

HITEKS

TELEMETRY AND ENERGY



Remote monitoring
solutions for OIL&GAS



TELEMETRY
& ENERGY

About Us

Our story started in 2002

We are located in Italy, where we are leaders in electronic design systems for the Oil & Gas industry. Today, we connect thousands of international customers to a dynamic network of devices, data, and people through our Oil & Gas IT services.

Our Mission

We help businesses grow through online connections, telemetry, and data management. Our technology is currently installed in more than 50 countries across 4 continents.

Design and Production

We lead, shape, design, build, distribute, and continuously update a wide range of telemetry equipment and the most advanced platforms for the Oil & Gas industry.

Our Certifications

HitekS meets all quality standards in the execution of production processes and laboratory analysis. Monitoring, safety, compliance with standards, attention to the environment and the achievement of certifications are the basis of all our quality controls because we want to offer the best products to our customers.



UNI EN ISO 9001:2015 CERTIFICATION Certification n°: 260396-2018-AQ-ITA-ACCREDIA

Design, production, marketing, testing and service of electrical and electronic measuring devices and systems in the energy, water, gas and home automation sectors. Provision of remote control, remote reading and remote monitoring services in the energy, water, gas and home automation sectors (EA 19,33).



UNI CEI EN ISO/IEC 80079-34:2012

Certification (ATEX) 2014/34/EU to maintain a quality management system for the manufacture of Ex equipment, used in potentially explosive atmospheres.

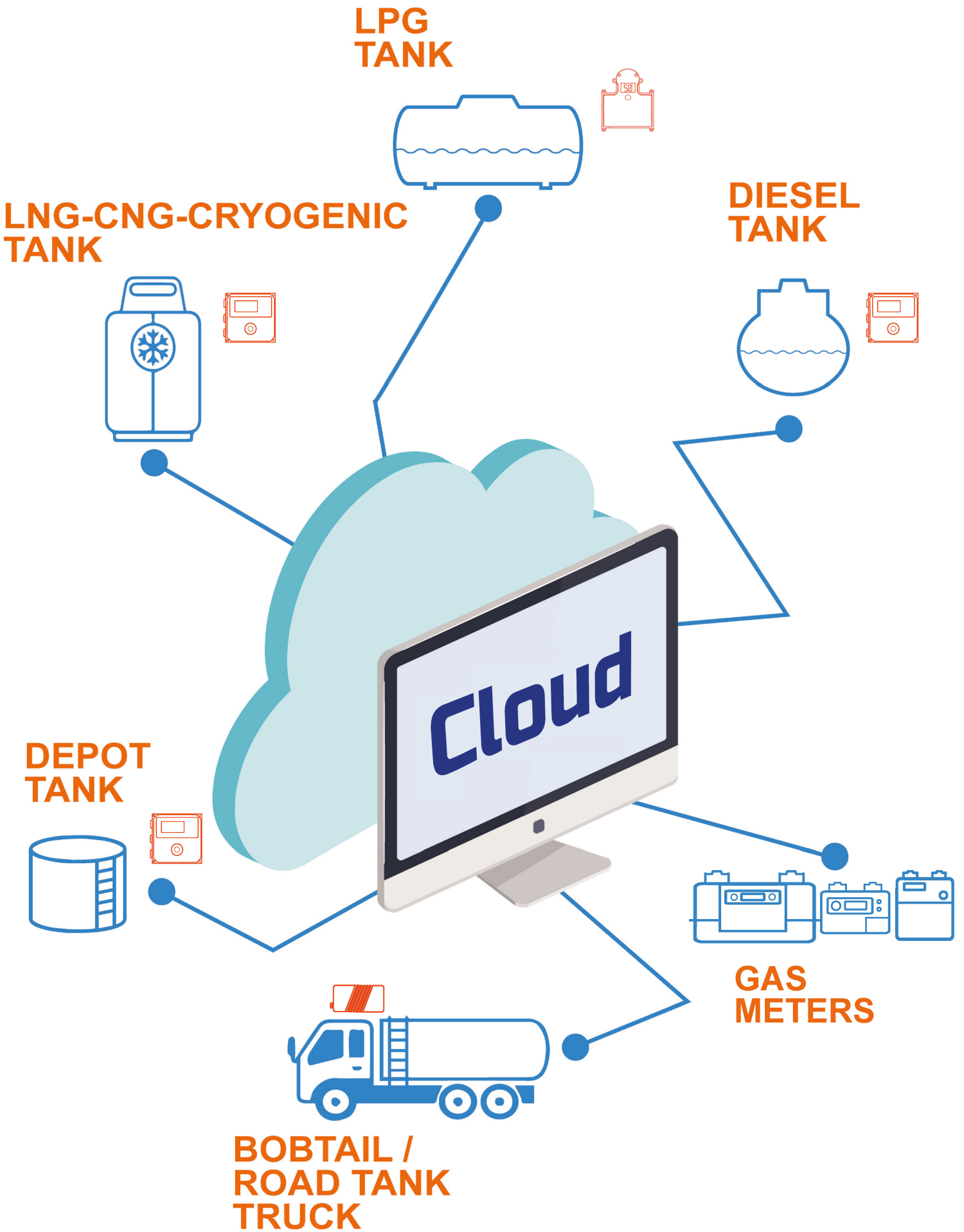


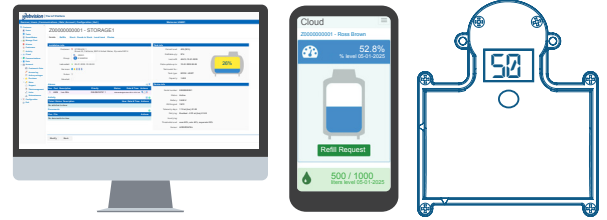
IECEx QUALITY ASSESSMENT

IECEx certified to maintain a quality management system for the manufacture of Ex equipment used in potentially explosive atmospheres.

2014/34/UE ATEX DIRECTIVE CERTIFICATION

Certification of equipment and protective systems intended for use in potentially explosive atmospheres due to the presence of gases, vapours, mists or dust.



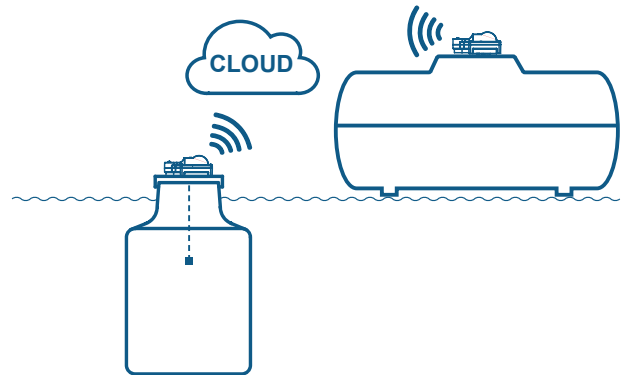


ZERO.1

Tank Level Remote Monitoring:
LPG / PROPANE / FUEL / WATER / CHEMICAL TANKS



CE 2460
TUV IT 14 ATEX 013 X
II 1G Ex ia IIB T3 Ga



ZERO.1 is a device for LPG, oil, water, chemicals products tank remote control, plug&play, equipped with worldwide GSM technology, fully compliant with all the tank models.

