

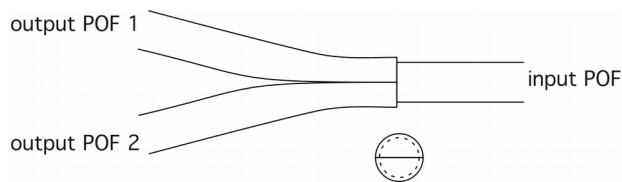
1 mm polymer optical fiber (POF) splitter comprising long fiber pigtails

Description:

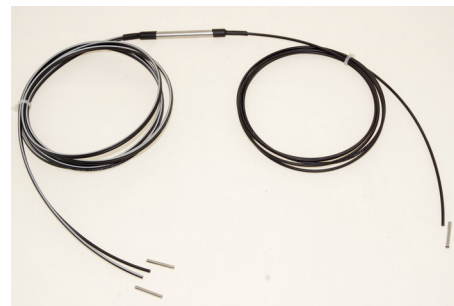
For the fabrication of POF splitter comprising long fiber pigtails a special process is necessary that allows to design all fiber branches with arbitrary length. The splitter branches are made of standard POF (1mm POF, NA = 0.5). Inside the splitter housing the input POF couples to two equal portions (50:50 symmetry) in the output branches.

The splitter housing is made of stainless steel. The standard pigtail length is 2m at all branches, but each other pigtail length is feasible on request.

Low crosstalk splitters are not feasible in this process.



Metal alignment ferrules to connect the splitter at all 3 ports to standard 2.2mm POF cable are part of the package (figure below). They allow to crimp the fiber branches to 2.2mm standard POF cable without any extra connector.



Technical Data 50:50 symmetry splitter:

type	splitting ratio (%) typical	excess loss (dB)			cross talk (dB) typical
		min.	typ.	max.	
Splitter comprising 2m POF pigtails	50 : 50 ($\pm 10\%$)	5.2	6	6.8	20

When assessing the excess loss figure one should consider that the insertion loss of 4m well polished POF cable is in the order of 2.5 to 3dB.

