

GEDRA®

GEDRA (Gas Energy Density Raman Analyser) is a **real time gas analyser** tailored for natural gas, biomethane, and hydrogen analysis. The decarbonization of gas supply and subsequent reconfiguration of gas flows through the grid will substantially affect the gas network operator business. The shared goal is to increase the use of alternative green gas sources such as biogas, biomethane and hydrogen-enriched natural gas. In this future with a such **heterogeneous gas network**, GEDRA will play a crucial role on the way to renewables in **monitoring fundamental gas parameters**. It measures a wide range of gas mixtures without any hardware reconfiguration or any needs of consumable supplies, ready for remote monitoring and control. Designed to **withstand harsh environmental conditions**, GEDRA can be installed **anywhere** along the gas pipelines, including **remote unmanned locations**. Thanks to its peculiar features, it represents an effective alternative to gas chromatographs for monitoring calorific value. Furthermore, it is capable of injecting the gas into the process **without any emissions into the atmosphere**. GEDRA is compliant with EU Regulation 2024/1787.



City gates



Heavy industry



Biomethane production

Features	Values	
Accuracy (OIML R 140)	Class A (0.5 %)	
Pressure range	- For installation type 1: 0.4 - 100 barg; - For installation type 2: > 16 barg. Detail in "Figure 4 Installation scheme"	
Flow rate	Max 54 NL/h	
Temperature range	From -20 °C to +50 °C From -4 °F to +122°F	
Certified Higher Heating Value (HHV) range	Minimum value	Maximum value
	33.59 MJ/Stm ³	43.34 MJ/Stm ³
Power supply	24 VDC	
Power consumption with field display	Average: 18 W Maximum: 25 W	
Communication ports	2x Ethernet 4x Serial (RS 485)	
Lower limit of quantification (LOQ)	500 ppm	
Communication interfaces	- Modbus ASCII according to UNI 11885 - Integrated web server - Field display (available upon request)	
Detectable compounds	Methane; heavier hydrocarbons (ethane, propane, butanes, n-butane, i-butane); nitrogen; carbon dioxide; hydrogen	
Installation in hazardous area	Zone 1, II B+H ₂ , T ₆ Zone 1, II C, T ₆	

NOTE: Different functional features available on request.**Table 1** Technical features of GEDRA

GEDRA is designed according to UNI 9167-3 and UNI 1776.

Calorific values and other quantities are calculated according to ISO 6976:2016.

The product is certified according to European Directives 2014/34/EU (ATEX), IECEx, 2014/30/EU (EMC), OIML R140, European Directive 2004/22/CE (WELLMEC 7.2) and compliant with EU Regulation 2024/1787.



UNI
9167-3



UNI
1776



ISO
6976:2016



EU
2024/1787



ATEX



OIML
R140



EMC



IECEx

GEDRA competitive advantages



High accuracy



Fast response time



High repeatability



H₂ ready



No carrier gas
No calibration gas mix



No gas release in atmosphere
with installation type 1

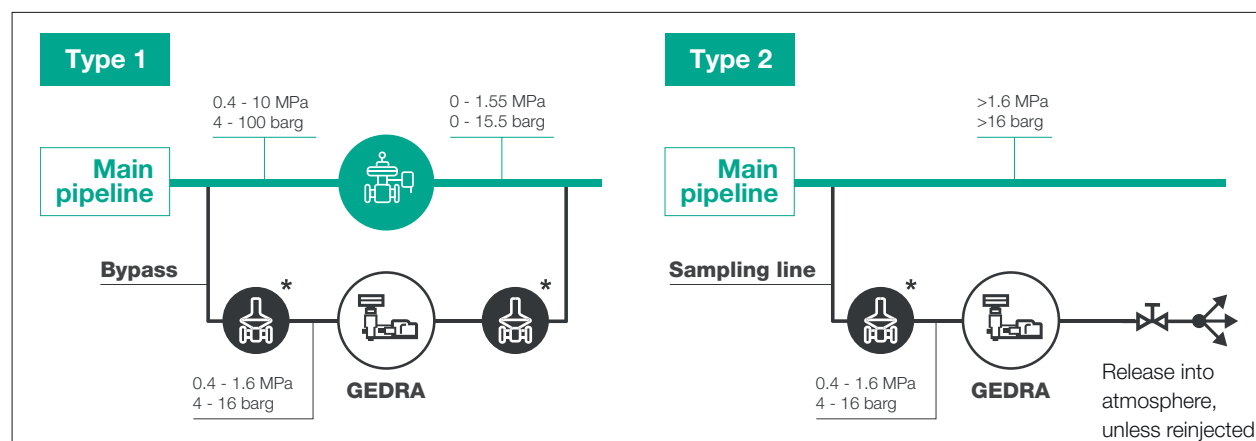


In-line installation



Low power consumption

Installation schemes



*To be defined according to the use case

Figure 1 Installation scheme