Key Features:

- Reliable Level tank monitoring to suit corporate needs
- NAV display and touch button for menu and setup navigation
- Configurable server reporting interval from hourly to monthly
- Real time Level monitor
- Large internal memory for data logging (up to last 90 days)
- Programmable alarms:
 - HIGH level
 - LOW level
 - refilling
 - over max refilling
 - locked probe / zero consumption / underground tanks with water presence
- Report of local temperature, RSSI (GSM level signal to the place of installation), battery status monitor
- External antenna option for underground / shielded tank installation or for low GSM signal
- Remote setup and upgrade
- Sim on Chip or Micro SIM Industrial Grade
- Plug and play installation
- Cell locate geolocalization (Location Area Identifier)

Benefits:

- Optimized delivery or collections
- Improved operational efficiency
- Proactive alerts
- Historical data for analysis
- Enhanced connectivity
- Flexible reporting
- Remote configuration and updates

Reference standards:

EN60950-1:2007
EN61000-4-2:2011; EN61000-4-3:2020
EN301-489-1 ver.2.2.3:2019-11
EN301-489-7 ver.1.3.1:2005-11
EN301-511 ver.12.1.10:2016-12
EN60079-0:2018; EN60079-11:2012

Compliant with:

Directive 2014/30/EU (EMC)
Directive 2014/53/UE (RED)
Directive 2014/34/UE (ATEX)
Directive 2011/65/CE (ROHS)
Directive 2012/19/UE (RAEE)

Certifications:

FCC/IC, AT&T, VERIZON, DT*
CE, UKCA**
ANATEL, GCF***
* TL.014.502 - 503 - 504 - 505
** TL.014.506 - 507
*** TL.014.508 - 509

Technical features:

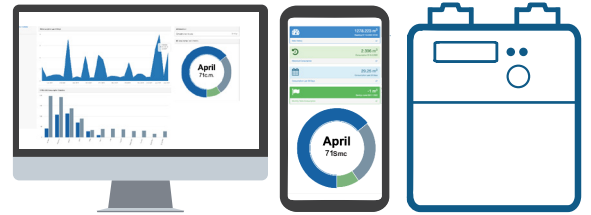
Power Supply	No-rechargeable primary Lithium battery pack, specific for ATEX hazardous area									
Operating temperature	-25°C.. +70°C									
Enclosure type & rating	ABS V0 UV resistant IP68 IK08									
Dimensions and weight	(with metal bracket) 68x105x40mm - 150gr									
	(without metal bracket) 68x86x40mm - 130gr									
Mounting system	With metal bracked or adaptor for Rochester® dial									
Level reading technology interface	Hall Effect signal directly to the level dial									
Level Accuracy	<2%									
SIM	SIM Microsim or Sim On Chip / eUICC compliant									
Hazardous certification	IECEX Classification II 1G Ex ia IIB T3 Ga									
Notified bodies	TÜV IT 14 ATEX 013 X									
Associated apparatus parameters	Ui 4.1V Uo 4.1V	li 4.1mA Io 4.1mA	Pi 17mW Po 17mW	Ci 1uF Co 999uF	Li 1uH Lo 1mH					
Lithium metal batteries contained in equipment	STD					EXD				
	IATA / IMDG / ADR UN3090 PI 970 sez II					IATA / IMDG / ADR UN3090 PI 970 sez I				
Warranty	2 Years									
Antenna	<i>EMBEDDED</i> Suggested for ABOVE TANK					<i>EXTERNAL</i> 3 m + Antenna 3dBi gain Suggested for UNDERGROUND/ SHIELDED TANK				
GSM technology	NB-IoT			LTE Cat 1 bis + fallback 2G			LTE Cat M1 + NB-IoT + fallback 2G			
Battery life time*	REPORT PERIOD									
	Weekly (7 days)	Period (3 days)	Daily (1 day)	Weekly (7 days)	Period (3 days)	Daily (1 day)	Weekly (7 days)	Period (3 days)	Daily (1 day)	
	8 years	7 years	5 years	8 years	6 years	4 years	8 years	7 years	5 years	
STD Battery pack with Lithium content <2gr	8 years	7 years	5 years	8 years	6 years	4 years	8 years	7 years	5 years	
EXD Battery pack with Lithium content >2gr classified dangerous goods	15 years	12 years	8 years	12 years	10 years	6 years	12 years	10 years	6 years	
*Estimated battery life time depending from optimal GSM signal and average annual temperature >20°C										

Order Code:

ZERO.1 - LPG TANK LEVEL REMOTE CONTROL, NBIOT + LTE CAT M1 + 2G-GLOBAL+USA+CAN	IP68 - DISPLAY	TL.014.502
ZERO.1 - LPG TANK LEVEL REMOTE CONTROL, NBIOT + LTE CAT M1 + 2G-GLOBAL+USA+CAN	IP68 - DISPLAY - EXTERNAL ANTENNA	TL.014.503
ZERO.1 - LPG TANK LEVEL REMOTE CONTROL, NBIOT - EU+USA+CAN	IP68 - DISPLAY	TL.014.504
ZERO.1 - LPG TANK LEVEL REMOTE CONTROL, NBIOT - EU+USA+CAN	IP68 - DISPLAY - EXTERNAL ANTENNA	TL.014.505
ZERO.1 - LPG TANK LEVEL REMOTE CONTROL, 4G LTE CAT 1b +2G - GLOBAL	IP68 - DISPLAY	TL.014.506
ZERO.1 - LPG TANK LEVEL REMOTE CONTROL, 4G LTE CAT 1b +2G - GLOBAL	IP68 - DISPLAY - EXTERNAL ANTENNA	TL.014.507
ZERO.1 - LPG TANK LEVEL REMOTE CONTROL, 4G LTE CAT 1b +2G - LATAM	IP68 - DISPLAY	TL.014.508
ZERO.1 - LPG TANK LEVEL REMOTE CONTROL, 4G LTE CAT 1b +2G - LATAM	IP68 - DISPLAY - EXTERNAL ANTENNA	TL.014.509

Spare parts & Options:

ZERO.1 ADAPTER FOR ROCHESTER® SENIOR R3D LEVEL DIAL	SC.020/02
ZERO.1 DIAL KIT FOR COTRAKO® DOUBLE READING HORIZONTAL TANK	SC.020/02.05
ZERO.1 DIAL KIT FOR COTRAKO® DOUBLE READING VERTICAL TANK	SC.020/02.06



SDMQ

Smart Diaphragm Gas Meter



SDMQ-G4 is designed and manufactured to measure the volume of Natural Gas and Liquefied Petroleum Gas (LPG). The measurement technology is based on a traditional diaphragm meter, which also integrates a temperature sensor for volume conversion and permits achieving high accuracy and performance. The Smart Gas Meter satisfy the new generation of smart devices to fulfill all requirements of European and International standards MID-OIML. The type of gas and any impurity do not interfere with the performance of this device, mainly used in low-pressure gas distribution networks for residential natural gas and LPG. Fully compliant for Hydrogen NG-H2 blending.

