# LEADING BRAND PETROLEUM RETAIL SITE SOLUTIONS



# **EXPERTISE IN AFRICA SINCE 1984**

Vapour Recovery Units | Mobile Gravity Meters | Automatic Tank Gauging Equipment Flowmeters | Tank Monitoring Systems





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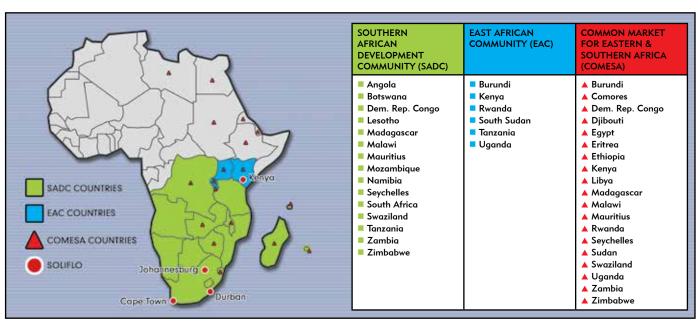
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## SERVICING SADC, EAC AND COMESA COUNTRIES



## **VAPOUR RECOVERY UNITS**

Increase your retail fuel margins with the VR Refiner Retail Site Vapour Recovery Unit (VRU), engineered to recover lost fuel vapour.

Installed into fuelling stations' vent systems, the VRU enables all displaced petrol vapours normally lost to the atmosphere to be processed, converted to fuel and returned to the storage tank for immediate resale.

The **VR Refiner** can be installed on a site without environmental controls in place or with stage 1 and stage 2 systems already installed. During normal site operation, the VR Refiner enhances site security and environmental control.



#### VR REFINER VRU MK3

An eco-investment that contributes to the bottom line from day one.

#### Benefits

- → Fast installation
- → Low cost
- → Easy to maintain
- Reduced carbon footprint







#### VRU SYSTEM PROCESS

- During normal site operation and tanker deliveries displaced petrol vapour moves from the Underground Storage Tank (UST) 3 through the manifold vents 4, 5 into the VR processing chamber 1.
- The multi-phase processing chamber is kept at very low temperature by the VR control module 2 which incorporates advanced refrigeration and sophisticated electronics. The vapour is condensed in the chamber back to fuel where it is stored at the base of the chamber.
- The vapour with fuel removed continues through the outlet pipe 6 towards the breather vent 8 and stage one tanker connection 7 if fitted.
- Process fuel is stored, measured and then returned to the UST for immediate resale via the fuel return line 9.



## **MOBILE GRAVITY METERS**

#### The Soliflo SOLIGrav® Mobile Flowmeter facilitates the gravity discharge of petroleum products.

A portable, compact custody transfer-approved metering device, **SOLIGrav controls the precise measurement of bulk fuel deliveries to retail sites.** 

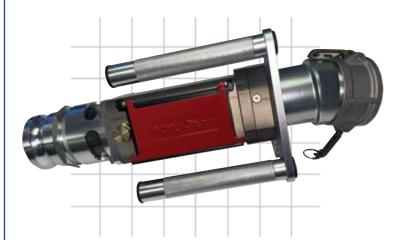
Utilising the advanced technology of the turbine, a user can simply and quickly control the volumes delivered to a station, make split deliveries and quantify by tracking product returns.

The electronic calculator is fitted with a large LCD waterproof screen and integrates Bluetooth for retrieval and geolocation of measurement data and calculator parameters.











#### SOLIGRAV MOBILE GRAVITY METER

Reducing the risk of fraud, **SOLIGrav applications** include:

Product metering on service station delivery operations | Tank truck, rail car product reception control | Partial or full compartment deliveries | Measurement of product returns

#### Benefits

- Quick, easy to use
- → Mobile & autonomous
- → Lightweight, compact
- Multi-products
- → No product retention
- Bluetooth connectivity
- Easy maintenance
- → Large LCD screen
- Heavy duty
- History data management
- Customised fluid parameters
- → Temperature monitoring



## AUTOMATIC TANK GAUGING (ATG) EQUIPMENT

Partnering with ALISONIC, we offer a comprehensive range of monitoring and gauge control solutions (Level Gauge and Fuel Measurement) for retail fuel stations.

ALISONIC has developed a complete tank management system for fuel retail distribution and depots. **This system is based on magnetostrictive level gauge technology,** the only system to guarantee a resolution of 0.01 mm.

All wired probes, intrinsically safe or explosion proof in underground or above tanks up to 20m, can fit the density float. The technology supports remote diagnostic and assistance, thus avoiding high costs associated with on-site assistance.

#### **MAGNETOSTRICTIVE LEVEL GAUGES**



# DELPHI RS485 WIRED MAGNETOSTRICTIVE PROBE

Intrinsically safe suitable for 0 zone.

