

CAMERA INSPECTION

PRACTICAL SOLUTIONS FOR PIPE INSPECTION



CONTENT

Camera Inspection Systems



Camera Inspection Systems

High-resolution video inspection in pipe and sewer systems





The camera inspection system Kati® KIS offer the best technical specification for the inspection of pipes and hollow spaces:

- high quality glassfibre profile from KATIMEX® with integrated copper wires
- stable reel with integrated 6 pole slip ring transmitter
- powerful light and high-resolution camera system

You can push the head of the camera easily up to 60 metres with our **shear-stable** Polykat® glassfibre profile.

The camera systems should be of particular interest to installers/contractors where inspection needs to be carried out to check for leakage.

Kati® KIS is also used in pipeline construction and pipeline revision of municipal utilities, civil engineering companies, ventilation systems and civil protection.

The advantages of the camera system are particularly evident in the house connections. By a quick and easy inspection, a competent and cost-effective decision can be made. With the **flexible** and **shear-stable** Polykat® glassfibre profile the camera can show areas that cannot been seen otherwise. The resistant stainless steel heads of the camera are **waterproof up to 5 bar.**

High Power LED's with high brightness in the near- and long-range ensure optimum visibility.

You can use the digital video recorder for a complete documentation and analysis.

With the series Kati® KIS, KATIMEX® has created a very flexible camera inspection technique that is adaptable and able to meet future demands.











Camera Inspection Systems

Quality characteristics



All camera inspection systems are equipped as standard with:

- LCD-Monitor 5,6" in aluminium housing incl. light protection blinds
- High-resolution Sony CCD ½" camera chip, 480 TV lines, Dispersal 752 x 582 with automatic white balance
- Voltage 230 V, 50 Hz or 12 V
- Zinc-coated steel tube frame with integrated brake and 6 pole slip ring transmitter

An extensive range of accessories can be found on the following pages.

 $\mathsf{KATIMEX}^{\textcircled{B}}$ components posses a high compatibility, that offers each user the possibility to set up an optimum system and enlarge this later as the need arises.



The recording is done with a **digital video recorder (optional)** onto a customary SD Card (at least 2 GB).

A quick change of the SD Card is possible and this extends the recording capacity. Simple operation of the digital video recorder with the **remote control**, which is also supplied.

The Kati® KIS can be connected to nearly every TV, video camera with chinch (video input) or laptop with USB-cable and video software.



Camera heads

Rough camera heads from stainless steel with high marresistant glass and **ultrabright LED's.** They are characterized by their high **brightness**, in the near and far range.



Roller slay

For a camera inspection without friction. The camera slay is mounted onto the camera head and ensures perfect centering as well as a quick progress.



Centering sleeves

Camera head protection and centering

Type comparison

type	length	Ø	DN	pressure	aut. picture position*	video out
Kati® KIS 50	40 m	4,5 mm	50	4 bar	no	CVBS
Kati® KIS 70	60 m	7,4 mm	70	5 bar	no	CVBS
Kati® KIS 90	60 m	7,4 mm	90	5 bar	yes	CVBS
Kati® KIS 125	60 m	9,0 mm	125	5 bar	yes	CVBS

^{*}upright picture by automatically horizontal compensation

Katimex®

Camera Inspection Systems

Kati® KIS 50



Mini camera system with Polykat® glassfibre profile \emptyset 4.5 mm, length 40 m applicable in pipes from 30 mm up to 150 mm \emptyset max., suitable with DN 50 up to 80°, stainless steel camera head, \emptyset 27 mm, Nano protected, marresistant mineral glass, waterproof up to 4 bar max., weight 6 kg

Photosensitivity of the camera module: 0,05 Lux, objective: wide angle 87°,

 ${\bf 15}$ Ultra Powerlight LED's ensure the best possible illumination

dimensions: length 37 cm x width 19 cm x height 51 cm

type	description	artnr.
KIS 50	base device	104001
KIS 50 M	incl. digital length counter with display in LCD monitor	104001M
KIS 50 V	incl. digital video recorder with 2 GB SD Card	104001V
KIS 50 MV	incl. digital length counter with display in LCD monitor digital video recorder with 2 GB SD Card	104001MV

