

## Installation and Operating Instructions 0158

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### VISULEX Ex Camera K55P-Ex/K55N-Ex



II 2G Ex db IIC T6 Gb

II 2D Ex tb IIIC T80°C Db

#### • Description:

The VISULEX K55P-Ex/K55N-Ex is a fixed-lens camera. During the installation process, the lens of this standard camera is focused on the outdoor area or facility to be kept under surveillance (e. g. yard, plant or technical process elements such as vessels or agitators).

The temperatures specified in the data sheet for the built-in camera type should be observed so as to ensure trouble-free operations. A terminal box is provided for connecting the camera. **Important, please note:** Under no circumstances should a camera be used to replace the cover flange or the complete sight glass fitting, nor should it be used on its own as a closure for a vessel port.

#### • Design and field of application:

- Pressure-resistant stainless steel housing with built-in colour CCD camera, 1/3" CCD sensor, 1 lux photosensitivity, electronics, and stainless steel mounting
- Approved for Ex zones 1 and 2 as well as zones 21 and 22

#### • General electrical data:

- Feed voltage to the camera: 12 V/DC  $\pm$  10%
- Maximum power consumption: 7.5 W including power supply unit
- Protection class of camera: IP65 acc. to EN 60529/ DIN VDE 0470, Part 1
- Application temperature range: -10°C to +45°C (depending on camera module used)
- Protection class of terminal box: IP40
- Ex approval acc. to EC type examination certificate: BVS 15 ATEX E 056 X



II 2G Ex db IIC T6 Gb

II 2D Ex tb IIIC T80°C Db

#### • Markings:

- The camera has a permanent type plate which is clearly visible and easy to read. It bears the following data:
- Name and address of manufacturer
  - Camera type: K55P-Ex
  - Ambient temperature range: -20°C  $\leq$  Ta  $\leq$  +50°C, depending on the camera module used
  - Certificate number
  - Warning – must be observed:
    - Do not open when live!
    - After deactivating the voltage, wait four minutes before opening
  - Serial number/year of manufacture
  - Supply voltage
  - Protection class: IP65
  - CE symbol/No. of certification body

#### • Connecting cable:

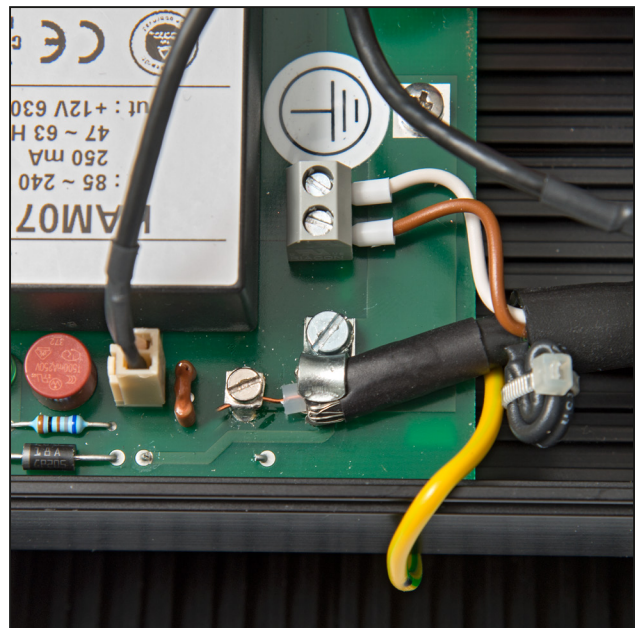
The connecting cable is to be installed so as to avoid the occurrence of static charges. The length of the supply cable has to be max. 1 m.

