



Process observation
in biogas plants

Lumiglas

Product overview

PAPENMEIER

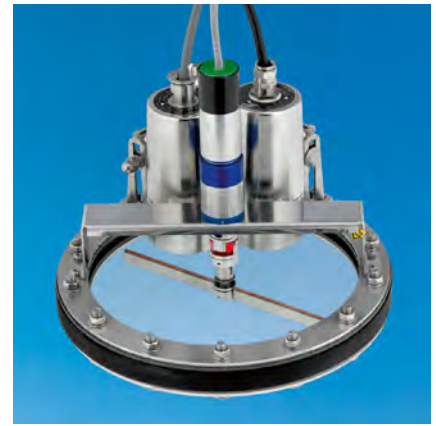
Lumiglas sight glass fittings in biogas facilities make fast visual inspections of the contents of the fermenter a simple process. The formation of floating layers, the function of the stirrers and biological desulphurisation can be checked – quickly and reliably.

The safety regulations stipulated by the agricultural professional associations require that sight glass fittings and electrically operated installations used in the production of biogas are gas-tight and explosion-protected. All sight glass fittings have to comply with Directive 2014/34/EU. This applies in particular to the temperature class in thermophilic operations.

Take advantage of Papenmeier's long experience in the production of electrical plant that meets the highest demands on explosion protection. With the VISULEX Ex camera system from the renowned Lumiglas range, safety has top priority.

The Lumiglas package solution for biogas production

With remote-controlled VISULEX Ex cameras, data for monitoring and analysing can be sent from any location. Remotely operated Lumiglas disc wipers with spray nozzle ensure that the view into the fermenter and vessel is always clear.



Lumiglas system package for biogas plant

Extract from the Lumiglas product range and accessories

VISULEX K55-Ex



VISULEX Camera K55-Ex, stainless steel

II 2G Ex d IIC T6 Gb
II 2G Ex tb IIIC T80°C Db

With fixed lens, up to max. 100 m transmission route without internal amplifier, built-in colour CCD camera, lens with 28°-60° viewing angle

VISULEX Camera K25-Ex, stainless steel

II 2G Ex d IIC T6 Gb
II 2G Ex tb IIIC T80°C Db

The zoom lens is operated externally by remote control from the control room. The person monitoring can adjust any of the technical settings to meet his individual requirements

VISULEX K25-Ex



Lumistar ASL 57 LED-Ex



Lumistar luminaire ASL 57 LED-Ex

II 2G Ex d(e) IIC T6 Gb
II 2D Ex tb IIIC T80°C Db

Power luminaire in aluminium with flame-proof encapsulation, nominal voltage: 24 V AC/DC, 120-230 V AC, output: 35 W (high-power LED), connecting cable or Ex e terminal box

Lumistar luminaire USL 07-Ex

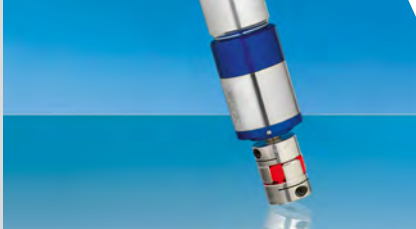
II 2G Ex d(e) IIC T3/T4/T6/120°C Gb
II 2D Ex tb IIIC T80/T120/T130/T195°C Db

Power luminaire in aluminium with flame-proof encapsulation, nominal voltage/output: AC/DC 12 V, 24 V, 230 V; up to 75 W; AC 120 V, 230 V, 240 V, up to 50 W (Halogen lamp), connecting cable or Ex de terminal box

Lumistar USL 07-Ex



Lumiglas Ex motor drive



Lumiglas Ex motor drive EMA I-Ex

⊕ EEx d IIC T5

Versatile high-power Ex motor drive, compact size, for connecting various control elements, e.g. for actuating the disc wipers on sight glass discs

Video web server

for feeding from a video source to the network or internet, H.264 HP and MPEG image compression, max. 25 fps with 720 x 576 pixel, Ethernet: RJ45, 10/100 Mbit/s. Power supply: 12 V DC ± 10%/3.8 W, incl. power adapter: 230 V/12 V DC/300 mA