Key Features:

- Integrated temperature sensor
- Integrated shut off valve
- High corrosion-resistance
- Indoor and outdoor installation
- Electronic circuit designed for severe environment areas
- Custom application by integrated valve, prepayment and multi tariff management
- Low losses and low flow measurement

Benefits:

- Smart automatic meter reading
- Total volume at base conditions, at alarm conditions, for each tariff zone (F1, F2, F3)
- Current date/time
- Meter status (not configured, normal, maintenance)
- Billing period historical data (last 10 billing periods)
- Metrological event logbook (capacity of 192 events)

Reference standards:

Directive EMC 2014/30/EU
EN 61000-4-2
EN 61000-4-3

Directive RED 2014/53/EU
EN 301 489-1
EN 301 489-3
EN 301 489-7
EN 301 511

Compliant with:

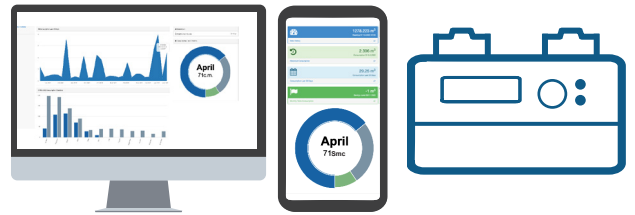
MID 2014/32/EU
OIML R137 1&2
UNI/TS 11291
EN 13757
EN 12405
EN 62056-21
EN 16314

Technical features:

Gas Type	Natural gas, LPG, Hydrogen		Electrovalve (EN 16314)	Integrated valve with status signal Maximum leakage: 120 cc/h at Pin = 500 mbar	
Gas group family	2: H, L, E (EN 437) 3: P		User interface (UNI/TS 11291.6)	Display LCD icons and chars	
Accuracy class (MID)	Class 1.5			Cubic meters indications 8 digits (3 decimals)	
Lowest flow rate measurable (Qstart)	0.006 m³/h			2 push buttons	
Minimum flow rate (Qmin)	0.016 m³/h		Local interface	Optical port ZVEI compliant to standard IEC 1170 (EN62056-21)	
Transitional flow rate (Qt)	0.6 m³/h			Communication protocol in accordance with UNI/TS 11291 (DLMS/COSEM)	
Maximum flow rate (Qmax)	6.0 m³/h (Qr Overload = 7.2 m³/h)		GSM Communication module (PP4) (see the order code for variant)	4G LTE CAT 1 BIS or 4G LTE CAT M1 or 4G NBIOT	
Measurement accuracy	Qmin to Qt → ±3.0% Qt to Qmax → ±1.5%			Communication protocol in accordance with UNI/TS 11291 (DLMS/COSEM)	
Std temperature for gas volume	+15 °C		LoRaWAN communication module (see the order code for variant)	Radio module 100mW (20dBm)	
Maximum pressure	Steel 500 mbar	Aluminium 2 bar		Communication protocol LoRaWAN (DLMS/COSEM)	
Load loss	≤ 2 mbar		Communication protocol	DLMS AES-128-GCM (only in GSM & LoRaWAN)	
Gas temperature	-25°C to +55°C			WIRED Modbus communication module (see the order code for variant)	Communication protocol Wired Modbus RTU RS485
Ambient temperature	-25°C to +55°C		Estimated battery life (at normal reference conditions)	Metrological battery: ≥15 years Communication battery*: ≥ 8 years	
Storage temperature	-25°C to +60°C		Enclosure type & rating	PC V0 UV resistant IP65 IK08	
Mechanical environment class	M1		Body (see the order code for variant)	Steel	Aluminium
Electromagnetic environment class	E1			Hazardous certification	⚠ ATEX Zone 2 (II 3G Ex ic IIB T3 Gc X)
Resistance to high ambient temperatures	T				
Relative humidity	0% to 95% non-condensing				

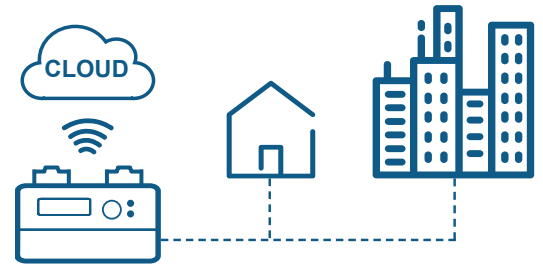
Order code:

SDMQ - SMART GAS METER G4 1" 1/4 110mm DIAPHRAGM / VALVE - STEEL BODY	*see the reference table
SDMQ - SMART GAS METER G4 1" 1/4 110mm DIAPHRAGM / VALVE - ALUMINIUM BODY	



UGMR

Ultrasonic Smart Gas Meter



UGMR is designed and manufactured to measure the volume of natural gas.

The measurement technology is based on an ultrasonic sensor, which also integrates a temperature sensor for volume conversion, ensuring high accuracy and performance.

The Smart Gas Meter meets the latest standards for smart devices, fully complying with European and International MID-OIML regulations. The type of gas and any impurities do not affect the performance of the device, which is primarily used in low-pressure gas distribution networks for residential natural gas.

It is also fully compatible with Hydrogen NG-H2 blending.

Key Features:

- Integrated temperature sensor
- Integrated shut off valve
- High corrosion-resistance
- Indoor and outdoor installation
- Electronic circuit designed for severe environment areas
- Custom application by integrated valve, prepayment and multi tariff management
- Low losses and low flow measurement

Benefits:

- Smart automatic meter reading
- Total volume at base conditions, at alarm conditions, for each tariff zone (F1, F2, F3)
- Current date/time
- Meter status (not configured, normal, maintenance)
- Billing period historical data (last 10 billing periods)
- Metrological event logbook (capacity of 192 events)

Reference standards:


Directive EMC 2014/30/EU
EN 61000-4-2
EN 61000-4-3

Directive RED 2014/53/EU
EN 301 489-1
EN 301 489-3
EN 301 489-7
EN 301 511

Compliant with:

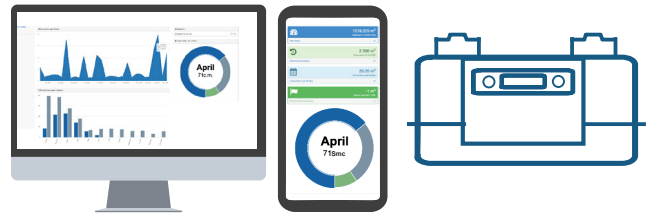
MID 2014/32/EU
UNI/TS 11291
EN 14236
EN 13757
EN 12405
EN 62056-21
EN 16314

Technical features:

