VISY-X
Automatic Tank Gauging System
for the best possible fill level monitoring

- Timely fuel reordering
- Early leak detection
- Identification of fuel theft
- Reliable quality assurance for stored fuels
- Coordinated service visits
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Measurable Advantages that count

VISY-X system advantages at a glance

**Optimized efficiency in petrol station operation**
- No shutdown during sensor maintenance, because our stainless-steel sensors are maintenance-free
- Simple assembly and commissioning
-Leaks and theft identified immediately
- Timely fuel reordering is assured

**Continuous, reliable monitoring of fill level and fuel quality**
- Actual fill levels in real time
- Personal, mobile access to all data
- All data stored to your own server
- Attractive graphic display of data

**Precise fill level measurement**
- Our magnetorestrictive measurement is more precise and more resistant to malfunction than many other measurement methods on the market

**Versatile solutions for all applications**
- One single sensor for all fuel types
- Optimal product solutions even for special or difficult applications

**Optimal product price/performance ratio**
- More attractive acquisition costs than comparable systems
- Utmost product precision and dependability

**Low installation cost**
- Easy plug-and-play assembly
- Proven radio transmission of data, no more expensive cabling on site

**Data misuse is impossible**
- All data are stored on your server only
- Secure HTTPS connection with authentication

**Easy integration into existing operating and ERP systems**
- Data are provided as generally readable XML files
- VISY-X can be easily integrated into existing systems

**Our products are approved worldwide**
- ATEX, IECEx, OIML, EPA, NEPSI, CCC, CPA, PESO, CCoE, Inmetro, EAC, and EAC-Ex
Modular: Choose only the products you need.

Further system components can be added after software upgrades.
SECON-X

More efficient petrol station management
24/7 worldwide access to your data

Product features and the advantages of FAFNIR technology

- Web-based interface
  - Worldwide access to real-time data
- Local client-side server
  - Guaranteed strong data protection
- Standardised data format (XML)
  - Easy post processing on all current operating and ERP systems
- Remote access via HTTPS connection with user and password authentication
  - Highest data security
- Remote diagnostics
  - Optimized service interventions
- Hierarchical data access
  - Company-specific access rights
- Minimum of 10 years data protection
  - Thorough data analysis of warehouse inventories, deliveries, alarms, etc.
- Auto calibration (optional)
  - Calibration of the tanks to optimize the tank gauging
- Reconciliation (optional)
  - Data matching between stocks and sales
SECON-X System

Web-based system for data management and visualization, consisting of various hardware and software components

Product features and the advantages of FAFNIR technology

» Global data access to the SECON clients with web interface
» Remote diagnostics
» Remote view, evaluation and data storage
» Universal data format

SECON-X Components
VISY-Stick

Precise sensor for continuous monitoring of liquid levels and possible leakages

Product features and the advantages of FAFNIR technology

- Sensor and float made of premium stainless steel
- Sensor for continuous high-precision measurement of product fill level, product temperature and water level
- Calibrated and fully loaded
- Suitable for all commercially available fuels
- High-precision temperature compensation through 5 x Pt1000
- 4-wire unshielded data cable
- Continuous function monitoring
- Approvals for Ex-Zone 0: ATEX, IECEx, OIML, NEPSI, PESO, CCoE, and EAC-Ex
- Requires just 1½“ tank openings for installation (optional 1“ float available)

- Long-lasting and maintenance-free
- Precise and reliable real-time measurement every 12 ms
- Easy plug-and-play installation
- SUPER, E10, E85, Diesel, BioDiesel, LPG, AdBlue
- Precise determination of the temperature-compensated volume
- Easy installation and connection of up to 4 different probes in parallel possible
- Immediate alarm for tampering or malfunction
- Can be used worldwide
- Cost-efficient installation

The magnetostrictive sensors VISY-Stick with screw-in unit (left) and for riser installation (right)
VISY-Density with VISY-Stick Advanced

Density measurement for continuous monitoring of fuel quality

Product features and the advantages of FAFNIR technology

- Continuous measurement with highest accuracy
  - Four measured values with one single probe:
    - Product fill level
    - Product temperature
    - Water level
    - Density

- Water determination
  - Especially for ethanol

- Compact design
  - Needs just 2” openings

- Accuracy better than ±1 g/l
  - Meets all requirements

The magnetostrictive sensors VISY-Stick Advanced Density with screw-in unit (left) and for riser installation (right)
VISY-Stick Flex

The economical solution for tall tanks

Product features and the advantages of FAFNIR technology

- Compact packaging
- Easy to install and configure
- Meets all requirements

- Low transport cost
- Short installation time, lowers installation cost
- Four measured values with one single probe:
  - Product fill level
  - Product temperature
  - Water level
  - Density (requires the density module)

