

STAR-6998

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Ex-Rated Camera System Provides Remote Process Monitoring

L.J. STAR
INCORPORATED

lumiglas
ISO 9001
840-0027-01-000-0100

Lumiglas® VISULEX Ex Camera System
for inspection and long-range observation of technical processes primarily in Ex hazardous locations.

The permanent availability of visual process data in a central control room saves considerable expenses such as work and travel time. Physical visits to critical production areas or external facilities are no longer required, contributing to plant safety.

The Lumiglas-VISULEX Ex Camera System meets these requirements with optimal cost-effectiveness.

Visual process data is displayed for monitoring, evaluation or additional processing, either shown on a terminal screen or stored in a PC, thus allowing tracking of the entire process flow.

Lumiglas-VISULEX Ex Camera components:

- The primary element is the Lumiglas Ex camera, either mounted on a sight glass or a reactor or verified for area viewing.
- Pictures taken by the camera in an Ex area are fed via cable (1000 m maximum) to the control room and connected either to a PC with image processing capabilities, or to a standard monitor.
- An optional control unit provides power to the camera, regulates data transfer and, if needed, operates the zoom lens.

Similar to the internationally renowned Lumiglas lenses, the camera system can be attached to a sight glass fitting (DIN 28120 or similar) using a flanged bracket. If the standard illumination of the process is not sufficient, an additional Lumiglas lenswire can be attached if fitting allows.

Depending upon the process and reactor size, a separate light spot and camera port may be the best design. The application would depend upon the fixture size and radius as well as angle of incidence.

Lumiglas-VISULEX Ex camera
Images captured by the camera are transmitted to a display in the control room (left: control unit)

Reactor in Ex area
Optical sight glass for viewing

Process Ex in reactor

Measuring and control station in control room can be up to 1000 meters outside the Ex hazard zone.

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A detailed 4-page catalog from L.J. Star Inc. describes an integrated ISO 9001 video system, the VISULEX Ex Camera system, designed specifically for the observation and inspection of processing operations, even in explosion-hazardous locations. Images can be directly viewed or downloaded to a PC for further analysis. The VISULEX camera mounts on any DIN 28120 or similar sight glass, on in an overhead observation location, in either new or retrofit applications.

The catalog is illustrated with detailed photos and dimensional drawings describing the essential elements and optional features available in this new system, plus applications tips and wiring diagrams. Standard components include a camera with either fixed or zoom-type lens, a control unit and required cabling. Available accessories include a monitor and PC equipment and software.

Detailed specifications, including those for the ¼-in CCD cameras and both lenses are provided. Featured camera specs include a rating of approximately 380,000 pixels with a resolution of 470

TV lines with the zoom lens and 480 lines with the fixed lens.

Lenses for the fixed-lens model provide viewing angles from 71.5° at 2.5 mm focal length to 25.4° at 8.0 mm. The remotely-operated optical 10 X zoom lens varies from f=4.2 to f=42 with one-touch automatic focus. Aperture control is automatic with a manual override. Digital zoom ranges to 4 X. In both, electronic shutter speeds range to 1/10,000.

Detailed specs are also provided for the control unit and video monitor required, as are requirements for the PC system needed to save and further analyze the video input.

For additional information, contact L.J. Star Incorporated, P.O. Box 1116, Twinsburg, OH 44087. Phone: 330-405-3040. Fax: 330-405-3070. Email: view@ljstar.com. These and other types of process observation equipment are available on-line at our web site: www.ljstar.com

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