Gas Type	Natural gas, Hydrogen	Electrovalve (EN 16314)	Integrated valve with status signal Maximum leakage: 120 cc/h at Pin = 500 mbar
Gas group family	2: H, L, E (EN 437)	User interface (UNI/TS 11291.6)	Display LCD icons and chars
Accuracy class (MID)	Class 1.5		8 digits (3 decimals)
Lowest flow rate measurable (Qstart)	0.006 m³/h		2 push buttons
Minimum flow rate (Qmin)	0.016 m³/h	Local interface	Optical port ZVEI compliant to standard IEC 1170 (EN62056-21)
Transitional flow rate (Qt)	0.6 m³/h		Communication protocol in accordance with UNI/TS 11291 (DLMS/COSEM)
Maximum flow rate (Qmax)	6.0 m³/h (Qr Overload = 7.2 m³/h)	GSM Communication module (PP4) (see the order code for variant)	4G LTE CAT 1 BIS or 4G LTE CAT M1 or 4G NBIOT
Measurement accuracy	Qmin to Qt → ±3.0% Qt to Qmax → ±1.5%		Communication protocol in accordance with UNI/TS 11291 (DLMS/COSEM)
Std temperature for gas volume	+15 °C	LoRaWAN communication module (see the order code for variant)	Radio module 868MHz 100mW (20dBm)
Maximum pressure	500 mbar		Communication protocol LoRaWAN (DLMS/COSEM)
Load loss	≤ 2 mbar	Communication protocol	DLMS AES-128-GCM (only in GSM & LoRaWAN)
Gas temperature	-25°C to +55°C		WIRED Modbus communication module (see the order code for variant)
Ambient temperature	-25°C to +55°C	Estimated battery life (at normal reference conditions)	Metrological battery: ≥15 years Communication battery*: ≥ 8 years
Storage temperature	-25°C to +60°C	Enclosure type & rating	PC V0 UV resistant IP65 IK08
Mechanical environment class	M2	Body	Steel
Electromagnetic environment class	E2	Hazardous certification	 ATEX Zone 2 (II 3G Ex ic IIB T3 Gc X)
Resistance to high ambient temperatures	T		
Relative humidity	0% to 95% non-condensing		

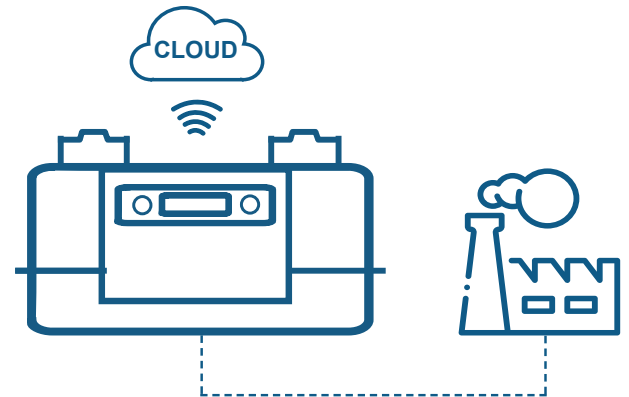
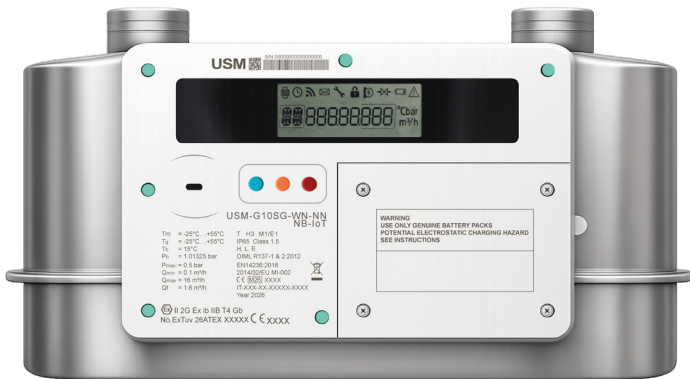
Order Code:

UGMR - SMART GAS METER G4 ULTRASONIC	*see the reference table
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USM

Commercial Gas Meter



USM is designed and manufactured to measure the volume of natural gas. The measurement technology is based on an ultrasonic sensor, which also integrates a temperature and pressure sensor for volume conversion, ensuring high accuracy and performance. The Commercial Gas Meter meets the latest standards for smart devices, fully complying with European and International MID-OIML regulations. The type of gas and any impurities do not affect the performance of the device, which is primarily used in low-pressure gas distribution networks for commercial natural gas. It is also fully compatible with Hydrogen NG-H2 blending.

Key Features:

- Integrated temperature sensor
- Integrated shut off valve
- High corrosion-resistance
- Indoor and outdoor installation
- Electronic circuit designed for harsh industrial conditions
- Custom application by integrated valve, prepayment and multi tariff management
- Low losses and low flow measurement

Benefits:

- Smart automatic meter reading
- Total volume at base conditions, at alarm conditions, for each tariff zone (F1, F2, F3)
- Current date/time
- Meter status (not configured, normal, maintenance)
- Billing period historical data (last 10 billing periods)
- Metrological event logbook (capacity of 192 events)

Reference standards:


Directive EMC 2014/30/EU
EN 61000-4-2
EN 61000-4-3

Directive RED 2014/53/EU
EN 301 489-1
EN 301 489-3
EN 301 489-7
EN 301 511

Compliant with:

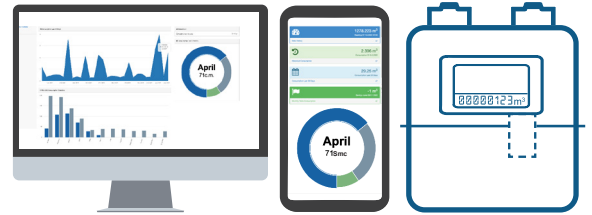
MID 2014/32/EU
UNI/TS 11291
EN 14236
EN 13757
EN 12405
EN 62056-21
EN 16314

Technical features:

Gas Type	Natural gas, Hydrogen				Electrovalve (EN 16314)	Integrated valve on demand
Gas group family	2: H, L, E (EN 437)				User interface (UNI/TS 11291.6)	Display LCD icons and chars
Accuracy class (MID)	Class 1.5					8 digits (3 decimals)
	G10	G16	G25	G40		3 push buttons
Lowest flow rate measurable (Qstart)	0.25	0.30	0.40	0.60	Local interface	Optical port ZVEI compliant to standard IEC 1170 (EN62056-21)
Minimum flow rate (Qmin)	0.1	0.16	0.25	0.40		Communication protocol in accordance with UNI/TS 11291 (DLMS/COSEM)
Transitional flow rate (Qt)	1.6	2.5	4	6.5	GSM Communication module (PP4) (see the order code for variant)	4G LTE CAT 1 BIS or 4G LTE CAT M1 or 4G NB-IOT
Maximum flow rate (Qmax)	16	25	40	65		Communication protocol in accordance with UNI/TS 11291 (DLMS/COSEM)
Measurement accuracy	Qmin to Qt → ±3.0% Qt to Qmax → ±1.5%				LoRaWAN communication module (see the order code for variant)	Radio module 100mW (20dBm)
Std temperature for gas volume	+15 °C					Communication protocol LoRaWAN (DLMS/COSEM)
Maximum pressure	500 mbar				Communication protocol	DLMS AES-128-GCM (only in GSM & LoRaWAN)
Load loss	≤ 2 mbar					WIRED Modbus communication module (see the order code for variant)
Gas temperature	-25°C to +55°C				Estimated battery life (at normal reference conditions)	Metrological battery: ≥15 years Communication battery*: ≥ 8 years
Ambient temperature	-25°C to +55°C				Enclosure type & rating	PC V0 UV resistant IP65 IK08
Storage temperature	-25°C to +60°C				Body	Steel
Mechanical environment class	M1				Hazardous certification	 ATEX Zone 1 (II 2G Ex ib IIB T4 Gb)
Electromagnetic environment class	E1					
Resistance to high ambient temperatures	T					
Relative humidity	0% to 95% non-condensing					

Order code:

USM - SMART GAS METER COMMERCIAL TYPE	*see the reference table
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HYSPI

SMART PLUG-IN



The **HYSPI** is an AMR module mounted on existing mechanical (diaphragm) gas meters or connected to the impulse output of commercial meters and volume correctors using cable connectors.