VISY-Stick Flex
The level sensor especially designed for bulk storage tanks (optionally with density module)

VISY-Stick Flex Temp
extends VISY-Stick Flex with high-precision temperature measurement

Product features and the advantages of FAFNIR technology

- Temperature measurement
- Standard version

- up to 31 high-precision digital temperature sensors
- 1 temperature sensor per meter

VISY-Stick Flex Temp
Flexible sensor especially designed for temperature measurement
VISY-Stick Oil + VISY-Sludge

Automatic monitoring of oil separators with the COMS system
(Continuous Oil Separator Monitoring System)

Product features and the advantages of FAFNIR technology

- Continuous monitoring system for oil separators (COMS)
- Fulfils the functions of an automatic warning system for separators of light liquids
- Seamless operating log per DIN 1999-100:
  - Intelligent recording interval
  - Password-protected
  - Data export in XML format
  - Data storage for at least 5 years

- Continuous measurement of oil layer thickness and sludge height

- Alarm management
  - Acoustic and visual alarm with acknowledgement and e-mail notification for:
    - Maximum oil level
    - Maximum sludge height
    - High level

VISY-Stick Oil

VISY-Sludge
VISY-Stick LPG

Especially designed for precise LPG fill level measurement

Product features and the advantages of FAFNIR technology

<table>
<thead>
<tr>
<th>Feature</th>
<th>Advantage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Installation kit available</td>
<td>Quick and easy installation without emptying the tank</td>
</tr>
<tr>
<td>Up to 6 m long</td>
<td>Suitable for all tank shapes and sizes</td>
</tr>
<tr>
<td>Requires just 1½&quot; tank openings (optional 1&quot; float available)</td>
<td>Cost-efficient installation</td>
</tr>
</tbody>
</table>

VISY-Stick LPG for direct installation in the tank

VPS-L

Product mass determination of the liquefied gas in combination with VISY-Stick LPG and VISY-Density

Product features and the advantages of FAFNIR technology

<table>
<thead>
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<th>Feature</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Supplement to the LPG level measurement</td>
<td>Product mass of liquefied gas</td>
</tr>
<tr>
<td>Existing evaluation unit</td>
<td>Low additional costs</td>
</tr>
<tr>
<td>Requires only a G½&quot; thread to the gas space of the tank</td>
<td>Easy installation</td>
</tr>
</tbody>
</table>

VPS-L for mounting on the gas space of LPG tanks
VISY-Stick Interstitial

Especially for leakage detection in double-walled tanks

**Product features and the advantages of FAFNIR technology**

- Immediate alarm when a leak occurs
- Easy, cost-efficient installation and commissioning
- Configurable alarm area

- Acoustic and visual alarm with acknowledgement and e-mail notification
- No additional cable costs due to parallel connection
- Can individually be adapted to an existing system

VISY-Stick Interstitial with screw-in unit (left) and for riser installation (right)

VISY-Stick Sump

For monitoring liquids in manhole and dispenser sumps

**Product features and the advantages of FAFNIR technology**

- Sensor distinguishes between water and fuel with different alarms
- Continuous self-monitoring

- Individual activities, such as:
  - Fuel alarm = Shut off dispenser
  - Water alarm = Report to service company

- Immediate alarm upon tampering with the installation conditions or if a sensor malfunctions

VISY-Stick Sump: blue for the manhole sump, red for dispenser sump, installation kit (right)
VISY-Reed Interstitial

Robust sensor for low cost leakage detection in double-walled tanks

**Product features and the advantages of FAFNIR technology**

- Robust nickel-plated brass housing with stainless-steel float
- Efficient design for direct liquid detection
- Continuous self-monitoring of sensor function
- Suitable for riser installation with openings of 1” or more
- Long service life
- Low cost
- Immediate alarm in the event of a malfunction
- Minimized installation cost

VISY-Reed Interstitial Dry

VISY-Reed Sump

For monitoring liquids in manhole and dispenser sumps

**Product features and the advantages of FAFNIR technology**

- Robust nickel-plated brass housing with stainless-steel float
- Efficient design for direct liquid detection
- Continuous self-monitoring of the sensor function
- Long service life
- Low cost
- Immediate alarm in the event of a malfunction

