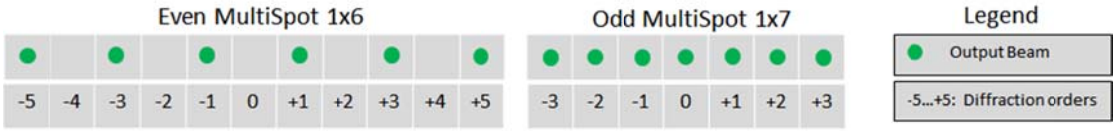
Beam Splitter Zero Order

A MultiSpot element splits a single laser input beam in several output beams. Each output beam corresponds to a specific order.

A MultiSpot has a "zero order" in which there is no diffraction and the beam behaves according to the laws of reflection and refraction.

In an odd MultiSpot, the "zero order" is one a of the desired output beams unlike even MultiSpot.

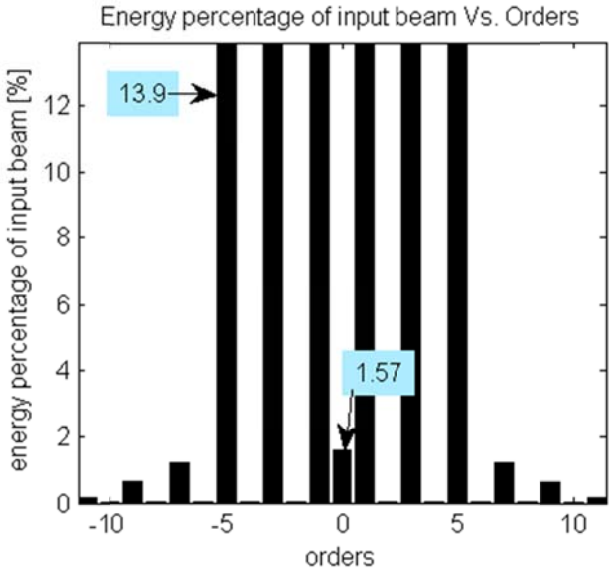
Standard configurations of Zero order:

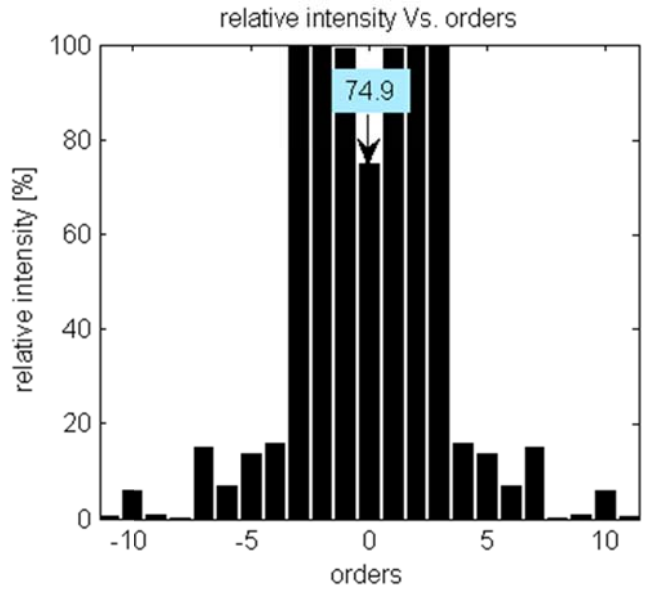


The manufacture errors influence on zero order energy. It can be more or less than theoretical energy.

In our standard MultiSpot list, the zero order energy will be displayed as a percentage of input beam energy for even MultiSpot (assuming 100% transmission efficiency) and as a percentage of energy average of other desired orders for odd MultiSpot.

Examples:





In the above examples, the zero order after some manufacture errors is 1.57% of input beam in case of MultiSpot 1x6 (left picture) and 74.9% of other desired orders average in case of MultiSpot 1x7 (right picture).

Please note that for elements with very large spots number (aprox. > 400 spots), the zero order will be displayed as percentage from input beam power and not relative to other orders.

Code for Part Number (PN): The PN of our elements is built on format: AB-000-C-D-E.
The last letter E (in case of odd MultiSpot and Triple Spot) is a code indicating the zero order value.

List of options:

A: zero order between 0-100%

N: zero order between 50-100%

L: zero order between 0-50%

D: zero order between 97-140%

Z: zero order >100%

X: standard zero order specific to each MultiSpot

S: custom zero order