The device communicates the gathered data on the gas flow volume to the CLOUD service in the form of a load profile at prescheduled time spans (typically, consumption per hour is transferred every 24 hours).

The interface system stores the data securely in the cloud and enables the end user to export it (automatically), view it, and analyse it (graphs, tables, etc.).

Alarms due to tampering events or other extraordinary events are communicated immediately.

The whole system works completely automatically and can be parameterised remotely (load profile, communication schedule, alarm thresholds, data export, etc.).

Key Features:

- Fully integrated with many gas meter types (domestic and commercial)
- Tamper detection sensors for attempts with magnets, shaking, or hitting
- Replaceable batteries enabling 10–12 years of operation
- Internal antenna with option for external antenna
- Suitable for indoor and outdoor installation
- Electronic circuit designed for severe environmental conditions

Benefits:

- Smart automatic meter reading
- Total volume at base conditions for each tariff zone (F1, F2, F3)
- Current date and time
- Automatic data export to the customer billing system
- High level of security

Reference standards:

Directive EMC 2014/30/EU
EN 61000-4-2
EN 61000-4-3

Directive RED 2014/53/EU
EN 301 489-1
EN 301 489-3
EN 301 489-7
EN 301 511

Compliant with:

UNI/TS 11291
EN 13757
EN 12405
EN 62056-21
EN 16314

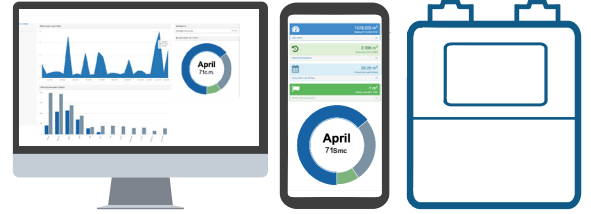
Technical features:

Power Supply	Primary Lithium battery		
Operating temperature	-40°C.. +70°C		
Enclosure type & rating	ABS V0 UV resistant IP68 IK08		
Mounting system	Compatible with a wide range of existing meter systems	A0	ELSTER
		A1	ITRON / ACTARIS / SCHLUMBERGER / ROMBACH
		A2	REED PULSE 1 meters cable included
SIM	Microsim or Sim On Chip eUICC compliant		
Hazardous certification	IECEX Classification II 3G Ex ia IIB T3 Ga		
Antenna	EMBEDDED		EXTERNAL with 3 meters cable antenna
GSM technology connectivity	NB-IoT		LTE Cat M1 + NB-IoT + fallback 2G
Battery life time*	Weekly Report Period		
	10+ years		
	<i>*Estimated battery life time depending from optimal GSM signal and average annual temperature >20°C</i>		



Order code:

HYSPI gas meter reed pulse AMR for ELSTER	A0	*see the reference table
HYSPI gas meter reed pulse AMR for ITRON	A1	
HYSPI gas meter reed pulse AMR for STD pulse	A2	



GM

Residential Diaphragm Gas Meter



GM is a residential diaphragm gas meter with advanced technology, manufacturing, and test equipment. The gas meters offer high accuracy, high reliability, and stable measurement performance included anti-reverse and gas theft protection.

GM technology has reached an internationally advanced level and complies with the requirements of EN1359 and OIML.

The gas meter is equipped with internal temperature compensation via a bimetallic element, ensuring that the diaphragm stroke adapts to the current gas temperature.

Key Features:

- Accurate Gas Consumption Measurement
- Circular Buffer Storage intervals for a precise gas consumption profile
- Remote Data Transmission via 4G
- Customizable Data Logs: Choose from daily, weekly, monthly, or custom log intervals
- Long-Lifetime Battery on board

Benefits:

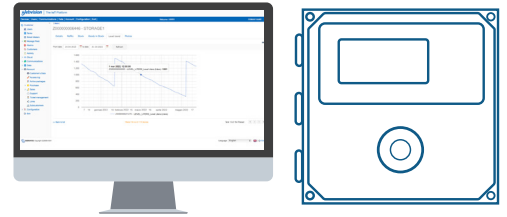
- Automatic Remote Reading
- Real-Time Monitoring of gas consumption
- Retrofit Installation compatible with a wide range of existing gas meters and rotary-turbine meters

Technical features:

Gas Type	Natural gas, LPG, Hydrogen	
Gas group family	2: H, L, E (EN 437) 3: P	
Flow rates	0.016 m ³ /h to 6 m ³ /h	
Cyclic Volume	1.2 liters	
Max. reading	99999.999 m ³	
Max. permissible errors	Q _{min} ≤ Q < 0.1 Q _{max} ±3% 0.1 Q _{max} ≤ q < Q _{max} ±1.5%	
Max. working pressure	Steel body 500 mbar	Aluminium body 2 bar
Accuracy class (MID)	Class 1.5	
Std temperature for gas volume	+15 °C	
Gas temperature	-25°C to +55°C	

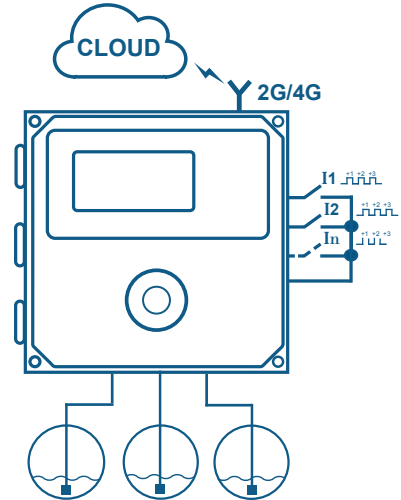
Order Code:

DIAPHRAGM GAS METER 110mm G4 1"1/4 STEEL BODY	GM.001.000
DIAPHRAGM GAS METER 110mm G4 1"1/4 ALUMINUM BODY	GM.001.000.10
REED PULSE FOR GM	GM.001.099



RAD.1

Tank Monitoring and Remote Control



RAD.1 is a control unit designed for the remote management of OIL, LUBRICANT, LPG, ADBLUE TANKS, TECHNOLOGICAL SYSTEMS, PIPELINES, LEVEL CONTROL, SKID, VAPORIZER, and FLOW CONTROL.

