

# automation of biogas plants



## service spectrum of ORmatic gmbh

- Full supplier of terminal box actuators (pump, agitator), energy connector (transformer station, cogeneration plant), sensors and remote monitoring
- Construction, delivery of all process sensors including installation, configuration, implementation (including ex-applications)
- Complete electro-technical planning on the basis of actuator output and wire routes
- All installed components meet the latest industrial standard
- Digital signals as 24 VDC, analog signals 4...20 mA, Feldbus Profibus, DP/PA, Level1-Bus Ethernet TCP-IP with, Modbus TCP or ProfiNet
- Controls Siemens S7-300, Beckhoff BC9100, GE Fanuc
- Visualization iFix, Cimplicity ME, PCS7
- Data archiving iHistorian, My-SQL, Acron
- Data analysis integrated into visualization and as Excel report
- Remote monitoring – Client Server architecture, pcAnywhere
- After-Sales service

## excerpt from our references - national plants

### Hygienisation biogas plants

Input: foodwaste

Realised services: complete sensor technology, wiring, switchgear, MSR cabinet, reactive current compensation, control technology, visualisation, long-term data archiving, Excel reporting

### Hüttenfeld

Employer: entec biogas gmbh

End customer: ReFood GmbH & Co. KG (SARIA)

### Genthin

Employer: Bigadan Deutschlang GmbH

End customer: ReFood GmbH & Co. KG

### Erfstadt

Employer: entec biogas gmbh

End customer: ReFood GmbH & Co. KG (SARIA)

### Malchin

Employer: entec biogas gmbh/ OBAG

BioEnergy Anlagenbau GmbH

End customer: Rethmann Gruppe

Find more information at [www.ormatic.de](http://www.ormatic.de)

excerpt from our references - international plants

**Harvester/ Florida USA** Input: Foodwaste  
Employer: Harvester Power  
End customer: Layne Heavy Civil Inc.

**Zermatt/ Schweiz**  
Input: dung, lipids and foodwaste  
Employer: Paul Julen MBPAG  
Planing Company: GICON - Großmann Ingenieur Consult GmbH

**Emerald/ U.K.**  
Input: Foodwaste  
Employer: entec biogas gmbh  
End customer: Emerald Biogas Limited

**Valdis Isse'/ Frankreich**  
Input: Foodwaste  
Employer: entec biogas gmbh  
End customer: Bionerval Frankreich (SARIA)

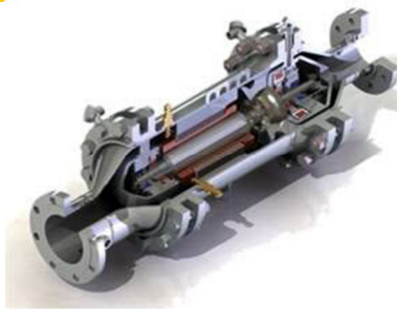


our know-how in the field of automatization of biogas plants

ORMatic GmbH can offer you many years of experience in the following areas:

- Layout of sensors
- Expert consultation for Ex-installations
- Development of control solutions
- Development, simulation and implementation of complex control arrangements
- Development of simple panel visualizations up to complex guide-systems (client server)
- Long-term data archiving and analysis

In recent years we have been specializing in the automatization of biogas plants.



**ORCa<sup>®</sup>**

Organic Rankine Cycle micro turbine for gas engines with a thermal output from 585 kW

orc application ORCa012

This module is designed in an **extremely compact design** and can be installed on cogeneration units with an electrical output of 180 kW (approx. 80 kW thermal output in exhaust gas). In contrast to all ORC systems on the market, the ORCa product series can be used to feed the energy of the cooling back into a district heating network.

Read more about our ORC and related product ORCa012 on the [www.lpg-orc.de](http://www.lpg-orc.de) site!



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