VISY-Reed Sump Manhole

VISY-Reed Sump Dispenser
VISY-Command

Versatile, cost-effective central unit for connection to cash register systems

Product features and the advantages of FAFNIR technology

- Parallel connection of 4 different sensors to one connection channel possible
- Reduced installation cost, less cables needed
- Fully modular architecture
- Simple addition of sensors and extension of system architecture
- Ethernet interface optional
- Remote access to tank and environmental data
- Free firmware updates
- Always state of the art
VISY-Command GUI

Direct access to the readings via touchscreen and optional printer

Product features and the advantages of FAFNIR technology

- Colour display with touchscreen
  - Information at a glance

- Audible alarm must be confirmed by the petrol station staff
  - Additional security

- Data storage up to 5 years
  - Thorough inventory analysis

- E-mail function
  - Alarm messages directly to the service partner or individual address

- Daily Reports
  - Message to the station manager every 24 hours

- Static leakage detection
  - Theft monitoring, alarm by e-mail

**VISY-Command** + **VISY-View Touch** = **VISY-Command GUI**
VISY-Command Web

Worldwide access to your data by the integrated SECON-X function

Product features and the advantages of FAFNIR technology

- Touch screen and printer
- Remote connection
- SD / SDHC removable storage
- Integrated web server and SQL database server
- Protected data transfer
- Local access to the readings
- Remote access to the readings
- Flexible data backup
- Web-based data transfer
- Remote access via HTTPS connection with user and password authentication

VISY-Command Web with printer
VISY-RF

Enables the connection of VISY probes via radio to VISY-Command RF

Product features and the advantages of FAFNIR technology

Compatible with all VISY components  ■ Standard components can be used
Battery life up to 4 years  ■ Low maintenance cost
Easy to install and configure  ■ Minimizes downtime
Indicates battery status and field strength  ■ Optimized service and maintenance
A market-proven system  ■ Functionality and reliability

VISY-Command GUI RF with printer (2 antennas attachable)

VISY-RFT transmitting unit

External antenna
VISY-Input
Integration of external alarms into the VISY-X system

Product features and the advantages of FAFNIR technology
External alarms are centrally processed by the VISY-X system
Easy to install and configure

VISY-Input (input module for 8 connections of external alarms)

VISY-Output
Relays for activating external alarm systems

Product features and the advantages of FAFNIR technology
All alarms can be freely assigned to the relays
Easy to install and configure
VISY-TD Display
Field display for direct view of the tank level

Product features and the advantages of FAFNIR technology

- Easy to install
- Good display contrast
- Low installation cost
- Easy legible data

Tank truck driver display
VPI

Integration of VISY sensors into third-party systems

Product features and the advantages of FAFNIR technology

- Parallel connection of 4 different sensors to one connection channel possible
- Parallel connection of 32 VPIs possible, allows up to 256 tanks to be monitored and 1024 sensors to be connected
- Communication interface between the sensors and a higher-level system (host)
- Delivers raw sensor data
- FAFNIR VPI-Supply power supply unit supplies up to two VPIs

- Reduced installation cost — less cables needed
- Easy addition of sensors
- Supports two protocols
  - FAFNIR Universal Device Protokol (UDP)
  - H-Protocol
- Free configuration of application and display
- Optionally, one’s own power supply unit can be used
Accessories

1" LPG float

Optionally available instead of the standard 1½" LPG float.

VISY-RFT installation kit

Installation kit for mounting a VISY-RFT transmitter module.

Cable connector (IP68)

The 5-pin cable coupler makes it quick and easy to establish the connection between the VISY-Stick and the cable to the VISY-Command.
Accessories

1" float set with screw-in unit

The optional installation kit comprises a product float, a water float and a screw-in unit. It makes it possible to install a VISY-Stick using a G 1 threaded coupler. The screw-in unit is also available in stainless steel.

Variable LPG installation kit

The variable LPG installation kit comprises a jacketed pipe with special LPG float and a cutting ring fitting with ¾" NPT external thread.
FAFNIR GmbH

Innovation with tradition, quality and satisfaction

Company
Based in Hamburg, Germany, since 1965 FAFNIR GmbH has developed and produced continuous fill level measurement, overfill prevention devices, overfill protection devices and limit signal controls for fluids of all types. Optimisation of process controls, improvements in cost efficiency, and the protection of people and the environment are at the heart of our business. Our close and trusting relationship with our customers is a key factor in the practice-oriented implementation of innovative ideas and the functionality of our products.

Quality for your satisfaction
To provide all customers with devices of consistently high quality, years ago FAFNIR introduced an internationally recognised, comprehensive quality management system in accordance with ISO 9001 (EN 29001). Our expertise in the development and manufacture of explosion-proof equipment is certified by an independent body. All our products are subject to strict FAFNIR quality requirements. We are committed to meeting international standards and applicable EU directives.