The device is equipped with configurable digital and analogue inputs, allowing the control and measurement of different physical quantities: level, pressure, temperature, weight, or threshold, as well as digital and/or pulse counter alarms.

The LCD display and the 6 keys on the front panel allow a comfortable navigation through the menus, displaying data evaluation and managing the status of the inputs and outputs.

RAD.1 is equipped with a 4G GSM modem interface, such as: LTE Cat 1 bis + fallback to 2G or LTE Cat M1 + NB-IoT, which allows the device to adapt to the most commonly used communication standards for worldwide connection. RAD.1 is ATEX certified, making it the ideal solution for remote monitoring of fuel tanks, storage facilities, or any other materials at risk of fire or explosion.

Key Features:

- Depot Tank Monitoring
- Temperature / Flow / Pressure / Cryogenic tank
- Industrial Gas Meter Reading
- Flow Computer Features
- Universal Multi-Operator Carriers
- Event Log

Benefits:

- Efficient and accurate monitoring of tank levels and conditions
- Real-time measurement and control of temperature, flow, and pressure
- Reliable data for gas consumption and billing with industrial gas meters
- Enhanced flow management with advanced computer features
- Flexible support for multiple operators and configurations
- Detailed event history for troubleshooting and analysis

Reference standards:

EN 62368-1
EN 301 489-1
EN 301 489-7
EN 301 511
EN60079-0
EN60079-11

Compliant with:

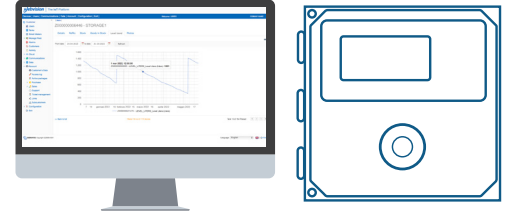
2014/34/UE (Atex)
2014/30/UE (Electromagnetic compatibility)
2014/53/UE (RED)
2014/35/EU (Low Voltage)
2011/65/CE (RoHS directive)
2012/19/CE (RAEE directive)

Technical features:

Order code			TL.014.410	TL.014.411
Power Supply Options	ATEX			
	Internal Battery	External power supply	External power supply	✓
GSM technology connectivity	LTE CAT 1 Bis		B2, B3, B4, B5, B7, B8, B28, B66	✓
	GPRS		GSM850, EGSM900, DCS1800, PCS1900	
	LTE CAT M1		B1, B2, B3, B4, B5, B8, B12, B13, B18, B19, B20, B25, B26, B27, B28, B66, B85	✓
	NB-IoT		B1, B2, B3, B4, B5, B8, B12, B13, B18, B19, B20, B25, B28, B66, B71, B85	
User interface	Display LCD with 6 keys		✓	✓
Sim Card	Mini SIM 2FF standard		✓	✓
Analog inputs	3x PT1000 or RTD 3x 4-20mA or 0-5V		✓	✓
Power supply for analog sensors	1x 12V 30mA 1x 3.6V 100mA 1x 3V 50mA 1x 3V pull up 10kΩ		✓	✓
Digital inputs	4x digital inputs configurable as alarm or counter		✓	✓
Outputs	2x open collector transistor output			✓
Serial interface RS485	MODBUS RTU slave	Magnetostrictive level gauge for filling station	✓	✓
Internal memory	Up to 90 days with 15min sampling period		✓	✓
Local interface	Optical port ZVEI compliant to standard IEC 1170 (EN62056-21)		✓	✓
Fixing	Wall mount with screw and dowels		✓	✓
Dimensions	162x174x90 mm		✓	✓
Weight	500gr (without battery)		✓	✓
Enclosure type & rating	PC+ABS V0 UV resistant IP68 IK08		✓	✓
Operating temperature	-20°C → +70°C		✓	✓
Hazardous certification	Ⓔ ATEX II 1G Ex ia Ga IIB T2 X		✓	✓

Spare parts & Options:

BATTERY SUPPLY BOARD FOR RAD.1 (ONLY FOR TL.014.410). SUITABLE FOR UP TO 2x D-CELL BATTERIES (NOT INCLUDED). ATEX II 1G EX IA GA IIB T2 X	TL.014.41A.1
BATTERY SUPPLY BOARD FOR RAD.1 (ONLY TL.014.411). SUITABLE FOR UP TO 2x D-CELL BATTERIES (NOT INCLUDED). ATEX II 1G EX IA GA IIB T2 X	TL.014.41A.2
POWER SUPPLY BOARD FOR RAD.1 EXTERNAL SUPPLY INPUT 12Vdc OUTPUT 3.6Vdc	TL.014.41A.3
LITHIUM METAL BATTERY 3.6V D CELL - 18Ah (SPARE ONLY FOR TL.014.41X)	AC.040.028



RAD.1 EVC

Flow Computer



RAD.1 EVC is a gas volume corrector that provides a powerful solution for commercial gas measurement purposes. The device is designed to convert the volume of gas measured under operating conditions to volume under base conditions; it measures gas temperature and pressure in compliance with MID standards.

The gas flow rate is sensed by the gas meter pulse or encoder data output (turbine, rotary and diaphragm) and the degree of gas compressibility is calculated by the device according to conventional methods. RAD.1 EVC is equipped with a 4G communication module compliant with international standards and interfaces with SCADA/SAC.

Can be used as a stand-alone device, or as an integrated part of a complete billing system requiring device with remote reading capabilities.

Key Features:

- Converts gas volume from operating conditions to base conditions.
- Measures gas temperature and pressure in compliance with MID standards.
- Calculates the degree of gas compressibility using conventional methods.
- Equipped with a 4G communication module for remote connectivity.
- Compliant with international standards for communication and data exchange.
- Interfaces with SCADA/SAC systems for integration into broader monitoring and control setups.
- Can be used as a stand-alone device or integrated into a complete billing system.

Benefits:

- Ensures accurate gas volume measurement for billing and analysis.
- Provides real-time data on gas pressure, temperature, and flow rate, ensuring compliance and efficiency.
- Enables remote reading, eliminating the need for manual data collection.
- Offers flexibility in deployment, either as a single unit or as part of a comprehensive metering solution.
- Seamless integration with SCADA/SAC systems enhances monitoring and control capabilities.
- Reduces operational costs by automating data collection and system integration.

