



AUTOMATIC VEHICLE IDENTIFICATION

DataSheet



Features

- Automates activation of fueling system
- Detects when the nozzle is removed from the authorized vehicle, terminating the transaction to prevent fuel theft
- Can restrict fuel usage by fuel type and volume per vehicle / time
- Modular design allows for rapid installation and repair
- Requires no special technical skills to install or operate
- Easy to replace battery with a minimum of 12 months lifespan
- Provides notification in advance of battery replacement being required
- Multi Nozzle capable on Gilbarco, Wayne, Compac, TT and Tatsuno dispensers
- Suits most commonly available fuel nozzles and vehicles
- Housed in a tough, weatherproof enclosure
- Adjustable read range to suit application specific needs, via tag orientation
- Small easy to install RFID tags
- Extensive professional network of support

SmartFill GEN 2

SmartTag - Automatic Vehicle Identification

Introduction

SmartTag is the gold standard in nozzle-based fuel management systems, eliminating fuel theft while also reducing driver frustration from needless shutoffs.

SmartTag's fully automated, contactless system integrates the fuel nozzle with a unique RFID tag for each vehicle. The SmartTag reads the tag and reports it to the FMS. If authentication is successful, the fuel delivery is allowed to begin.

Innovative positional tracking technology prevents fuel theft by ensuring fuel delivering only occurs when the nozzle is in the authenticated vehicle. When the nozzle is removed from the fuel inlet, the fuel delivery is suspended or terminated.

SmartTag also offers greater reliability than contact-based systems that can be affected by dirt and other build-ups.

The SmartTag system is cost effective for rapid deployment across the entire fleet and comprises:

- Unobtrusive and easy-to-install vehicle RFID tags, ST1010
- SmartFill FMS with required pump control modules
- Comms Wireless module, SFM2055 – one per SmartFill
- Nozzle transceiver, ST1000 – one per nozzle.

The SmartTag advantage

Most other nozzle systems authenticate continuously. This can lead to frustration and delays when a driver needs to repeat the authentication process due to an unintentional fuel shutoff. Continuous authentication also tends to drain the battery on the nozzle in a relatively short time, leaving the system vulnerable to fuel theft.

SmartTag uses an inertial measurement unit (IMU) on the nozzle that removes the need for continuous authentication and prolongs battery life. It allows the system to detect nozzle movement and terminate the transaction before the nozzle exits the fuel inlet. If the nozzle is removed, replacing it in the inlet automatically starts a new authentication and delivery process without the need for re-entering a code.



- Simple vehicle authorization
- Easy to use, just like standard refuelling
- Robust nozzle design resists damage when dropped, dragged or run over
- Tracking of nozzle ensures fuel is only dispensed within the authorized fuel inlet
- Securely mountable vehicle RFID tag design

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- Minimum nozzle battery life of one year (for an average 40 transactions/day, every day, with an average transaction time of 5 minutes)

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Technical Specifications

Nozzle Reader Dimensions (H x W x D): 3.15" X 2.9" X 2.9" (80mm X 73mm X 73mm)	Reader: Inbuilt UHF reader - EPC Class 1 Gen 2 compatible
SmartTag Dimensions (H x W x D): 1" X 5/16" X 1/8" (25mm X 8mm X 4mm)	Read Distance: 4" to 20" (10 to 50cm) depending on orientation of SmartTag when installed
Battery Temperature Range: -67°F to 185°F (-55 °C to 85 °C)	Maximum Nozzles per system: 8 when used with a protocol system, but limited to 5 connecting at a time.
Power Supply: C size. 3.6 VDC 6Ah Li-SOCI2 Battery. Compliant with IEC86-4 safety standard	Nozzles Supported: <ul style="list-style-type: none"> ▪ OPW 1" 7-HB Diesel ▪ OPW ¾" 11A Diesel ▪ OPW 11AP Gasoline / Unleaded ▪ ZVA 25 Diesel ▪ ZVA Slimline AdBlue ▪ Husky X Diesel
Power Consumption: Sleep mode: -0A. Active: 10mA average	
Battery Life: 1 year minimum (average of 40 transactions/day, average transaction time of 5 minutes)	

Additional Equipment Required: SmartFill GEN 2 fitted with a SFM2055 Wireless Module.