#### Features

- High accuracy & repeatability
- → Reliability & robustness
- Sharp leakage control
- → Full stainless steel execution
- → Ultra-compact design
- → Measuring range 0.4m up to 5.5m



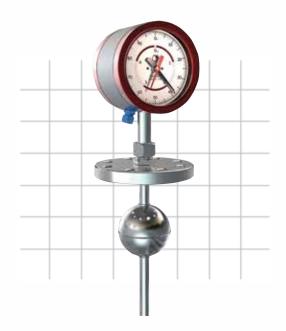
# DELPHI RDT WIRELESS MAGNETOSTRICTIVE PROBE

Intrinsically safe suitable for 0 zone.

#### Features

- Transmission frequency 169 MHz for safe & reliable data transmission from underground
- Battery powered
- Ultra-low power mode
- ▶ Data transmission up to 3 km on air
- → Battery life up to 7 years
- → No costs for cabling & digging
- → Fast & easy installation
- Compact design

#### **DIAL LEVEL INDICATOR -**



#### CYCLOPS CLOCKWORK DIAL LEVEL INDICATOR

For underground and above ground tanks, **applications include LPG tanks, bulk fuel stock management and petrochemical plants.**Power supply not required, remote communications, ATEX compliant.

#### Three models available:

- CYCLOPS 03 measuring range up to 3 m res 10 mm
- CYCLOPS 05 measuring range up to 5 m res 2.5 mm
- CYCLOPS 25 measuring range up to 25 m res 2.5 mm

#### Technical Features

- Indicator / transmitter / switch
- → IP65 aluminium case
- → Wide range of stainless steel & resin floats
- → Tank connections: threaded, flanged
- → Stainless steel pipe 20/40 mm; or flexible corrugated pipe
- → Accuracy +/- 2.5 mm
- → Repeatability +/- 1 mm

#### **MONITORING CONSOLES -**

**Automatic Tank Gauges for Service Stations & Depots** 



#### SIBYLLA MONITORING CONSOLE

#### Main Features

- ➤ Wet stock management up to 36 tanks
- → Wide graphical display 7" TFT touch screen
- Easy, smart configuration tools local or web interface
- Interface protocols with main communication protocols
- Automatic reconciliation
- Dynamic & static leakage
- → Tank auto-calibration
- → Deliveries, trends, events, alarms recording
- → Pressure Level Leak Detection (PLLD) management
- → Display shows: Product level/mm
- → Interface level/mm (water presence detection)
- → Real & compensate volume at 15°C in litres
- → Product mean temperature 5 temp. sensors
- → Volume of empty part in litres (ullage)



#### HELIOS TFT MONITORING CONSOLE

#### Main Features

- Display manages up to 4 tanks
- → Colour 3.5" TFT touch screen display
- → Tank strapping table (100 linearisation)
- → Display shows: Product level/mm
- → Interface level/mm (water presence)
- → Real & compensate volume at 15°C in litres
- Product mean temperature 5 temp. sensors
- → Volume of empty part in litres (ullage)

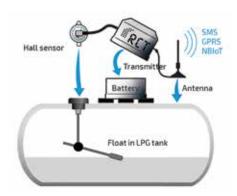
## REMOTE MONITORING SYSTEMS FOR TANKS

Remote Control Technology (RCT) has developed proprietary hardware and software solutions that enable retail fuel station operators to digitalise their tanks and remotely monitor their levels.

All RCT's LPG and Oil data collection and transfer systems, and data management and analyses systems, can be customised in accordance with individual operator needs.







#### LEVELVIEW, PRO. LPG

# LPG & GAS TANKS WITH HALL EFFECT SENSOR (EX ZONE 1/0)

For use with LPG tanks above/below ground. Contactless fill level measurement by way of magnetic field.

GPRS | 4G | NBIoT transmitter unit | External antenna with magnetic base | Declaration of Conformity (DOC) | Instruction manual

Operating temperature: -30°C to +50°C

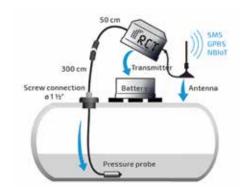
#### Benefits

- Easy installation, quick set-up
- Individual data management
- → Intelligent remote monitoring of LPG tank fill levels
- Robust housing for demanding conditions
- Two year warranty













#### LEVELVIEW.PRO.OIL

# OIL & DIESEL TANKS WITH PRESSURE PROBE (EX ZONE 1/0)

For use with oil, used oil, diesel, petrol and A1 fuel tanks. Precise level measurement using pressure probe.

GPRS | 4G | NBIoT transmitter unit | External antenna with magnetic base | Declaration of Conformity (DOC) | Instruction manual

Operating temperature: -30°C to +50°C

#### Benefits

- Easy installation, quick set-up
- → Individual data management
- Precise fill level measurement by means of pressure probe or capacitive sensor
- Robust housing for demanding conditions
- Two year warranty





#### **RCT MONITOR**

Whether monitoring just one tank or a large number of different objects, with the RCT MONITOR platform, you have all measured data and messages immediately in view.