Reference standards:

EN 62368-1
EN 301 489-1
EN 301 489-7
EN 301 511
EN 60079-0
EN 60079-11
EN 12405-1

Compliant with:

2014/34/UE (Atex)
2014/30/UE (Electromagnetic compatibility)
2014/53/UE (RED)
2014/35/EU (Low Voltage)
2011/65/CE (RoHS directive)
2012/19/CE (RAEE directive)
2014/32/EU (MID)

Technical features:

Max. total error	< 0.5 %		
Compressibility calculation	SGERG-88, AGA NX-19 mod, AGA8-92DC		
Measurement principle	PTZ		
Measurement Period	30s		
Reference temperature Tb	15° C / 0° C		
Reference pressure pb	101.325 kPa		
Temperature sensor		1x PT1000	
	Transducer measuring range	-25 ± +70 °C	
	Measurement error	± 0.2 °C	
	Long-term stability	< 0.02 % of the measured value in Kelvin per year	
	Sensor features	Ø 5.7 mm sensor 50 mm head sensor length 2,5 m external cable length	
Pressure sensor		1x see the order code table	
	Transducer measuring range	-25 ± +70 °C	
	Measurement error	± 0.25 °C	
	Long-term stability	< 0.1 % of the measured value per year	
	Sensor features	1/4 NPT M 2,5 m external cable length	
Digital input		1x configurabile / Setup LF o or HF	
		1x flow direction detection	
	Max frequency	LF Max 10 Hz / 40 ms HF Max 5 kHz / 50 µs	
	Max Cable length	30m	
	Input type	reed contact	
Tamper	1x	100 ms min Open collector	
Digital outputs	1x Open collector	LF pulse output corrected (external powered)	
	Max Cable length	30m 15 Vdc Max	
Power Supply Options	Internal Battery	External power supply	
GSM technology connectivity	TYPE 1	LTE CAT 1 Bis GPRS	B2, B3, B4, B5, B7, B8, B28, B66 GSM850, EGSM900, DCS1800, PCS1900
		TYPE 2	LTE CAT M1 NB-IoT
	Mini SIM 2FF standard		
	Sim Card	Mini SIM 2FF standard	
User interface	Display LCD Icon + Graphic	6x Keys	
Connection terminals	0,25 ÷ 0,75 mm ² PG5		
Mechanical Environment Class	M2 (according to the standard EN 12405-1+A2)		
Electromagnetic Environment Class	E2 (according to the standard EN 12405-1+A2)		
Fixing	Wall mount with screw and vertical dowels		
Dimensions	162x174x90 mm		
Weight	500gr (without battery)		
Enclosure type & rating	PC+ABS V0 UV resistant IP66 IK08		
Operating temperature	-20°C → +70°C		
Hazardous certification	ATEX II 1G Ex ia Ga IIB T2 X		
Comunication protocol	DLMS COSEM (EN IEC 62056)		
Serial interface RS485	MODBUS RTU slave		
Local interface	Optical port ZVEI compliant to standard IEC 1170 (EN62056-21)		
Internal memory	Saving Frequency	1h	
	Capacity	approx 2 years	
	Type of variable	Vm, Vb, t, p, Qb, diagnostic	

Order code:

RAD.1 EVC FLOW COMPUTER	*see the reference table
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RAD.1 ODR

Odorizer



RAD.1 ODR is a system designed for gas distribution networks to safely and accurately add an odorant to natural gas in proportion to the gas flow. Odorization is essential to ensure gas detectability for safety purposes and regulatory compliance. The system can operate using surface-contact technology or precise injection-based technology, depending on application requirements.

Key Features:

- Proportional Odorization: odorant dosage is linked to the actual gas flow to ensure consistent concentration in the network.
- Dual Technology Options: available in surface-contact (lambimento) systems and high-precision injection systems.
- Robust Construction: manufactured with chemically resistant materials (carbon steel or stainless steel) and PTFE seals.
- Control Unit Integration: electronic control unit manages dosing pumps based on gas measurement signals and programmable parameters.
- Safety & Reliability: components are designed to withstand maximum operating pressure, with automatic fallback to backup systems if faults occur.

Benefits:

- Enhanced Safety: ensures reliable gas odorization, improving leak detection and public safety.
- Accurate Odorant Control: injection systems overcome pressure, flow, and level variations, maintaining a stable odorization rate.
- Operational Continuity: automatic switchover to backup modes guarantees uninterrupted service.
- Ease of Use: simple setup, calibration, and operation through guided software menus.
- Low Maintenance & Durability: high-quality materials and smart system design reduce maintenance needs and extend service life.

Order code:

RAD.1 ODR - ODORIZER	*see the reference table
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TDLAS

Gas Detector



TDLAS is a methane gas detector based on Tunable Diode Laser Absorption Spectroscopy (TDLAS). It is designed for high-precision gas detection with fast response time, long service life, and reliable performance in indoor environments. The device supports multiple communication methods and can be linked to a solenoid valve for safety control. The indicator status provides clear information about the operating condition of the device. A green light that remains continuously on indicates normal operation. If the red light is continuously on, this signals a gas alarm. A yellow light that stays on indicates fault information, while a flashing yellow light means that the sensor's service life has expired. Network distribution is indicated by a flashing green light.

Technical features:

Measurement Gas	Methane
Measurement Range	0–100% LEL
Accuracy	±3% LEL
Alarm Concentration	10% LEL Adjustable range: 5–25% LEL
Response Time	≤ 10 s (diffusion type)
Clear Alarm	Automatic release when ambient concentration falls below the alarm threshold Manual clearance
Solenoid Valve Connection	Yes
Communication Methods	NB-IoT WiFi 4G Wired Modbus Other options configurable according to requirements

Life	10 years
IP Protection Rating:	IP51
Working Conditions	Temperature: -10°C to +55°C Humidity: 0–93% RH (non-condensing)
Storage Conditions	Temperature: -25°C to +70°C Humidity: 0–93% RH (non-condensing)
Working Pressure	80 kPa – 120 kPa
Applicable Places	Indoor
Input Voltage	AC 100–240 V (50/60 Hz)
Rated Power	≤ 3 W
Dimensions	112 mm × 112 mm × 33 mm
Weigh	< 300 g

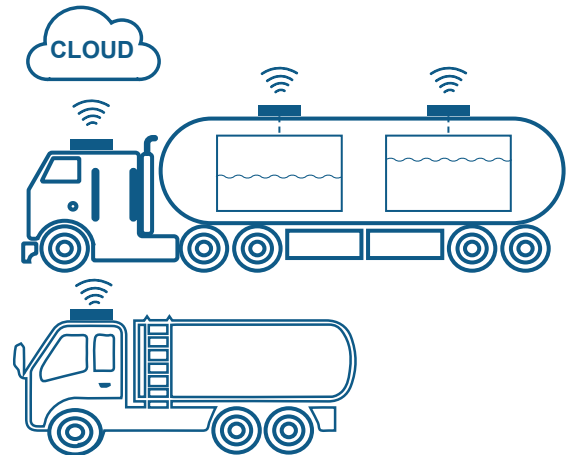
Order code:

TDLAS - GAS DETECTOR	*see the reference table
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GPS-TWO

Fleet Remote Control



Remote control system with 4G technology and GPS vehicle locator suitable for any professional automotive application. The **GPS TWO** series device transmits the position acquired through the GSM and GPS antennas (integrated) and there is also a connector for DIVERSITY GPS ANTENNA external for any connection to better performance. Based on the satellite position calculated instant by instant, the device is able to perform very accurate linear processing and interpolation, transmitting data accurately and completely, sending the required information in 4G mode.

