

Nuremberg, 06 July 2007

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TEST REPORT No.: E 4.230

Task: *degree of protection test IP 69K according to DIN 40050 T9 and EN 60529*

Order No.: *11000229 dated June, 07-2007*

Subject: *4 camera modules*

VBV-790C Ser.: 0703C0405 and BE-890C Ser.: 061000020 (IP6X)

VBV-790C Ser.: 0703C0404 and BE-890C Ser.: no serial



1 Dust test according according to EN 60529

Test duration:	8 hours
Dust:	talcum
In Operation:	No
Depression:	with depression

2 Watertightness IP X9K according to DIN 40 050 T 9

Test equipment:	Flat fan nozzle Rev (5 ±1)/ min Spray with 0°, 30°, 60° and 90° degrees Distance (100 till 150) mm
Flow rate:	14 to 16 l/min
Water pressure:	ca. 8.000 till 10000 kPa
Water temperature:	(80 ±5)° C
Duration:	30 sec each position

3 Agreement

A detailed function test will be made by the customer.
For each test, different samples were used.

4 Result

Before and after testing, all test samples work properly.

No water or dust intrusion is detectable.

The degree of protection IP 69K is deemed to be passed.

LGA QualiTest GmbH

Environmental simulation

Dipl.-Ing. G. Windmoeller
Specialist center supervisor

Results apply only to the EUT specified.

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Appendix

1. Test setup
2. samples after testing

Appendix 1.1

Test setup



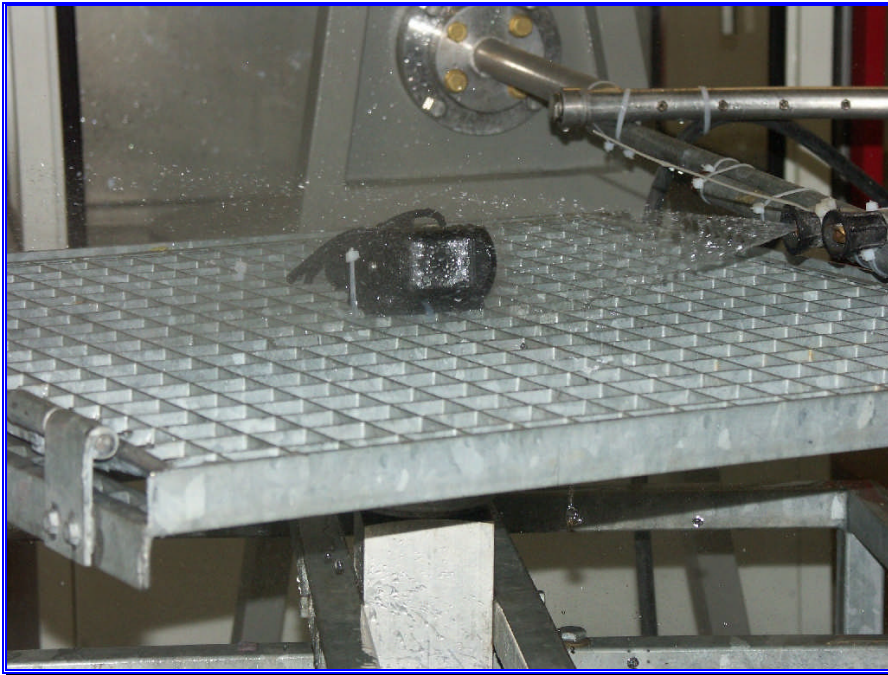
IP 6X



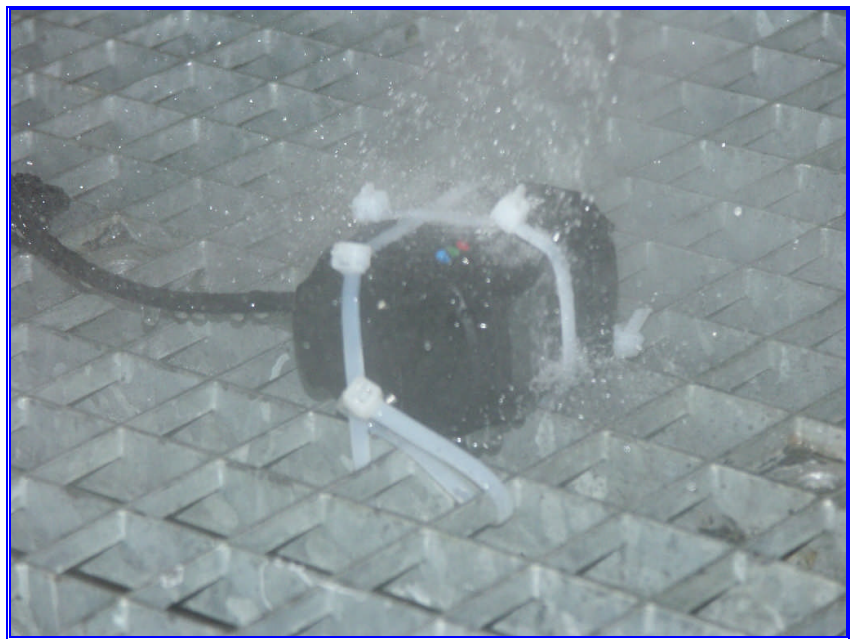
storage IP 6X (dust)

Appendix 1.2

Test setup



IP X9K test



IP X9K test