Video web server



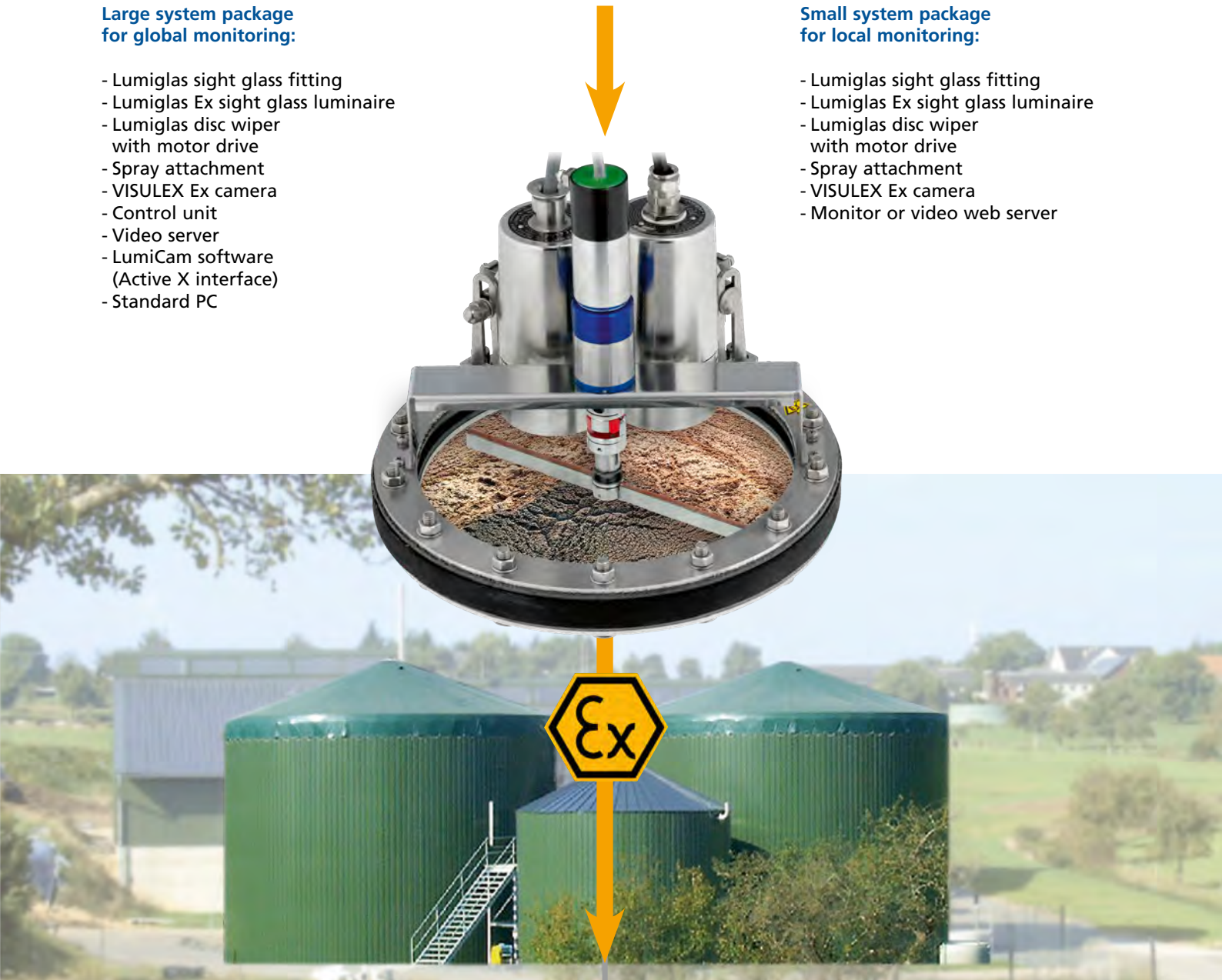
The Lumiglas system package is available in two variants:

Large system package
for global monitoring:

- Lumiglas sight glass fitting
- Lumiglas Ex sight glass luminaire
- Lumiglas disc wiper with motor drive
- Spray attachment
- VISULEX Ex camera
- Control unit
- Video server
- LumiCam software (Active X interface)
- Standard PC

Small system package
for local monitoring:

- Lumiglas sight glass fitting
- Lumiglas Ex sight glass luminaire
- Lumiglas disc wiper with motor drive
- Spray attachment
- VISULEX Ex camera
- Monitor or video web server



Large
Lumiglas package solution

Small
Lumiglas package solution



The continual monitoring of biogas production processes has become an increasingly important control factor for plant operators.

The resulting requirements are met with Lumiglas by Papenmeier – specialists in the field of Ex-protected cameras and luminaires – with supplementary components developed specifically for biogas applications.

Lumiglas package solutions provide you, the plant operator, with the ideal option for continually observing and documenting the entire gas production process – from fermentation to biogas formation.

This can be done from a single command position, wherever you want, either locally or anywhere in the world.

While the standard solution meets most requirements, as you know, a standard solution is only as good as its individual adaptation.

Reason enough for us to look forward to hearing from you so that we can work out the ideal solution for your specific needs.

We will be delighted to arrange a personal consultation with you – we are at your service.

Member of
professional association Biogas e.V.



PAPENMEIER
Lumiglas

F.H. Papenmeier GmbH & Co. KG
Talweg 2, 58239 Schwerte
Germany

Phone: +49 2304 205-0
Fax: +49 2304 205-206
info.lumi@papenmeier.de
www.papenmeier.de