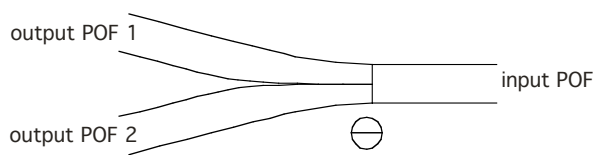


1 mm polymer optical fiber (POF) splitter

Description:

Assembled from two branches of partially polished standard POF (1mm POF, NA = 0.5) this optical power splitter component splits up the light of the input POF to two equal portions (50:50 symmetry) in the output branches. The polished POF parts are coated with a plastic metal combination in order to increase the cross talk attenuation between the two output branches. The low splitter cross talk is useful in sensor applications and data transmission systems that use one fiber only for bidirectional, full duplex operation.

The standard splitter has a 2.2mm diameter input ferrule and two bare fiber output branches (see figure below).



With 2.2mm short jacket tubes on the bare fiber output POF the access to standard 2.2 POF cables is feasible (left figure below). Metal alignment ferrules to connect the splitter at all 3 ports to standard 2.2mm POF cable are available (right figure below).



Technical Data 50:50 symmetry splitter:

type	splitting ratio (%) typical	excess loss (dB)			cross talk (dB) typical
		min.	typ.	max.	
standard splitter	50 : 50 ($\pm 10\%$)	0.9	1.4	2.5	50

Customer specific modifications are feasible:

- unsymmetric couplers comprising an unsymmetry up to 75:25 splitting ratio,
- length extension of the output fiber up to 120mm.

DieMount GmbH



Giesserweg 3, D- 38855 Wernigerode

www.diemount.com, phone: + 49 (0) 3943 6259760, fax: + 49 (0) 3943 6259759, e-mail: info@diemount.com

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