Key Features:

From the inputs it is therefore possible to obtain data and/or alarms and possibly configure advanced functions such as:

- Counting
- Level check
- Average mileage
- Stops verification
- Intrusions
- Theft/fuel filling

Benefits:

- Real-time monitoring
- Maximum security
- Optimized fleet management
- Fuel control
- Data-driven decisions
- Operational efficiency
- Easy, remote access

Reference standards:

EN 60950-1
EN 301 489-1
EN 301 489-7
EN 301 511
EN60079-0

Compliant with:

2014/30/UE (EMC)
2014/53/UE (RED)
2014/35/EU (Low Voltage)
2011/65/CE (RoHS directive)
2012/19/CE (RAEE directive)

Technical features:

Power Supply	8-36Vdc - max power consumption: 300mA @ 24V
Digital Inputs	2x Digital inputs 1x Odometer 1x 1 key
Analog Inputs	2x 0 -10Vdc o 4-20mA (ANA 1 - ANA 2)
Serial Interface	RS232 V.24 or RS485 (Option according to model)
GSM technology connectivity	Dual mode 4G LTE CAT 1 Bis
Gps	16-channel GPS receiver, NMEA-0183 V2.3 protocol, RCTM, sensitivity -157dBm Accuracy 2.5m CEP 5m SEP Start-up time: hanging up again:< 3.5 s, switching on again: 33 s, starting again: 34s
Performance and error	Software owner use with GPS receiver - max 10% adjustable Software owner use with odometer - max 2.5% adjustable
Backup (optional)	Internal lithium battery rechargeable 1500mAh 3.6V ; integrated battery charge control
Dimensions	115x60x40 mm
Weight	300 gr ~
Enclosure type & rating	IP30 complete with fixing brackets
Connections	On request external antenna connections: PLUG-IN Minifit female 20P for I/O ; PLUG-IN Microfit female 6P for serial SMA F for GPS antenna ; FME M for GSM antenna

Order Code:

GPS TWO - GPS VEHICLE ASSET TRACKING DEVICE 8-30VDC, 4G TECHNOLOGY AND BATTERY BACKUP, INTEGRATED GPS ANTENNA + GSM EXTERNAL ANTENNA		TL.014.300
ROCHESTER® MAGNETEL MAGNETORESISTIVE MAGNETEL DIAL WITH VOLTAGE OUTPUT INTERFACE FOR REMOTE FUEL LEVEL MONITOR SUITABLE FOR RETROFIT ON EXISTING VESSELS INSTALLATION OR NEW MAGNETEL GAUGES	4"	AC.070.013
	8"	AC.070.014
EXPLOSION PROOF WIRED MAGNETOSTRICTIVE LEVEL GAUGE STAINLESS STEEL AISI303 EXPLOSION PROOF CONSTRUCTION, EXD BRASS NICKEL COATED 1/2" NPT CABLE GLAND POWER SUPPLY 12-30 VDC - RS485 N. 2 STAINLESS STEEL AISI 316 EXPANDED NBR FLOATS Ø 45/50 MM ACCURACY: ± 0,5MM, RESOLUTION: ± 0,05 MM	Contact Sales department for Order Code	

Technical features:

Power Supply	Safe Area	Hazardous Area
	INPUT	OUTPUT
	24Vdc ± 10%	3,6Vdc 0.5A
Digital channel	2x opto-isolated	
	Safe Area	Hazardous Area
	INPUT	OUTPUT
Serial interface	RS485 (A - B - GND) opto-isolated	
Isolation between safe area hazardous area	2500V	
Max voltage input	Um = 253 Vrms intrinsically safe interface safety parameters	
Condition of Installation	DIN mounting (EN 60715) > IP 54	
Dimensions	160x91x58 mm 9M DIN	
Enclosure type & rating	IP 20 PPO V0 (UL94)	
Operating temperature	25°C ÷ +60°C	
Hazardous certification	⊕ ATEX II (2)G [Ex ib Gb] IIB	

Interface	Ui (V)	Ii (mA)	Pi (mW)	Ci (uF)	Li (uF)	Uo (V)	Io (mA)	Po (mW)	Co (uF)	Lo (mH)	Lo/Ro (uH/Ω)
Power supply out 3.6Vdc	-	-	-	-	-	3.88	1320	5.12	20.4	0.015	340
RS485	10	-	-	-	-	6.93	149	259	300	6.0	551
Digital Inputs	13	-	-	-	-	0	0	0	20	1000	1800

Order code:

B-SAFE 3 INTRINSICALLY SAFE POWER SUPPLY	AC.012.100
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The IoT Software for Monitoring and Remote Control



The CLOUD is a simple and customizable online software that integrates and manages all our devices, ensuring remote monitoring and predictive maintenance for strategic sectors such as Oil & Gas, energy, and industrial telemetry. Thanks to its scalable architecture, cloud platform allows the simultaneous management of an unlimited number of devices, centralizing acquired data and offering advanced analytical tools. With cloud platform, all our products become part of a connected ecosystem, providing total control and optimized data management.

Cloud Platform Mobile: Access Anytime, Anywhere:

The cloud platform app allows users to:

- Monitor connected devices in real-time
- Access historical data for analysis and optimization
- Receive notifications and alerts for faults and anomalies
- Manage predictive maintenance and field technical activities

Cloud platform is available on smartphones, tablets, and enterprise handheld devices, with dedicated sections for end-users and technicians, enhancing efficiency and operational security.

Each account is assigned a service access role:

- Admin access: allows you to manage and control multiple plants with a single account through simple screens, suitable for controlling the functionality of the plants themselves
- User access: reserved access that allows you to access the assigned system, being able to consult only the data of your own system











Key Features:

- Immediate data: data is examined in real time on all connected devices
- Create daily data reports
- Saving and archiving large volumes of data

Benefits:

- Scalability: Supports an unlimited number of devices
- Security: Always-on cloud with encrypted access
- Efficiency: Reduction in management and maintenance costs
- Automation: Intelligent reporting and predictive analytics

Integration with our products:

Device	Function	Integration with CLOUD Platform
ZERO.1 	Remote monitoring of tank levels (LPG, water, chemicals, fuels)	Real-time transmission of level data, historical readings, alarm management, and logistical optimization
SDMQ-G4 		
GM 	Residential Diaphragm Gas Meter	The GM is a high-accuracy residential diaphragm gas meter with anti-reverse and theft protection, featuring internal temperature compensation and compliance with EN1359 and OIML standards.
UGMR 		
USM 	Commercial gas meter	USM is an ultrasonic commercial gas meter that accurately measures natural gas volume with integrated pressure and temperature sensors, MID-OIML compliant, and compatible with NG-H2 blending.
RAD.1 EVC 		
RAD.1 	Smart meter for gas measurement	Measurement management for level, pressure, and temperature, with data transmission to Platform for analysis and predictive maintenance
RAD.1 ODR 		
TDLAS 	Gas Detector	High-precision TDLAS methane gas detector with fast response and LED indicators showing normal operation, gas alarm, fault, sensor end-of-life, and network status.
GPS.TWO 		
	Fleet tracking	GPS position synchronization with Platform for fleet management and security



Remote monitoring solutions for OIL&GAS

TELEMETRY & ENERGY



HITEKS
TELEMETRY AND ENERGY

**HITEKS powered by
Shitek Technology S.r.l.**

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