Kati® KIS 70



Pipe camera system with Polykat® glassfibre profile \emptyset 7.4 mm, length 60 m applicable in pipes from 50 mm up to 350 mm \emptyset max., suitable with DN 70 up to 87°, stainless steel camera head, \emptyset 40 mm, high marresistant sapphire glass, waterproof up to 5 bar max., weight 10 kg

Photosensitivity of the camera module: 0,01 Lux, objective: wide angle 87°,

12 High Power and 8 SMD LED's ensure a perfect illumination

dimensions: length 51 cm x width 26 cm x height 63 cm

type	description	artnr.
KIS 70	base device	104002
KIS 70 M	incl. digital length counter with display in LCD monitor	104002M
KIS 70 V	incl. digital video recorder with 2 GB SD Card	104002V
KIS 70 MV	incl. digital length counter with display in LCD monitor incl. digital video recorder with 2 GB SD Card	104002MV

Kati® KIS 90



Pipe camera system with Polykat[®] glassfibre profile \emptyset 7.4 mm, length 60 m applicable in pipes from 70 mm up to 500 mm \emptyset max., suitable with DN 90 up to 100°, stainless steel camera head, \emptyset 50 mm, Nano protected, high marresistant glass, waterproof up to 5 bar max., weight 13 kg

Digital length counter with display in LCD monitor

Photosensitivity of the camera module: 0,01 Lux

Objective: wide angle 97°, upright picture

24 Ultrawhite light and 12 SMD LED's ensure a perfect illumination

dimensions: length 51 cm x width 26 cm x height 63 cm

type	description	artnr.
KIS 90 M	incl. digital length counter with display in LCD monitor	104003M
KIS 90 MV	incl. digital video recorder with 2 GB SD Card	104003MV

Kati® KIS 125



Sewer camera system with Polykat[®] glassfibre profile Ø 9 mm, length 60 m applicable in pipes from 70 mm bis up to 500 mm Ø max., suitable with DN 125 up to 87°, stainless steel camera head, Ø 50 mm, Nano protected, high marresitant glass, waterproof up to 5 bar max., weight 14 kg

Digital length counter with display in LCD monitor

Photosensitivity of the camera module: 0,01 Lux

Objective: wide angle 97°, upright picture

24 Ultrawhite light and 12 SMD LED's ensure an optimum illumination

dimensions: length 67 cm x width 28 cm x height 79 cm

type	description	artnr.
KIS 125 M	incl. digital length counter with display in LCD monitor	104004M
KIS 125 MV	incl. digital video recorder with 2 GB SD Card	104004MV





Camera Inspection Systems

Accessories

Roller slay



Roller slay

available in two different diameters for all Kati® KIS camera heads

	weight	artnr.
min. DN 130	0.8 kg	104204
min. DN 200	1.0 kg	104205

Centering sleeves



Centering sleeves

centers the camera head inside the pipe. Is fixed onto the camera head

	weight	artnr.
min. DN 75 for Kati® KIS 50	0.04 kg	104215
min. DN 100 for Kati® KIS 50	0.10 kg	104216
min. DN 100 for Kati® KIS 70	0.11 kg	104217
min. DN 100 for Kati® KIS 90 and 125	0.17 kg	104218

Data input



Data input

an upgrade enables to put in data by a small keyboard

	artnr.
for all Kati [®] KIS	104202

Locating sonde



Locating sonde

for tracking of non-metallic conduits and pipes.

Battery-powered mini-transmitter with a frequency of 33 kHz and a range of about 5 m, depending on the terrain.

The transmitter can be fixed easily onto the Polykat® glassfibre profile.

dimensions: length 12 cm x width 2.8 cm x height 3 cm

	weight	artnr.
for all Kati [®] KIS	0.12 kg	104201