to run diagnostics and report efficiency data. Available for both private/light vehicles to heavy commercial vehicles.



### Nano Nozzle Reader

A compact, self-contained nozzle reader that reads Orpak's RFID tags and wirelessly transmits data to the station for refuelling authorisation. Compatible with all common fuel nozzles.



## Automatic Vehicle Identification

**No cards. No cash.**  
**No problem.**

Find out how you could benefit from AVI payment.

Email: [euenquiries@gilbarco.com](mailto:euenquiries@gilbarco.com)  
Website: [www.gilbarco.com/eu](http://www.gilbarco.com/eu)

