

Installation and Operating Instructions

Lumiglas-VISULEX-Ex-Camera Type K07-Ex

• **Description:**

Camera type K06-Ex construction utilises ignition protection type pressure tight encapsulation "d" for the body and increased safety "e" for the terminal box. It is approved for use in Ex areas zones 1 and 2 as well as zones 21 and 22. For trouble free operation the temperatures shown in the data sheet for the installed camera type must be adhered to. Connection of the control unit for Ex Camera type K07-Ex is made outside the Ex-hazardous area.

Ex cameras are intended for monitoring of an object as well as remote control of process operations in reactors, machinery, containers etc. They are designed for mounting on the cover flange of a sight glass unit. They must never be used as a lid or cover for a vessel opening

• **Cameras for Ex hazardous areas may only be installed, connected and serviced by personnel who are specifically trained and authorised to do so.**

• **Electrical and technical data, general:**

- Supply voltage for the camera is 24V/DC +/-10%
- maximum power consumption 25 W
- protection IP67 to EN 60529/DIN VDE 0470 part 1
- EG type test certification: DMT 01 ATEX E047
- ⊕ II 2 G EEx de IIC T6/T4 and II 2D IP 67 T80/T130°C

• **Identification:**

The camera has a permanent, easily seen and read identification plate showing the following information:

- name and address of manufacturer
- camera type: K07-Ex
- ⊕ II 2G EEx de IIC T6/T4 and II 2D IP67 T80/T130°C
- ambient temperature: $-20^{\circ}\text{C} \leq T_a \leq +40/60^{\circ}\text{C}$
- certification number

- **Warning:** it is vital to note the following

- do not open whilst power is ON
- wait 4 minutes from switching off power before opening
- only use temperature resistant cable in accordance with operating instruction

- serial number/year of manufacture
- supply voltage
- protection IP67
- CE-symbol/certification body number

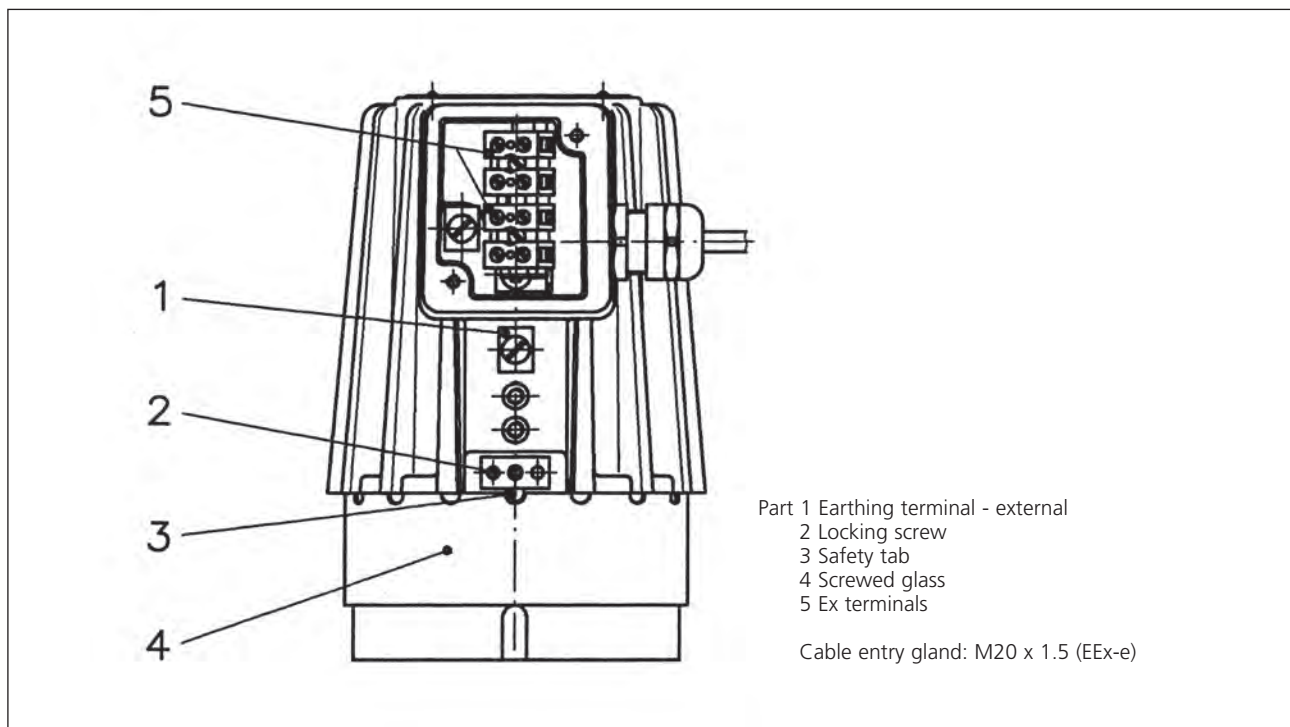
• **Connecting cable:**

- control cable 3P X AWG 20°C black (Metrofunk) or similar quality cable of other makes to be used
- temperature resistance: min -20°C to +105°C
- flame resistant or difficult to ignite

• **Electric connection:**

- remove the terminal box lid
- pass the cable through the gland (EEx-e) into the terminal box
- wire to Ex terminal (part 5)
- ensure external earthing terminal (part 1) is connected to a separate plant earthing point
- fit terminal box lid gasket and refit lid

- **The camera is protected by fuses in the control panel (in non Ex area). These fuses may only be changed with the system switched off and by personnel who are qualified and authorised to do so.**



• **Camera exchange:**

Any necessary exchange of the camera assembly must be undertaken by the manufacturer or in the manufacturer's works (F.H. Papenmeier GmbH & Co. KG).

• **Mechanical installation:**

The Ex camera is fitted by means of the brackets supplied to the cover flange of a circular sight glass unit or a flow indicator or the slotted cover nut of a screwed sight glass.

• **On no account** allow the camera lens to be exposed to direct sunlight as this will render it useless.

• **Lumiglas Camera type K07-Ex is suitable for the following nominal size fittings using the appropriate mounting bracket:**

Type of fitting	from DN
circular sight glass fitting DIN 28120	50
circular sight glass fitting DIN 28121	50
flow indicator	50
screwed sight glass fitting similar to DIN 11851	65

• **Replacement parts** (use only original parts)

Part	Part No.
- Screwed glass	1774.079.00
- O ring seal	0862.040.00

• **Accessories:**

Part	Part No.
- Camera mounting bracket, straight (DN 50 to DN 100)	0354.005.00
- Camera mounting bracket, cranked (DN 125 to DN 200)	0354.065.00
- Claw spanner for screwed glass ring to open camera	6805.002.00

NOTE: accessories (unless already on hand) should be ordered separately.

• **Maintenance:**

- Keep camera clean.
- After opening camera lubricate screwed lens ring (part 4) with fresh grease (e. g. AEMA-SOL 6B by A. E. Matthes).
- Regularly clean glass disc to optimise camera vision.