

BALL LENSED FIBRE (Pigtail)

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Integrated micro optic ball lensed fibre technology has been developed by *EFOQUARZ*. Ball lens and fibre are sealed hermetically and centred in a metal housing. The optical adjustment and parallel beam guidance are achieved by the integrated micro ball optic.

SPECIFICATION OF BALL:

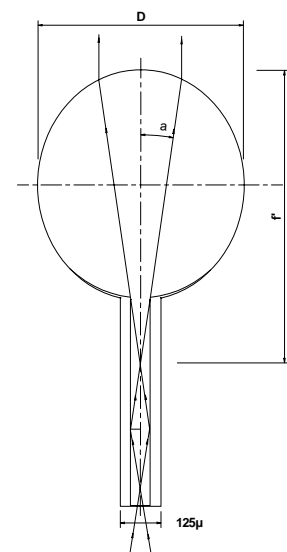
Ball/lens diameter T_D	min.	0,2	mm
	Max.	1,0	mm
Ball diameter tolerance	\pm	0,02	mm
Ball material		SiO_2	

SPECIFICATION OF MICROLENS:

Lens diameter D	min.	0,2	mm
	Max.	1,0	mm
Lens diameter tolerance	\pm	0,02	mm
Tolerance of curvature		1/10	λ
Focal length tolerance (f')	\pm	2	%
Surface quality		60/40	
Surface accuracy		1/10	λ
Centring tolerance		0,1	arc.min.
Meas. Wavelength	λ	633	nm
Lens material		SiO_2	

SPECIFICATION OF FIBRE:

Numerical aperture	min.	0,11	
	max.	0,28	
Core diameter n_1	min.	9	μm
	max.	100	μm
Cladding diameter n_2	min.	96	μm
	max.	140	μm
Jacket diameter	min.	100	μm
	max.	250	μm
Loss @ 860nm	min.	3,0	db/ km
	max.	5,0	db/ km
Operating temperature	min.	77	$^{\circ}K$
	max.	1000	$^{\circ}K$
Fibre length (pigtail)		200	mm



INDEX:

D = ball diameter
 f/f' = focal length
 n_0 = index of refraction air
 n_1 = index of refraction core
 n_2 = index of refraction cladding

Material:

Core:	High purity synthetic silica
Cladding:	Doped silica
Jacket:	Polyimide

Non standard ball lens available upon request. specifications are subject to change without notice.