1. Structure

pitch
1.6 µm

pitch
5.0 µm

pitch
8 µm

pitch
16 µm

grooves

pitch
2.0 µm

pitch
4 µm

pitch
25 µm

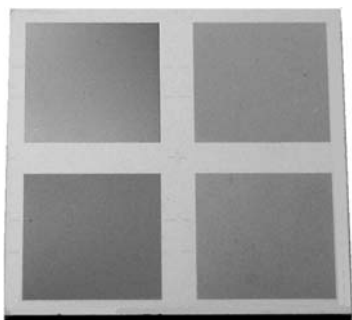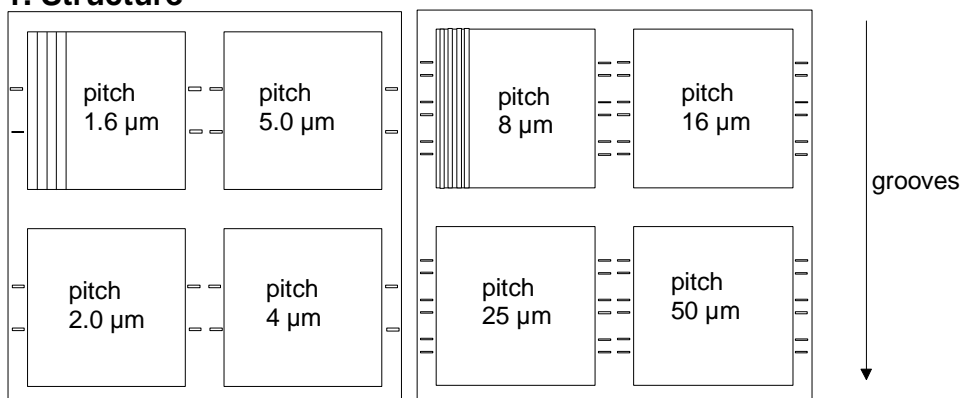pitch
50 µm

The gratings of type Gr-4P consist of fields of V-grooves. Four fields with a size of 4 mm x 4 mm and different pitch lengths lie inside a chip of 10 mm x 10 mm (thickness of the chip 525 µm). Right and left hand side of these fields there are marks (double lines 300 µm x 30 µm) in positions of 1.5 and 2.5 mm resp. 1, 2 and 3 mm along the grooves. The width of the grooves is approximately equal to the distance between them. These gratings can be used for different applications.

For information about the possibilities of certification of the standard please contact SiMETRICS.

2. Packaging, Handling and Cleaning

For a better handling the chips with the gratings are mounted on borosilicate glass with a size of 5 cm x 5 cm as substrate. Further sizes are possible on request. The chips are mounted by an epoxy resin adhesive.

The standards are stored in a membrane box. The grating for measuring and calibration does not come into contact with the membrane.

Do not touch the silicon chip especially the regions determined for measuring and calibration. Use suitable (plastic) tweezers for handling.

For cleaning the grating the following procedures are recommended:

• Removing of particles of dust: blowing off by pure nitrogen or by compressed air.

• Removing of tightly sticking particles: ultrasonic cleaning in deionised water, rinsing with deionised water, blowing dryly by pure nitrogen or by compressed air.

• Removing of organic deposits: rinsing with ethanol (analytic-grade), rinsing with deionised water, blowing dryly by pure nitrogen or by compressed air.

If none of these methods is successful please contact SiMETRICS for a cleaning process.

SiMETRICS

SiMETRICS GmbH
www.simetrics.de
info@simetrics.de

**Grating
Gr-4P**

09/2009   1

3. Assortment and Specification

Type	Possible profile of the groove	Pitch [µm]
Gr-4P 1.6-5	V-groove Inclination of sidewalls 54.74°	1.6 2.0 4.0 5.0
Gr-4P 8-50	V-groove Inclination of sidewalls 54.74°	8 16 25 50

Gr-4P 8-50 is also available with a rectangular profile. Please contact SiMETRICS for further information.

SiMETRICS

SiMETRICS GmbH
www.simetrics.de
info@simetrics.de

**Grating
Gr-4P**

09/2009