Cloud-based in the Web App on PC or with Mobile App on your smartphone.

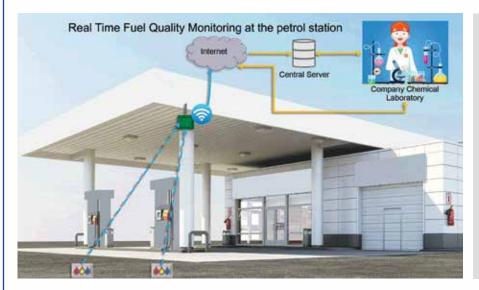
#### Benefits

- Tanks, meters & installations always in view
- → Minimum level & event alarms
- → Consumption & demand analysis
- → Valuable information about resources

# FUEL QUALITY MEASURING & MONITORING

#### Spectrometry-based Measuring and Monitoring System for use at petrol retail stations.

Ensuring real-time quality assurance at site level, this system will conduct constant quality checks at every tank within the station network.

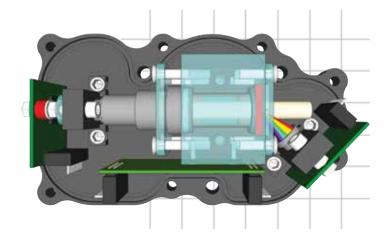


#### How it Works

- Spectrometry-based technology special design device
  - Power supply: 12 19V DC 300 370 mA
  - Dimensions: 180mm(W) x 100mm(D) x 70mm(H)
  - Operating temperature: -20°C to +50°C)
- Uses a library of spectrums for all valid fuels
- System compares the spectrum of the tank fuel with all library spectrums and decides if the station fuel is "OK" or "not OK"

#### Detects Contamination with

- → Water (even in concentrations as low as 300ppm)
- → Different kinds of fuels (gasoline, petrol for example) from 5% up
- Different types of gasoline (ULG 95/98/100) from 5% up
- → Different types of petrol (AGO/HGO/MGO) from 5% up
- → A mix of other substances in concentrations more than 3% (methanol, for example)





## MPS® FLOWMETER

# Quality control-driven, the MPS® Flowmeter from Metricon ensures delivery of precise fuel volumes to customers.

The MPS Flowmeter is an electronic device measuring the volume of fluid passing through. The principle of operation is utilising the ultrasound imaging method of measuring the propagation time of a sound wave between two points in a different position along the flow.

The difference in the propagation time of the sound wave between these fixed points (when it propagates towards the one and then the other direction) by the direction of flow is proportional to the velocity of the fluid. At completion, the total volume of liquid is measured.

The MPS Flowmeter is the only patent registered electronic oil measurement system in Europe (PCT GR 2009/000041) and has other value-add, built-in functions, specifically for use in fuels.



#### MPS FLOWMETER

Flow rate: 50 to 250 l/min Standard accuracy: ± 0.5%

#### Other Built-in Functions

- → Detection of air & water in the fuel flow
- Reverse measuring (calculates & removes volume during fuel aspiration)
- Measures fuel temperature
- Automatic calculation of the volume at 15°C
- → Easy, quick & safe connection
- System fully portable, battery operated
- Does not prevent the flow of fuel (contains no moving mechanical parts).
- Screen with 32 alphanumeric characters, 2 lines of text (programmable for most languages)



## PETROLEUM RETAIL SITE SOLUTIONS

With fuel costs at an all-time high, now more than ever before, Vapour Recovery, Automatic Tank Gauging, Measuring and Monitoring Systems, Flowmeters, Mobile Gravity Meters, Tank Monitoring Systems and other specialised equipment, are critical to the running of sustainable and profitable petroleum retail operations.

Soliflo is actively expanding this area of our business by offering a host of cost-effective leading brand solutions throughout the Southern African Development Community (SADC), East African Community (EAC) and Common Market for Eastern and Southern Africa (COMESA) regions - and will continue to add to our Petroleum Retail Site product portfolio as we source quality products that meet our exacting standards.











### **EXPERTISE IN AFRICA SINCE 1984**

Soliflo has been synonymous with bulk liquid control, tanker loading and off-loading systems and services since 1984. From leading brand equipment and component supply to the engineering and delivery of fully-packaged solutions throughout the the SADC, EAC and COMESA regions.

We pride ourselves on being specialist service providers to a diverse range of sectors including:

PETROCHEMICAL | OIL & GAS | RETAIL FUEL | CHEMICAL | ENERGY | PHARMACEUTICALS | CEMENTATION | FOOD & BEVERAGE

AVIATION | MINING | AGRICHEMICALS & FERTILISERS | CRYOGENICS





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