#### • Connection:

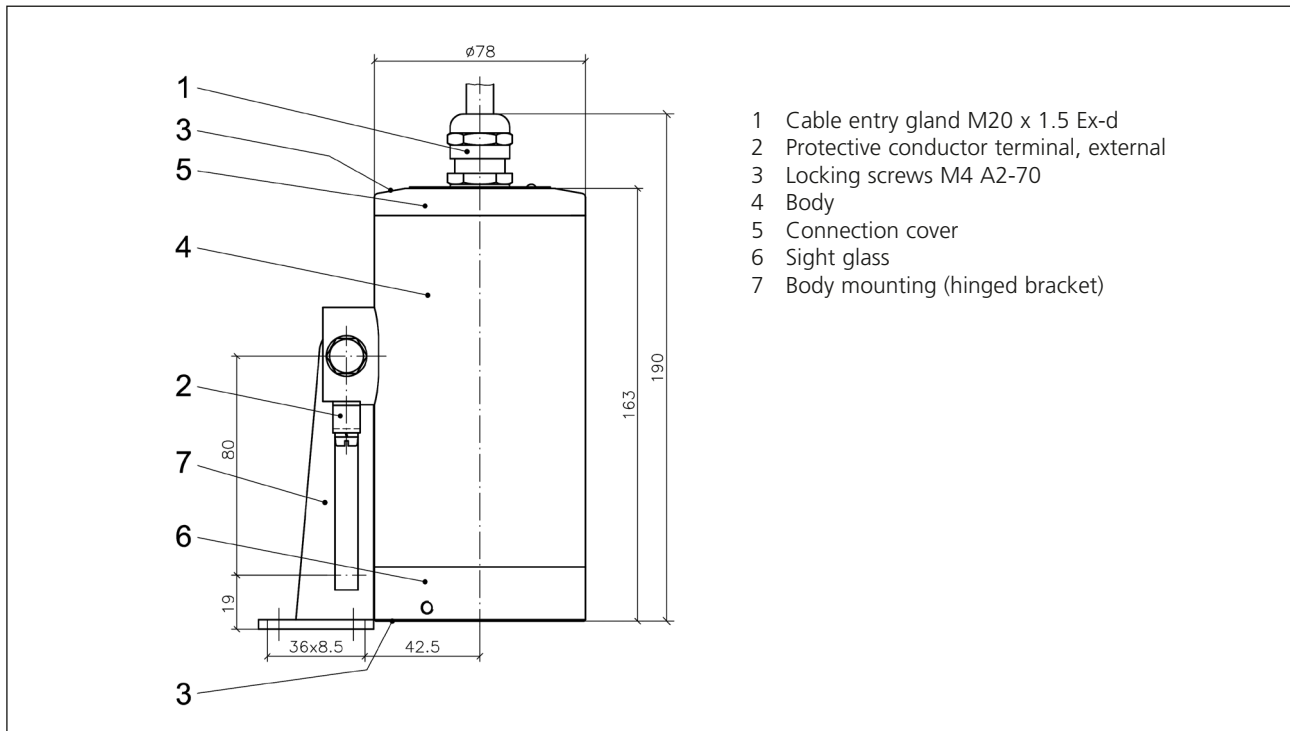
- The camera is supplied as a unit comprising the camera and the terminal box.
- Should it be necessary to detach the connecting cable to improve the cable routing, this can be carried out in the terminal box.
- The camera should never be operated without the terminal box because the safety device (fuse) is located in the terminal box.



VISULEX Camera K55P-Ex with fixed lens



Attaching the cable in the terminal box



- 1 Cable entry gland M20 x 1.5 Ex-d
- 2 Protective conductor terminal, external
- 3 Locking screws M4 A2-70
- 4 Body
- 5 Connection cover
- 6 Sight glass
- 7 Body mounting (hinged bracket)

## • Replacing the camera and/or electronics:

Any replacement of the camera module should be carried out by the manufacturer and/or done at the manufacturer's works (F.H. Papenmeier GmbH & Co. KG).

## • Mechanical installation:

It is essential to read the information sheet "Important instructions when using sight glass fittings" before commencing installation work.

The camera is attached to the cover flange of a circular sight glass fitting or flow sight glass or to the slotted cover nut of a screw-type sight glass using the mounting components.

The lens of the camera should never be exposed to direct sunlight as this will render it inoperable!

The Visulex camera K55P-Ex/K55N-Ex fits the following nominal diameters when used together with the appropriate mounting parts:

Type of fitting	from DN	Hinged bracket	Flanged adapter
Circular sight glass fitting DIN 28120 + DIN 28121	40	+	-
Flow indicator sight glasses	50	+	-
Screw-type sight glass fitting in compliance with DIN 11851	65	-	+
	80	+	+
	100	+	+
	125	+	+

## • Mounting with hinged bracket:

The hinged bracket is intended for fastening the camera to the cover flange of a circular sight glass fitting or flow sight glass or to the slotted cover nut on screw-type sight glass fittings acc. to DIN 11851.

The hinged bracket is secured to the required bolt circle using the M8 screw included in the scope of supply which fits into a blind hole which has previously been tapped (by operating company). Alternatively, the hinged bracket can be welded in place.

## • Mounting by flanged adapter collar:

The adapter collar is secured to the slotted cover nut (DIN 11851) by welding or screwing it on. The camera is then positioned on the flange using the screws included in the scope of supply.

## • Replacement parts:

Part	Part No.
Sight glass	1774.078.00
O-ring seal	0862.039.00

## • Accessories:

Part	Part No.
Camera mounting (hinged bracket)	0354.025.00
Camera mounting (flanged adapter) MV 50	1356.038.00
Camera mounting (flanged adapter) MV 65	1356.039.00
Camera mounting (flanged adapter) MV 80	1356.040.00
Camera mounting (flanged adapter) MV 100	1356.044.00
Camera mounting (flanged adapter) MV 125	1356.041.00

## • Maintenance:

- The camera should be kept clean
- After opening the camera, the thread of the screw-type glass lens and the cover of the terminal box (parts 4 and 5) should be freshly greased, (e.g. with AEMA-SOL 6 B, made by A.E. Matthes)
- The glass disc should be cleaned regularly to ensure optimum camera viewing
- Always use original replacement parts