## RFID Vehicle Identification Units



- Security
- 🧹 Control
- Verification
- Flow Management

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# Solve business problems.

Gilbarco Veeder-Root's FeuloPass and NanoPass RFID vehicle identification technology ensures that the vehicle is the means of payment, removing human intervention for improved security that the fuel you purchase is dispensed into the correct asset.

### Ultimate control.

#### No unauthorised refueling.

Gilbarco Veeder-Root's passive radio frequency identification (RFID) units consist of a secure chip which includes the vehicle's encrypted identification and payment information.

The units are installed next to the fuel inlet, and are read by the NanoNozzle Reader when the vehicle is being refuelled.



Decreases fuel expenses and fraud by fueling only authorized vehicles



Easily controls, tracks, and manages fleet consumption as well as refueling activity with alerts on irregular fueling or consumption patterns



Save fuel expenses & reduce fraud by fueling only authorized vehicles



Easy to control, track & manage fleet refueling activity and define vehicles, set limits &restrictions



A patented removal protection mechanism to eliminate risk of theft or fraud



- → Innovative, passive RFID vehicle identification.
- Contains RFID chip and antenna in one compact unit.
- → Vehicle identification device for light vehicles.
- → Does not require ring antennas around the fuel inlet.
- → Sophisticated patented security mechanisms and data encryption.

**Fuelo**Pass

- → Circular, passive vehicle identification device for refueling.
- → Protected by high-level data encryption.
- → Vehicle identification device for heavy vehicles.
- → Patented removal protection mechanism.



Pair with AccuTrip+ for location data and mapped trip logging.



#### **Technical Specifications**

The following table provides technical specifications for the vehicle identification units:

Environmental	FueloPass
Operating temperature:	-40° C to +80° C
Storage temperature:	-40° C to +85° C
Humidity:	95% (non - condensation)
Technology	
Working Voltage:	Low Frequency (125KHz) RFID chip   ISO 18000-2:2004
Physical	NanoPass
Dimensions:	42 x 23 x 7.8 mm
Weight:	8.1 grams
Humidity:	95% (non - condensation)
Environmental	
Operating temperature:	-40° C to +80° C
Storage temperature:	-40° C to +85° C
Humidity:	95% (non - condensation)
Technology	
Working Voltage:	Low Frequency (125KHz) RFID chip   ISO 18000-2:2004 Ferrite antenna
Communication	
IEEE802.15.4 Modem:	<ul> <li>→ DSSS/FA – Direct Sequence Spread Spectrum with Frequency Agility</li> <li>→ Supported Network Topologies: Propriety mesh network</li> <li>→ Channel Capacity:</li> <li>→ 16 frequency channels / 5MHz channel spacing</li> <li>→ Transmission Power Output: 2mW (3dbm)</li> <li>→ Reception Sensitivity: -101dbm</li> </ul>
Wireless Antenna:	→ Built in PCB Antenna
Wired Interfaces:	<ul> <li>→ OBDII – J2284/ISO15765 (CAN BUS)</li> <li>→ Data rate: 250Kbps / 500Kbps</li> <li>→ OBDII – ISO14230/ISO9141 (KLINE)</li> <li>→ Data rate: 10400bps</li> </ul>
	Highlights
Discover wi	nether the FueloPass or NanoPass is right for your fleet
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#### FueloPass Coil:

- → Designed to maintain a distance from metal surfaces
- Includes an ID chip connector and three support legs which can be easily glued.
- Intended for use in cases where an easy connection to the ID chip is required, mainly when the chip is close to the Nozzle Reader, e.g. private vehicles.

→ Connected to the ID chip by plugging the chip's connector to the coil's connector.



#### NanoPass Unit:

- → Typically installed next to the fuel inlet.
- → Minute size and ease of installation
   → Designed for mass deployment
- $\rightarrow$  Highly secure and tamper-proof,
  - including a tamper-resistant feature that disables the unit upon any attempt to remove it from the vehicle.
  - Contains an RFID chip and antenna in one compact unit,

## **RFID** Vehicle Identification



**Refueling Automation Solutions** 

Find out how you could benefit from our automation solutions.

Email: <u>GVR-mea-enquiries@gilbarco.com</u> www.gilbarco.com/mea

